# Databook

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# Air Cooled chiller with inverter driven single screw compressor

## EWAD~TZ B

- **Nominal capacity range 170 - 700 kW**
- **3 efficiency levels**
- **3 sound configuration**
- **Best performaces at full load and part load**
- **Design for commercial and industrial applications**
- **Operation at full load up to 52°C**

**Performance according to EN14511.**

**Low operating cost Flexibility and Reliability** The EWAD-TZ B chiller range is the result of careful design, aimed to optimize the energy efficiency of the chillers, with the objective of bringing down operating costs, effectiveness and economical management. The chillers feature high efficiency single screw Inverter driven compressor design, optimized condensing section, advanced technology condenser fans and a "shell & tube" or plate heat exchanger evaporator with low refrigerant pressure drops.

The EWAD-TZ B range came with 3 efficiency level

- **EWAD~TZ B S- "SILVER": avg. EER 2,9 avg. ESEER 4,4**
- **EWAD~TZ B X- "GOLD": avg. EER 3,2 avg. ESEER 5,0**
- **EWAD~TZ B P- "PLATINUM": avg. EER 3,5 avg. ESEER 5,5**

and 3 sound levels:

- **Standard sound**

- **Low sound**: the sound attenuation is achieved thanks to special connections at the suction of each compressor that allows to reduce drastically the vibration transmission.

- **Reduced sound**: the compressors are closed into a soundproof cabinet especially designed to minimize the sound emissions. Also special connections at the suction of each compressor allows to reduce drastically the vibration transmission.

An extensive list among of mechanical, electrical, control and installation related options are available


Combining all together, **more than 500 combinations are available.**

**Low operating sound levels** Very low sound levels both at full load and part load conditions are achieved by the latest compressor design and by a unique new fan that moves large volume of air at exceptionally low sound levels and by the virtually vibration-free operation.

**Outstanding reliability** The chillers have one or two truly independent refrigerant circuits, in order to assure maximum safety for any maintenance, whether planned or not. They are equipped with a rugged compressor design with advanced composite compressor gaterotors material, a proactive control logic and are full factory-run-tested to optimized trouble-free operation.

**Infinite capacity control** Cooling capacity control is infinitely variable by means of a Inverter driven screw compressor controlled by microprocessor system. Each unit has infinitely variable capacity control from 100% down to minimum capacity which is variable depending on unit model. This modulation allows the compressor capacity to exactly match the building cooling load without any leaving evaporator water temperature fluctuation. This chilled water temperature fluctuation is avoided only with a stepless control.

**Inverter stepless regulation plus variable volume ratio control** Based on the geographical location and the application, the outside temperature and the load profile of a building can vary enormously but our system has an infinitely variable load regulation and working conditions without pre-set steps for a perfect comfort solution. The inverter stepless regulation plus variable volume ratio control provides the required capacity to meet the demand, ensuring highly accurate leaving water temperature control and so delivering optimal comfort with the best performances possible at every condition.

**Superior control logic** The MicroTech III controller provides an easy to use control environmental. The control logic is designed to provide maximum efficiency, to continue operation in unusual operating conditions and to provide a history of unit operation. One of the greatest benefits is the easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications. Master/Slave operation is provided as standard allowing to connect up to 4 units working as a single bigger chiller

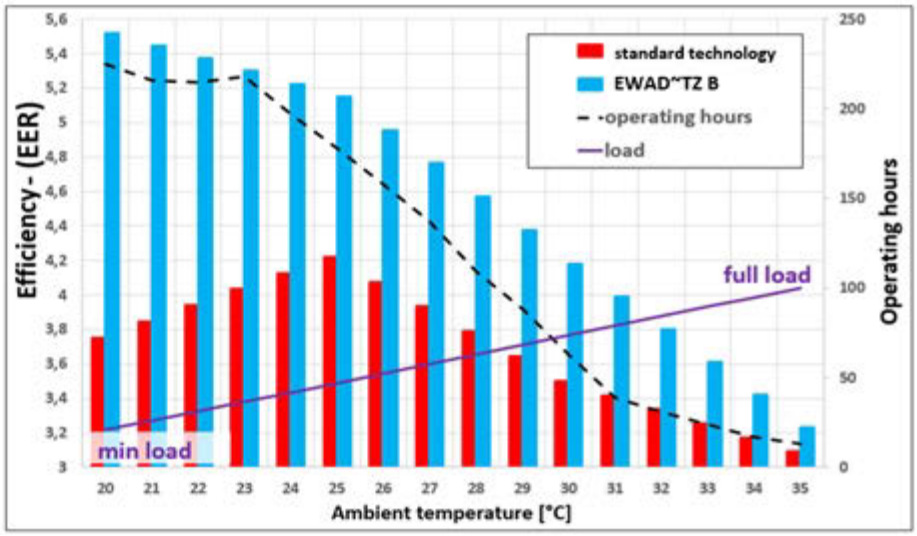
**Dynamic Condensing Pressure Management** A new superior software logic has been developed to get the highest efficiency at whichever operating condition: thanks to the Dynamic Condensing Pressure Management the chiller controller adjusts the condensing pressure set-point to minimize the overall chiller power input.

**High full load and part load efficiency**
High efficiency at full load, but especially maximum efficiency at part load conditions - which is the majority of the operating time of a chiller - are the factors that allow considerable savings in a system's annual energy costs.
Comparing the performance of the EWAD~TZB (VFD technology  Variable Volume Ratio) with the traditional fix-speed chiller without Variable Volume Ratio, the performance difference, in favor of the VFD technology, increases as the load decrease and becomes maximum in correspondence of the conditions that have the highest frequency of occurrence.

thanks to Inverter and Variable Volume Ratio tecnology EWAD~TZ B performances are always better than the standard technology without VFD.

The difference on performances increases at part load which is the the condition that happen for the most of the time.

**The high performances of EWAD~TZ B ensure short Return Of Investment versus standard technology**




Note the operating hours for each temperature refers to EN14825 bin table.

**Quick comfort conditions** The ability to vary the output power in direct relation to the cooling requirements of the system, allow the possibility to achieve building comfort conditions much faster at start-up.

**Seasonal quietness** Very low sound levels in part load conditions are achieved by varying the fans speed, but especially thanks to the variation of compressor frequency, which ensure the minimum sound level at all the time.

**Low starting current** No current spikes at start-up. The starting current is always lower than current absorbed in the maximum operating conditions (FLA).

**Displacement power factor always > 0.95** The EWAD~TZ B range can operate always with a displacement power factor > 0.95, which allows building owners to avoid power factor penalties and decrease electrical losses in cable and transformers.

**Code requirements – Safety and observant of laws/directives** Units are designed and manufactured in accordance with applicable selections of the following:

**Certifications** Units are CE marked, complying with European directives in force, concerning manufacturing and safety. On request units can be produced complying with laws in force in non European countries (ASME, GOST, etc.), and with other applications, such as naval (RINA, etc.).

| | |
|---|---|
| Construction of pressure vessel | 2014/68/EU |
| Machinery Directive | 2006/42/EU |
| Low Voltage | 2014/35/EU |
| Electromagnetic Compatibility | 2014/30/EU |
| Electrical & Safety codes | EN 60204-1 / EN 60335-2-40 |
| Manufacturing & Quality Standards | UNI EN ISO 1400 |

## Additional information related to F-GAS Regulation (EU) No 517/2014 OF THE European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006

| | Unit model | | | Refrigerant type | Refrigerant GWP | No. of circuits | Refrigerant charge circuit 1 (kg) | Refrigerant charge circuit 1 (TCO2Eq) | Refrigerant charge circuit 2 (kg) | Refrigerant charge circuit 2 (TCO2Eq) |
|---|---|---|---|---|---|---|---|---|---|---|
| SILVER | EWAD160TZSSB1 | EWAD160TZSLB1 | EWAD160TZSRB1 | R134a | 1430 | 1 | 27 | 39 | - | - |
| | EWAD190TZSSB1 | EWAD190TZSLB1 | EWAD190TZSRB1 | R134a | 1430 | 1 | 29 | 41 | - | - |
| | EWAD240TZSSB1 | EWAD240TZSLB1 | EWAD240TZSRB1 | R134a | 1430 | 1 | 33 | 47 | - | - |
| | EWAD270TZSSB1 | EWAD270TZSLB1 | EWAD270TZSRB1 | R134a | 1430 | 1 | 38 | 54 | - | - |
| | EWAD300TZSSB1 | EWAD300TZSLB1 | EWAD300TZSRB1 | R134a | 1430 | 1 | 41 | 59 | - | - |
| | EWAD360TZSSB1 | EWAD360TZSLB1 | EWAD360TZSRB1 | R134a | 1430 | 1 | 52 | 74 | - | - |
| | EWAD380TZSSB2 | EWAD380TZSLB2 | EWAD380TZSRB2 | R134a | 1430 | 2 | 29 | 41 | 29 | 41 |
| | EWAD450TZSSB2 | EWAD450TZSLB2 | EWAD450TZSRB2 | R134a | 1430 | 2 | 29,5 | 42 | 29,5 | 42 |
| | EWAD495TZSSB2 | EWAD495TZSLB2 | EWAD495TZSRB2 | R134a | 1430 | 2 | 34 | 49 | 34 | 49 |
| | EWAD570TZSSB2 | EWAD570TZSLB2 | EWAD570TZSRB2 | R134a | 1430 | 2 | 37,5 | 54 | 37,5 | 54 |
| | EWAD610TZSSB2 | EWAD610TZSLB2 | EWAD610TZSRB2 | R134a | 1430 | 2 | 38,5 | 55 | 38,5 | 55 |
| | EWAD660TZSSB2 | EWAD660TZSLB2 | EWAD660TZSRB2 | R134a | 1430 | 2 | 41,5 | 59 | 41,5 | 59 |
| | EWAD700TZSSB2 | EWAD700TZSLB2 | EWAD700TZSRB2 | R134a | 1430 | 2 | 45 | 64 | 45 | 64 |

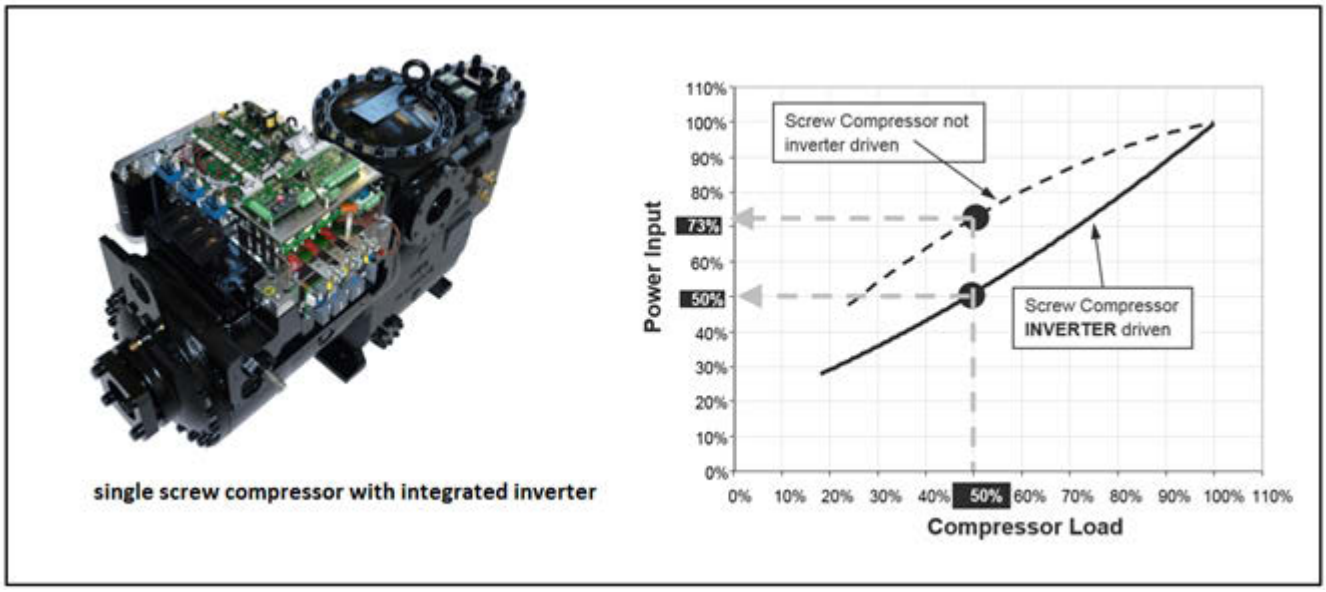
| | Unit model | | | Refrigerant type | Refrigerant GWP | No. of circuits | Refrigerant charge circuit 1 (kg) | Refrigerant charge circuit 1 (TCO2Eq) | Refrigerant charge circuit 2 (kg) | Refrigerant charge circuit 2 (TCO2Eq) |
|---|---|---|---|---|---|---|---|---|---|---|
| GOLD | EWAD190TZXSB1 | EWAD190TZXLB1 | EWAD190TZXRB1 | R134a | 1430 | 1 | 36 | 51 | - | - |
| | EWAD220TZXSB1 | EWAD220TZXLB1 | EWAD220TZXRB1 | R134a | 1430 | 1 | 39 | 56 | - | - |
| | EWAD240TZXSB1 | EWAD240TZXLB1 | EWAD240TZXRB1 | R134a | 1430 | 1 | 40 | 57 | - | - |
| | EWAD290TZXSB1 | EWAD290TZXLB1 | EWAD290TZXRB1 | R134a | 1430 | 1 | 51 | 73 | - | - |
| | EWAD320TZXSB1 | EWAD320TZXLB1 | EWAD320TZXRB1 | R134a | 1430 | 1 | 51 | 73 | - | - |
| | EWAD360TZXSB2 | EWAD360TZXLB2 | EWAD360TZXRB2 | R134a | 1430 | 2 | 32 | 46 | 32 | 46 |
| | EWAD420TZXSB2 | EWAD420TZXLB2 | EWAD420TZXRB2 | R134a | 1430 | 2 | 32 | 46 | 32 | 46 |
| | EWAD440TZXSB2 | EWAD440TZXLB2 | EWAD440TZXRB2 | R134a | 1430 | 2 | 32,5 | 46 | 32,5 | 46 |
| | EWAD450TZXSB2 | EWAD450TZXLB2 | EWAD450TZXRB2 | R134a | 1430 | 2 | 37 | 53 | 37 | 53 |
| | EWAD540TZXSB2 | EWAD540TZXLB2 | EWAD540TZXRB2 | R134a | 1430 | 2 | 40 | 57 | 40 | 57 |
| | EWAD570TZXSB2 | EWAD570TZXLB2 | EWAD570TZXRB2 | R134a | 1430 | 2 | 40 | 57 | 40 | 57 |
| | EWAD610TZXSB2 | EWAD610TZXLB2 | EWAD610TZXRB2 | R134a | 1430 | 2 | 44,5 | 64 | 44,5 | 64 |
| | EWAD660TZXSB2 | EWAD660TZXLB2 | EWAD660TZXRB2 | R134a | 1430 | 2 | 48 | 69 | 48 | 69 |
| | EWAD680TZXSB2 | EWAD680TZXLB2 | EWAD680TZXRB2 | R134a | 1430 | 2 | 48 | 69 | 48 | 69 |

| | Unit model | | | Refrigerant type | Refrigerant GWP | No. of circuits | Refrigerant charge circuit 1 (kg) | Refrigerant charge circuit 1 (TCO2Eq) | Refrigerant charge circuit 2 (kg) | Refrigerant charge circuit 2 (TCO2Eq) |
|---|---|---|---|---|---|---|---|---|---|---|
| PLATINUM | EWAD190TZPSB1 | EWAD190TZPLB1 | EWAD190TZPRB1 | R134a | 1430 | 1 | 49 | 70 | - | - |
| | EWAD220TZPSB1 | EWAD220TZPLB1 | EWAD220TZPRB1 | R134a | 1430 | 1 | 49 | 70 | - | - |
| | EWAD240TZPSB1 | EWAD240TZPLB1 | EWAD240TZPRB1 | R134a | 1430 | 1 | 50 | 72 | - | - |
| | EWAD290TZPSB1 | EWAD290TZPLB1 | EWAD290TZPRB1 | R134a | 1430 | 1 | 51 | 73 | - | - |
| | EWAD300TZPSB1 | EWAD300TZPLB1 | EWAD300TZPRB1 | R134a | 1430 | 1 | 58 | 83 | - | - |
| | EWAD350TZPSB2 | EWAD350TZPLB2 | EWAD350TZPRB2 | R134a | 1430 | 2 | 38,5 | 55 | 38,5 | 55 |
| | EWAD420TZPSB2 | EWAD420TZPLB2 | EWAD420TZPRB2 | R134a | 1430 | 2 | 43 | 61 | 43 | 61 |
| | EWAD495TZPSB2 | EWAD495TZPLB2 | EWAD495TZPRB2 | R134a | 1430 | 2 | 47 | 67 | 47 | 67 |

Note: Equipment contains fluorinated greenhouse gases. Actual refrigerant charge depends on the final unit construction, details can be found on the unit labels.

**Single screw compressor with integrated Inverter and Variable Volume Ratio technology**

The EWAD~TZ B is equipped with the latest technology of screw single compressors. Thanks to the careful design, result of years of experience, the single screw compressors by DAIKIN are characterized by highly balanced load resulting in reduced stress for the components extending the useful life and improving reliability. Vibration and sound emission are also reduced. The high volumetric efficiency of single screw compressors makes them an ideal solution forvariable speed applications. Thanks to the Variable Frequency Drive (VFD) technology the EWAD~TZ B is able to match the actual load required from the plant in every circumstances continuously modulating the speed of the compressor's motor, which is the most efficient way to perform the capacity control of the compressor.



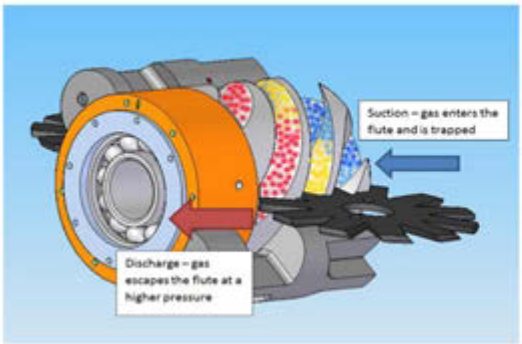

The VFD provides lower starting current compared to typical starters such that the inrush current does not exceed the full load operating current. This feature can help to reduceelectrical installation costs, and allows to meet eventual local requirements on maximum possible inrush current.
The VFD drive is installed directly on the compressor and contained in a specifically designed sealed housing.
The temperature of the electronic circuit is kept constant thanks to the refrigerant cooling system resulting in:

- more compact electrical panel
- extended life
- improved reliability

The compressors for Gold and Platinum series of EWAD~TZ B are equipped with the new brushless DC motors. This motors are chacterized by even higher efficiency and improved reliability.

**Variable Volume Ratio Technology**

Screw compressors increases the refrigerant pressure by forcing it into a progressive smaller volume, from the suction to the discharge port. Once that the geometry of the compressor is defined the volume ratio of the compressor is also defined. The pressure ratio and the Volume ratio are defined as follow and linked through the equation of state of the gas.




$$\text{Volume Ratio} = \frac{\text{volume of gas at the inlet (suction) of the compressor}}{\text{volume of gas at the outlet (discharge) of the compressor}}$$

$$\text{Pressure ratio} = \frac{\text{pressure of gas at the outlet (discharge) of the compressor}}{\text{pressure of gas at the inlet (suction) of the compressor}}$$

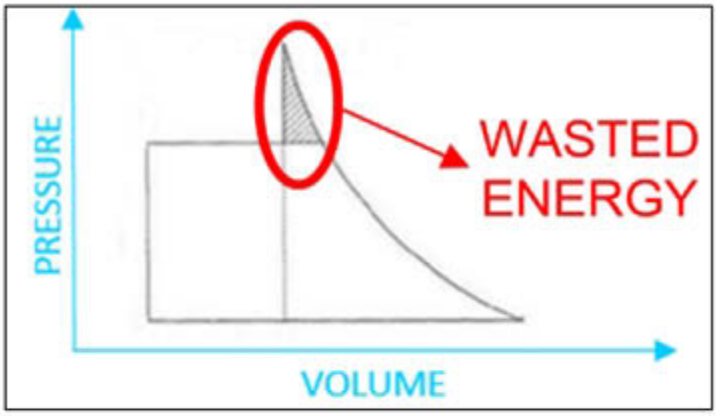
$$\text{Pressure ratio} = (\text{Volume Ratio})^{k}$$

k is a coeffienct charcteristic of the refrigerant

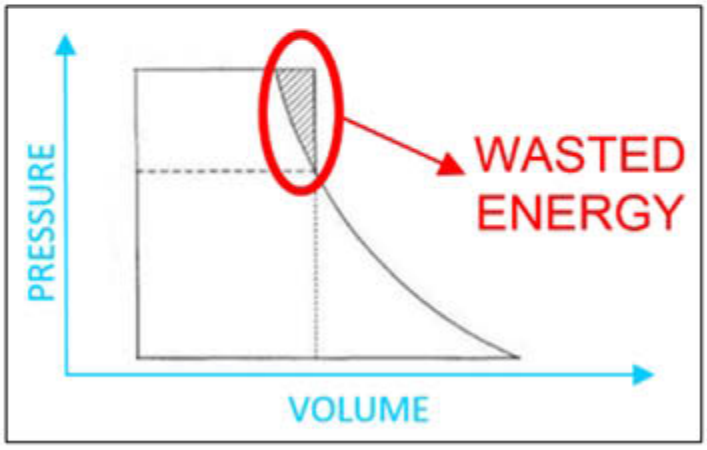
As result the geometry of the compressor define the characteristic pressure ratio. On the market are available compressors optimized for different pressure ratios to be used according to the application. A compressor optimized for low compression ratio will not be efficient in operations with high compression ratio and vice versa.

During chiller operation the working parameters (condensing and evaporating pressure) are subjected to sensible changes, due to the variations of the ambient temperature and energy demand from the plant, leading to a variable pressure ratio (defined as condensing pressure on evaporating pressure).

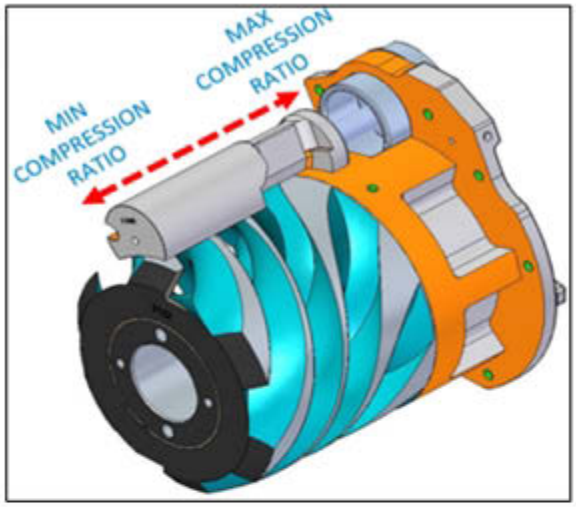
An air cooled chiller equipped with a compressor characterized by high volume ratio will have good performances at full load with high ambient temperatures, while in case of moderate ambient temperatures and during part load operation, the actual presure ratio for the chiller will be lower the compressor's characteristic. In this situation the refrigerant will result more compressed than the actual needs.
This lead to a phenomenon named "over-compression". The "extra-work" of the compressor result in an unnecessary waste of energy.
On the other and, a chiller equipped with a compressor characterized by low volume ratio will have good performance during part load operation and low ambient temperature, but it will be less efficient during full load operation and with high ambient temperature.
In this case the actual presure ratio for the chiller will be higher the compressor's characteristic, so at the discharge of the compressor the gas will be at a lower pressure than the condensing pressure. Part of the refrigerant will go from the condenser back to the compressor and the compressor will spend additional work to re-send it to the condenser. This phenomenon is known as "under-compression"
In order to obtain the best efficiency possible at every working condition Daikin compressors can adjust their own geometry according to the real operating conditions enhancing the efficiency. This is possible thanks to a moving slide delay the discharge of the compression according to the actual operating conditions.

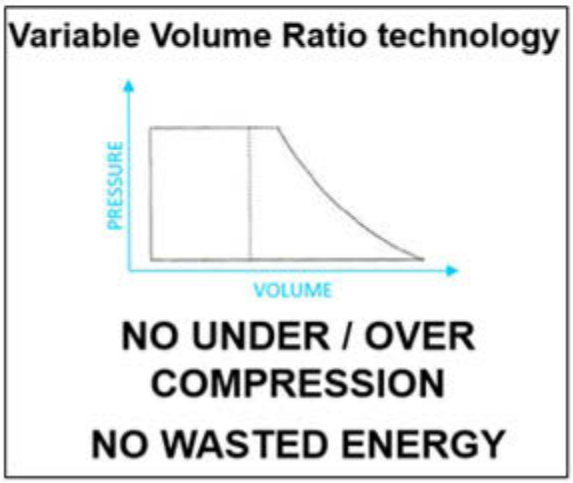



Over-Compression




Under-Compression




**Refrigerant** The compressors have been designed to operate with R-134a, ecological refrigerant with zero ODP (Ozone Depletion Potential) and very low GWP (Global Warming Potential), resulting in low TEWI (Total Equivalent Warming Impact).

**Evaporator**
**Single circuit models (Plate Heat Exchanger)** The unit is equipped with a direct expansion plate to plate type evaporator. This heat exchanger is made of stainless steel brazed plates and is covered with a 20mm closed cell insulation material. The exchanger is equipped with an electric heater for protection against freezing down to –28°C and evaporator water connections are provided with victaulic kit (as standard). The evaporator has 1 circuit (one compressor) and is manufactured in accordance to 2014/68/EU. Flow switch on evaporator available as option (shipped loose). Water filter is a standard option for single circuit unit.
Note the installation of the filter is mandatory.
**Dual circuit models (Shell&Tube)** The unit is equipped with a direct expansion shell&tube evaporator with refrigerant evaporating inside the tubes and water flowing outside. The tubes are enhanced for maximum heat transfer and rolled into steel tube sheet and sealed.
The evaporators are single-pass on both the refrigerant and water sides for pure counter-flow heat exchange and low refrigerant pressure drops. Both characteristics contribute to the heat exchanger effectiveness and total unit's outstanding efficiency. The water side is designed for 10 bar of maximum operating pressure and is provided with vents and drain.
The external shell is covered with a 10mm closed cell insulation material and the evaporator water connections are provided with victaulic kit (as standard). Each evaporator has 2 circuits, one for each compressor and is manufactured in accordance to 2014/68/EU. Flow switch on evaporator available as option (shipped loose). Water filter is not available as option from the factory.
Note the installation of the filter is mandatory.

**Condenser** The condenser is made entirely of aluminum with flat tubes containing small channels. Full-depth louvered aluminum fins are inserted between the tubes maximizing the heat exchange. The Microchannel technology ensures the highest performance with the minimum surface for the exchanger. The quantity of refrigerant is also reduced compared to Cu/Al condenser.
Special treatment ensure resistance to the corrosion by atmospheric agents extending the life time.
Note: for application in industrial, costal high pollutted urban environment or combinations of the above a proper evaluation is needed to understand if, according to the specific environment, additional protections measures are needed.

**Condenser fans**
**SILVER**: The ON/OFF condenser fans are propeller type with high efficiency design blades to maximize performances. The material of the blades is glass reinforced resin and each fan is protected by a guard. Fan motors are protected by circuit breakers installed inside the electrical panel as a standard. The motors are IP54 and are suitable for use with inverters (available as option). The motors are IP54.

**GOLD**: The Inverter Driven (AC inverter type) condenser fans are propeller type with high efficiency design blades to maximize performances. The material of the blades is glass reinforced resin and each fan is protected by a guard. Fan motors are protected by circuit breakers installed inside the electrical panel as a standard. The motors are IP54.

**PLATINUM**: The condenser fans are "brushless" (EC) type and are made with synchronous motors excited by permanent magnets and with phase currents controlled by a PWM inverter integrated in the fan motor housing, that allows operation at different speeds. With this technology the fans reach high efficiencies with an extremely low noise level across a very wide speed range. The motors are IP54.

**Electronic expansion valve** The unit is equipped with the most advanced electronic expansion valves to achieve precise control of refrigerant mass flow. As today's system requires improved energy efficiency, tighter temperature control, wider range of operating conditions and incorporate features like remote monitoring and diagnostics, the application of electronic expansion valves becomes mandatory.
Electronic expansion valves possess unique features: short opening and closing time, high resolution, positive shut-off function to eliminate use of additional solenoid valve, continuous modulation of mass flow without stress in the refrigerant circuit and corrosion resistance stainless steel body.
Electronic expansion valves are typically working with lower ΔP between high and low pressure side, than a thermostatic expansion valve. The electronic expansion valve allows the system to work with low condenser pressure (winter time) without any refrigerant flow problems and with a perfect chilled water leaving temperature control.

**Refrigerant circuit**
Each unit has one or two independent refrigerant circuits and each one includes:

- Compressor Inverter driven with integrated oil separator
- Refrigerant
- Evaporator
- Air Cooled Condenser
- Electronic expansion valve
- Discharge line shut off valve
- Liquid line shut off valve
- Sight glass with moisture indicator
- Filter drier
- Economizer circuit with electronic expansion valve
- Charging valves
- High pressure switch
- High pressure transducers
- Low pressure transducers
- Oil pressure transducer
- Suction temperature sensor

**Electrical control panel** Power and control are located in the main panel that is manufactured to ensure protection against all weather conditions. The electrical panel is IP54 and (when opening the doors) internally protected against possible accidental contact with live parts. The main panel is fitted with a main switch interlocked door that shuts off power supply when opening.

**Power Section** The power section includes compressors and fans protection devices, fans starters and control circuit power supply.

**MicroTech III controller** MicroTech III controller is installed as standard; it can be used to modify unit set-points and check control parameters. A built-in display shows chiller operating status plus temperatures and pressures of water, refrigerant and air, programmable values, set-points. A sophisticated software with predictive logic, selects the most energy efficient combination of compressors, EEXV and condenser fans to keep stable operating conditions to maximize chiller energy efficiency and reliability. MicroTech III is able to protect critical components based on external signals from its system (such as motor temperatures, refrigerant gas and oil pressures, correct phase sequence, pressure switches and evaporator). The input coming from the high pressure switch cuts all digital output from the controller in less than 50ms, this is an additional security for the equipment. Fast program cycle (200ms) for a precise monitoring of the system. Floating point calculations supported for increased accuracy in Pressure / Temperature conversions.

**Control section - main features**
Control Section has the following feature.

- Management of the compressor stepless capacity and fans modulation.
- Chiller enabled to work in partial failure condition.
- Full routine operation at condition of:
- high ambient temperature value
- high thermal load
- high evaporator entering water temperature (start-up)
- Display of evaporator entering/leaving water temperature.
- Display of Outdoor Ambient Temperature.
- Display of condensing-evaporating temperature and pressure, suction and discharge superheat for each circuit.
- Leaving water evaporator temperature regulation.
- Compressor and evaporator pumps hours counter.
- Display of Status Safety Devices.
- Number of starts and compressor working hours.
- Optimized management of compressor load.
- Fan management according to condensing pressure.
- Re-start in case of power failure (automatic / manual).
- Soft Load (optimized management of the compressor load during the start-up).
- Start at high evaporator water temperature.

- Return Reset (Set Point Reset based on return water temperature).
- OAT (Outside Ambient temperature) Reset.
- Set point Reset (optional).
- Application and system upgrade with commercial SD cards.
- Ethernet port for remote or local servicing using standard web browsers.
- Two different sets of default parameters could be stored for easy restore.

**Safety device / logic for each refrigerant circuit**

The following devices / logics are available.

- High pressure (pressure switch).
- High pressure (transducer).
- Low pressure (transducer).
- Fans circuit breaker.
- High compressor discharge temperature.
- High motor winding temperature.
- Phase Monitor.
- Low pressure ratio.
- High oil pressure drop.
- Low oil pressure.
- No pressure change at start.

**System security**

The following securities are available.

- Phase monitor.
- Low Ambient temperature lock-out.
- Freeze protection.

**Regulation type**

Proportional integral derivative regulation on the evaporator leaving water output probe.

**MicroTech III**

MicroTech III built-in terminal has the following features.

- 164x44 dots liquid crystal display with white back lighting. Supports Unicode fonts for multi-lingual.
- Key-pad consisting of 3 keys.
- Push'n'Roll control for an increased usability.
- Memory to protect the data.
- General faults alarm relays.
- Password access to modify the setting.
- Application security to prevent application tampering or hardware usability with third party applications.
- Service report displaying all running hours and general conditions.
- Alarm history memory to allow an easy fault analysis.

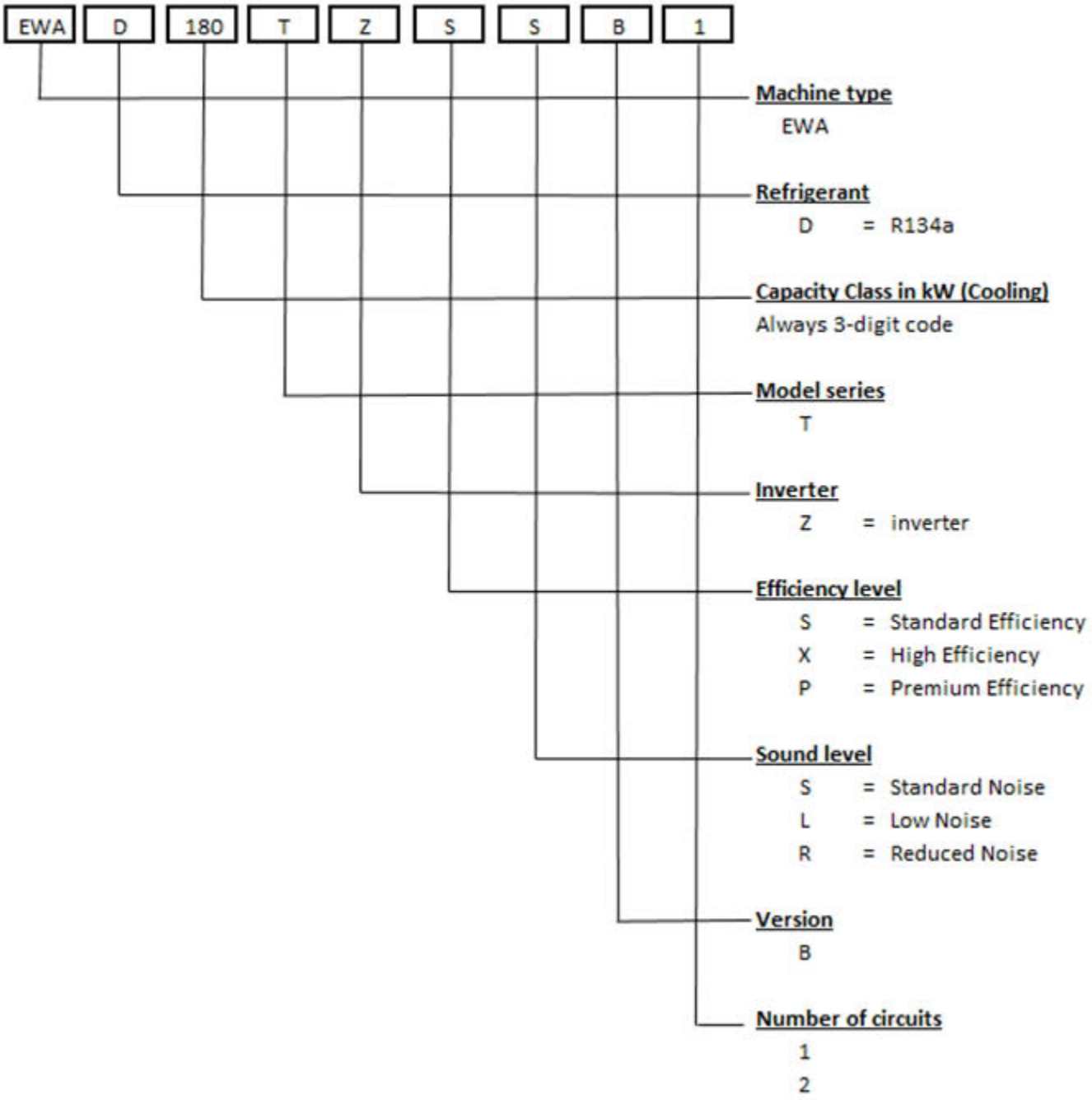
**Supervising systems (on request)**

**MicroTech III remote communication**

MicroTech III is able to communicate to BMS (Building Management System) based on the most common protocols as:

- ModbusRTU (Native)
- LonWorks, now also based on the international 8040 Standard Chiller Profile and LonMark Technology.
- BacNet BTP certifief over IP and MS/TP (class 4) (Native).
- Ethernet TCP/IP (Native).

## Nomenclature



# Options

**Total Heat Recovery (opt. code 01)**
A plate to plate heat exchanger for each refrigerant circuit is installed in series to the air condenser coil. There is no switch nor solenoid valve in the circuit, thus compressor discharged refrigerant is always flowing through the heat recovery exchanger and warm water production is always available while the chiller is providing cooling. During the operation in heat recover the condenser coils provides the sub-cooling ensuring the right amount of liquid at the inlet of the expansion vale. The unit controller manage the condensing temperature set point in order to maximize the cooling effect and amount of energy recovered.
The amount of heat recovered is about the 80/85% (according to the operating conditions) of the total heat rejection of the chiller. The chiller perform the control on the recovery circuit, based on the return water temperature to the unit. Heat recovery capability is subject to cooling load demand (if no cooling demand is present then no heat recovery is available).

**Partial Heat Recovery (opt. code 03)**
A plate to plate heat exchanger for each refrigerant circuit is installed in series to the air condenser coil.
There is no switch nor solenoid valve in the circuit, thus compressor discharged refrigerant is always flowing through the heat recovery exchanger and warm water production is always available while the chiller is providing cooling. During the operation in partial heat recover the super-heated vapor is cooled in the plate heat exchanger than enters in the coil condenser coils provides the sub-cooling ensuring the right amount of liquid at the inlet of the expansion vale. The unit controller does not manage the partial heat recover operation. The recover must be managed from the plant manager that controls the operation of the pump on the recovery circuit. The amount of heat recovered is about the 15/20% (according to the operating conditions) of the total heat rejection of the chiller. Heat recovery capability is subject to cooling load demand (if no cooling demand is present then no heat recovery is available).

**Brine Version (opt. code 08)**
For operation with temperature at the outlet of the evaporator below +4°C the unit must operate with glycol mixture (with ethylene or propylene glycol) and the Brine Version option must be selected.
The Brine version provides different set-up according to the series:

**- SILVER**: Dedicated control function; 6 poles AC fans controlled with inverter. In order to operate with low water temperature the speed of the fans will be increased (from the standard speed of 700 RPM up to 900 RPM) according to the operating conditions; Enhanced insulation.

**- GOLD**: Dedicated control function; 6 poles AC fans controlled with inverter. In order to operate with low water temperature the speed of the fans will be increased (from the standard speed of 700 RPM up to 900 RPM) according to the operating conditions; Enhanced isnulation.

**- PLATINUM**: Dedicated control; EC fans; Enhanced insulation.

Note: opt. 08 is not compatible with opt. 146 High Ambient kit

**Evaporator Victaulic KIT (opt. code 20 – provided as standard)**
For unit equipped with plate to plate heat exchanger the victaulic kit (provided as standard) includes the victaulic joint and the counter pipe fitted with victaulic groove to be welded with the plant pipes.

**Evaporator flange KIT (opt. code 21)**
For unit equipped with Shell & Tube exchangers. The flange kit is not available for single circuit units.

**20mm evaporator insulation (opt. code 29 – provided as standard)**
The heat exchanger is covered with a 20mm closed cell insulation material

**Discharge line shut-off valve (opt. code 61– provided as standard)**
Installed on the discharge port of the compressor to facilitate maintenance operation.

**Suction line shut-off valve (opt. code 62– provided as standard)**
Installed on the suction port of the compressor to facilitate maintenance operation.

**High pressure side manometers (opt. code 63)**

**Low pressure side manometers (opt. code 64)**

**Unit right water connection (opt. code 101)**
Available for dual circuits unit only.

**Water filter (opt. code 115– provided as standard for single circuit unit)**
The water filter removes impurities from water by means of a fine physical barrier (available only on single circuit units).
The filter is provided with a 1,2 mm mesh.
The filter is shipped loose together with two victaulic joints and two counter pipes to be welded on the plants.
Opt. 115 is not available from factory for dual circuit units.
NOTE: The installation of the filter is mandatory.

**Evaporator flow switch (opt. code 58)**
Supplied separately to be wired and installed on the evaporator water piping (by the customer). The installation of the flow switch in mandatory.

**Hydronic kits:**
- **One centrifugal pump (Low lift) (opt. code 78)**
- **One centrifugal pump (high lift) (opt. code 79)**
- **Two centrifugal pump (Low lift) (opt. code 80)**
- **Two centrifugal pump (high lift) (opt. code 81)**

Unit mounted hydronic kits are available with single and dual pumps.
The Low lift kits provides an average available head of 100 kPa at chiller standard conditions.
The High lift kits provides an average available head of 200 kPa at chiller standard conditions.
The kit is completed with pressure gauge, safety valve, drain valve. The motor pump is protected by a circuit breaker installed in control panel. The kit is assembled and wired to the control panel. The pipe and pump are protected from freezing with an additional electrical heater.
In case of unit equipped with hydronic kit on board selected to operate with glycol mixture, contact factory.

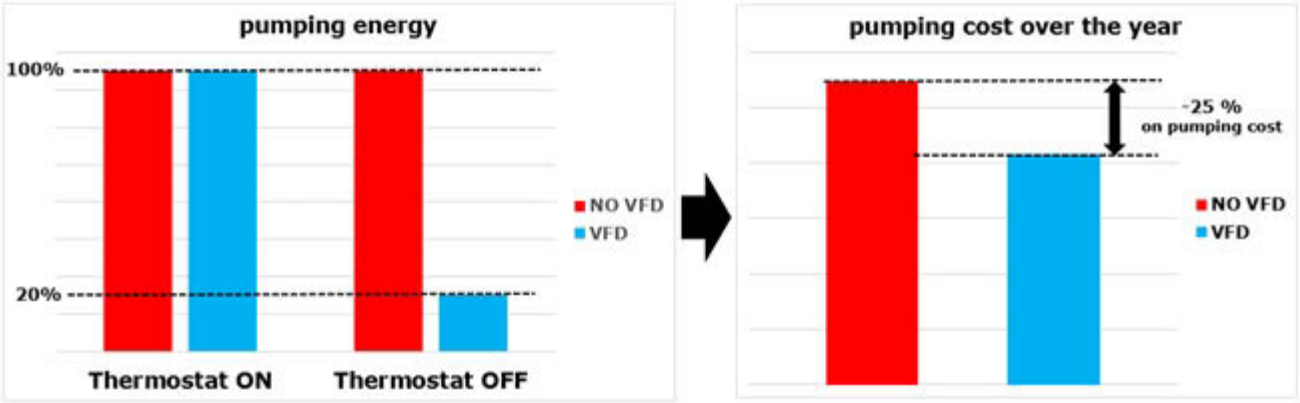
**Inverter kit for pumps:**
**- INVERTER KIT FOR 1 CENTR PUMP LOW LIFT (opt. code 120e)**
**- INVERTER KIT FOR 1 CENTR PUMP HIGH LIFT (opt. code 120f)**
**- INVERTER KIT FOR 2 CENTR PUMP LOW LIFT (opt. code 120g)**
**- INVERTER KIT FOR 2 CENTR PUMP HIGH LIFT (opt. code 120h)**
note: the Inverter kit must be associated with the corresponding hydronic kit (opt. code 78/79/80/81).

The inverter kit can be used for the following purposes:

- **Tuning the water flow during unit commissioning.**

**- Control the pump speed via external input from Builing Management System (BMS)**
For this application a 0-10V signal for the pump speed must be provided from the plant manager according to the specific control strategy of the plant. The water must be within the minimum and maximum value allowed for the unit (refer to the "Operating limit" chapter). The change in water flow rate must not be exceed more than 10% of the design water flow rate per minute.

- **Set a "thermostat off" pump speed**. Providing the unit with the inverter kit for the on-board pump is possible to manage two different water flow settings. A setting for water flow during the "Thermostat ON" mode (when the chiller is actually providing cooling to the plant), and a set for the "thermostat off" mode (when the plant load is satisfied and the compressors are waiting to start). This feature allows to achieve energy saving on plant operating cost by reducing the speed of the pumps when the chiller has reached the set point.

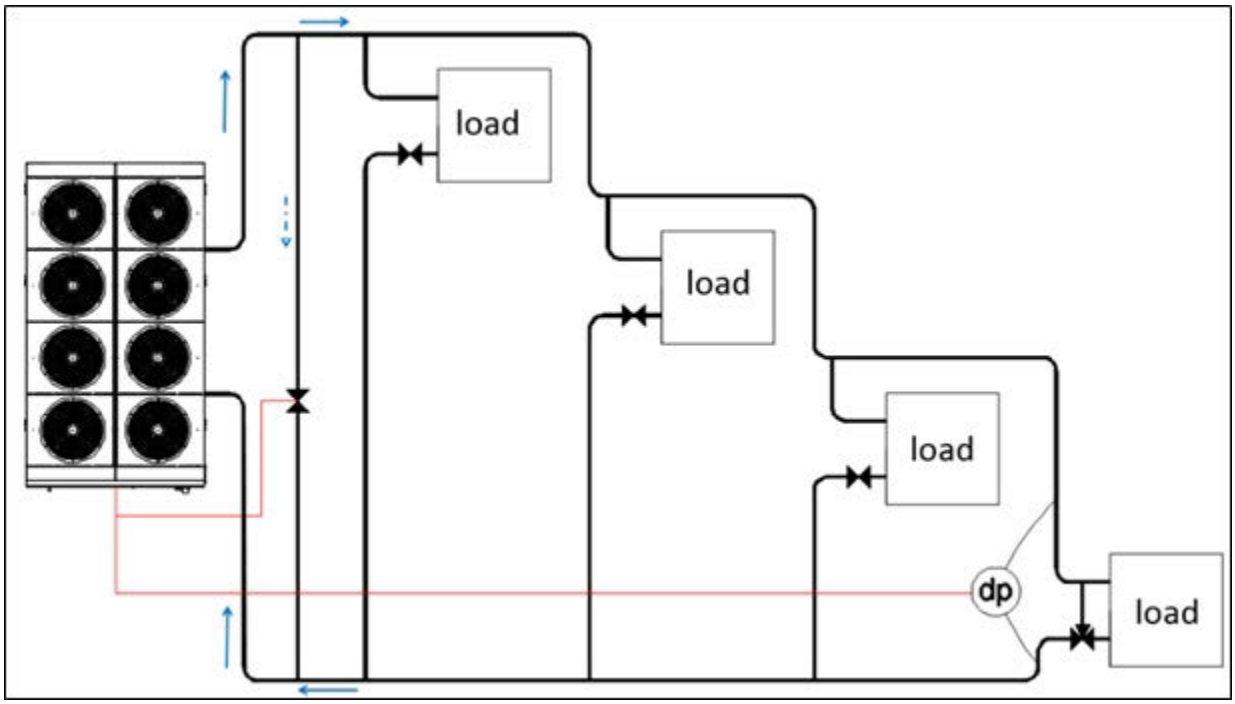



Thanks to the saving on pumping cost, the payback time for the Inverter Kit is approximately one year.

**Variable Primary Flow (opt. code 143)**

By selecting opt. 143 the chiller can manage the Variable Primary water flow according to the differential pressure measured in a specific point of the plant, selected by the plant designer). The differential pressure transducer, is available as option from the factrory (opt. code 144). Once placed on the plant the differential pressure transducer must be connected to the unit. As alternative the unit controller can receive directly the differential pressure value from an external BMS communicating with the standards communications protocols (eg. MODBUS).

A bypass line (field supply) needs to be installed which guarantees that at all times the minimum water flow of the chiller is supplied (refer to the "Operating limit" chapter for indication on minimum water flow). The bypass valve will be an ON/OFF normally closed valve controlled by the chiller. In case the minimum water flow allowed is not reached, the chiller will open the bypass line restoring the water flow above the minimum value.

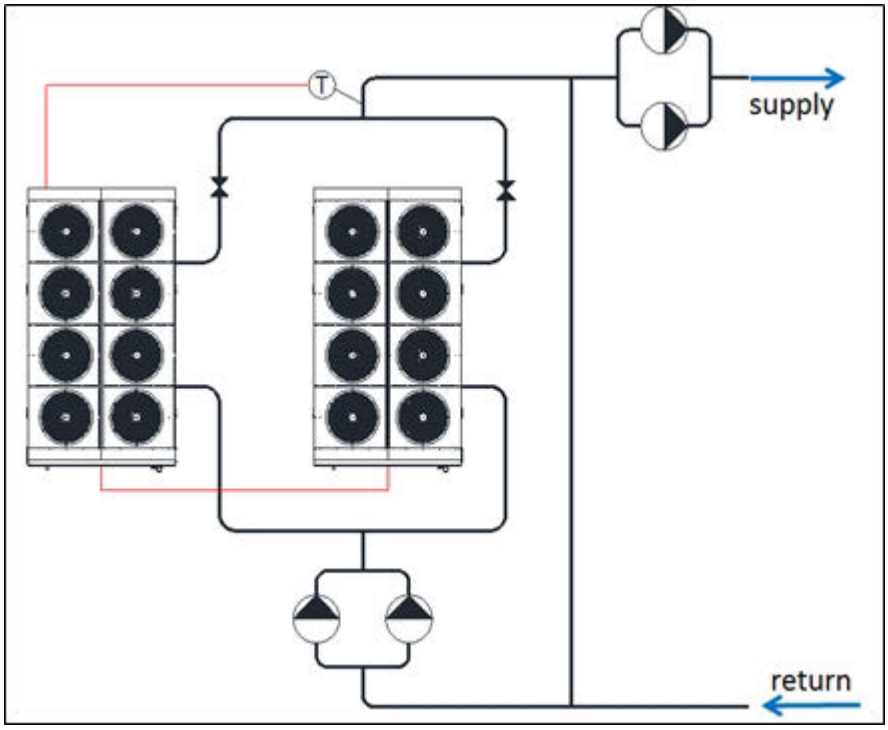



In case of multiple units installations in a primary only plant operating with variable flow contact factory.

**Hydronic options summerizing table**

| | Fixed speed | Variable speed pump (for "thermostat off" pump speed function or to be controlled with external BMS) | Variable Primary Flow management |
|---|---|---|---|
| ONE CENTRIFUGAL PUMP (LOW LIFT) | Opt 78 | Opt 78 + Opt 120e | Opt 78 + Opt 120e + Opt 143 |
| ONE CENTRIFUGAL PUMP (HIGH LIFT) | Opt 79 | Opt 79 + Opt 120f | Opt 79 + Opt 120f + Opt 143 |
| TWO CENTRIFUGAL PUMP (LOW LIFT) | Opt 80 | Opt 80 + Opt 120g | Opt 80 + Opt 120g + Opt 143 |
| TWO CENTRIFUGAL PUMP (HIGH LIFT) | Opt 81 | Opt 81 + Opt 120h | Opt. 81 + Opt 120h + Opt 143 |

**Master / Slave (opt. code 128 – provided as standard)**
The EWAD~TZ B features the new DAIKIN Master/ Slave (M/S) control. Once set which unit has the role of master, the other(s) will operate as slave(s) based on the inputs provided by the master.
The chillers must be installed in parallel in the hydronic plant.




with Master / Slave control is possible to:
- balance the working hours of the compressors enhancing reliability and extending the life of the system
- balancing the load between the units to maximize the efficiency of the system

In order to operate in Master / Slave mode an additional probe (PT1000 or NTC10K) must be installed on the common line of the plant and connected to the mastes unit. The additional probe is not provided by the factory.
Master / Slave can manage units selected with pump on board (fix speed and inverter driven pumps).
Note: check valves must be installed at the outlet of each chiller.
Master / Slave can also manage the start and stop of external pumps (not provided by factory). The power supply of external pumps is not provided by the unit.

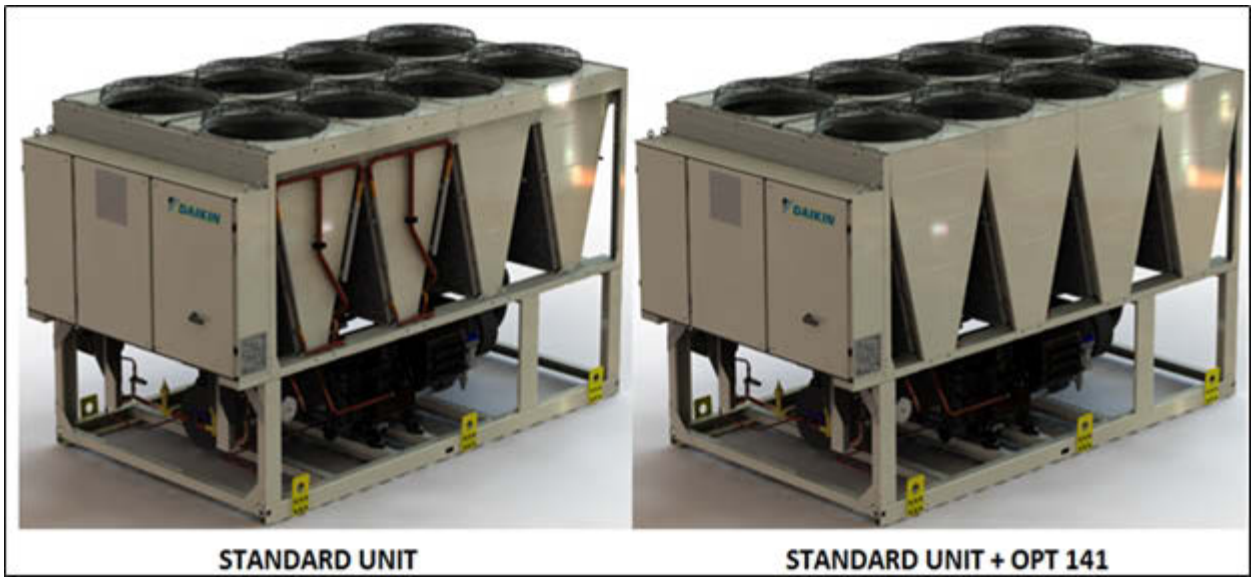
**Refrigerant leak detection (opt. code 121)** Automated permanent refrigerant leak detection system installed on board. The refrigerant sensors are installed within the compressor acoustic enclosures and are specifically calibrated for R134a refrigerant. When leaks above a certain concentration are detected, the sensor sends a signal to the unit controller (a specific alarm is visualized on the unit microprocessor). The automatic shut down and pump down of refrigerant into the condensing section occurs on the detection of refrigerant leakage. The alarm threshold that triggers automatic pump down upon detection of refrigerant is set to a maximum of 2000ppm. Available only for Reduced Sound configuration

**Blue coat (opt. code 153)**
An epoxy powder is sprayed and electrostatically fixed to the coil. Once the surface is completely covered by the epoxy material, the coil is sent in to a furnace for the drying and curing phase. The result is an uniform and durable coating that enhance the resistance to the corrosion. The treatment is recommended in all application where moderate risk of corrosion exist (eg: urban, costal, industrial environments)

**E-coating microchannel coils (opt. code 139)**
A protection a layer of an epoxy polymer is added on the surface of the exchanger. The process consists in the complete immersion of the exchanger in the epoxy polymer solution. An electric voltage applied to the exchanger causes a difference with the electrical charge of the polymer molecules that, as result, are drawn to the metal. The thickness of the coating is controlled by the applied voltage. The result is a uniform layer of epoxy polymers applied all over the exchanger surface. A final UV top-coat treatment is applied on the coil surface. The treatment is recommended in all application where high risk of corrosion exist (eg: high pollutted urban, costal, industrial environments and their combinations).

**Unit guards (to cover unit access) (opt. code 140)**
Wire mesh that cover the access around the unit

**Side panels on coil ends (opt. code 141)**
Protection carter on both side of each condensing module.




**Double pressure relief valve with diverter (opt. code 91)**

**Double set point (opt. code 10 – provided as standard)**
Dual leaving water temperature set-points.

**Compressor thermal overloads relays (opt. code 11 – provided as standard)**

**Phase monitor (opt. code 13 – provided as standard)**
Device that monitors input voltage and stops the chiller in case of phase loss or wrong phase sequence.

**Inverter starter (opt. code 14 – provided as standard)**

**Under over voltage control (opt. code 15 – provided as standard)**
Electronic device that monitors and displays input voltage, and stops the chiller in case of phase loss, wrong phase sequence, or voltage exceeding minimum and maximum allowed values.

**Energy meter (including current limit) (opt. code 16a)**
Device installed inside the control box that displays all chiller electrical power parameters at line input such as line voltage and phase current, input active and reactive power, active and reactive energy, including current limit option. An integrated RS485 module allows a Modbus communication to an external BMS.

**Speedtrol (opt. code 42)**
Continuous fan speed regulation on the first fan (VFD driven) of each circuit. It allows unit operation down to -18ºC (available only for SILVER version).
For GOLD and PLATINUM series the operation down to -18°C is allowed without additional options.

**Evaporator electric heater (opt. code 57 – provided as standard)**

**Ground fault relay (opt. code 102)**
To shut down the entire unit if a ground fault condition is detected.

**Fans speed regulation (INVERTER) (opt. code 99a – provided as standard on GOLD series)**
Available only for Silver series.

**EC motor fans (opt. code 145 - provided as standard on PLATINUM series)**
Available on Silver and GOLD series.

**Rapid restart (opt. code 110)**
Rapid Restart is the ideal solution for those application where we cannot afford the loose of cooling such as data centers, health care facilities, process cooling …etc. For this kind of applications, in case of a power failure, chiller equipment are required to restore the cooling supply to the system as fast as possible. Standard unit (without the Rapid Restart option) will be starting within 310 seconds after the power is restored and it will be reaching full load cooling capacity within 20 ÷ 25 minutes (obviously depending on the load demand). Rapid Restart is allowing the chiller to start as fast as 30 seconds after power is restored and to reach full load cooling capacity in less than 6 minutes from the unit restart.
For more details about this option please refer to the Control Manual.

**Compressors circuit breakers (opt. code 95)**
Safety devices that include in a single device all safety functions otherwise provided by standard fuses and optional thermal relays, such as protection against overcurrent, overload, current unbalance.

**Fans circuit breakers (opt. code 96- provided as standard)**
Safety devices that, added to the standard protection devices, protect fan motors against overload and overcurrent.

**Fans speed regulation (INVERTER) (opt. code 99a – provided as standard on GOLD series)**
Available on Silver series as option.
Not available on Platinum series that provides the EC fans as standard.

**EC motor fans (opt. code 145 - provided as standard on PLATINUM series)**
Available on Silver and GOLD series as option

**High ambient kit (opt. code 146)**
The high ambient kit allows the operation of the unit for ambient temperature above 46°C.
The set up of the units with High ambient kit are the follows:

· **SILVER** series: oversized electrical equipment, enhanced ventilation for the electrical box, sunshield, 6 poles AC fans (fans speed 900 RPM)
Note: the performance will differ from the standard unit. Contact factory for information.

· **GOLD** series: oversized electrical equipment, enhanced ventilation for the electrical box, sunshield, EC fans (fans speed up to 900 RPM).

· **PLATINUM** series: oversized electrical equipment, enhanced ventilation for the electrical box, sunshield, EC fans (fans speed up to 900 RPM)

Note: Opt. 146 is not compatible with opt. 08 Brine

**Set point reset, demand limit and alarm from external device (opt. code 90 – provided as standard)**
Setpoint Reset: The leaving water temperature set-point can be overwritten with an external 4-20mA, through the ambient temperature, or through the evaporator water temperature ΔT. Demand Limit: Chiller capacity can be limited through an external 4-20mA signal or via network. Alarm from external device: The unit controller is able to receive an external alarm signal. The user can decide whether this alarm signal will stop the unit or not.

**Rubber anti vibration mounts (opt. code 75)**
Supplied separately, these are positioned under the base of the unit during installation. Ideal to reduce the vibrations when the unit is floor mounted.

**Spring anti vibration mounts (opt. code 77)**
Supplied separately, these are positioned under the base of the unit during installation. Ideal for dampening vibrations for installation on roofs and metallic structures.

**Container Kit (opt. code 71)**

**Transport kit (opt. code 112)**

## EWAD~TZ-SS B

| MODEL | | EWAD160TZ -SS B1 | EWAD190TZ -SS B1 | EWAD240TZ -SS B1 | EWAD270TZ -SS B1 | EWAD300TZ -SS B1 | EWAD360TZ -SS B1 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 169 | 200 | 235 | 268 | 306 | 351 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 37 | 31 | 34 | 29 | 25 | 24 |
| Unit power input - Cooling | kW | 56.5 | 69.9 | 83.0 | 89.9 | 108 | 119 |
| EER | | 2.99 | 2.87 | 2.83 | 2.99 | 2.82 | 2.95 |
| ESEER | | 4.55 | 4.61 | 4.41 | 4.59 | 4.57 | 4.65 |
| IPLV | | 4.87 | 5.07 | 4.82 | 5.02 | 4.96 | 5.04 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 2283 | 2283 | 2283 | 3183 | 3183 | 4083 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2066 | 2091 | 2149 | 2375 | 2422 | 2771 |
| Operating Weight | kg | 2086 | 2117 | 2187 | 2401 | 2460 | 2821 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | PHE |
| Water Volume | l | 20.2 | 26.1 | 37.3 | 26.1 | 37.3 | 49.5 |
| Water flow rate | l/s | 8.1 | 9.6 | 11.2 | 12.9 | 14.6 | 16.8 |
| Water pressure drop ** | kPa | 25.0 | 19.3 | 15.4 | 32.6 | 25.2 | 25.9 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | On/Off | On/Off | On/Off | On/Off | On/Off | On/Off |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 15109 | 15109 | 15109 | 22664 | 22664 | 30219 |
| Quantity | No. | 4 | 4 | 4 | 6 | 6 | 8 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 3.2 | 3.2 | 3.2 | 4.8 | 4.8 | 6.4 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 96 | 96 | 96 | 97 | 98 | 99 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 77 | 77 | 77 | 77 | 78 | 79 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 27 | 29 | 33 | 38 | 41 | 52 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 4" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SS B

| MODEL | | EWAD380TZ-SS B2 | EWAD450TZ-SS B2 | EWAD495TZ-SS B2 | EWAD570TZ-SS B2 | EWAD610TZ-SS B2 | EWAD660TZ-SS B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 394 | 455 | 499 | 569 | 612 | 660 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 16 | 17 | 16 | 14 | 13 | 12 |
| Unit power input - Cooling | kW | 139 | 163 | 174 | 198 | 217 | 239 |
| EER | | 2.83 | 2.78 | 2.86 | 2.88 | 2.81 | 2.76 |
| ESEER | | 4.61 | 4.62 | 4.71 | 4.83 | 4.80 | 4.81 |
| IPLV | | 4.83 | 5.11 | 5.23 | 5.26 | 5.22 | 5.20 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4083 | 4083 | 4983 | 5883 | 5883 | 5883 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 4044 | 4060 | 4317 | 4603 | 4780 | 4804 |
| Operating Weight | kg | 4202 | 4224 | 4475 | 4761 | 5050 | 5059 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | S&T | S&T | S&T | S&T | S&T | S&T |
| Water Volume | l | 158 | 164 | 158 | 158 | 270 | 255 |
| Water flow rate | l/s | 18.9 | 21.8 | 23.9 | 27.3 | 29.3 | 31.6 |
| Water pressure drop ** | kPa | 25.9 | 32.4 | 44.0 | 55.7 | 38.8 | 32.3 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | On/Off | On/Off | On/Off | On/Off | On/Off | On/Off |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 30219 | 30219 | 37774 | 45328 | 45328 | 45328 |
| Quantity | No. | 8 | 8 | 10 | 12 | 12 | 12 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 6.4 | 6.4 | 8.0 | 9.6 | 9.6 | 9.6 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 99 | 99 | 99 | 100 | 101 | 102 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 79 | 79 | 79 | 80 | 80 | 82 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 58 | 59 | 68 | 75 | 77 | 83 |
| N. of circuits | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 5" | 5" | 5" | 5" | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SS B

| MODEL | | EWAD700TZ-SS B2 |
|---|---|---|
| **COOLING PERFORMANCE** | | |
| Capacity - Cooling | kW | 700 |
| Capacity control - Type | | Stepless |
| Capacity control - Minimum capacity | % | 12 |
| Unit power input - Cooling | kW | 249 |
| EER | | 2.81 |
| ESEER | | 4.89 |
| IPLV | | 5.39 |
| **CASING** | | |
| Colour * | | IW |
| Material * | | GPSS |
| **DIMENSIONS** | | |
| Height | mm | 2483 |
| Width | mm | 2258 |
| Length | mm | 6783 |
| **WEIGHT** | | |
| Unit Weight | kg | 5074 |
| Operating Weight | kg | 5329 |
| **WATER HEAT EXCHANGER** | | |
| Type * | | S&T |
| Water Volume | l | 255 |
| Water flow rate | l/s | 33.5 |
| Water pressure drop ** | kPa | 36.0 |
| Insulation material * | | CC |
| **AIR HEAT EXCHANGER** | | |
| Type * | | MCH |
| **FAN** | | |
| Type * | | DPT |
| Drive * | | On/Off |
| Diameter | mm | 800 |
| Nominal air flow | l/s | 52883 |
| Quantity | No. | 14 |
| Speed | rpm | 700 |
| Motor input | kW | 11.2 |
| **COMPRESSOR** | | |
| Type | | Inverter Driven Single Screw |
| Oil charge | l | 20.0 |
| Quantity | No. | 2 |
| **SOUND LEVEL** | | |
| Sound Power - Cooling *** | dB(A) | 105 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 84 |
| **REFRIGERANT CIRCUIT** | | |
| Refrigerant type | | R134a |
| Refrigerant charge | kg | 90 |
| N. of circuits | No. | 2 |
| **PIPING CONNECTIONS** | | |
| Evaporator water inlet/outlet | mm | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SL B

| MODEL | | EWAD160TZ -SL B1 | EWAD190TZ -SL B1 | EWAD240TZ -SL B1 | EWAD270TZ -SL B1 | EWAD300TZ -SL B1 | EWAD360TZ -SL B1 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 169 | 200 | 235 | 268 | 306 | 351 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 37 | 31 | 34 | 29 | 25 | 24 |
| Unit power input - Cooling | kW | 56.5 | 69.9 | 83.0 | 89.9 | 108 | 119 |
| EER | | 2.99 | 2.87 | 2.83 | 2.99 | 2.82 | 2.95 |
| ESEER | | 4.55 | 4.61 | 4.41 | 4.59 | 4.57 | 4.65 |
| IPLV | | 4.87 | 5.07 | 4.82 | 5.02 | 4.96 | 5.04 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 2283 | 2283 | 2283 | 3183 | 3183 | 4083 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2081 | 2106 | 2164 | 2390 | 2437 | 2786 |
| Operating Weight | kg | 2101 | 2132 | 2202 | 2416 | 2475 | 2836 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | PHE |
| Water Volume | l | 20.2 | 26.1 | 37.3 | 26.1 | 37.3 | 49.5 |
| Water flow rate | l/s | 8.1 | 9.6 | 11.2 | 12.9 | 14.6 | 16.8 |
| Water pressure drop ** | kPa | 25.0 | 19.3 | 15.4 | 32.6 | 25.2 | 25.9 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | On/Off | On/Off | On/Off | On/Off | On/Off | On/Off |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 15109 | 15109 | 15109 | 22664 | 22664 | 30219 |
| Quantity | No. | 4 | 4 | 4 | 6 | 6 | 8 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 3.2 | 3.2 | 3.2 | 4.8 | 4.8 | 6.4 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 90 | 90.5 | 90.5 | 91.5 | 92.5 | 93.5 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 71 | 72 | 72 | 72 | 73 | 74 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 27 | 29 | 33 | 38 | 41 | 52 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 4" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SL B

| MODEL | | EWAD380TZ-SL B2 | EWAD450TZ-SL B2 | EWAD495TZ-SL B2 | EWAD570TZ-SL B2 | EWAD610TZ-SL B2 | EWAD660TZ-SL B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 394 | 455 | 499 | 569 | 612 | 660 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 16 | 17 | 16 | 14 | 13 | 12 |
| Unit power input - Cooling | kW | 139 | 163 | 174 | 198 | 217 | 239 |
| EER | | 2.83 | 2.78 | 2.86 | 2.88 | 2.81 | 2.76 |
| ESEER | | 4.61 | 4.62 | 4.71 | 4.83 | 4.80 | 4.81 |
| IPLV | | 4.83 | 5.11 | 5.23 | 5.26 | 5.22 | 5.20 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4083 | 4083 | 4983 | 5883 | 5883 | 5883 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 4074 | 4090 | 4347 | 4633 | 4810 | 4834 |
| Operating Weight | kg | 4232 | 4254 | 4505 | 4791 | 5080 | 5089 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | S&T | S&T | S&T | S&T | S&T | S&T |
| Water Volume | l | 158 | 164 | 158 | 158 | 270 | 255 |
| Water flow rate | l/s | 18.9 | 21.8 | 23.9 | 27.3 | 29.3 | 31.6 |
| Water pressure drop ** | kPa | 25.9 | 32.4 | 44.0 | 55.7 | 38.8 | 32.3 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | On/Off | On/Off | On/Off | On/Off | On/Off | On/Off |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 30219 | 30219 | 37774 | 45328 | 45328 | 45328 |
| Quantity | No. | 8 | 8 | 10 | 12 | 12 | 12 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 6.4 | 6.4 | 8.0 | 9.6 | 9.6 | 9.6 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 93.5 | 93.5 | 94 | 94.5 | 95.5 | 96.5 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 74 | 74 | 74 | 74 | 75 | 76 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 58 | 59 | 68 | 75 | 77 | 83 |
| N. of circuits | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 5" | 5" | 5" | 5" | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SL B

| MODEL | | EWAD700TZ-SL B2 |
|---|---|---|
| **COOLING PERFORMANCE** | | |
| Capacity - Cooling | kW | 700 |
| Capacity control - Type | | Stepless |
| Capacity control - Minimum capacity | % | 12 |
| Unit power input - Cooling | kW | 249 |
| EER | | 2.81 |
| ESEER | | 4.89 |
| IPLV | | 5.39 |
| **CASING** | | |
| Colour * | | IW |
| Material * | | GPSS |
| **DIMENSIONS** | | |
| Height | mm | 2483 |
| Width | mm | 2258 |
| Length | mm | 6783 |
| **WEIGHT** | | |
| Unit Weight | kg | 5104 |
| Operating Weight | kg | 5359 |
| **WATER HEAT EXCHANGER** | | |
| Type * | | S&T |
| Water Volume | l | 255 |
| Water flow rate | l/s | 33.5 |
| Water pressure drop ** | kPa | 36.0 |
| Insulation material * | | CC |
| **AIR HEAT EXCHANGER** | | |
| Type * | | MCH |
| **FAN** | | |
| Type * | | DPT |
| Drive * | | On/Off |
| Diameter | mm | 800 |
| Nominal air flow | l/s | 52883 |
| Quantity | No. | 14 |
| Speed | rpm | 700 |
| Motor input | kW | 11.2 |
| **COMPRESSOR** | | |
| Type | | Inverter Driven Single Screw |
| Oil charge | l | 20.0 |
| Quantity | No. | 2 |
| **SOUND LEVEL** | | |
| Sound Power - Cooling *** | dB(A) | 98.5 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 77 |
| **REFRIGERANT CIRCUIT** | | |
| Refrigerant type | | R134a |
| Refrigerant charge | kg | 90 |
| N. of circuits | No. | 2 |
| **PIPING CONNECTIONS** | | |
| Evaporator water inlet/outlet | mm | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SR B

| MODEL | | EWAD160TZ -SR B1 | EWAD190TZ -SR B1 | EWAD240TZ -SR B1 | EWAD270TZ -SR B1 | EWAD300TZ -SR B1 | EWAD360TZ -SR B1 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 169 | 200 | 235 | 268 | 306 | 351 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 37 | 31 | 34 | 29 | 25 | 24 |
| Unit power input - Cooling | kW | 56.5 | 69.9 | 83.0 | 89.9 | 108 | 119 |
| EER | | 2.99 | 2.87 | 2.83 | 2.99 | 2.82 | 2.95 |
| ESEER | | 4.55 | 4.61 | 4.41 | 4.59 | 4.57 | 4.65 |
| IPLV | | 4.87 | 5.07 | 4.82 | 5.02 | 4.96 | 5.04 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 2283 | 2283 | 2283 | 3183 | 3183 | 4083 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2166 | 2191 | 2249 | 2475 | 2522 | 2871 |
| Operating Weight | kg | 2186 | 2217 | 2287 | 2501 | 2560 | 2921 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | PHE |
| Water Volume | l | 20.2 | 26.1 | 37.3 | 26.1 | 37.3 | 49.5 |
| Water flow rate | l/s | 8.1 | 9.6 | 11.2 | 12.9 | 14.6 | 16.8 |
| Water pressure drop ** | kPa | 25.0 | 19.3 | 15.4 | 32.6 | 25.2 | 25.9 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | On/Off | On/Off | On/Off | On/Off | On/Off | On/Off |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 15109 | 15109 | 15109 | 22664 | 22664 | 30219 |
| Quantity | No. | 4 | 4 | 4 | 6 | 6 | 8 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 3.2 | 3.2 | 3.2 | 4.8 | 4.8 | 6.4 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 86 | 87 | 87 | 88 | 88 | 90 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 67 | 68 | 68 | 68 | 69 | 70 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 27 | 29 | 33 | 38 | 41 | 52 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 1 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 4" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SR B

| MODEL | | EWAD380TZ-SR B2 | EWAD450TZ-SR B2 | EWAD495TZ-SR B2 | EWAD570TZ-SR B2 | EWAD610TZ-SR B2 | EWAD660TZ-SR B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 394 | 454 | 499 | 568 | 610 | 659 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 16 | 17 | 16 | 14 | 13 | 12 |
| Unit power input - Cooling | kW | 140 | 164 | 175 | 199 | 218 | 240 |
| EER | | 2.81 | 2.76 | 2.85 | 2.86 | 2.80 | 2.74 |
| ESEER | | 4.59 | 4.60 | 4.69 | 4.81 | 4.82 | 4.78 |
| IPLV | | 4.81 | 5.08 | 5.27 | 5.24 | 5.21 | 5.17 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4083 | 4083 | 4983 | 5883 | 5883 | 5883 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 4244 | 4260 | 4517 | 4803 | 4980 | 5004 |
| Operating Weight | kg | 4402 | 4424 | 4675 | 4961 | 5250 | 5259 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | S&T | S&T | S&T | S&T | S&T | S&T |
| Water Volume | l | 158 | 164 | 158 | 158 | 270 | 255 |
| Water flow rate | l/s | 18.8 | 21.7 | 23.9 | 27.2 | 29.2 | 31.5 |
| Water pressure drop ** | kPa | 25.8 | 32.2 | 43.9 | 55.5 | 38.6 | 32.2 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | On/Off | On/Off | On/Off | On/Off | On/Off | On/Off |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 29650 | 29650 | 36920 | 44475 | 44475 | 44475 |
| Quantity | No. | 8 | 8 | 10 | 12 | 12 | 12 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 6.4 | 6.4 | 8.0 | 9.6 | 9.6 | 9.6 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 90 | 90 | 90 | 91 | 91 | 92 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 70 | 70 | 70 | 70 | 70 | 71 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 58 | 59 | 68 | 75 | 77 | 83 |
| N. of circuits | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 5" | 5" | 5" | 5" | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SR B

| MODEL | | EWAD700TZ-SR B2 |
|---|---|---|
| **COOLING PERFORMANCE** | | |
| Capacity - Cooling | kW | 699 |
| Capacity control - Type | | Stepless |
| Capacity control - Minimum capacity | % | 12 |
| Unit power input - Cooling | kW | 250 |
| EER | | 2.80 |
| ESEER | | 4.88 |
| IPLV | | 5.38 |
| **CASING** | | |
| Colour * | | IW |
| Material * | | GPSS |
| **DIMENSIONS** | | |
| Height | mm | 2483 |
| Width | mm | 2258 |
| Length | mm | 6783 |
| **WEIGHT** | | |
| Unit Weight | kg | 5274 |
| Operating Weight | kg | 5529 |
| **WATER HEAT EXCHANGER** | | |
| Type * | | S&T |
| Water Volume | l | 255 |
| Water flow rate | l/s | 33.5 |
| Water pressure drop ** | kPa | 35.9 |
| Insulation material * | | CC |
| **AIR HEAT EXCHANGER** | | |
| Type * | | MCH |
| **FAN** | | |
| Type * | | DPT |
| Drive * | | On/Off |
| Diameter | mm | 800 |
| Nominal air flow | l/s | 51745 |
| Quantity | No. | 14 |
| Speed | rpm | 700 |
| Motor input | kW | 11.2 |
| **COMPRESSOR** | | |
| Type | | Inverter Driven Single Screw |
| Oil charge | l | 20.0 |
| Quantity | No. | 2 |
| **SOUND LEVEL** | | |
| Sound Power - Cooling *** | dB(A) | 94 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 73 |
| **REFRIGERANT CIRCUIT** | | |
| Refrigerant type | | R134a |
| Refrigerant charge | kg | 90 |
| N. of circuits | No. | 2 |
| **PIPING CONNECTIONS** | | |
| Evaporator water inlet/outlet | mm | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XS B

| MODEL | | EWAD190TZ -XS B1 | EWAD220TZ -XS B1 | EWAD240TZ -XS B1 | EWAD290TZ -XS B1 | EWAD320TZ -XS B1 | EWAD360TZ -XS B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 180 | 211 | 239 | 276 | 313 | 360 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 34 | 29 | 34 | 29 | 25 | 17 |
| Unit power input - Cooling | kW | 52.1 | 63.2 | 72.5 | 83.9 | 100 | 109 |
| EER | | 3.46 | 3.34 | 3.30 | 3.30 | 3.13 | 3.30 |
| ESEER | | 5.28 | 5.20 | 5.15 | 5.25 | 5.32 | 5.39 |
| IPLV | | 5.71 | 5.69 | 5.64 | 5.68 | 5.76 | 5.94 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 3183 | 3183 | 3183 | 4083 | 4083 | 4983 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2362 | 2409 | 2421 | 2770 | 2770 | 4292 |
| Operating Weight | kg | 2388 | 2447 | 2459 | 2820 | 2820 | 4450 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | S&T |
| Water Volume | l | 26.1 | 37.3 | 37.3 | 49.5 | 49.5 | 158 |
| Water flow rate | l/s | 8.6 | 10.1 | 11.5 | 13.2 | 15.0 | 17.3 |
| Water pressure drop ** | kPa | 16.4 | 13.2 | 16.2 | 17.1 | 21.0 | 34.3 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | VFD | VFD | VFD | VFD | VFD | VFD |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 22664 | 22664 | 22664 | 30219 | 30219 | 37774 |
| Quantity | No. | 6 | 6 | 6 | 8 | 8 | 10 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 4.8 | 4.8 | 4.8 | 6.4 | 6.4 | 8.0 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 20.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 96 | 97 | 96 | 97 | 98 | 99 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 77 | 77 | 77 | 77 | 78 | 79 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 36 | 39 | 40 | 51 | 51 | 64 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 5" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XS B

| MODEL | | EWAD420TZ -XS B2 | EWAD450TZ -XS B2 | EWAD540TZ -XS B2 | EWAD570TZ -XS B2 | EWAD610TZ -XS B2 | EWAD660TZ -XS B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 417 | 472 | 529 | 563 | 599 | 639 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 16 | 17 | 16 | 15 | 14 | 13 |
| Unit power input - Cooling | kW | 132 | 144 | 163 | 181 | 191 | 202 |
| EER | | 3.16 | 3.26 | 3.24 | 3.11 | 3.13 | 3.16 |
| ESEER | | 5.31 | 5.26 | 5.31 | 5.35 | 5.29 | 5.36 |
| IPLV | | 5.98 | 5.80 | 5.76 | 5.86 | 5.82 | 5.84 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4983 | 5883 | 5883 | 5883 | 6783 | 7683 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 4292 | 4602 | 4800 | 4800 | 5072 | 5425 |
| Operating Weight | kg | 4450 | 4760 | 5055 | 5055 | 5327 | 5680 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | S&T | S&T | S&T | S&T | S&T | S&T |
| Water Volume | l | 158 | 158 | 255 | 255 | 255 | 255 |
| Water flow rate | l/s | 20.0 | 22.6 | 25.3 | 27.0 | 28.7 | 30.6 |
| Water pressure drop ** | kPa | 31.2 | 39.7 | 36.7 | 41.1 | 27.1 | 30.5 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | VFD | VFD | VFD | VFD | VFD | VFD |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 37774 | 45328 | 45328 | 45328 | 52883 | 60438 |
| Quantity | No. | 10 | 12 | 12 | 12 | 14 | 16 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 8.0 | 9.6 | 9.6 | 9.6 | 11.2 | 12.8 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 99 | 99 | 99 | 100 | 100 | 101 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 79 | 79 | 79 | 79 | 79 | 80 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 64 | 74 | 80 | 80 | 89 | 96 |
| N. of circuits | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 5" | 5" | 6" | 6" | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XS B

| MODEL | | EWAD680TZ-XS B2 |
|---|---|---|
| **COOLING PERFORMANCE** | | |
| Capacity - Cooling | kW | 678 |
| Capacity control - Type | | Stepless |
| Capacity control - Minimum capacity | % | 13 |
| Unit power input - Cooling | kW | 219 |
| EER | | 3.09 |
| ESEER | | 5.31 |
| IPLV | | 5.76 |
| **CASING** | | |
| Colour * | | IW |
| Material * | | GPSS |
| **DIMENSIONS** | | |
| Height | mm | 2483 |
| Width | mm | 2258 |
| Length | mm | 7683 |
| **WEIGHT** | | |
| Unit Weight | kg | 5425 |
| Operating Weight | kg | 5680 |
| **WATER HEAT EXCHANGER** | | |
| Type * | | S&T |
| Water Volume | l | 255 |
| Water flow rate | l/s | 32.4 |
| Water pressure drop ** | kPa | 33.3 |
| Insulation material * | | CC |
| **AIR HEAT EXCHANGER** | | |
| Type * | | MCH |
| **FAN** | | |
| Type * | | DPT |
| Drive * | | VFD |
| Diameter | mm | 800 |
| Nominal air flow | l/s | 60438 |
| Quantity | No. | 16 |
| Speed | rpm | 700 |
| Motor input | kW | 12.8 |
| **COMPRESSOR** | | |
| Type | | Inverter Driven Single Screw |
| Oil charge | l | 20.0 |
| Quantity | No. | 2 |
| **SOUND LEVEL** | | |
| Sound Power - Cooling *** | dB(A) | 101 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 80 |
| **REFRIGERANT CIRCUIT** | | |
| Refrigerant type | | R134a |
| Refrigerant charge | kg | 96 |
| N. of circuits | No. | 2 |
| **PIPING CONNECTIONS** | | |
| Evaporator water inlet/outlet | mm | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XL B

| MODEL | | EWAD190TZ -XL B1 | EWAD220TZ -XL B1 | EWAD240TZ -XL B1 | EWAD290TZ -XL B1 | EWAD320TZ -XL B1 | EWAD360TZ -XL B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 180 | 211 | 239 | 276 | 313 | 360 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 34 | 29 | 34 | 29 | 25 | 17 |
| Unit power input - Cooling | kW | 52.1 | 63.2 | 72.5 | 83.9 | 100 | 109 |
| EER | | 3.46 | 3.34 | 3.30 | 3.30 | 3.13 | 3.30 |
| ESEER | | 5.28 | 5.20 | 5.15 | 5.25 | 5.32 | 5.39 |
| IPLV | | 5.71 | 5.69 | 5.64 | 5.68 | 5.76 | 5.94 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 3183 | 3183 | 3183 | 4083 | 4083 | 4983 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2377 | 2424 | 2436 | 2785 | 2785 | 4322 |
| Operating Weight | kg | 2403 | 2462 | 2474 | 2835 | 2835 | 4480 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | S&T |
| Water Volume | l | 26.1 | 37.3 | 37.3 | 49.5 | 49.5 | 158 |
| Water flow rate | l/s | 8.6 | 10.1 | 11.5 | 13.2 | 15.0 | 17.3 |
| Water pressure drop ** | kPa | 16.4 | 13.2 | 16.2 | 17.1 | 21.0 | 34.3 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | VFD | VFD | VFD | VFD | VFD | VFD |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 22664 | 22664 | 22664 | 30219 | 30219 | 37774 |
| Quantity | No. | 6 | 6 | 6 | 8 | 8 | 10 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 4.8 | 4.8 | 4.8 | 6.4 | 6.4 | 8.0 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 20.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 91 | 91.5 | 91 | 91.5 | 92.5 | 93.5 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 72 | 72 | 72 | 72 | 73 | 73 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 36 | 39 | 40 | 51 | 51 | 64 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 5" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XL B

| MODEL | | EWAD420TZ-XL B2 | EWAD450TZ-XL B2 | EWAD540TZ-XL B2 | EWAD570TZ-XL B2 | EWAD610TZ-XL B2 | EWAD660TZ-XL B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 417 | 472 | 529 | 563 | 599 | 639 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 16 | 17 | 16 | 15 | 14 | 13 |
| Unit power input - Cooling | kW | 132 | 144 | 163 | 181 | 191 | 202 |
| EER | | 3.16 | 3.26 | 3.24 | 3.11 | 3.13 | 3.16 |
| ESEER | | 5.31 | 5.26 | 5.31 | 5.35 | 5.29 | 5.36 |
| IPLV | | 5.98 | 5.80 | 5.76 | 5.86 | 5.82 | 5.84 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4983 | 5883 | 5883 | 5883 | 6783 | 7683 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 4322 | 4632 | 4830 | 4830 | 5102 | 5455 |
| Operating Weight | kg | 4480 | 4790 | 5085 | 5085 | 5357 | 5710 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | S&T | S&T | S&T | S&T | S&T | S&T |
| Water Volume | l | 158 | 158 | 255 | 255 | 255 | 255 |
| Water flow rate | l/s | 20.0 | 22.6 | 25.3 | 27.0 | 28.7 | 30.6 |
| Water pressure drop ** | kPa | 31.2 | 39.7 | 36.7 | 41.1 | 27.1 | 30.5 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | VFD | VFD | VFD | VFD | VFD | VFD |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 37774 | 45328 | 45328 | 45328 | 52883 | 60438 |
| Quantity | No. | 10 | 12 | 12 | 12 | 14 | 16 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 8.0 | 9.6 | 9.6 | 9.6 | 11.2 | 12.8 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 94 | 94 | 94 | 94.5 | 95 | 95.5 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 74 | 73 | 73 | 74 | 74 | 74 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 64 | 74 | 80 | 80 | 89 | 96 |
| N. of circuits | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 5" | 5" | 6" | 6" | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XL B

| MODEL | | EWAD680TZ-XL B2 |
|---|---|---|
| **COOLING PERFORMANCE** | | |
| Capacity - Cooling | kW | 678 |
| Capacity control - Type | | Stepless |
| Capacity control - Minimum capacity | % | 13 |
| Unit power input - Cooling | kW | 219 |
| EER | | 3.09 |
| ESEER | | 5.31 |
| IPLV | | 5.76 |
| **CASING** | | |
| Colour * | | IW |
| Material * | | GPSS |
| **DIMENSIONS** | | |
| Height | mm | 2483 |
| Width | mm | 2258 |
| Length | mm | 7683 |
| **WEIGHT** | | |
| Unit Weight | kg | 5455 |
| Operating Weight | kg | 5710 |
| **WATER HEAT EXCHANGER** | | |
| Type * | | S&T |
| Water Volume | l | 255 |
| Water flow rate | l/s | 32.4 |
| Water pressure drop ** | kPa | 33.3 |
| Insulation material * | | CC |
| **AIR HEAT EXCHANGER** | | |
| Type * | | MCH |
| **FAN** | | |
| Type * | | DPT |
| Drive * | | VFD |
| Diameter | mm | 800 |
| Nominal air flow | l/s | 60438 |
| Quantity | No. | 16 |
| Speed | rpm | 700 |
| Motor input | kW | 12.8 |
| **COMPRESSOR** | | |
| Type | | Inverter Driven Single Screw |
| Oil charge | l | 20.0 |
| Quantity | No. | 2 |
| **SOUND LEVEL** | | |
| Sound Power - Cooling *** | dB(A) | 95.5 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 74 |
| **REFRIGERANT CIRCUIT** | | |
| Refrigerant type | | R134a |
| Refrigerant charge | kg | 96 |
| N. of circuits | No. | 2 |
| **PIPING CONNECTIONS** | | |
| Evaporator water inlet/outlet | mm | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XR B

| MODEL | | EWAD190TZ -XR B1 | EWAD220TZ -XR B1 | EWAD240TZ -XR B1 | EWAD290TZ -XR B1 | EWAD320TZ -XR B1 | EWAD360TZ -XR B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 180 | 211 | 239 | 276 | 313 | 360 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 34 | 29 | 34 | 29 | 25 | 17 |
| Unit power input - Cooling | kW | 52.1 | 63.2 | 72.5 | 83.9 | 100 | 109 |
| EER | | 3.46 | 3.34 | 3.30 | 3.30 | 3.13 | 3.29 |
| ESEER | | 5.28 | 5.20 | 5.15 | 5.25 | 5.32 | 5.37 |
| IPLV | | 5.71 | 5.69 | 5.64 | 5.68 | 5.76 | 5.92 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 3183 | 3183 | 3183 | 4083 | 4083 | 4983 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2462 | 2509 | 2521 | 2870 | 2870 | 4492 |
| Operating Weight | kg | 2488 | 2547 | 2559 | 2920 | 2920 | 4650 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | S&T |
| Water Volume | l | 26.1 | 37.3 | 37.3 | 49.5 | 49.5 | 158 |
| Water flow rate | l/s | 8.6 | 10.1 | 11.5 | 13.2 | 15.0 | 17.2 |
| Water pressure drop ** | kPa | 16.4 | 13.2 | 16.2 | 17.1 | 21.0 | 34.2 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | VFD | VFD | VFD | VFD | VFD | VFD |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 22664 | 22664 | 22664 | 30219 | 30219 | 36920 |
| Quantity | No. | 6 | 6 | 6 | 8 | 8 | 10 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 4.8 | 4.8 | 4.8 | 6.4 | 6.4 | 8.0 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 20.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 88 | 88 | 88 | 89 | 89 | 90 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 68 | 68 | 68 | 69 | 69 | 70 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 36 | 39 | 40 | 51 | 51 | 64 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 5" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XR B

| MODEL | | EWAD420TZ-XR B2 | EWAD450TZ-XR B2 | EWAD540TZ-XR B2 | EWAD570TZ-XR B2 | EWAD610TZ-XR B2 | EWAD660TZ-XR B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 417 | 472 | 528 | 562 | 598 | 638 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 16 | 17 | 16 | 15 | 14 | 13 |
| Unit power input - Cooling | kW | 132 | 145 | 164 | 181 | 192 | 203 |
| EER | | 3.16 | 3.24 | 3.22 | 3.09 | 3.11 | 3.15 |
| ESEER | | 5.31 | 5.24 | 5.29 | 5.33 | 5.32 | 5.34 |
| IPLV | | 5.98 | 5.78 | 5.74 | 5.83 | 5.85 | 5.81 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4983 | 5883 | 5883 | 5883 | 6783 | 7683 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 4492 | 4802 | 5000 | 5000 | 5272 | 5625 |
| Operating Weight | kg | 4650 | 4960 | 5255 | 5255 | 5527 | 5880 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | S&T | S&T | S&T | S&T | S&T | S&T |
| Water Volume | l | 158 | 158 | 255 | 255 | 255 | 255 |
| Water flow rate | l/s | 20.0 | 22.6 | 25.3 | 26.9 | 28.6 | 30.5 |
| Water pressure drop ** | kPa | 31.2 | 39.7 | 36.6 | 41.0 | 27.1 | 30.4 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | VFD | VFD | VFD | VFD | VFD | VFD |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 37774 | 44475 | 44475 | 44475 | 51745 | 59299 |
| Quantity | No. | 10 | 12 | 12 | 12 | 14 | 16 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 8.0 | 9.6 | 9.6 | 9.6 | 11.2 | 12.8 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 90 | 91 | 91 | 91 | 91 | 92 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 70 | 70 | 70 | 70 | 70 | 71 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 64 | 74 | 80 | 80 | 89 | 96 |
| N. of circuits | No. | 2 | 2 | 2 | 2 | 2 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 5" | 5" | 6" | 6" | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-XR B

| MODEL | | EWAD680TZ-XR B2 |
|---|---|---|
| **COOLING PERFORMANCE** | | |
| Capacity - Cooling | kW | 677 |
| Capacity control - Type | | Stepless |
| Capacity control - Minimum capacity | % | 13 |
| Unit power input - Cooling | kW | 220 |
| EER | | 3.07 |
| ESEER | | 5.29 |
| IPLV | | 5.80 |
| **CASING** | | |
| Colour * | | IW |
| Material * | | GPSS |
| **DIMENSIONS** | | |
| Height | mm | 2483 |
| Width | mm | 2258 |
| Length | mm | 7683 |
| **WEIGHT** | | |
| Unit Weight | kg | 5625 |
| Operating Weight | kg | 5880 |
| **WATER HEAT EXCHANGER** | | |
| Type * | | S&T |
| Water Volume | l | 255 |
| Water flow rate | l/s | 32.4 |
| Water pressure drop ** | kPa | 33.2 |
| Insulation material * | | CC |
| **AIR HEAT EXCHANGER** | | |
| Type * | | MCH |
| **FAN** | | |
| Type * | | DPT |
| Drive * | | VFD |
| Diameter | mm | 800 |
| Nominal air flow | l/s | 59299 |
| Quantity | No. | 16 |
| Speed | rpm | 700 |
| Motor input | kW | 12.8 |
| **COMPRESSOR** | | |
| Type | | Inverter Driven Single Screw |
| Oil charge | l | 20.0 |
| Quantity | No. | 2 |
| **SOUND LEVEL** | | |
| Sound Power - Cooling *** | dB(A) | 92 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 71 |
| **REFRIGERANT CIRCUIT** | | |
| Refrigerant type | | R134a |
| Refrigerant charge | kg | 96 |
| N. of circuits | No. | 2 |
| **PIPING CONNECTIONS** | | |
| Evaporator water inlet/outlet | mm | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-PS B

| MODEL | | EWAD190TZ -PS B1 | EWAD220TZ -PS B1 | EWAD240TZ -PS B1 | EWAD290TZ -PS B1 | EWAD300TZ -PS B1 | EWAD350TZ -PS B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 183 | 216 | 244 | 281 | 323 | 379 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 34 | 29 | 34 | 29 | 27 | 19 |
| Unit power input - Cooling | kW | 50.5 | 60.7 | 68.7 | 83.4 | 95.9 | 104 |
| EER | | 3.64 | 3.56 | 3.55 | 3.38 | 3.37 | 3.62 |
| ESEER | | 5.70 | 5.66 | 5.58 | 5.59 | 5.55 | 5.67 |
| IPLV | | 6.09 | 5.99 | 5.96 | 5.99 | 6.00 | 6.19 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4083 | 4083 | 4083 | 4083 | 4983 | 5883 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2758 | 2758 | 2769 | 2770 | 3020 | 4735 |
| Operating Weight | kg | 2808 | 2808 | 2819 | 2820 | 3070 | 4990 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | S&T |
| Water Volume | l | 49.5 | 49.5 | 49.5 | 49.5 | 49.5 | 255 |
| Water flow rate | l/s | 8.8 | 10.3 | 11.7 | 13.5 | 15.5 | 18.1 |
| Water pressure drop ** | kPa | 10.6 | 11.0 | 13.4 | 17.1 | 21.5 | 20.4 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | BRS | BRS | BRS | BRS | BRS | BRS |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 29610 | 29610 | 29610 | 29610 | 37013 | 44415 |
| Quantity | No. | 8 | 8 | 8 | 8 | 10 | 12 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 5.6 | 5.6 | 5.6 | 5.6 | 7.0 | 8.4 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 20.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 97 | 97 | 97 | 97 | 98 | 99 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 77 | 77 | 77 | 77 | 77 | 78 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 49 | 49 | 50 | 51 | 58 | 77 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-PS B

| MODEL | | EWAD420TZ-PS B2 | EWAD495TZ-PS B2 |
|---|---|---|---|
| **COOLING PERFORMANCE** | | | |
| Capacity - Cooling | kW | 435 | 501 |
| Capacity control - Type | | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 20 | 17 |
| Unit power input - Cooling | kW | 123 | 139 |
| EER | | 3.53 | 3.60 |
| ESEER | | 5.69 | 5.71 |
| IPLV | | 6.13 | 6.10 |
| **CASING** | | | |
| Colour * | | IW | IW |
| Material * | | GPSS | GPSS |
| **DIMENSIONS** | | | |
| Height | mm | 2483 | 2483 |
| Width | mm | 2258 | 2258 |
| Length | mm | 6783 | 6783 |
| **WEIGHT** | | | |
| Unit Weight | kg | 5069 | 5077 |
| Operating Weight | kg | 5324 | 5332 |
| **WATER HEAT EXCHANGER** | | | |
| Type * | | S&T | S&T |
| Water Volume | l | 255 | 255 |
| Water flow rate | l/s | 20.8 | 24.0 |
| Water pressure drop ** | kPa | 26.3 | 33.3 |
| Insulation material * | | CC | CC |
| **AIR HEAT EXCHANGER** | | | |
| Type * | | MCH | MCH |
| **FAN** | | | |
| Type * | | DPT | DPT |
| Drive * | | BRS | BRS |
| Diameter | mm | 800 | 800 |
| Nominal air flow | l/s | 51818 | 59220 |
| Quantity | No. | 14 | 16 |
| Speed | rpm | 700 | 700 |
| Motor input | kW | 9.8 | 11.2 |
| **COMPRESSOR** | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 |
| **SOUND LEVEL** | | | |
| Sound Power - Cooling *** | dB(A) | 99 | 100 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 77 | 78 |
| **REFRIGERANT CIRCUIT** | | | |
| Refrigerant type | | R134a | R134a |
| Refrigerant charge | kg | 86 | 94 |
| N. of circuits | No. | 2 | 2 |
| **PIPING CONNECTIONS** | | | |
| Evaporator water inlet/outlet | mm | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-PL B

| MODEL | | EWAD190TZ -PL B1 | EWAD220TZ -PL B1 | EWAD240TZ -PL B1 | EWAD290TZ -PL B1 | EWAD300TZ -PL B1 | EWAD350TZ -PL B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 183 | 216 | 244 | 281 | 323 | 379 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 34 | 29 | 34 | 29 | 27 | 19 |
| Unit power input - Cooling | kW | 50.5 | 60.7 | 68.7 | 83.4 | 95.9 | 104 |
| EER | | 3.64 | 3.56 | 3.55 | 3.38 | 3.37 | 3.62 |
| ESEER | | 5.70 | 5.66 | 5.58 | 5.59 | 5.55 | 5.67 |
| IPLV | | 6.09 | 5.99 | 5.96 | 5.99 | 6.00 | 6.19 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4083 | 4083 | 4083 | 4083 | 4983 | 5883 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2773 | 2773 | 2784 | 2785 | 3035 | 4765 |
| Operating Weight | kg | 2823 | 2823 | 2834 | 2835 | 3085 | 5020 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | S&T |
| Water Volume | l | 49.5 | 49.5 | 49.5 | 49.5 | 49.5 | 255 |
| Water flow rate | l/s | 8.8 | 10.3 | 11.7 | 13.5 | 15.5 | 18.1 |
| Water pressure drop ** | kPa | 10.6 | 11.0 | 13.4 | 17.1 | 21.5 | 20.4 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | BRS | BRS | BRS | BRS | BRS | BRS |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 29610 | 29610 | 29610 | 29610 | 37013 | 44415 |
| Quantity | No. | 8 | 8 | 8 | 8 | 10 | 12 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 5.6 | 5.6 | 5.6 | 5.6 | 7.0 | 8.4 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 20.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 91 | 91.5 | 91 | 91.5 | 92 | 93.5 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 71 | 72 | 71 | 72 | 72 | 73 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 49 | 49 | 50 | 51 | 58 | 77 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-PL B

| MODEL | | EWAD420TZ -PL B2 | EWAD495TZ -PL B2 |
|---|---|---|---|
| **COOLING PERFORMANCE** | | | |
| Capacity - Cooling | kW | 437 | 501 |
| Capacity control - Type | | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 20 | 17 |
| Unit power input - Cooling | kW | 124 | 139 |
| EER | | 3.50 | 3.60 |
| ESEER | | 5.71 | 5.71 |
| IPLV | | 6.18 | 6.10 |
| **CASING** | | | |
| Colour * | | IW | IW |
| Material * | | GPSS | GPSS |
| **DIMENSIONS** | | | |
| Height | mm | 2483 | 2483 |
| Width | mm | 2258 | 2258 |
| Length | mm | 6783 | 6783 |
| **WEIGHT** | | | |
| Unit Weight | kg | 5099 | 5107 |
| Operating Weight | kg | 5354 | 5362 |
| **WATER HEAT EXCHANGER** | | | |
| Type * | | S&T | S&T |
| Water Volume | l | 255 | 255 |
| Water flow rate | l/s | 20.9 | 24.0 |
| Water pressure drop ** | kPa | 26.5 | 33.3 |
| Insulation material * | | CC | CC |
| **AIR HEAT EXCHANGER** | | | |
| Type * | | MCH | MCH |
| **FAN** | | | |
| Type * | | DPT | DPT |
| Drive * | | BRS | BRS |
| Diameter | mm | 800 | 800 |
| Nominal air flow | l/s | 51818 | 59220 |
| Quantity | No. | 14 | 16 |
| Speed | rpm | 700 | 700 |
| Motor input | kW | 9.8 | 11.2 |
| **COMPRESSOR** | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 |
| **SOUND LEVEL** | | | |
| Sound Power - Cooling *** | dB(A) | 93.5 | 94 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 72 | 73 |
| **REFRIGERANT CIRCUIT** | | | |
| Refrigerant type | | R134a | R134a |
| Refrigerant charge | kg | 86 | 94 |
| N. of circuits | No. | 2 | 2 |
| **PIPING CONNECTIONS** | | | |
| Evaporator water inlet/outlet | mm | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-PR B

| MODEL | | EWAD190TZ -PR B1 | EWAD220TZ -PR B1 | EWAD240TZ -PR B1 | EWAD290TZ -PR B1 | EWAD300TZ -PR B1 | EWAD350TZ -PR B2 |
|---|---|---|---|---|---|---|---|
| **COOLING PERFORMANCE** | | | | | | | |
| Capacity - Cooling | kW | 187 | 218 | 246 | 279 | 317 | 382 |
| Capacity control - Type | | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 34 | 29 | 34 | 29 | 27 | 19 |
| Unit power input - Cooling | kW | 50.5 | 60.7 | 68.7 | 83.4 | 95.9 | 105 |
| EER | | 3.71 | 3.59 | 3.59 | 3.35 | 3.31 | 3.64 |
| ESEER | | 5.70 | 5.66 | 5.42 | 5.33 | 5.39 | 5.50 |
| IPLV | | 6.09 | 5.99 | 5.80 | 5.73 | 5.84 | 5.98 |
| **CASING** | | | | | | | |
| Colour * | | IW | IW | IW | IW | IW | IW |
| Material * | | GPSS | GPSS | GPSS | GPSS | GPSS | GPSS |
| **DIMENSIONS** | | | | | | | |
| Height | mm | 2483 | 2483 | 2483 | 2483 | 2483 | 2483 |
| Width | mm | 2258 | 2258 | 2258 | 2258 | 2258 | 2258 |
| Length | mm | 4083 | 4083 | 4083 | 4083 | 4983 | 5883 |
| **WEIGHT** | | | | | | | |
| Unit Weight | kg | 2858 | 2858 | 2869 | 2870 | 3120 | 4935 |
| Operating Weight | kg | 2908 | 2908 | 2919 | 2920 | 3170 | 5190 |
| **WATER HEAT EXCHANGER** | | | | | | | |
| Type * | | PHE | PHE | PHE | PHE | PHE | S&T |
| Water Volume | l | 49.5 | 49.5 | 49.5 | 49.5 | 49.5 | 255 |
| Water flow rate | l/s | 9.0 | 10.4 | 11.8 | 13.3 | 15.2 | 18.3 |
| Water pressure drop ** | kPa | 10.6 | 11.0 | 13.4 | 17.1 | 21.5 | 20.4 |
| Insulation material * | | CC | CC | CC | CC | CC | CC |
| **AIR HEAT EXCHANGER** | | | | | | | |
| Type * | | MCH | MCH | MCH | MCH | MCH | MCH |
| **FAN** | | | | | | | |
| Type * | | DPT | DPT | DPT | DPT | DPT | DPT |
| Drive * | | BRS | BRS | BRS | BRS | BRS | BRS |
| Diameter | mm | 800 | 800 | 800 | 800 | 800 | 800 |
| Nominal air flow | l/s | 29610 | 29610 | 29610 | 29610 | 37013 | 43369 |
| Quantity | No. | 8 | 8 | 8 | 8 | 10 | 12 |
| Speed | rpm | 700 | 700 | 700 | 700 | 700 | 700 |
| Motor input | kW | 5.6 | 5.6 | 5.6 | 5.6 | 7.0 | 8.4 |
| **COMPRESSOR** | | | | | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 20.0 |
| Quantity | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **SOUND LEVEL** | | | | | | | |
| Sound Power - Cooling *** | dB(A) | 87 | 88 | 87 | 88 | 88 | 89 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 67 | 68 | 67 | 68 | 68 | 68 |
| **REFRIGERANT CIRCUIT** | | | | | | | |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a |
| Refrigerant charge | kg | 49 | 49 | 50 | 51 | 58 | 77 |
| N. of circuits | No. | 1 | 1 | 1 | 1 | 1 | 2 |
| **PIPING CONNECTIONS** | | | | | | | |
| Evaporator water inlet/outlet | mm | 3" | 3" | 4" | 4" | 4" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-PR B

| MODEL | | EWAD420TZ-PR B2 | EWAD495TZ-PR B2 |
|---|---|---|---|
| **COOLING PERFORMANCE** | | | |
| Capacity - Cooling | kW | 435 | 505 |
| Capacity control - Type | | Stepless | Stepless |
| Capacity control - Minimum capacity | % | 20 | 17 |
| Unit power input - Cooling | kW | 123 | 139 |
| EER | | 3.52 | 3.62 |
| ESEER | | 5.41 | 5.63 |
| IPLV | | 5.89 | 6.03 |
| **CASING** | | | |
| Colour * | | IW | IW |
| Material * | | GPSS | GPSS |
| **DIMENSIONS** | | | |
| Height | mm | 2483 | 2483 |
| Width | mm | 2258 | 2258 |
| Length | mm | 6783 | 6783 |
| **WEIGHT** | | | |
| Unit Weight | kg | 5269 | 5277 |
| Operating Weight | kg | 5524 | 5532 |
| **WATER HEAT EXCHANGER** | | | |
| Type * | | S&T | S&T |
| Water Volume | l | 255 | 255 |
| Water flow rate | l/s | 20.8 | 24.2 |
| Water pressure drop ** | kPa | 26.2 | 33.2 |
| Insulation material * | | CC | CC |
| **AIR HEAT EXCHANGER** | | | |
| Type * | | MCH | MCH |
| **FAN** | | | |
| Type * | | DPT | DPT |
| Drive * | | BRS | BRS |
| Diameter | mm | 800 | 800 |
| Nominal air flow | l/s | 50423 | 57826 |
| Quantity | No. | 14 | 16 |
| Speed | rpm | 700 | 700 |
| Motor input | kW | 9.8 | 11.2 |
| **COMPRESSOR** | | | |
| Type | | Inverter Driven Single Screw | Inverter Driven Single Screw |
| Oil charge | l | 20.0 | 20.0 |
| Quantity | No. | 2 | 2 |
| **SOUND LEVEL** | | | |
| Sound Power - Cooling *** | dB(A) | 90 | 90 |
| Sound Pressure level@1m distance - Cooling | dB(A) | 68 | 69 |
| **REFRIGERANT CIRCUIT** | | | |
| Refrigerant type | | R134a | R134a |
| Refrigerant charge | kg | 86 | 94 |
| N. of circuits | No. | 2 | 2 |
| **PIPING CONNECTIONS** | | | |
| Evaporator water inlet/outlet | mm | 6" | 6" |

*All the perfrormances (Cooling capacity, unit power input in cooling and EER) are based on the following conditions: evaporator 12.0/7.0°C; ambient 35.0°C, unit at full load operation; operating fluid: Water ; fouling factor = 0.*
*(*) IW: Ivory White; GPSS: Galvanized and Painted Steel Sheet; PHE: Plate Heat Exchanger; S&T: Single Pass Shell & Tube; MCH: Microchannel; CC: Closed Cell; DPT: Direct Propeller Type; DOL: Direct On Line - VFD: Inverter - BRS: Brushless*
*(**) The value referes to the pressur drop in the evaporator only.*
*(***) Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level, the sound pressure is calculated from the sound power level and are for information only and not cosidered binding. The minimum capacity indicated is referred to unit operating at standard Eurovent conditons. Dimensions and weights are for indication only and not considered binding. Before desining the installation, consult the offical drawings available from the factory at request. All the data are referred to standard unit without options. Data are subject to change without notice.*

## EWAD~TZ-SS B

| MODEL | | EWAD160TZ-SS B1 | EWAD190TZ-SS B1 | EWAD240TZ-SS B1 | EWAD270TZ-SS B1 | EWAD300TZ-SS B1 | EWAD360TZ-SS B1 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 80 | 93 | 100 | 115 | 137 | 151 |
| Nominal running current cooling | A | 102 | 123 | 188 | 177 | 188 | 200 |
| Maximum running current | A | 130 | 149 | 160 | 187 | 220 | 246 |
| Maximum current for wires sizing | A | 141 | 156 | 174 | 187 | 239 | 247 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 10.4 | 10.4 | 10.4 | 15.6 | 15.6 | 20.8 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 119 | 139 | 150 | 171 | 204 | 225 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD380TZ-SS B2 | EWAD450TZ-SS B2 | EWAD495TZ-SS B2 | EWAD570TZ-SS B2 | EWAD610TZ-SS B2 | EWAD660TZ-SS B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 214 | 230 | 254 | 268 | 315 | 335 |
| Nominal running current cooling | A | 246 | 372 | 366 | 361 | 377 | 396 |
| Maximum running current | A | 298 | 320 | 350 | 374 | 439 | 466 |
| Maximum current for wires sizing | A | 313 | 349 | 368 | 374 | 479 | 483 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 20.8 | 20.8 | 26 | 31.2 | 31.2 | 31.2 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 139 | 150 | 162 | 171 | 204 | 218 |
| Starting method | | INV | INV | INV | INV | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load. In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-SS B

| MODEL | | EWAD700TZ -SS B2 |
|---|---|---|
| **POWER SUPPLY** | | |
| Phases | No. | 3 |
| Frequency | Hz | 50 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| **UNIT** | | |
| Maximum starting current | A | 351 |
| Nominal running current cooling | A | 414 |
| Maximum running current | A | 486 |
| Maximum current for wires sizing | A | 488 |
| **FANS** | | |
| Nominal running current cooling | A | 36.4 |
| **COMPRESSORS** | | |
| Phases | No. | 3 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| Maximum running current | A | 225 |
| Starting method | | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load.*
*In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-SL B

| MODEL | | EWAD160TZ-SL B1 | EWAD190TZ-SL B1 | EWAD240TZ-SL B1 | EWAD270TZ-SL B1 | EWAD300TZ-SL B1 | EWAD360TZ-SL B1 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 80 | 93 | 100 | 115 | 137 | 151 |
| Nominal running current cooling | A | 102 | 123 | 188 | 177 | 188 | 200 |
| Maximum running current | A | 130 | 149 | 160 | 187 | 220 | 246 |
| Maximum current for wires sizing | A | 141 | 156 | 174 | 187 | 239 | 247 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 10.4 | 10.4 | 10.4 | 15.6 | 15.6 | 20.8 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 119 | 139 | 150 | 171 | 204 | 225 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD380TZ-SL B2 | EWAD450TZ-SL B2 | EWAD495TZ-SL B2 | EWAD570TZ-SL B2 | EWAD610TZ-SL B2 | EWAD660TZ-SL B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 214 | 230 | 254 | 268 | 315 | 335 |
| Nominal running current cooling | A | 246 | 372 | 366 | 361 | 377 | 396 |
| Maximum running current | A | 298 | 320 | 350 | 374 | 439 | 466 |
| Maximum current for wires sizing | A | 313 | 349 | 368 | 374 | 479 | 483 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 20.8 | 20.8 | 26 | 31.2 | 31.2 | 31.2 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 139 | 150 | 162 | 171 | 204 | 218 |
| Starting method | | INV | INV | INV | INV | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load. In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-SL B

| MODEL | | EWAD700TZ-SL B2 |
|---|---|---|
| **POWER SUPPLY** | | |
| Phases | No. | 3 |
| Frequency | Hz | 50 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| **UNIT** | | |
| Maximum starting current | A | 351 |
| Nominal running current cooling | A | 414 |
| Maximum running current | A | 486 |
| Maximum current for wires sizing | A | 488 |
| **FANS** | | |
| Nominal running current cooling | A | 36.4 |
| **COMPRESSORS** | | |
| Phases | No. | 3 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| Maximum running current | A | 225 |
| Starting method | | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load.*
*In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-SR B

| MODEL | | EWAD160TZ-SR B1 | EWAD190TZ-SR B1 | EWAD240TZ-SR B1 | EWAD270TZ-SR B1 | EWAD300TZ-SR B1 | EWAD360TZ-SR B1 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 80 | 93 | 100 | 115 | 137 | 151 |
| Nominal running current cooling | A | 102 | 123 | 188 | 177 | 188 | 200 |
| Maximum running current | A | 130 | 149 | 160 | 187 | 220 | 246 |
| Maximum current for wires sizing | A | 141 | 156 | 174 | 187 | 239 | 247 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 10.4 | 10.4 | 10.4 | 15.6 | 15.6 | 20.8 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 119 | 139 | 150 | 171 | 204 | 225 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD380TZ-SR B2 | EWAD450TZ-SR B2 | EWAD495TZ-SR B2 | EWAD570TZ-SR B2 | EWAD610TZ-SR B2 | EWAD660TZ-SR B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 214 | 230 | 254 | 268 | 315 | 335 |
| Nominal running current cooling | A | 247 | 374 | 368 | 363 | 378 | 398 |
| Maximum running current | A | 298 | 320 | 350 | 374 | 439 | 466 |
| Maximum current for wires sizing | A | 313 | 349 | 368 | 374 | 479 | 483 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 20.8 | 20.8 | 26 | 31.2 | 31.2 | 31.2 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 139 | 150 | 162 | 171 | 204 | 218 |
| Starting method | | INV | INV | INV | INV | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load. In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-SR B

| MODEL | | EWAD700TZ-SR B2 |
|---|---|---|
| **POWER SUPPLY** | | |
| Phases | No. | 3 |
| Frequency | Hz | 50 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| **UNIT** | | |
| Maximum starting current | A | 351 |
| Nominal running current cooling | A | 416 |
| Maximum running current | A | 486 |
| Maximum current for wires sizing | A | 488 |
| **FANS** | | |
| Nominal running current cooling | A | 36.4 |
| **COMPRESSORS** | | |
| Phases | No. | 3 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| Maximum running current | A | 225 |
| Starting method | | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load.*
*In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-XS B

| MODEL | | EWAD190TZ -XS B1 | EWAD220TZ -XS B1 | EWAD240TZ -XS B1 | EWAD290TZ -XS B1 | EWAD320TZ -XS B1 | EWAD360TZ -XS B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 77 | 89 | 101 | 118 | 137 | 184 |
| Nominal running current cooling | A | 110 | 113 | 186 | 186 | 192 | 225 |
| Maximum running current | A | 130 | 149 | 166 | 198 | 225 | 256 |
| Maximum current for wires sizing | A | 141 | 155 | 180 | 214 | 245 | 276 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 15.6 | 15.6 | 15.6 | 20.8 | 20.8 | 26 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 115 | 133 | 151 | 177 | 204 | 115 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD420TZ -XS B2 | EWAD450TZ -XS B2 | EWAD540TZ -XS B2 | EWAD570TZ -XS B2 | EWAD610TZ -XS B2 | EWAD660TZ -XS B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 211 | 237 | 256 | 275 | 300 | 321 |
| Nominal running current cooling | A | 231 | 371 | 383 | 392 | 390 | 387 |
| Maximum running current | A | 292 | 333 | 358 | 385 | 417 | 450 |
| Maximum current for wires sizing | A | 305 | 361 | 389 | 418 | 453 | 489 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 26 | 31.2 | 31.2 | 31.2 | 36.4 | 41.6 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 133 | 151 | 164 | 177 | 190 | 204 |
| Starting method | | INV | INV | INV | INV | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load. In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-XS B

| MODEL | | EWAD680TZ -XS B2 |
|---|---|---|
| **POWER SUPPLY** | | |
| Phases | No. | 3 |
| Frequency | Hz | 50 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| **UNIT** | | |
| Maximum starting current | A | 342 |
| Nominal running current cooling | A | 395 |
| Maximum running current | A | 478 |
| Maximum current for wires sizing | A | 489 |
| **FANS** | | |
| Nominal running current cooling | A | 41.6 |
| **COMPRESSORS** | | |
| Phases | No. | 3 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| Maximum running current | A | 218 |
| Starting method | | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load.*
*In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-XL B

| MODEL | | EWAD190TZ-XL B1 | EWAD220TZ-XL B1 | EWAD240TZ-XL B1 | EWAD290TZ-XL B1 | EWAD320TZ-XL B1 | EWAD360TZ-XL B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 77 | 89 | 101 | 118 | 137 | 184 |
| Nominal running current cooling | A | 110 | 113 | 186 | 186 | 192 | 225 |
| Maximum running current | A | 130 | 149 | 166 | 198 | 225 | 256 |
| Maximum current for wires sizing | A | 141 | 155 | 180 | 214 | 245 | 276 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 15.6 | 15.6 | 15.6 | 20.8 | 20.8 | 26 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 115 | 133 | 151 | 177 | 204 | 115 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD420TZ-XL B2 | EWAD450TZ-XL B2 | EWAD540TZ-XL B2 | EWAD570TZ-XL B2 | EWAD610TZ-XL B2 | EWAD660TZ-XL B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 211 | 237 | 256 | 275 | 300 | 321 |
| Nominal running current cooling | A | 231 | 371 | 383 | 392 | 390 | 387 |
| Maximum running current | A | 292 | 333 | 358 | 385 | 417 | 450 |
| Maximum current for wires sizing | A | 305 | 361 | 389 | 418 | 453 | 489 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 26 | 31.2 | 31.2 | 31.2 | 36.4 | 41.6 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 133 | 151 | 164 | 177 | 190 | 204 |
| Starting method | | INV | INV | INV | INV | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load. In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-XL B

| MODEL | | EWAD680TZ -XL B2 |
|---|---|---|
| **POWER SUPPLY** | | |
| Phases | No. | 3 |
| Frequency | Hz | 50 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| **UNIT** | | |
| Maximum starting current | A | 342 |
| Nominal running current cooling | A | 395 |
| Maximum running current | A | 478 |
| Maximum current for wires sizing | A | 489 |
| **FANS** | | |
| Nominal running current cooling | A | 41.6 |
| **COMPRESSORS** | | |
| Phases | No. | 3 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| Maximum running current | A | 218 |
| Starting method | | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load.*
*In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-XR B

| MODEL | | EWAD190TZ -XR B1 | EWAD220TZ -XR B1 | EWAD240TZ -XR B1 | EWAD290TZ -XR B1 | EWAD320TZ -XR B1 | EWAD360TZ -XR B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 77 | 89 | 101 | 118 | 137 | 184 |
| Nominal running current cooling | A | 110 | 113 | 186 | 186 | 192 | 226 |
| Maximum running current | A | 130 | 149 | 166 | 198 | 225 | 256 |
| Maximum current for wires sizing | A | 141 | 155 | 180 | 214 | 245 | 276 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 15.6 | 15.6 | 15.6 | 20.8 | 20.8 | 26 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 115 | 133 | 151 | 177 | 204 | 115 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD420TZ -XR B2 | EWAD450TZ -XR B2 | EWAD540TZ -XR B2 | EWAD570TZ -XR B2 | EWAD610TZ -XR B2 | EWAD660TZ -XR B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 211 | 237 | 256 | 275 | 300 | 321 |
| Nominal running current cooling | A | 231 | 373 | 385 | 393 | 391 | 389 |
| Maximum running current | A | 292 | 333 | 358 | 385 | 417 | 450 |
| Maximum current for wires sizing | A | 305 | 361 | 389 | 418 | 453 | 489 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 26 | 31.2 | 31.2 | 31.2 | 36.4 | 41.6 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 133 | 151 | 164 | 177 | 190 | 204 |
| Starting method | | INV | INV | INV | INV | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load. In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-XR B

| MODEL | | EWAD680TZ -XR B2 |
|---|---|---|
| **POWER SUPPLY** | | |
| Phases | No. | 3 |
| Frequency | Hz | 50 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| **UNIT** | | |
| Maximum starting current | A | 342 |
| Nominal running current cooling | A | 396 |
| Maximum running current | A | 478 |
| Maximum current for wires sizing | A | 489 |
| **FANS** | | |
| Nominal running current cooling | A | 41.6 |
| **COMPRESSORS** | | |
| Phases | No. | 3 |
| Voltage | V | 400 |
| Voltage tolerance Minimum | % | -10% |
| Voltage tolerance Maximum | % | 10% |
| Maximum running current | A | 218 |
| Starting method | | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load.*
*In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-PS B

| MODEL | | EWAD190TZ -PS B1 | EWAD220TZ -PS B1 | EWAD240TZ -PS B1 | EWAD290TZ -PS B1 | EWAD300TZ -PS B1 | EWAD350TZ -PS B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 77 | 89 | 101 | 118 | 137 | 177 |
| Nominal running current cooling | A | 101 | 104 | 172 | 177 | 177 | 208 |
| Maximum running current | A | 126 | 144 | 162 | 188 | 218 | 246 |
| Maximum current for wires sizing | A | 136 | 150 | 176 | 205 | 238 | 267 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 11.2 | 11.2 | 11.2 | 11.2 | 14 | 16.8 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 115 | 133 | 151 | 177 | 204 | 115 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD420TZ -PS B2 | EWAD495TZ -PS B2 |
|---|---|---|---|
| **POWER SUPPLY** | | | |
| Phases | No. | 3 | 3 |
| Frequency | Hz | 50 | 50 |
| Voltage | V | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% |
| **UNIT** | | | |
| Maximum starting current | A | 206 | 233 |
| Nominal running current cooling | A | 263 | 346 |
| Maximum running current | A | 284 | 324 |
| Maximum current for wires sizing | A | 309 | 352 |
| **FANS** | | | |
| Nominal running current cooling | A | 19.6 | 22.4 |
| **COMPRESSORS** | | | |
| Phases | No. | 3 | 3 |
| Voltage | V | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% |
| Maximum running current | A | 132 | 151 |
| Starting method | | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load.*
*In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-PL B

| MODEL | | EWAD190TZ -PL B1 | EWAD220TZ -PL B1 | EWAD240TZ -PL B1 | EWAD290TZ -PL B1 | EWAD300TZ -PL B1 | EWAD350TZ -PL B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 77 | 89 | 101 | 118 | 137 | 177 |
| Nominal running current cooling | A | 101 | 104 | 172 | 177 | 177 | 208 |
| Maximum running current | A | 126 | 144 | 162 | 188 | 218 | 246 |
| Maximum current for wires sizing | A | 136 | 150 | 176 | 205 | 238 | 267 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 11.2 | 11.2 | 11.2 | 11.2 | 14 | 16.8 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 115 | 133 | 151 | 177 | 204 | 115 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD420TZ -PL B2 | EWAD495TZ -PL B2 |
|---|---|---|---|
| **POWER SUPPLY** | | | |
| Phases | No. | 3 | 3 |
| Frequency | Hz | 50 | 50 |
| Voltage | V | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% |
| **UNIT** | | | |
| Maximum starting current | A | 207 | 233 |
| Nominal running current cooling | A | 211 | 346 |
| Maximum running current | A | 285 | 324 |
| Maximum current for wires sizing | A | 298 | 352 |
| **FANS** | | | |
| Nominal running current cooling | A | 19.6 | 22.4 |
| **COMPRESSORS** | | | |
| Phases | No. | 3 | 3 |
| Voltage | V | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% |
| Maximum running current | A | 133 | 151 |
| Starting method | | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load. In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-PR B

| MODEL | | EWAD190TZ -PR B1 | EWAD220TZ -PR B1 | EWAD240TZ -PR B1 | EWAD290TZ -PR B1 | EWAD300TZ -PR B1 | EWAD350TZ -PR B2 |
|---|---|---|---|---|---|---|---|
| **POWER SUPPLY** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Frequency | Hz | 50 | 50 | 50 | 50 | 50 | 50 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| **UNIT** | | | | | | | |
| Maximum starting current | A | 77 | 89 | 101 | 118 | 137 | 177 |
| Nominal running current cooling | A | 101 | 104 | 172 | 177 | 177 | 209 |
| Maximum running current | A | 126 | 144 | 162 | 188 | 218 | 246 |
| Maximum current for wires sizing | A | 136 | 150 | 176 | 205 | 238 | 267 |
| **FANS** | | | | | | | |
| Nominal running current cooling | A | 11.2 | 11.2 | 11.2 | 11.2 | 14 | 16.8 |
| **COMPRESSORS** | | | | | | | |
| Phases | No. | 3 | 3 | 3 | 3 | 3 | 3 |
| Voltage | V | 400 | 400 | 400 | 400 | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% | -10% | -10% | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% | 10% | 10% | 10% | 10% |
| Maximum running current | A | 115 | 133 | 151 | 177 | 204 | 115 |
| Starting method | | INV | INV | INV | INV | INV | INV |

| MODEL | | EWAD420TZ -PR B2 | EWAD495TZ -PR B2 |
|---|---|---|---|
| **POWER SUPPLY** | | | |
| Phases | No. | 3 | 3 |
| Frequency | Hz | 50 | 50 |
| Voltage | V | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% |
| **UNIT** | | | |
| Maximum starting current | A | 206 | 233 |
| Nominal running current cooling | A | 264 | 347 |
| Maximum running current | A | 284 | 324 |
| Maximum current for wires sizing | A | 309 | 352 |
| **FANS** | | | |
| Nominal running current cooling | A | 19.6 | 22.4 |
| **COMPRESSORS** | | | |
| Phases | No. | 3 | 3 |
| Voltage | V | 400 | 400 |
| Voltage tolerance Minimum | % | -10% | -10% |
| Voltage tolerance Maximum | % | 10% | 10% |
| Maximum running current | A | 132 | 151 |
| Starting method | | INV | INV |

*Fluid: Water*
*Allowed voltage tolerance ± 10%. Voltage unbalance between phases must be within ± 3%.*
*Maximum starting current: starting current of biggest compressor + current of the other compressors at maximum load + fans current at maximum load.*
*In case of inverter driven units, no inrush current at start up is experienced.*
*Nominal current in cooling mode is referred to the following conditions: evaporator 12/7°C; ambient 35°C; compressors + fans current.*
*Maximum running current is based on max compressor absorbed current in its envelope and max fans absorbed current*
*Maximum unit current for wires sizing is based on minimum allowed voltage*
*Maximum current for wires sizing: (compressors full load ampere + fans current) x 1,1.*
*The data are referred to the standard unit without options.*
*For the electrical data of the hydronic kit refer to "Options technical data"*
*All data are subject to change without notice. Plese refer to unit nameplate data.*

## EWAD~TZ-SS B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODEL** | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | **db(A)** | |
| **160** | 77.0 | 74.0 | 74.0 | 77.0 | 72.0 | 67.0 | 59.0 | 52.0 | **77** | **96** |
| **190** | 78.0 | 75.0 | 74.0 | 77.0 | 72.0 | 67.0 | 60.0 | 52.0 | **77** | **96** |
| **240** | 78.0 | 75.0 | 74.0 | 77.0 | 72.0 | 67.0 | 60.0 | 52.0 | **77** | **96** |
| **270** | 78.0 | 75.0 | 74.0 | 77.0 | 72.0 | 67.0 | 60.0 | 52.0 | **77** | **97** |
| **300** | 79.0 | 76.0 | 75.0 | 78.0 | 73.0 | 68.0 | 61.0 | 53.0 | **78** | **98** |
| **360** | 80.0 | 77.0 | 76.0 | 79.0 | 74.0 | 69.0 | 62.0 | 54.0 | **79** | **99** |
| **380** | 80.0 | 77.0 | 76.0 | 79.0 | 74.0 | 69.0 | 62.0 | 54.0 | **79** | **99** |
| **450** | 80.0 | 77.0 | 76.0 | 79.0 | 74.0 | 69.0 | 62.0 | 54.0 | **79** | **99** |
| **495** | 79.0 | 76.0 | 76.0 | 79.0 | 74.0 | 69.0 | 61.0 | 54.0 | **79** | **99** |
| **570** | 80.0 | 77.0 | 77.0 | 79.0 | 74.0 | 70.0 | 62.0 | 54.0 | **80** | **100** |
| **610** | 80.0 | 77.0 | 77.0 | 80.0 | 75.0 | 70.0 | 62.0 | 55.0 | **80** | **101** |
| **660** | 82.0 | 79.0 | 79.0 | 81.0 | 76.0 | 72.0 | 64.0 | 56.0 | **82** | **102** |
| **700** | 84.0 | 81.0 | 81.0 | 84.0 | 78.0 | 74.0 | 66.0 | 59.0 | **84** | **105** |

**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## EWAD~TZ-SL B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODEL** | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | **db(A)** | |
| **160** | 71.0 | 68.0 | 68.0 | 71.0 | 66.0 | 61.0 | 53.0 | 46.0 | **71** | **90** |
| **190** | 72.0 | 69.0 | 69.0 | 71.0 | 66.0 | 62.0 | 54.0 | 46.0 | **72** | **90.5** |
| **240** | 72.0 | 69.0 | 69.0 | 71.0 | 66.0 | 62.0 | 54.0 | 46.0 | **72** | **90.5** |
| **270** | 72.0 | 69.0 | 69.0 | 72.0 | 67.0 | 62.0 | 54.0 | 47.0 | **72** | **91.5** |
| **300** | 73.0 | 70.0 | 70.0 | 73.0 | 68.0 | 63.0 | 55.0 | 48.0 | **73** | **92.5** |
| **360** | 74.0 | 71.0 | 71.0 | 73.0 | 68.0 | 64.0 | 56.0 | 48.0 | **74** | **93.5** |
| **380** | 74.0 | 71.0 | 71.0 | 73.0 | 68.0 | 64.0 | 56.0 | 48.0 | **74** | **93.5** |
| **450** | 74.0 | 71.0 | 71.0 | 73.0 | 68.0 | 64.0 | 56.0 | 48.0 | **74** | **93.5** |
| **495** | 74.0 | 71.0 | 71.0 | 73.0 | 68.0 | 64.0 | 56.0 | 48.0 | **74** | **94** |
| **570** | 74.0 | 71.0 | 71.0 | 74.0 | 68.0 | 64.0 | 56.0 | 49.0 | **74** | **94.5** |
| **610** | 75.0 | 72.0 | 72.0 | 75.0 | 69.0 | 65.0 | 57.0 | 50.0 | **75** | **95.5** |
| **660** | 76.0 | 73.0 | 73.0 | 76.0 | 70.0 | 66.0 | 58.0 | 51.0 | **76** | **96.5** |
| **700** | 78.0 | 75.0 | 75.0 | 77.0 | 72.0 | 68.0 | 60.0 | 52.0 | **77** | **98.5** |

**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## EWAD~TZ-SR B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|
| MODEL | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | db(A) |
| **160** | 67.0 | 64.0 | 64.0 | 67.0 | 62.0 | 57.0 | 49.0 | 42.0 | **67** | **86** |
| **190** | 68.0 | 65.0 | 65.0 | 67.0 | 62.0 | 58.0 | 50.0 | 42.0 | **68** | **87** |
| **240** | 68.0 | 65.0 | 65.0 | 67.0 | 62.0 | 58.0 | 50.0 | 42.0 | **68** | **87** |
| **270** | 68.0 | 65.0 | 65.0 | 68.0 | 63.0 | 58.0 | 50.0 | 43.0 | **68** | **88** |
| **300** | 69.0 | 66.0 | 66.0 | 68.0 | 63.0 | 59.0 | 51.0 | 43.0 | **69** | **88** |
| **360** | 70.0 | 67.0 | 67.0 | 69.0 | 64.0 | 60.0 | 52.0 | 44.0 | **70** | **90** |
| **380** | 70.0 | 67.0 | 67.0 | 69.0 | 64.0 | 60.0 | 52.0 | 44.0 | **70** | **90** |
| **450** | 70.0 | 67.0 | 67.0 | 69.0 | 64.0 | 60.0 | 52.0 | 44.0 | **70** | **90** |
| **495** | 70.0 | 67.0 | 67.0 | 69.0 | 64.0 | 60.0 | 52.0 | 44.0 | **70** | **90** |
| **570** | 70.0 | 67.0 | 67.0 | 70.0 | 65.0 | 60.0 | 52.0 | 45.0 | **70** | **91** |
| **610** | 70.0 | 67.0 | 67.0 | 70.0 | 65.0 | 60.0 | 52.0 | 45.0 | **70** | **91** |
| **660** | 71.0 | 68.0 | 68.0 | 71.0 | 66.0 | 61.0 | 53.0 | 46.0 | **71** | **92** |
| **700** | 73.0 | 70.0 | 70.0 | 73.0 | 68.0 | 63.0 | 55.0 | 48.0 | **73** | **94** |

**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## EWAD~TZ-XS B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODEL** | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | **db(A)** | |
| **190** | 77.0 | 74.0 | 74.0 | 77.0 | 72.0 | 67.0 | 59.0 | 52.0 | **77** | **96** |
| **220** | 78.0 | 75.0 | 75.0 | 77.0 | 72.0 | 68.0 | 60.0 | 52.0 | **77** | **97** |
| **240** | 77.0 | 74.0 | 74.0 | 77.0 | 72.0 | 67.0 | 59.0 | 52.0 | **77** | **96** |
| **290** | 77.0 | 74.0 | 74.0 | 77.0 | 72.0 | 67.0 | 59.0 | 52.0 | **77** | **97** |
| **320** | 78.0 | 75.0 | 75.0 | 78.0 | 73.0 | 68.0 | 60.0 | 53.0 | **78** | **98** |
| **360** | 79.0 | 76.0 | 76.0 | 79.0 | 74.0 | 69.0 | 61.0 | 54.0 | **79** | **99** |
| **420** | 79.0 | 76.0 | 76.0 | 79.0 | 74.0 | 69.0 | 61.0 | 54.0 | **79** | **99** |
| **450** | 79.0 | 76.0 | 76.0 | 78.0 | 73.0 | 69.0 | 61.0 | 53.0 | **79** | **99** |
| **540** | 79.0 | 76.0 | 76.0 | 78.0 | 73.0 | 69.0 | 61.0 | 53.0 | **79** | **99** |
| **570** | 79.0 | 76.0 | 76.0 | 79.0 | 74.0 | 69.0 | 61.0 | 54.0 | **79** | **100** |
| **610** | 80.0 | 77.0 | 76.0 | 79.0 | 74.0 | 69.0 | 62.0 | 54.0 | **79** | **100** |
| **660** | 80.0 | 77.0 | 77.0 | 79.0 | 74.0 | 70.0 | 62.0 | 54.0 | **80** | **101** |
| **680** | 80.0 | 77.0 | 77.0 | 79.0 | 74.0 | 70.0 | 62.0 | 54.0 | **80** | **101** |

**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## EWAD~TZ-XL B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODEL** | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | **db(A)** | |
| **190** | 72.0 | 69.0 | 69.0 | 71.0 | 66.0 | 62.0 | 54.0 | 46.0 | **72** | **91** |
| **220** | 72.0 | 69.0 | 69.0 | 72.0 | 67.0 | 62.0 | 54.0 | 47.0 | **72** | **91.5** |
| **240** | 72.0 | 69.0 | 69.0 | 71.0 | 66.0 | 62.0 | 54.0 | 46.0 | **72** | **91** |
| **290** | 72.0 | 69.0 | 69.0 | 71.0 | 66.0 | 62.0 | 54.0 | 46.0 | **72** | **91.5** |
| **320** | 73.0 | 70.0 | 70.0 | 72.0 | 67.0 | 63.0 | 55.0 | 47.0 | **73** | **92.5** |
| **360** | 73.0 | 70.0 | 70.0 | 73.0 | 68.0 | 63.0 | 55.0 | 48.0 | **73** | **93.5** |
| **420** | 74.0 | 71.0 | 71.0 | 73.0 | 68.0 | 64.0 | 56.0 | 48.0 | **74** | **94** |
| **450** | 73.0 | 70.0 | 70.0 | 73.0 | 68.0 | 63.0 | 55.0 | 48.0 | **73** | **94** |
| **540** | 73.0 | 70.0 | 70.0 | 73.0 | 68.0 | 63.0 | 55.0 | 48.0 | **73** | **94** |
| **570** | 74.0 | 71.0 | 71.0 | 74.0 | 68.0 | 64.0 | 56.0 | 49.0 | **74** | **94.5** |
| **610** | 74.0 | 71.0 | 71.0 | 74.0 | 69.0 | 64.0 | 56.0 | 49.0 | **74** | **95** |
| **660** | 74.0 | 71.0 | 71.0 | 74.0 | 69.0 | 64.0 | 56.0 | 49.0 | **74** | **95.5** |
| **680** | 74.0 | 71.0 | 71.0 | 74.0 | 69.0 | 64.0 | 56.0 | 49.0 | **74** | **95.5** |

**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## EWAD~TZ-XR B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODEL** | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | **db(A)** | |
| **190** | 68.0 | 65.0 | 65.0 | 68.0 | 63.0 | 58.0 | 50.0 | 43.0 | **68** | **88** |
| **220** | 68.0 | 65.0 | 65.0 | 68.0 | 63.0 | 58.0 | 50.0 | 43.0 | **68** | **88** |
| **240** | 68.0 | 65.0 | 65.0 | 68.0 | 63.0 | 58.0 | 50.0 | 43.0 | **68** | **88** |
| **290** | 69.0 | 66.0 | 66.0 | 68.0 | 63.0 | 59.0 | 51.0 | 43.0 | **69** | **89** |
| **320** | 69.0 | 66.0 | 66.0 | 69.0 | 64.0 | 59.0 | 51.0 | 44.0 | **69** | **89** |
| **360** | 70.0 | 67.0 | 67.0 | 69.0 | 64.0 | 60.0 | 52.0 | 44.0 | **70** | **90** |
| **420** | 70.0 | 67.0 | 67.0 | 69.0 | 64.0 | 60.0 | 52.0 | 44.0 | **70** | **90** |
| **450** | 70.0 | 67.0 | 67.0 | 70.0 | 64.0 | 60.0 | 52.0 | 45.0 | **70** | **91** |
| **540** | 70.0 | 67.0 | 67.0 | 70.0 | 64.0 | 60.0 | 52.0 | 45.0 | **70** | **91** |
| **570** | 70.0 | 67.0 | 67.0 | 70.0 | 64.0 | 60.0 | 52.0 | 45.0 | **70** | **91** |
| **610** | 70.0 | 67.0 | 67.0 | 70.0 | 65.0 | 60.0 | 52.0 | 45.0 | **70** | **91** |
| **660** | 71.0 | 68.0 | 68.0 | 70.0 | 65.0 | 61.0 | 53.0 | 45.0 | **71** | **92** |
| **680** | 71.0 | 68.0 | 68.0 | 70.0 | 65.0 | 61.0 | 53.0 | 45.0 | **71** | **92** |

**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## EWAD~TZ-PS B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODEL** | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | **db(A)** | |
| **190** | 77.0 | 74.0 | 74.0 | 76.0 | 71.0 | 67.0 | 59.0 | 51.0 | **77** | **97** |
| **220** | 77.0 | 74.0 | 74.0 | 77.0 | 72.0 | 67.0 | 59.0 | 52.0 | **77** | **97** |
| **240** | 77.0 | 74.0 | 74.0 | 76.0 | 71.0 | 67.0 | 59.0 | 51.0 | **77** | **97** |
| **290** | 77.0 | 74.0 | 74.0 | 77.0 | 72.0 | 67.0 | 59.0 | 52.0 | **77** | **97** |
| **300** | 77.0 | 74.0 | 74.0 | 77.0 | 72.0 | 67.0 | 59.0 | 52.0 | **77** | **98** |
| **350** | 78.0 | 75.0 | 75.0 | 78.0 | 73.0 | 68.0 | 60.0 | 53.0 | **78** | **99** |
| **420** | 78.0 | 75.0 | 75.0 | 77.0 | 72.0 | 68.0 | 60.0 | 52.0 | **77** | **99** |
| **495** | 78.0 | 75.0 | 75.0 | 78.0 | 73.0 | 68.0 | 60.0 | 53.0 | **78** | **100** |

**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## EWAD~TZ-PL B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODEL** | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | **db(A)** | |
| **190** | 71.0 | 68.0 | 68.0 | 71.0 | 66.0 | 61.0 | 53.0 | 46.0 | **71** | **91** |
| **220** | 72.0 | 69.0 | 69.0 | 71.0 | 66.0 | 62.0 | 54.0 | 46.0 | **72** | **91.5** |
| **240** | 71.0 | 68.0 | 68.0 | 71.0 | 66.0 | 61.0 | 53.0 | 46.0 | **71** | **91** |
| **290** | 72.0 | 69.0 | 69.0 | 71.0 | 66.0 | 62.0 | 54.0 | 46.0 | **72** | **91.5** |
| **300** | 72.0 | 69.0 | 69.0 | 71.0 | 66.0 | 62.0 | 54.0 | 46.0 | **72** | **92** |
| **350** | 73.0 | 70.0 | 70.0 | 73.0 | 67.0 | 63.0 | 55.0 | 48.0 | **73** | **93.5** |
| **420** | 73.0 | 70.0 | 70.0 | 72.0 | 67.0 | 63.0 | 55.0 | 47.0 | **72** | **93.5** |
| **495** | 73.0 | 70.0 | 70.0 | 72.0 | 67.0 | 63.0 | 55.0 | 47.0 | **73** | **94** |

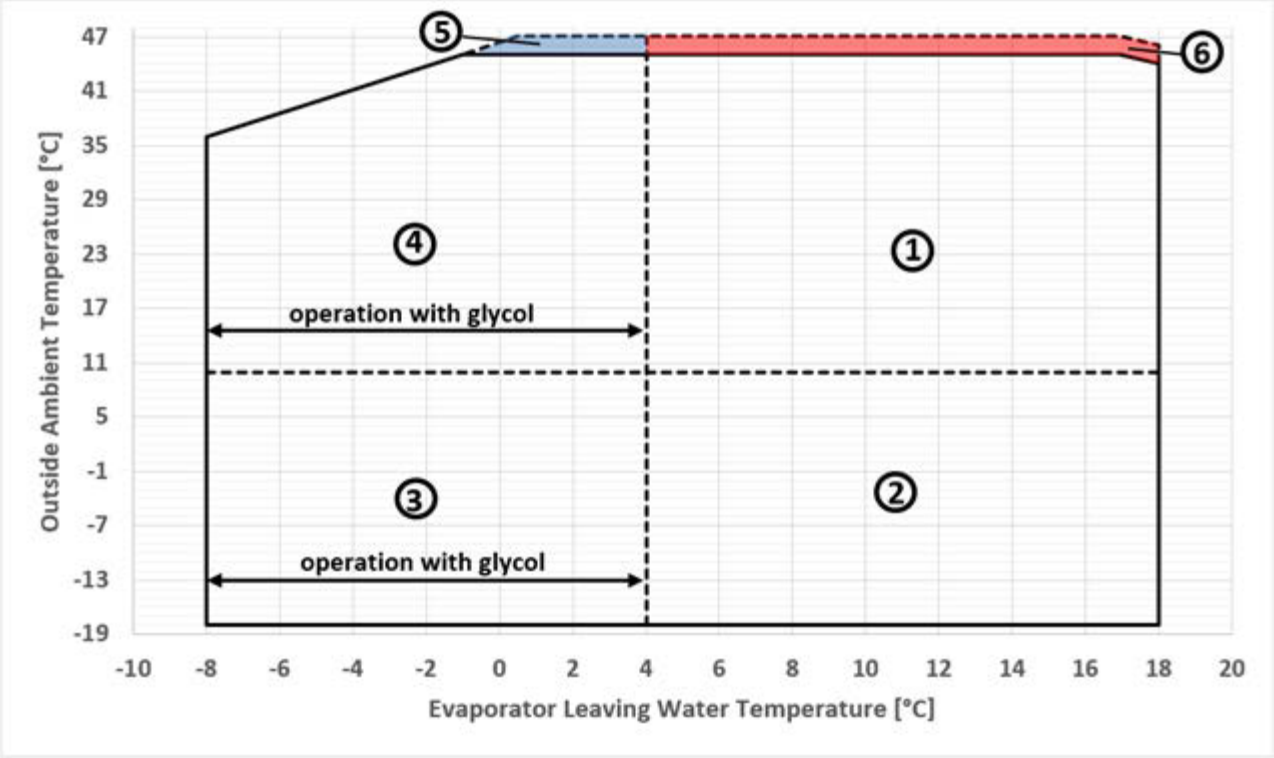
**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## EWAD~TZ-PR B

| | Sound pressure level at 1 m from the unit (rif. 2 x 10-5 Pa) | | | | | | | | | Power db (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODEL** | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | **db(A)** | |
| **190** | 67.0 | 64.0 | 64.0 | 67.0 | 62.0 | 57.0 | 49.0 | 42.0 | **67** | **87** |
| **220** | 68.0 | 65.0 | 65.0 | 67.0 | 62.0 | 58.0 | 50.0 | 42.0 | **68** | **88** |
| **240** | 67.0 | 64.0 | 64.0 | 67.0 | 62.0 | 57.0 | 49.0 | 42.0 | **67** | **87** |
| **290** | 68.0 | 65.0 | 65.0 | 67.0 | 62.0 | 58.0 | 50.0 | 42.0 | **68** | **88** |
| **300** | 68.0 | 65.0 | 65.0 | 67.0 | 62.0 | 58.0 | 50.0 | 42.0 | **68** | **88** |
| **350** | 68.0 | 65.0 | 65.0 | 68.0 | 63.0 | 58.0 | 50.0 | 43.0 | **68** | **89** |
| **420** | 69.0 | 66.0 | 66.0 | 68.0 | 63.0 | 59.0 | 51.0 | 43.0 | **68** | **90** |
| **495** | 69.0 | 66.0 | 66.0 | 68.0 | 63.0 | 59.0 | 51.0 | 43.0 | **69** | **90** |

**Sound power level (referred to evaporator 12/7°C, ambient 35°C full load operation) are mesuared in accordance with ISO 9614 and Eurovent 8/1 for Eurovent certified units. The certification refers only to the overall sound power level.**
**The sound data in the Octave band spectrum is for intended for reference only and not considering binding.**
**The sound pressure is calculated from the sound power level and are for information only and not cosidered binding.**

## Operating limits
## EWAD~TZ S-B- (SILVER SERIES)




**Ref. 1: standard unit** (no options are required to operate in this area)

**Ref. 2: standard unit +**
- **opt. 42 (SPEEDTROL)**
- **opt. 99a – (FANS SPEED REGULATION)**
- **opt. 145 – (EC MOTOR FANS)**

**Ref. 3: standard unit + opt. 08 (Brine) +**
- **opt. 42 - (SPEEDTROL)**
- **opt. 99a - (FANS SPEED REGULATION**
- **opt. 145 – (EC MOTOR FANS)**

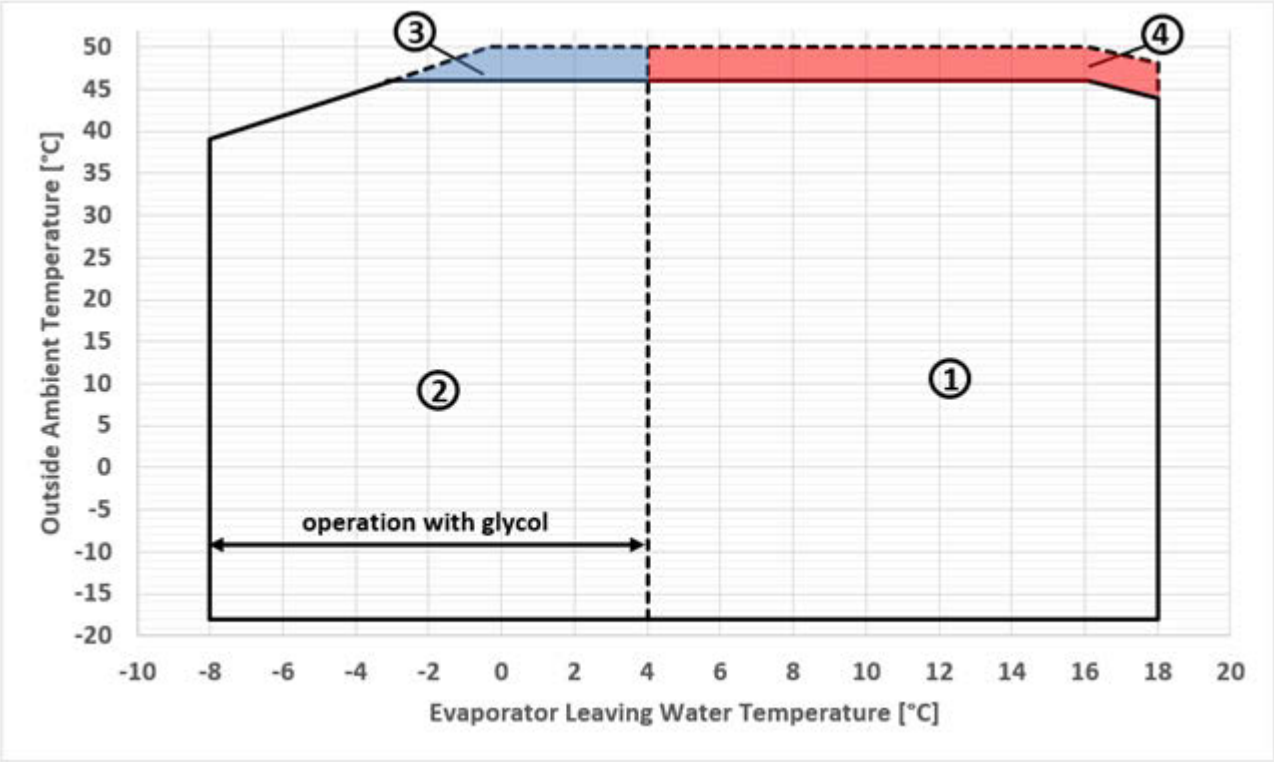
**Ref. 4: standard unit + opt. 08 (Brine)** (chiller may not unload to minimum load)

**Ref. 5: contact factory**

**Ref. 6: standard unit + opt. 142 (HIGH AMBIENT KIT)**

**NOTE:**
- The above graph refers to the unit operating at full load. Unit may be able to operate outside the above envelope with compressors unloading. Please contact factory for further details.
- For operation with EWLT below 4°C, the unit must operate with glycol mixture. The glycol percentage must be provide according to the minimum ELWT needed.
- The above graphic represents a guideline about the operating limits of the range. Please refer to the latest Chiller Selection Software (CSS) for real operating limits working conditions for each size.
- Opt. 142 provides 6 poles fans (running 900 RPM). The performances will differ from the standards.
- Opt. 145 provides EC motors fans. The performances will differ from the standards.
- For units equipped with opt. 142 the sound performances are different from the standards.
- In area 3 and 4 chiller may not unlload to the minimum load

## EWAD~TZ X-B- (GOLD SERIES)

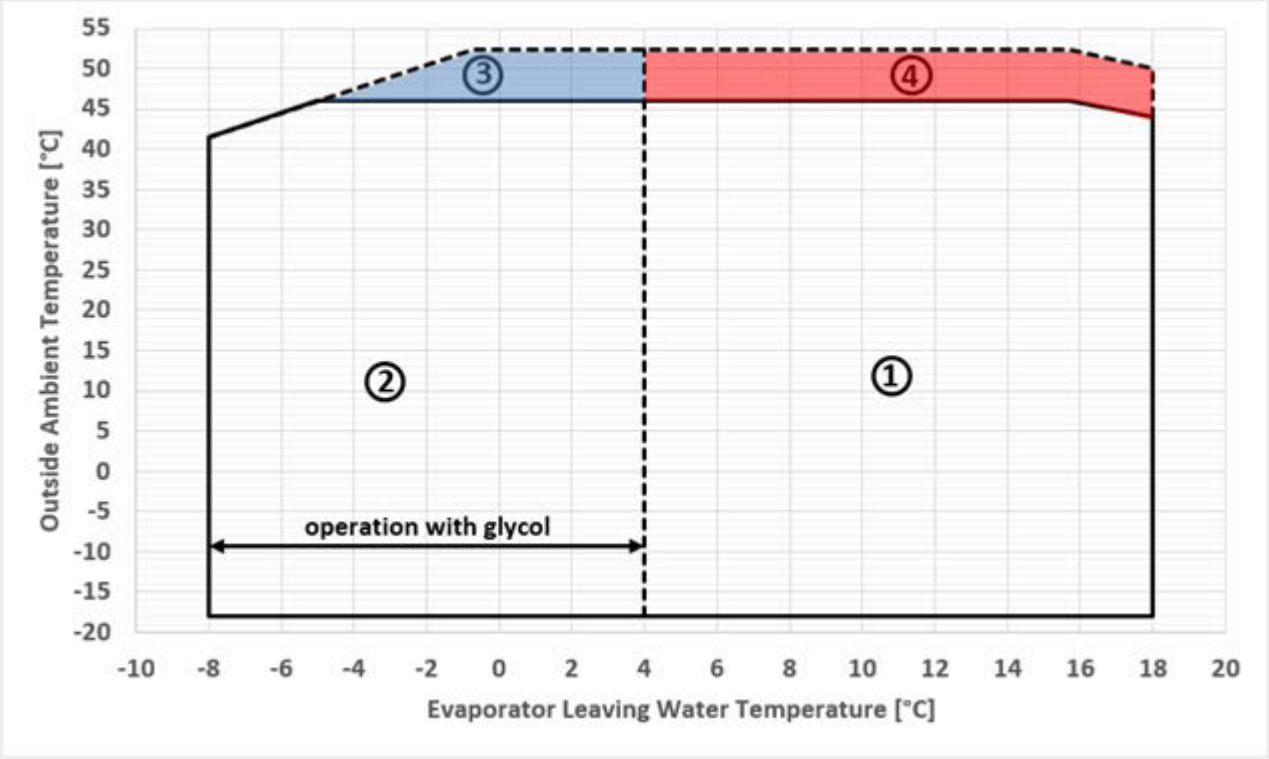



In order to operate the following options must be included according to the specific operating area:

**Ref. 1: standard unit** (no options are required to operate in this area)
**Ref. 2: standard unit opt. 08 (Brine)** (chiller may not unload to minimum load)
**Ref. 3: contact factory**
**Ref. 4: standard unit opt. 142 (HIGH AMBIENT KIT)**

**NOTE:**
- The above graph refers to the unit operating at full load. Unit may be able to operate outside the above envelope with compressors unloading. Please contact factory for further details.
- For operation with EWLT below 4°C, the unit must operate with glycol mixture. The glycol percentage must be provide according to the minimum ELWT needed.
- The above graphic represents a guideline about the operating limits of the range. Please refer to the latest Chiller Selection Software (CSS) for real operating limits working conditions for each size.
- Opt. 142 provides EC motors fans. The performances will differ from the standards.
- In area 2 and 3 chiller may not unlload to the minimum load

## EWAD~TZ P-B- (PLATINUM SERIES)




In order to operate the following options must be included according to the specific operating area:

**Ref. 1: standard unit** (no options are required to operate in this area)
**Ref. 2: standard unit opt. 08 (Brine)** (chiller may not unload to minimum load)
**Ref. 3: contact factory**
**Ref. 4: standard unit opt. 142 (HIGH AMBIENT KIT)**

**NOTE:**
- The above graph refers to the unit operating at full load. Unit may be able to operate outside the above envelope with compressors unloading. Please contact factory for further details.
- For operation with EWLT below 4°C, the unit must operate with glycol mixture. The glycol percentage must be provide according to the minimum ELWT needed.
- The above graphic represents a guideline about the operating limits of the range. Please refer to the latest Chiller Selection Software (CSS) for real operating limits working conditions for each size.
- In area 2 and 3 chiller may not unlload to the minimum load

## Minimum water flow

In the following tables are indicated the minimum water flow allowed for each model. For application with Variable Primary Flow (opt. code 143) refer to the following value for the dimensioning of the bypass line.
In case of variable flow application where the speed of the pump is managed by an external BMS (trough 0-10V signal) The change in water flow rate must not be exceed more than 10% of the design water flow rate per minute.

| | model | | | water flow [l/s] |
|---|---|---|---|---|
| | standard sound | low sound | reduced sound | min |
| SILVER | EWAD160TZSSB1 | EWAD160TZSLB1 | EWAD160TZSRB1 | 3,8 |
| | EWAD190TZSSB1 | EWAD190TZSLB1 | EWAD190TZSRB1 | 4,8 |
| | EWAD240TZSSB1 | EWAD240TZSLB1 | EWAD240TZSRB1 | 6,9 |
| | EWAD270TZSSB1 | EWAD270TZSLB1 | EWAD270TZSRB1 | 4,8 |
| | EWAD300TZSSB1 | EWAD300TZSLB1 | EWAD300TZSRB1 | 6,9 |
| | EWAD360TZSSB1 | EWAD360TZSLB1 | EWAD360TZSRB1 | 8,3 |
| | EWAD380TZSSB2 | EWAD380TZSLB2 | EWAD380TZSRB2 | 7,5 |
| | EWAD450TZSSB2 | EWAD450TZSLB2 | EWAD450TZSRB2 | 9,4 |
| | EWAD500TZSSB2 | EWAD495TZSLB2 | EWAD495TZSRB2 | 7,5 |
| | EWAD570TZSSB2 | EWAD570TZSLB2 | EWAD570TZSRB2 | 7,5 |
| | EWAD610TZSSB2 | EWAD610TZSLB2 | EWAD610TZSRB2 | 9,4 |
| | EWAD660TZSSB2 | EWAD660TZSLB2 | EWAD660TZSRB2 | 9,4 |
| | EWAD700TZSSB2 | EWAD700TZSLB2 | EWAD700TZSRB2 | 9,4 |

| | model | | | water flow [l/s] |
|---|---|---|---|---|
| | standard sound | low sound | reduced sound | min |
| GOLD | EWAD190TZXSB1 | EWAD190TZXLB1 | EWAD190TZXRB1 | 4,8 |
| | EWAD220TZXSB1 | EWAD220TZXLB1 | EWAD220TZXRB1 | 6,9 |
| | EWAD240TZXSB1 | EWAD240TZXLB1 | EWAD240TZXRB1 | 6,9 |
| | EWAD290TZXSB1 | EWAD290TZXLB1 | EWAD290TZXRB1 | 8,3 |
| | EWAD320TZXSB1 | EWAD320TZXLB1 | EWAD320TZXRB1 | 8,3 |
| | EWAD360TZXSB2 | EWAD360TZXLB2 | EWAD360TZXRB2 | 7,5 |
| | EWAD420TZXSB2 | EWAD420TZXLB2 | EWAD420TZXRB2 | 7,5 |
| | EWAD440TZXSB2 | EWAD440TZXLB2 | EWAD440TZXRB2 | 7,5 |
| | EWAD450TZXSB2 | EWAD450TZXLB2 | EWAD450TZXRB2 | 7,5 |
| | EWAD540TZXSB2 | EWAD540TZXLB2 | EWAD540TZXRB2 | 9,4 |
| | EWAD570TZXSB2 | EWAD570TZXLB2 | EWAD570TZXRB2 | 9,4 |
| | EWAD610TZXSB2 | EWAD610TZXLB2 | EWAD610TZXRB2 | 9,4 |
| | EWAD660TZXSB2 | EWAD660TZXLB2 | EWAD660TZXRB2 | 9,4 |
| | EWAD680TZXSB2 | EWAD680TZXLB2 | EWAD680TZXRB2 | 9,4 |

| | model | | | water flow [l/s] |
|---|---|---|---|---|
| | standard sound | low sound | reduced sound | min |
| PLATINUM | EWAD190TZPSB1 | EWAD190TZPLB1 | EWAD190TZPRB1 | 8,3 |
| | EWAD220TZPSB1 | EWAD220TZPLB1 | EWAD220TZPRB1 | 8,3 |
| | EWAD240TZPSB1 | EWAD240TZPLB1 | EWAD240TZPRB1 | 8,3 |
| | EWAD290TZPSB1 | EWAD290TZPLB1 | EWAD290TZPRB1 | 8,3 |
| | EWAD300TZPSB1 | EWAD300TZPLB1 | EWAD300TZPRB1 | 8,3 |
| | EWAD350TZPSB2 | EWAD350TZPLB2 | EWAD350TZPRB2 | 9,4 |
| | EWAD420TZPSB2 | EWAD420TZPLB2 | EWAD420TZPRB2 | 9,4 |
| | EWAD495TZPSB2 | EWAD495TZPLB2 | EWAD495TZPRB2 | 9,4 |

The above values are referred to pure water (in case of glycol mixture contact factory).
Note: the performance are certified at standad conditions and with the unit operating with the nominal water flow (corresponding to OAT 35°C; water in/out 12/7°C)

**Water heat exchanger - maximum/maximum water Δt**
The minimum and maximum allowed Δt at full load conditioins are respectively 4 °C and 8°C Contact factory in case lower or higher Δt are required.

## Minimum glycol percentage for low air ambient temperature to prevent freezing of the hydraulic circuit

| | | | | |
|---|---|---|---|---|
| **Ambient temperature [°C]** | -3 | -8 | -15 | -20 |
| **Ethylene glycol [%]** | 10% | 20% | 30% | 40% |
| **Ambient temperature [°C]** | -3 | -7 | -12 | -20 |
| **Propylene glycol [%]** | 10% | 20% | 30% | 40% |

In presence of glycol in the water system the performance will be affected. Refer to the selection software. All machine protection systems, such as antifreeze, and low-pressure protection will need to be adjusted in accordance to the type and percentage of the glycol.

**Air heat exchanger - Altitude correction factors**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Elevation above sea level [m]** | 0 | 300 | 600 | 900 | 1200 | 1500 | 1800 |
| **Barometric pressure [mbar]** | 1013 | 977 | 942 | 908 | 875 | 843 | 812 |
| **Cooling capacity correction factor** | 1 | 0,993 | 0,986 | 0,979 | 0,973 | 0,967 | 0,96 |
| **Power input correction factor** | 1 | 1,005 | 1,009 | 1,015 | 1,021 | 1,026 | 1,031 |

Maximum operating altitude is 1800 m above sea level.
Contact factory if the unit has to be installed 1000 m above the sea level.

**Available fan static pressure correction factors (for Silver and Gold version only)**

| External Static Pressure [Pa] | 0 | 10 | 20 | 30 |
|---|---|---|---|---|
| Cooling Capacity [kW] Correction factor | 1,00 | 0,99 | 0,98 | 0,93 |
| Compressor Power Input [kW] Correction factor | 1,00 | 1,01 | 1,02 | 1,09 |
| Reduction of Maximum Condenser Inlet Air Temperature [°C] | 1,0 | -0,8 | -1,5 | -6,2 |

The above table is valid for SILVER and GOLD series with standard fans.
Application with more than 30 Pa of external static pressure are not recommended.
In case where external static pressure over 30 Pa is required, contact factory.

**Operating limits for Storage**
Environmental conditions must be within the following limits:
- Minimum ambient temperature : -20°C
- Maximum ambient temperature : 57°C
- Maximum R.H. : 95% not condensing

Storage below the minimum temperature may cause damage to components.
Storage above the maximum temperature causes opening of safety valves.
Storage in condensing atmosphere may damage electronic components.

**Heat recovery**
Units may be optionally equipped with heat recovery system. This system is made by a water cooled heat exchanger located on the compressors discharge pipe and a dedicated management of condensing pressure.
To guarantee compressor operation within its envelope, units with heat recovery cannot operate with water temperature of the heat recovery water lower than 25°C.
It is a responsibility of plant designer and chiller installer to guarantee the respect of this value (e.g. using recirculating bypass valve).

**Water treatment**
Before putting the unit into operation, clean the water circuit. Dirt, scales, corrosion debrits and other material can accumulate inside the heat exchanger and reduce its heat exchanging capacity. Pressure drop can increase as well, thus reducing water flow. Proper water treatment therefore reduces the risk of corrosion, erosion, scaling, etc.. The most appropriate water treatment must be determined locally, according to the type of system and water characteristics. The manufacturer is not responsible for damage to or malfunctioning of equipment caused by failure to treat water or by improperly treated water.

## Water charge, flow and quality

| Items (1) (6) | | | Cooling Water | | | Cooled Water | | Heated water (2) | | | | Tendency if out of criteria |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Circulating System | | Once Flow | | | Low temperature | | High temperature | | |
| | | | Circulating water | Supply water (4) | Flowing water | Circulating water [Below 20°C] | Supply water (4) | Circulating water [20°C ~ 60°C] | Supply water (4) | Circulating water [60°C ~ 80°C] | Supply water (4) | |
| Items to be controlled: | pH | at 25°C | 6.5 ~ 8.2 | 6.0 ~ 8.0 | 6.0 ~ 8.0 | 6.8 - 8.0 | 6.0 ~ 8.0 | 7.0 ~ 8.0 | 7.0 ~ 8.0 | 7.0 ~ 8.0 | 7.0 ~ 8.0 | Corrosion + Scale |
| | Electrical conductivity | [mS/m] at 25°C | Below 80 | Below 30 | Below 40 | Below 80 | Below 80 | Below 30 | Below 30 | Below 30 | Below 30 | Corrosion + Scale |
| | | (μS/cm) at 25°C | (Below 800) | (Below 300) | (Below 400) | (Below 800) | (Below 800) | (Below 300) | (Below 300) | (Below 300) | (Below 300) | Corrosion + Scale |
| | Chloride ion | [mg$Cl^{2-}$/l] | Below 200 | Below 50 | Below 50 | Below 200 | Below 50 | Below 50 | Below 50 | Below 30 | Below 30 | Corrosion |
| | Sulfate ion | [mg$SO^{2-}_4$/l] | Below 200 | Below 50 | Below 50 | Below 200 | Below 50 | Below 50 | Below 50 | Below 30 | Below 30 | Corrosion |
| | M-alkalinity (pH4.8) | [mg$CaCO_3$/l] | Below 100 | Below 50 | Below 50 | Below 100 | Below 50 | Below 50 | Below 50 | Below 50 | Below 50 | Scale |
| | Total hardness | [mg$CaCO_3$/l] | Below 200 | Below 70 | Below 70 | Below 200 | Below 70 | Below 70 | Below 70 | Below 70 | Below 70 | Scale |
| | Calcium harness | [mg$CaCO_3$/l] | Below 150 | Below 50 | Below 50 | Below 50 | Below 50 | Below 50 | Below 50 | Below 50 | Below 50 | Scale |
| | Silca ion | [mg$SiO_2$/l] | Below 50 | Below 30 | Below 30 | Below 30 | Below 30 | Below 30 | Below 30 | Below 30 | Below 30 | Scale |
| | Oxygen | (mg O2 /l) | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Corrosion |
| | Particole size | (mm) | Below 0.5 | Below 0.5 | Below 0.5 | Below 0.5 | Below 0.6 | Below 0.5 | Below 0.6 | Below 0.5 | Below 0.6 | Erosion |
| | Total dissolved solids | (mg / l) | Below 1000 | Below 1000 | Below 1000 | Below 1000 | Below 1001 | Below 1000 | Below 1001 | Below 1000 | Below 1001 | Erosion |
| | Ethykene, Propylene Glycol (weight conc.) | | Below 60% | Below 60% | --- | Below 60% | Below 60% | Below 60% | Below 60% | Below 60% | Below 60% | -- |
| Items to be referred to: | Nitrate ion | (mg NO3- /l) | Below 100 | Below 100 | Below 100 | Below 100 | Below 101 | Below 100 | Below 101 | Below 100 | Below 101 | Corrosion |
| | TOC Total organic carbon | (mg /l) | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Scale |
| | Iron | [mgFe/l] | Below 1.0 | Below 0.3 | Below 1.0 | Below 1.0 | Below 0.3 | Below 1.0 | Below 0.3 | Below 1.0 | Below 0.3 | Corrosion + Scale |
| | Copper | [mgCu/l] | Below 0.3 | Below 0.1 | Below 1.0 | Below 1.0 | Below 1.0 | Below 1.0 | Below 0.1 | Below 1.0 | Below 0.1 | Corrosion |
| | Sulfite ion | [mg$S^{2-}$/l] | Not detectable | Not detectable | Not detectable | Not detectable | Not detectable | Not detectable | Not detectable | Not detectable | Not detectable | Corrosion |
| | Ammonium ion | [mg$NH^{+}_4$/l] | Below 1.0 | Below 0.1 | Below 1.0 | Below 1.0 | Below 0.1 | Below 0.3 | Below 0.1 | Below 0.1 | Below 0.1 | Corrosion |
| | Remaining chloride | [mgCL/l] | Below 0.3 | Below 0.3 | Below 0.3 | Below 0.3 | Below 0.3 | Below 0.25 | Below 0.3 | Below 0.1 | Below 0.3 | Corrosion |
| | Free carbide | [mg$CO_2$/l] | Below 4.0 | Below 4.0 | Below 4.0 | Below 4.0 | Below 4.0 | Below 0.4 | Below 4.0 | Below 0.4 | Below 4.0 | Corrosion |
| | Stability index | | 6.0 ~ 7.0 | --- | --- | --- | --- | --- | --- | --- | --- | Corrosion + Scale |

1 Names, definitions and units are according to JIS K 0101. Units and figures between brackets are old units published as reference only.

2 In case of using heated water (more than 40°C), corrosion is generally noticeable.
Especially when the iron materials is in direct contact with water without any protection shields, it is desireable to give the valid measure for corrosion. E.g. chemical measure

3 In the cooling water using hermetic cooling tower, close circuit water is according to heated water standard, and scattered water is according to cooling water standard.

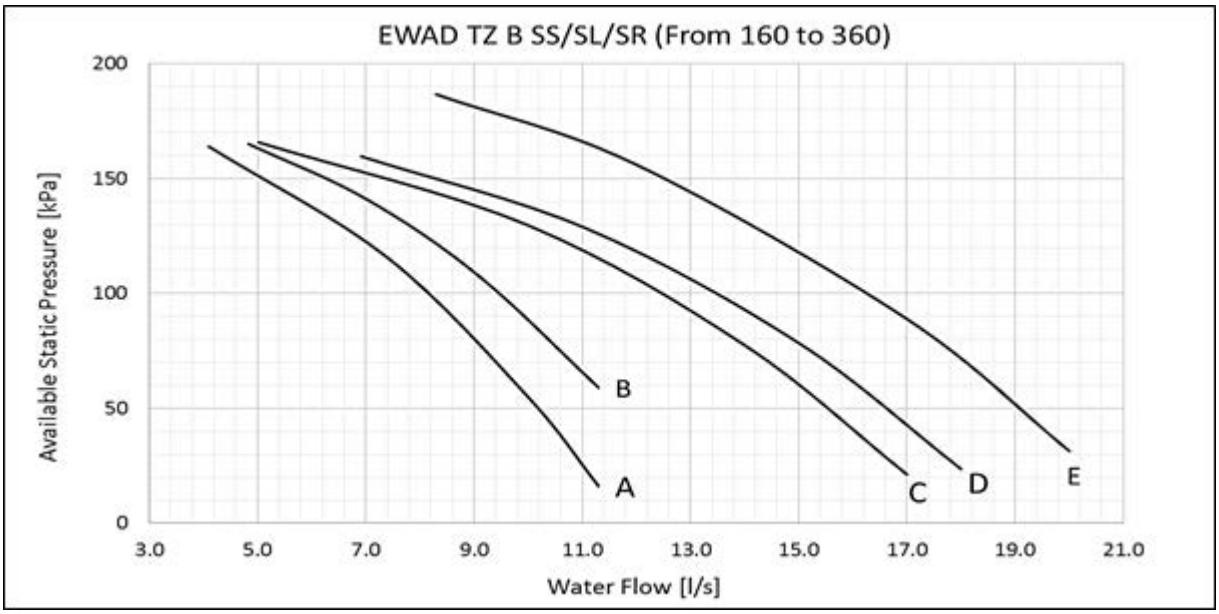
4 Supply water is considered drink water, industrial water and ground water except for genuine water, neutral water and soft water.

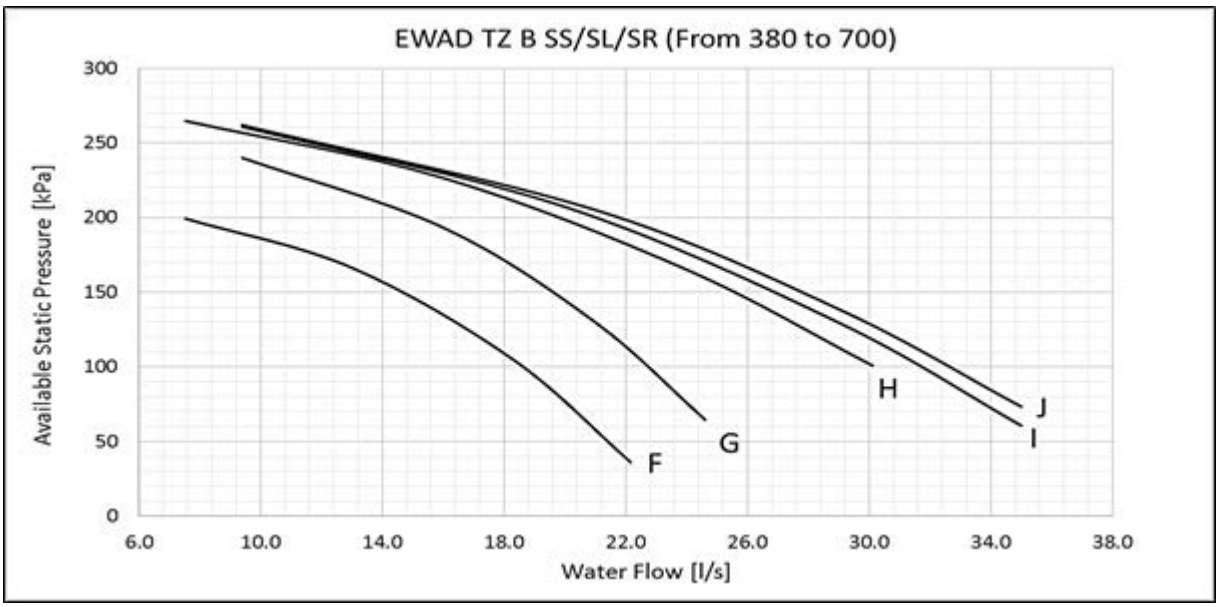
5 The above mentioned items are representable items in corrosion and scale cases.

6 The limits above have to be considered as a general prescription and con not totallu assure the absence of corrossion and erosion.
Some particular combinations of elements or the presence of components not listed in the table or factors not considered may trigger corrosion phenomena.

# Single pump low lift

### EWAD TZ B SS/SL/SR (SILVER series) – Available static pressure - single pump low lift



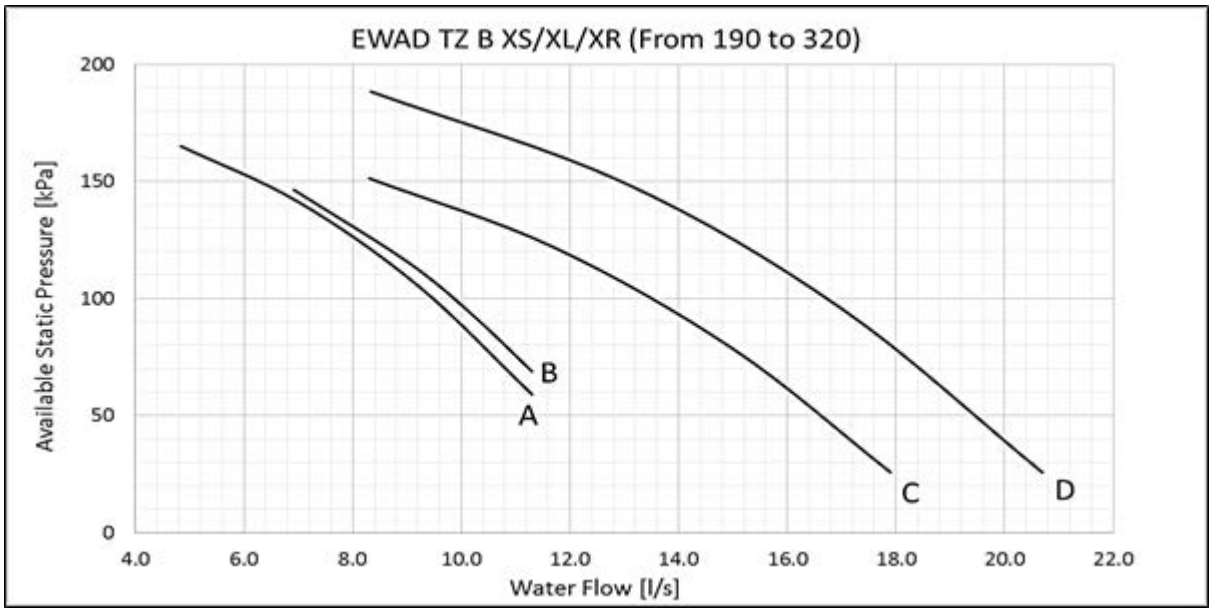



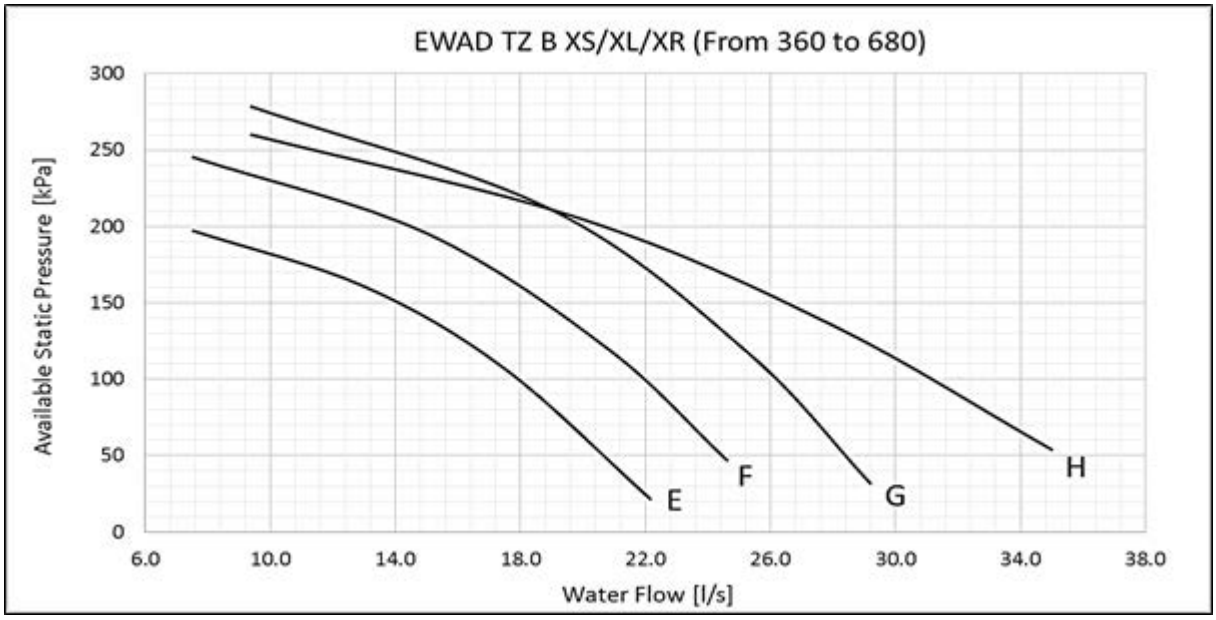

### Technical data

| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD160TZSSB1 | EWAD160TZSLB1 | EWAD160TZSRB1 | 2.2 | 4.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD190TZSSB1 | EWAD190TZSLB1 | EWAD190TZSRB1 | 2.2 | 4.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD240TZSSB1 | EWAD240TZSLB1 | EWAD240TZSRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD270TZSSB1 | EWAD270TZSLB1 | EWAD270TZSRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD300TZSSB1 | EWAD300TZSLB1 | EWAD300TZSRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD360TZSSB1 | EWAD360TZSLB1 | EWAD360TZSRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| Dual circuit | EWAD380TZSSB2 | EWAD380TZSLB2 | EWAD380TZSRB2 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD450TZSSB2 | EWAD450TZSLB2 | EWAD450TZSRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD495TZSSB2 | EWAD495TZSLB2 | EWAD495TZSRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD570TZSSB2 | EWAD570TZSLB2 | EWAD570TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD610TZSSB2 | EWAD610TZSLB2 | EWAD610TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | J |
| | EWAD660TZSSB2 | EWAD660TZSLB2 | EWAD660TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |
| | EWAD700TZSSB2 | EWAD700TZSLB2 | EWAD700TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

**EWAD TZ B XS/XL/XR (GOLD series) – Available static pressure - single pump low lift**



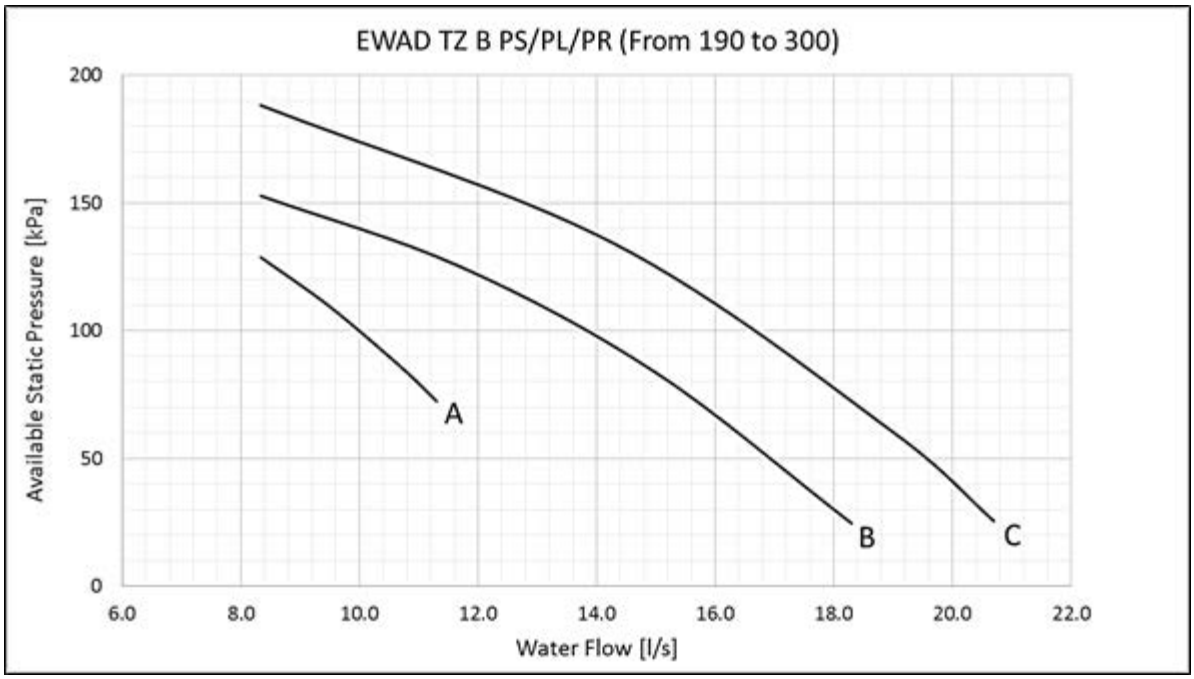



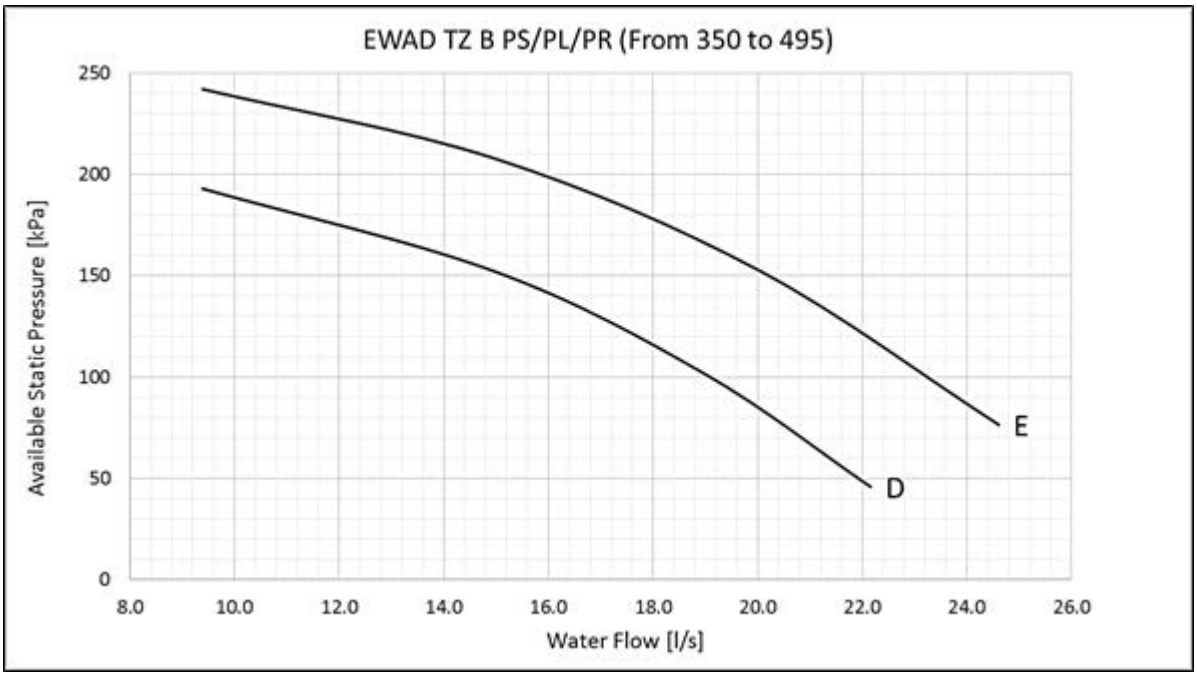

**Technical data**

| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD190TZXSB1 | EWAD190TZXLB1 | EWAD190TZXRB1 | 2.2 | 4.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD220TZXSB1 | EWAD220TZXLB1 | EWAD220TZXRB1 | 2.2 | 4.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD240TZXSB1 | EWAD240TZXLB1 | EWAD240TZXRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD290TZXSB1 | EWAD290TZXLB1 | EWAD290TZXRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD320TZXSB1 | EWAD320TZXLB1 | EWAD320TZXRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| Dual circuit | EWAD360TZXSB2 | EWAD360TZXLB2 | EWAD360TZXRB2 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD420TZXSB2 | EWAD420TZXLB2 | EWAD420TZXRB2 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD440TZXSB2 | EWAD440TZXLB2 | EWAD440TZXRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD450TZXSB2 | EWAD450TZXLB2 | EWAD450TZXRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD540TZXSB2 | EWAD540TZXLB2 | EWAD540TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD570TZXSB2 | EWAD570TZXLB2 | EWAD570TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD610TZXSB2 | EWAD610TZXLB2 | EWAD610TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD660TZXSB2 | EWAD660TZXLB2 | EWAD660TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD680TZXSB2 | EWAD680TZXLB2 | EWAD680TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

**EWAD TZ B PS/PL/PR (PLATINUM series) – Available static pressure - single pump low lift**



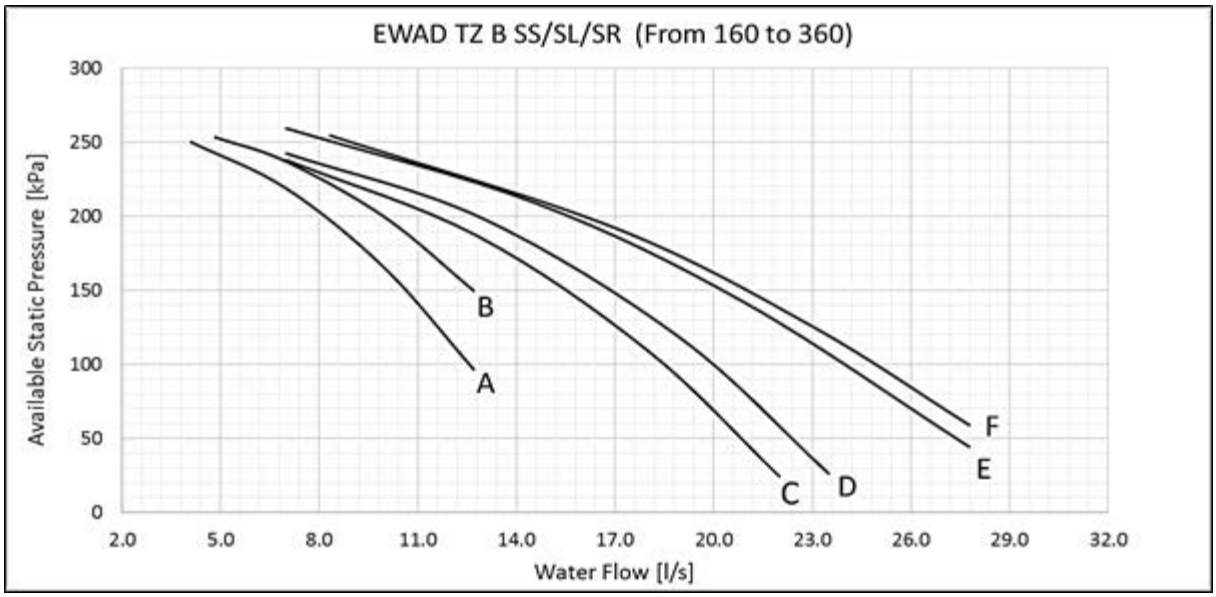

**Technical data**

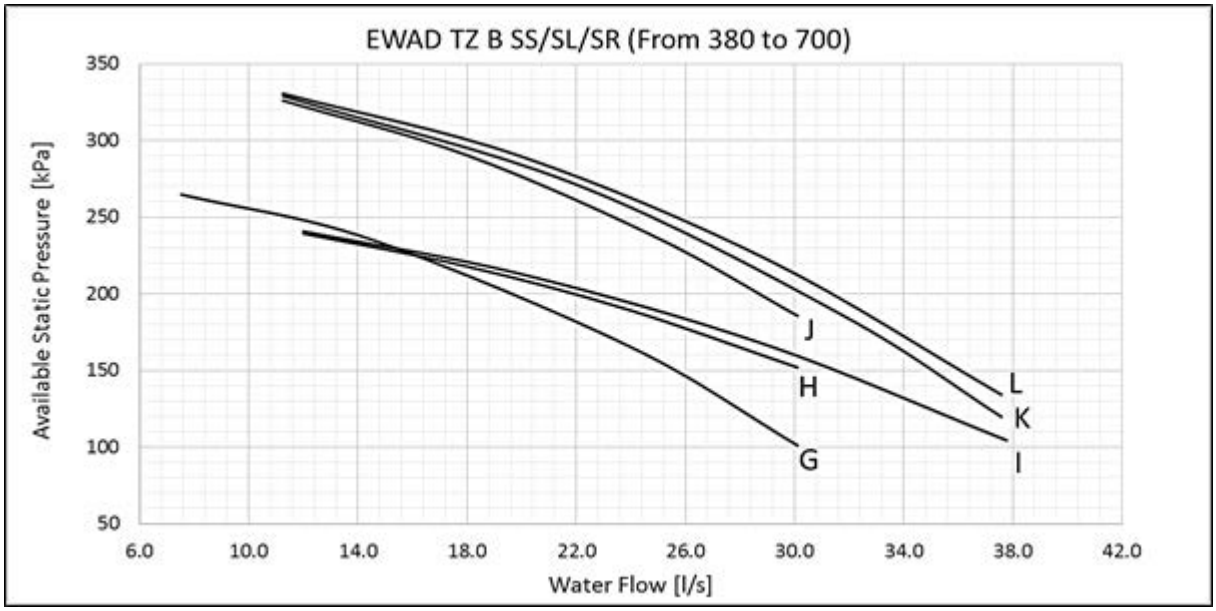
| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD190TZPSB1 | EWAD190TZPLB1 | EWAD190TZPRB1 | 2.2 | 4.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD220TZPSB1 | EWAD220TZPLB1 | EWAD220TZPRB1 | 2.2 | 4.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD240TZPSB1 | EWAD240TZPLB1 | EWAD240TZPRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD290TZPSB1 | EWAD290TZPLB1 | EWAD290TZPRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD300TZPSB1 | EWAD300TZPLB1 | EWAD300TZPRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| Dual circuit | EWAD350TZPSB2 | EWAD350TZPLB2 | EWAD350TZPRB2 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD420TZPSB2 | EWAD420TZPLB2 | EWAD420TZPRB2 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD495TZPSB2 | EWAD495TZPLB2 | EWAD495TZPRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

# Single pump high lift

### EWAD TZ B SS/SL/SR (SILVER series) – Available static pressure - single pump high lift



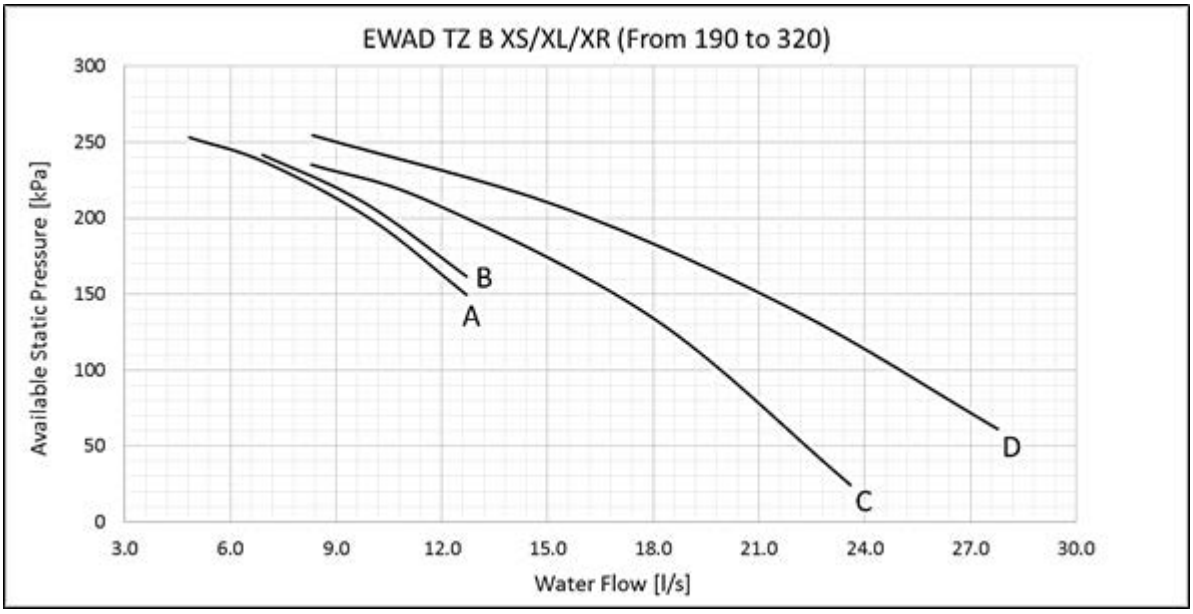



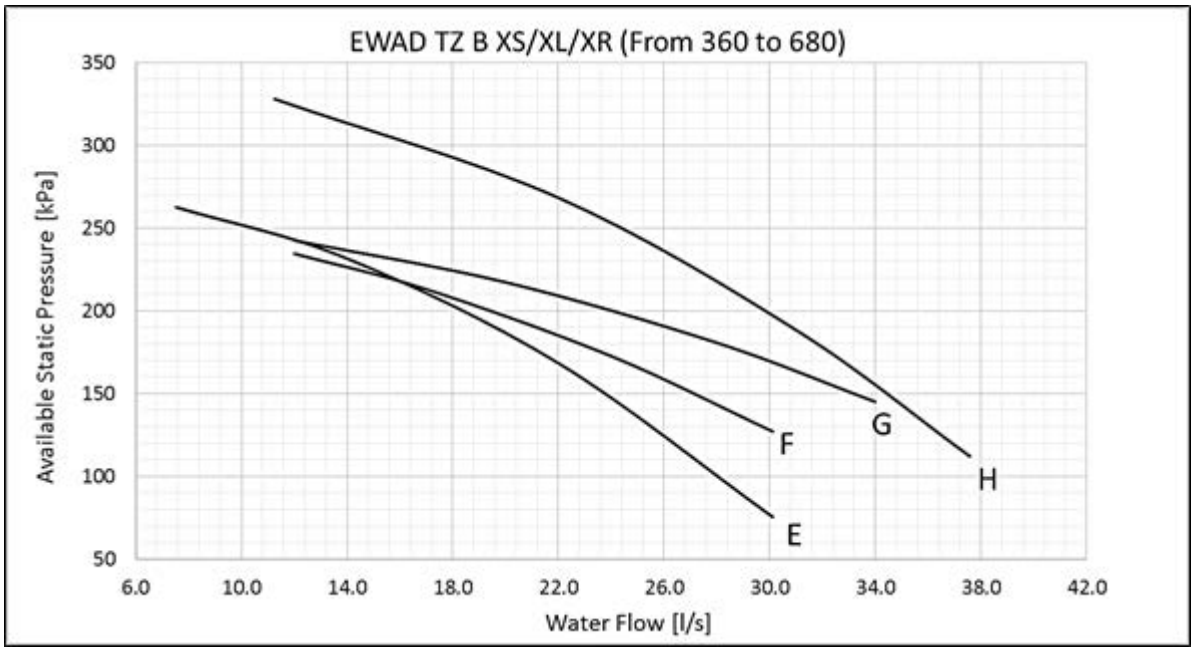

### Technical data

| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD160TZSSB1 | EWAD160TZSLB1 | EWAD160TZSRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD190TZSSB1 | EWAD190TZSLB1 | EWAD190TZSRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD240TZSSB1 | EWAD240TZSLB1 | EWAD240TZSRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD270TZSSB1 | EWAD270TZSLB1 | EWAD270TZSRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD300TZSSB1 | EWAD300TZSLB1 | EWAD300TZSRB1 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD360TZSSB1 | EWAD360TZSLB1 | EWAD360TZSRB1 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| Dual circuit | EWAD380TZSSB2 | EWAD380TZSLB2 | EWAD380TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD450TZSSB2 | EWAD450TZSLB2 | EWAD450TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |
| | EWAD495TZSSB2 | EWAD495TZSLB2 | EWAD495TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD570TZSSB2 | EWAD570TZSLB2 | EWAD570TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | J |
| | EWAD610TZSSB2 | EWAD610TZSLB2 | EWAD610TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | L |
| | EWAD660TZSSB2 | EWAD660TZSLB2 | EWAD660TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | K |
| | EWAD700TZSSB2 | EWAD700TZSLB2 | EWAD700TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | K |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

## EWAD TZ B XS/XL/XR (GOLD series) – Available static pressure - single pump high lift



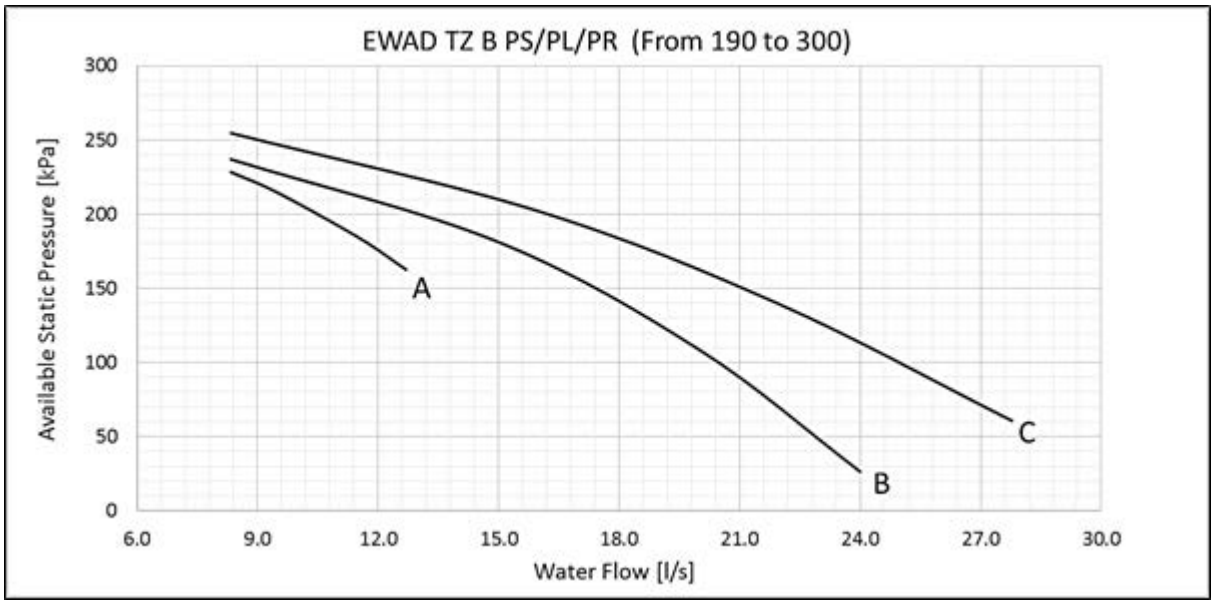



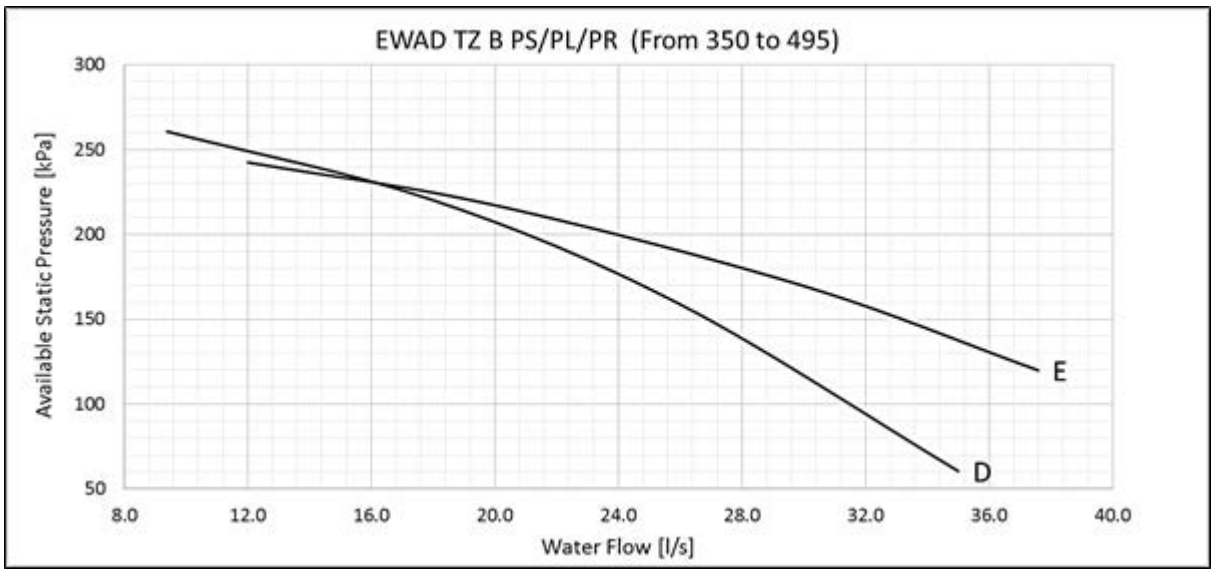

### Technical data

| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD190TZXSB1 | EWAD190TZXLB1 | EWAD190TZXRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD220TZXSB1 | EWAD220TZXLB1 | EWAD220TZXRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD240TZXSB1 | EWAD240TZXLB1 | EWAD240TZXRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD290TZXSB1 | EWAD290TZXLB1 | EWAD290TZXRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD320TZXSB1 | EWAD320TZXLB1 | EWAD320TZXRB1 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| Dual circuit | EWAD360TZXSB2 | EWAD360TZXLB2 | EWAD360TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD420TZXSB2 | EWAD420TZXLB2 | EWAD420TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD440TZXSB2 | EWAD440TZXLB2 | EWAD440TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD450TZXSB2 | EWAD450TZXLB2 | EWAD450TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD540TZXSB2 | EWAD540TZXLB2 | EWAD540TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD570TZXSB2 | EWAD570TZXLB2 | EWAD570TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD610TZXSB2 | EWAD610TZXLB2 | EWAD610TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD660TZXSB2 | EWAD660TZXLB2 | EWAD660TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD680TZXSB2 | EWAD680TZXLB2 | EWAD680TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

**EWAD TZ B PS/PL/PR (PLATINUM series) - Available static pressure - single pump high lift**



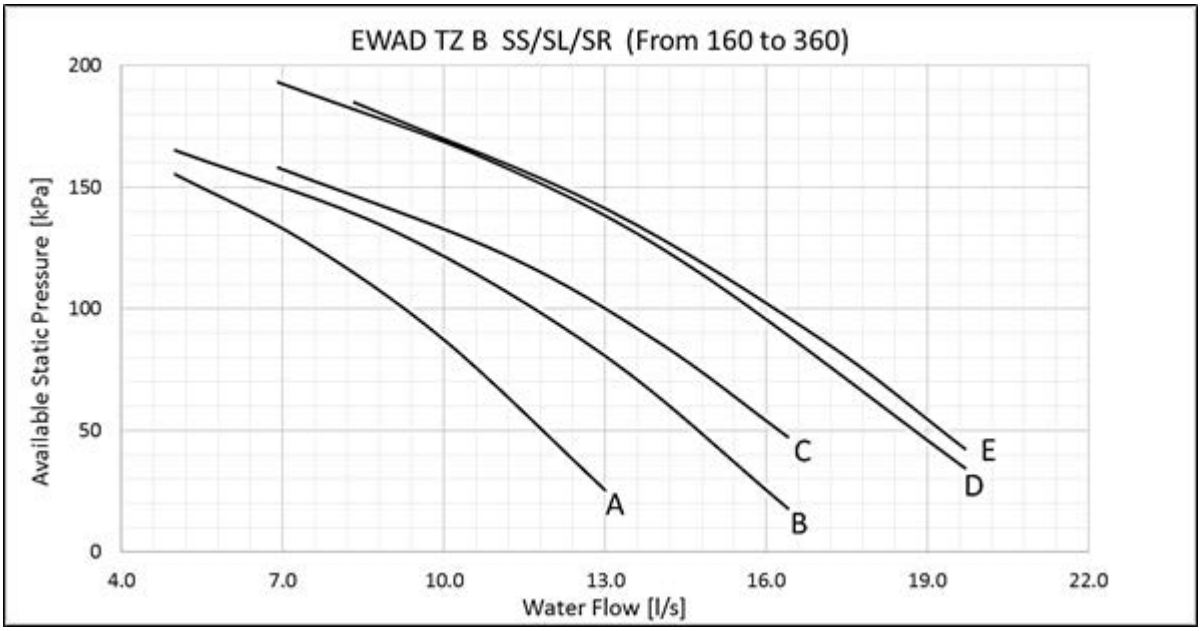

**Technical data**

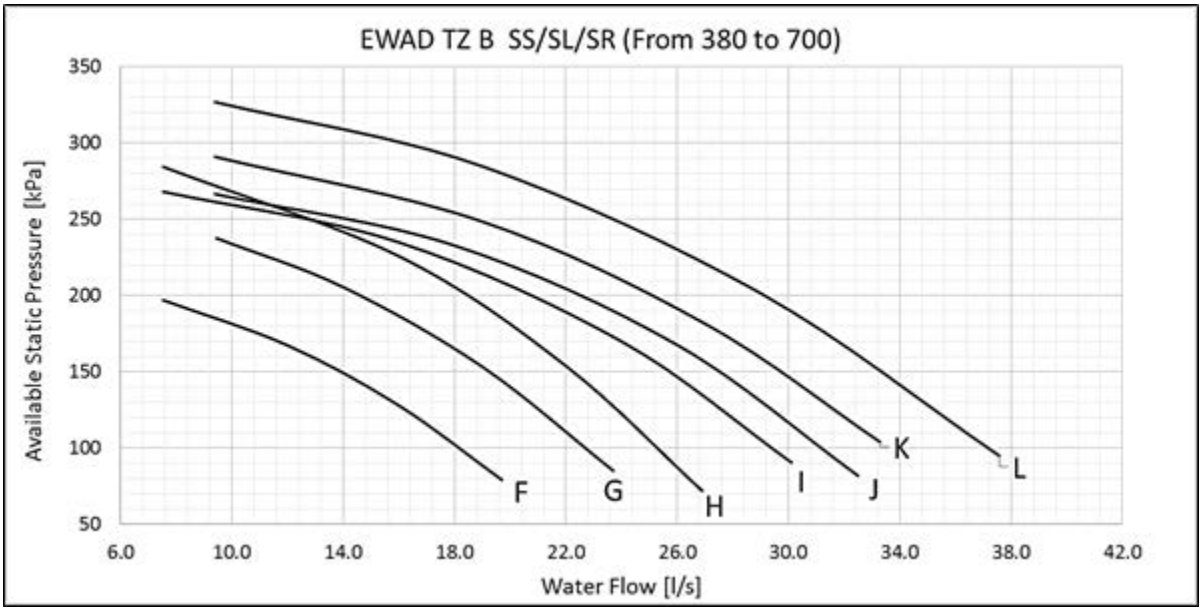
| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD190TZPSB1 | EWAD190TZPLB1 | EWAD190TZPRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD220TZPSB1 | EWAD220TZPLB1 | EWAD220TZPRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD240TZPSB1 | EWAD240TZPLB1 | EWAD240TZPRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD290TZPSB1 | EWAD290TZPLB1 | EWAD290TZPRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD300TZPSB1 | EWAD300TZPLB1 | EWAD300TZPRB1 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| Dual circuit | EWAD350TZPSB2 | EWAD350TZPLB2 | EWAD350TZPRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD420TZPSB2 | EWAD420TZPLB2 | EWAD420TZPRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD495TZPSB2 | EWAD495TZPLB2 | EWAD495TZPRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

# Double pump low lift

### EWAD TZ B SS/SL/SR (SILVER series) – Available static pressure - double pump low lift



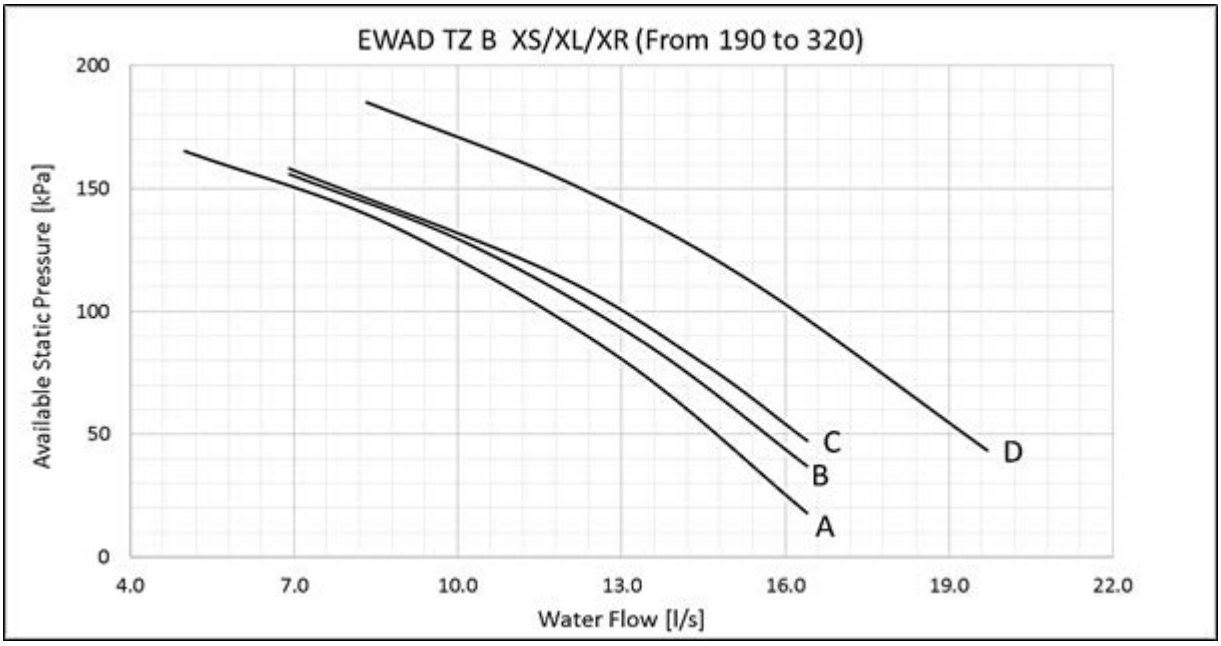



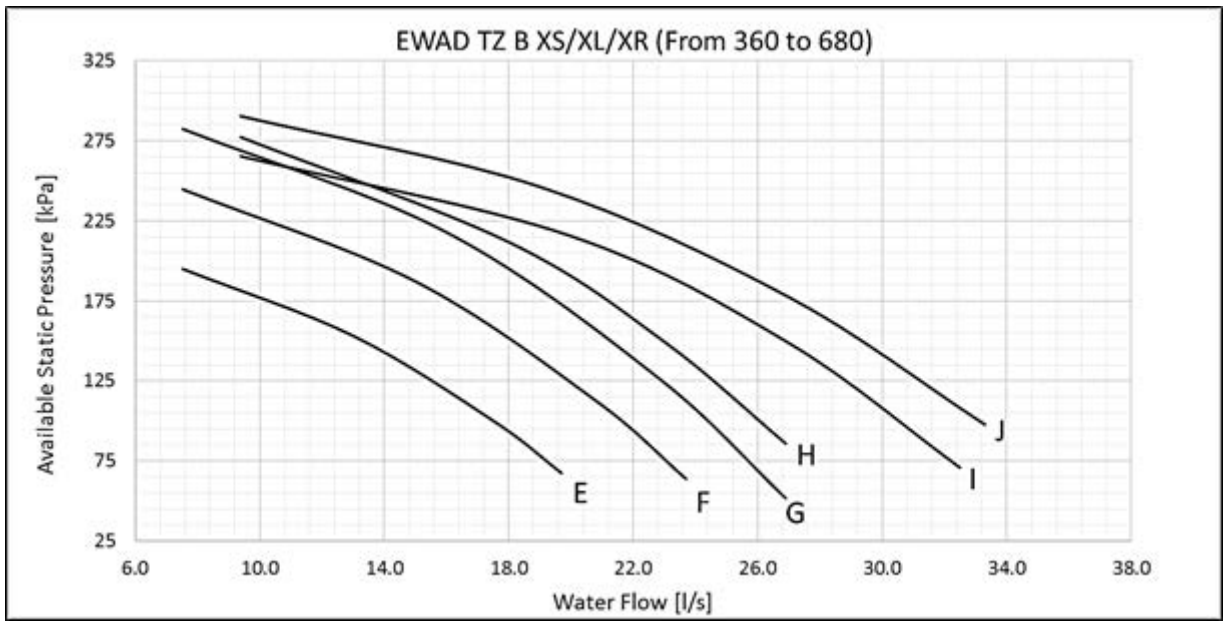

### Technical data

| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD160TZSSB1 | EWAD160TZSLB1 | EWAD160TZSRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD190TZSSB1 | EWAD190TZSLB1 | EWAD190TZSRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD240TZSSB1 | EWAD240TZSLB1 | EWAD240TZSRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD270TZSSB1 | EWAD270TZSLB1 | EWAD270TZSRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD300TZSSB1 | EWAD300TZSLB1 | EWAD300TZSRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD360TZSSB1 | EWAD360TZSLB1 | EWAD360TZSRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| Dual circuit | EWAD380TZSSB2 | EWAD380TZSLB2 | EWAD380TZSRB2 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD450TZSSB2 | EWAD450TZSLB2 | EWAD450TZSRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD495TZSSB2 | EWAD495TZSLB2 | EWAD495TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD570TZSSB2 | EWAD570TZSLB2 | EWAD570TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |
| | EWAD610TZSSB2 | EWAD610TZSLB2 | EWAD610TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | J |
| | EWAD660TZSSB2 | EWAD660TZSLB2 | EWAD660TZSRB2 | 9.2 | 17.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | K |
| | EWAD700TZSSB2 | EWAD700TZSLB2 | EWAD700TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | L |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

## EWAD TZ B XS/XL/XR (GOLD series) – Available static pressure - double pump low lift



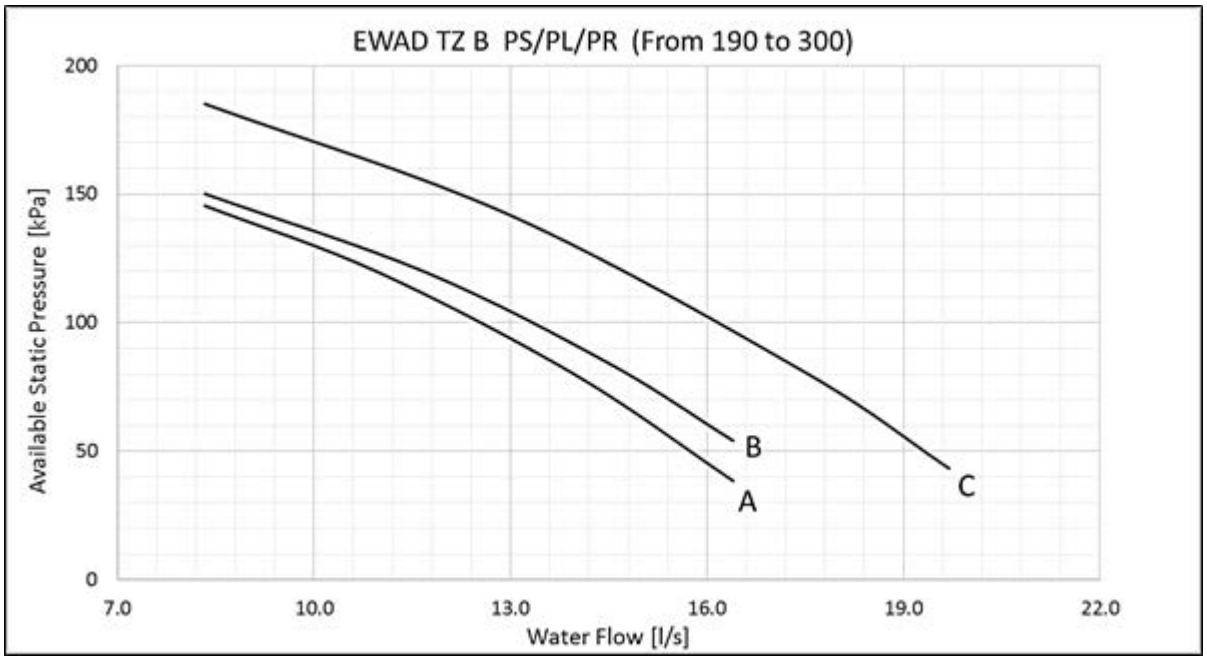



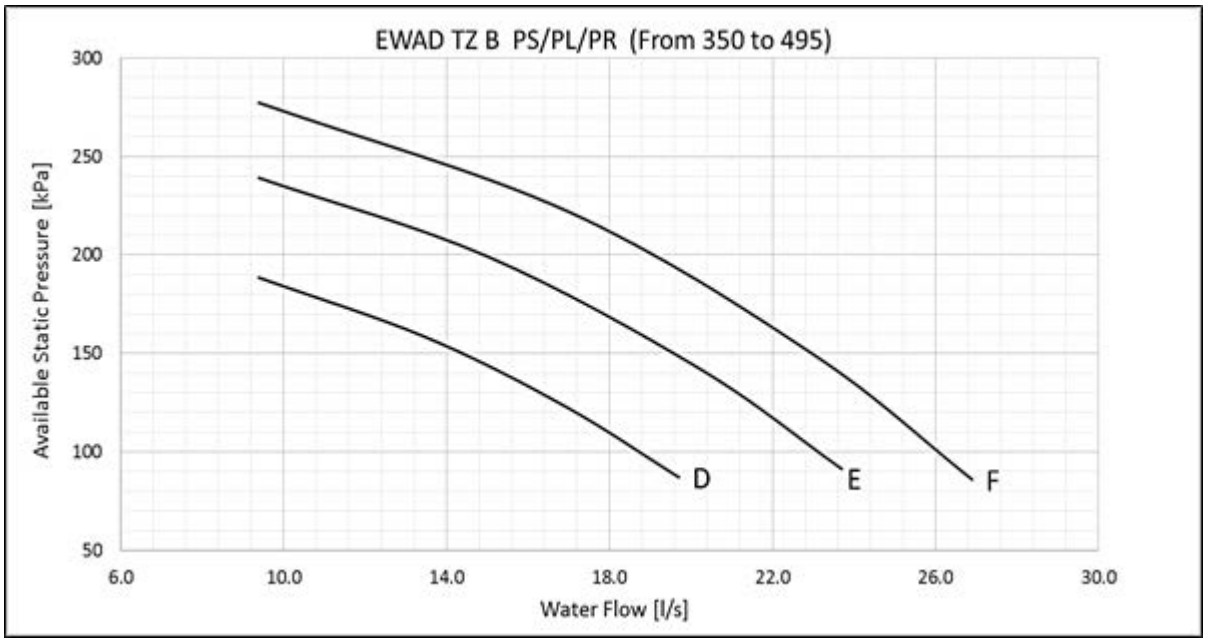

## Technical data

| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD190TZXSB1 | EWAD190TZXLB1 | EWAD190TZXRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD220TZXSB1 | EWAD220TZXLB1 | EWAD220TZXRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD240TZXSB1 | EWAD240TZXLB1 | EWAD240TZXRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD290TZXSB1 | EWAD290TZXLB1 | EWAD290TZXRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD320TZXSB1 | EWAD320TZXLB1 | EWAD320TZXRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| Dual circuit | EWAD360TZXSB2 | EWAD360TZXLB2 | EWAD360TZXRB2 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD420TZXSB2 | EWAD420TZXLB2 | EWAD420TZXRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD440TZXSB2 | EWAD440TZXLB2 | EWAD440TZXRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD450TZXSB2 | EWAD450TZXLB2 | EWAD450TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD540TZXSB2 | EWAD540TZXLB2 | EWAD540TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD570TZXSB2 | EWAD570TZXLB2 | EWAD570TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |
| | EWAD610TZXSB2 | EWAD610TZXLB2 | EWAD610TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |
| | EWAD660TZXSB2 | EWAD660TZXLB2 | EWAD660TZXRB2 | 9.2 | 17.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | J |
| | EWAD680TZXSB2 | EWAD680TZXLB2 | EWAD680TZXRB2 | 9.2 | 17.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | J |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

**EWAD TZ B PS/PL/PR (PLATINUM series) – Available static pressure - double pump low lift**



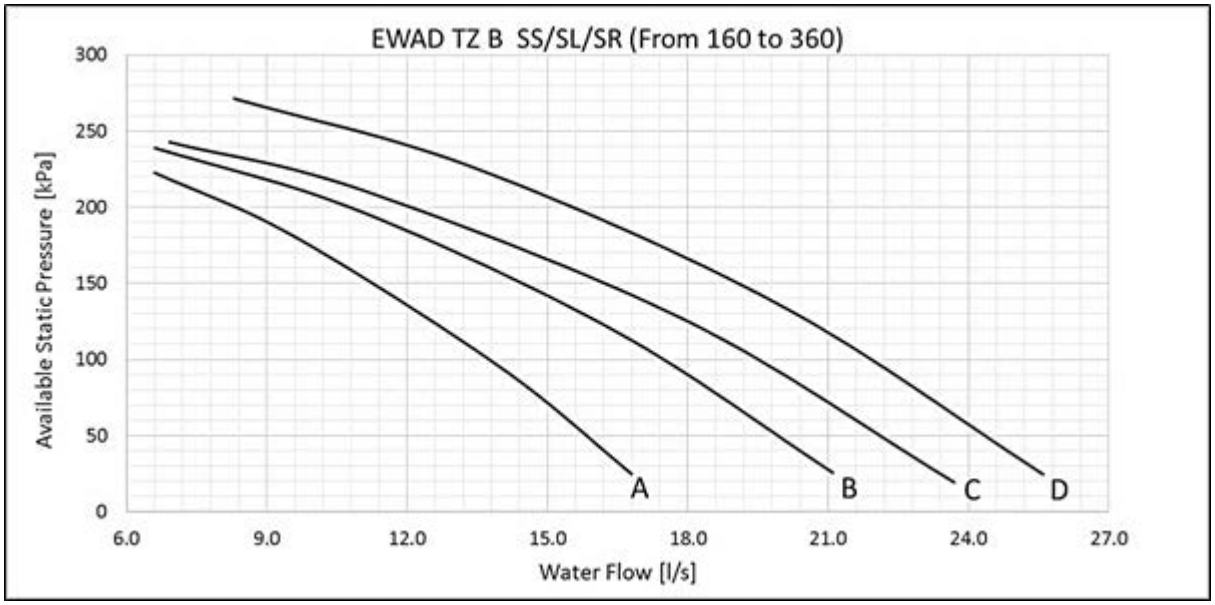

**Technical data**

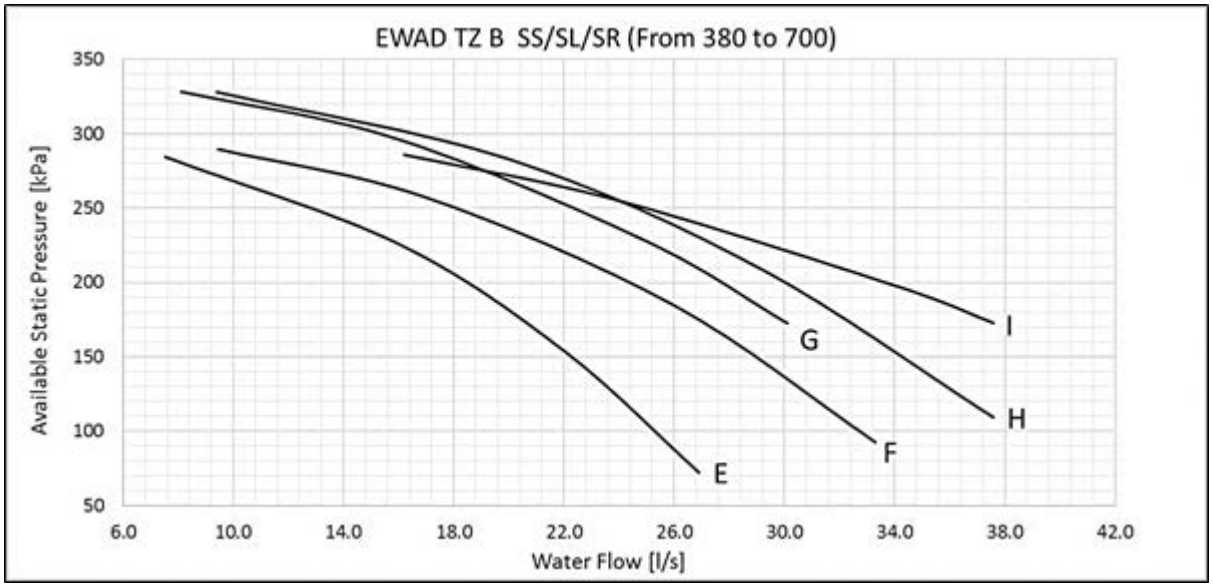
| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD190TZPSB1 | EWAD190TZPLB1 | EWAD190TZPRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD220TZPSB1 | EWAD220TZPLB1 | EWAD220TZPRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD240TZPSB1 | EWAD240TZPLB1 | EWAD240TZPRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD290TZPSB1 | EWAD290TZPLB1 | EWAD290TZPRB1 | 3 | 6.3 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD300TZPSB1 | EWAD300TZPLB1 | EWAD300TZPRB1 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| Dual circuit | EWAD350TZPSB2 | EWAD350TZPLB2 | EWAD350TZPRB2 | 4 | 7.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD420TZPSB2 | EWAD420TZPLB2 | EWAD420TZPRB2 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD495TZPSB2 | EWAD495TZPLB2 | EWAD495TZPRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

# Double pump high lift

**EWAD TZ B SS/SL/SR (SILVER series) – Available static pressure - double pump high lift**



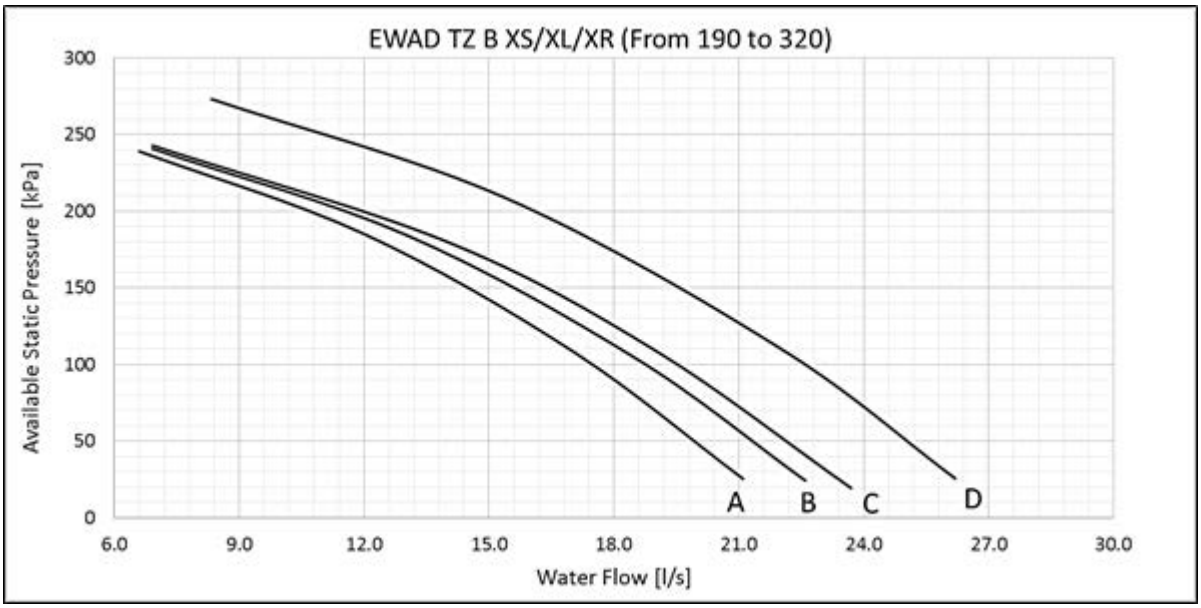



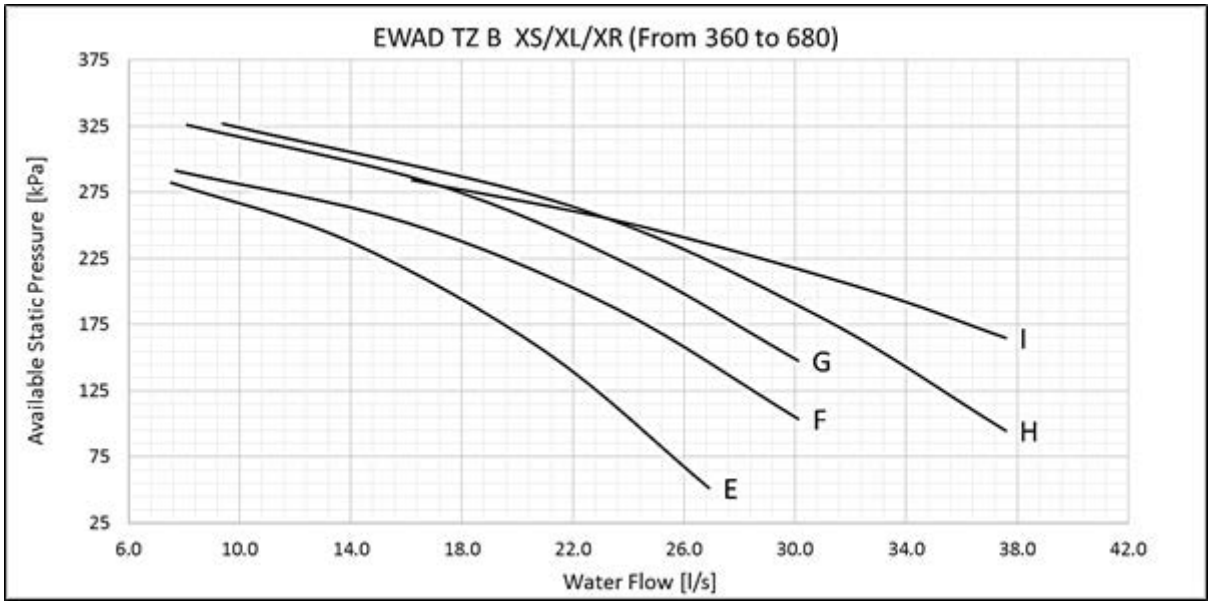

## Technical data

| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD160TZSSB1 | EWAD160TZSLB1 | EWAD160TZSRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD190TZSSB1 | EWAD190TZSLB1 | EWAD190TZSRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD240TZSSB1 | EWAD240TZSLB1 | EWAD240TZSRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD270TZSSB1 | EWAD270TZSLB1 | EWAD270TZSRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD300TZSSB1 | EWAD300TZSLB1 | EWAD300TZSRB1 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD360TZSSB1 | EWAD360TZSLB1 | EWAD360TZSRB1 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| Dual circuit | EWAD380TZSSB2 | EWAD380TZSLB2 | EWAD380TZSRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD450TZSSB2 | EWAD450TZSLB2 | EWAD450TZSRB2 | 9.2 | 17.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD495TZSSB2 | EWAD495TZSLB2 | EWAD495TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD570TZSSB2 | EWAD570TZSLB2 | EWAD570TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD610TZSSB2 | EWAD610TZSLB2 | EWAD610TZSRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD660TZSSB2 | EWAD660TZSLB2 | EWAD660TZSRB2 | 15 | 26.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |
| | EWAD700TZSSB2 | EWAD700TZSLB2 | EWAD700TZSRB2 | 15 | 26.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

## EWAD TZ B XS/XL/XR (GOLD series) – Available static pressure - double pump high lift



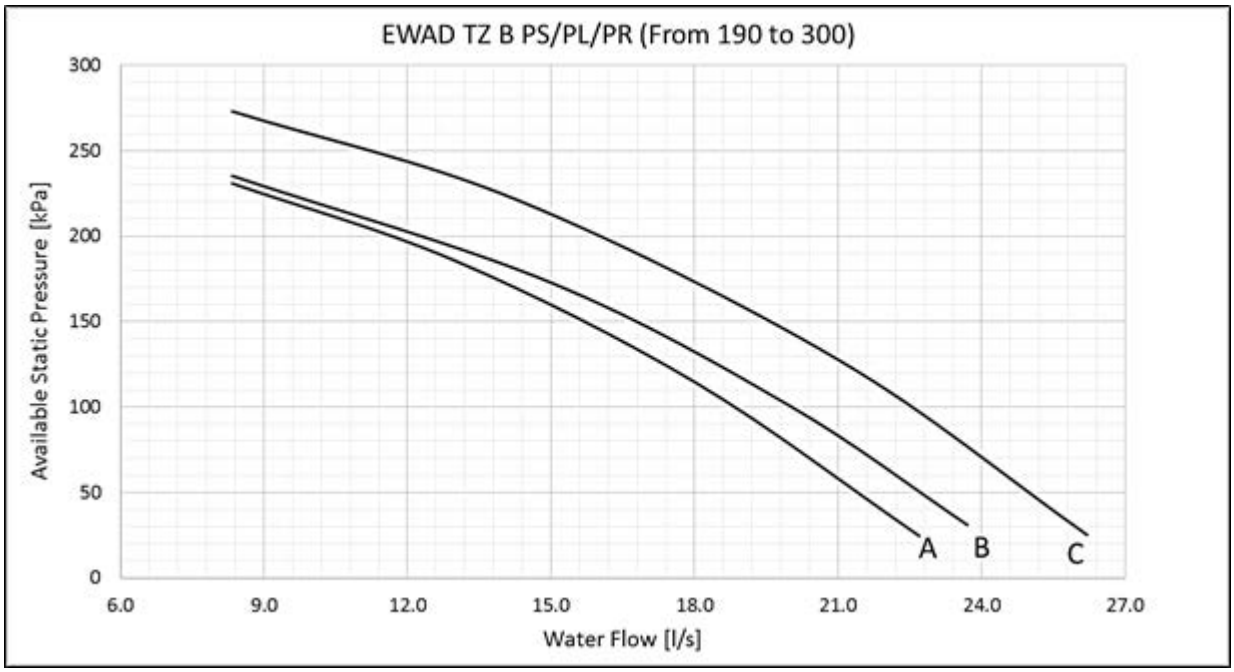



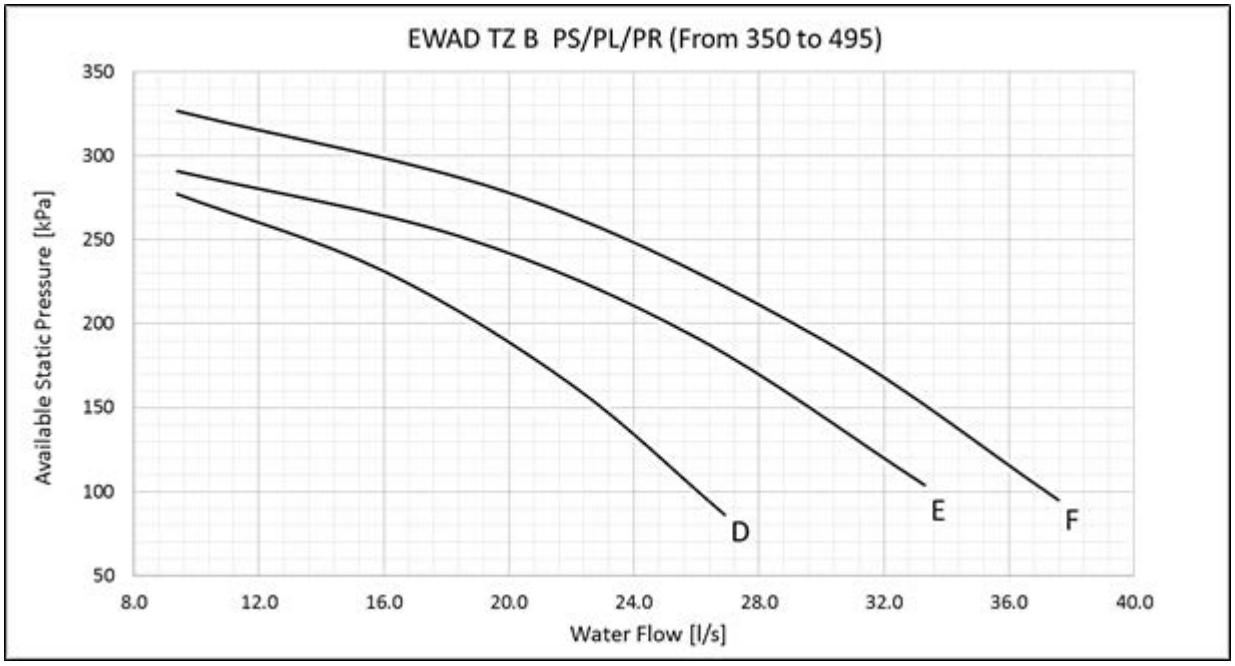

### Technical data

| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD190TZXSB1 | EWAD190TZXLB1 | EWAD190TZXRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD220TZXSB1 | EWAD220TZXLB1 | EWAD220TZXRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD240TZXSB1 | EWAD240TZXLB1 | EWAD240TZXRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD290TZXSB1 | EWAD290TZXLB1 | EWAD290TZXRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| | EWAD320TZXSB1 | EWAD320TZXLB1 | EWAD320TZXRB1 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| Dual circuit | EWAD360TZXSB2 | EWAD360TZXLB2 | EWAD360TZXRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD420TZXSB2 | EWAD420TZXLB2 | EWAD420TZXRB2 | 9.2 | 17.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD440TZXSB2 | EWAD440TZXLB2 | EWAD440TZXRB2 | 9.2 | 17.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |
| | EWAD450TZXSB2 | EWAD450TZXLB2 | EWAD450TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | G |
| | EWAD540TZXSB2 | EWAD540TZXLB2 | EWAD540TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD570TZXSB2 | EWAD570TZXLB2 | EWAD570TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD610TZXSB2 | EWAD610TZXLB2 | EWAD610TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD660TZXSB2 | EWAD660TZXLB2 | EWAD660TZXRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | H |
| | EWAD680TZXSB2 | EWAD680TZXLB2 | EWAD680TZXRB2 | 15 | 26.6 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | I |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

## EWAD TZ B PS/PL/PR (PLATINUM series) – Available static pressure - double pump low lift




### Technical data

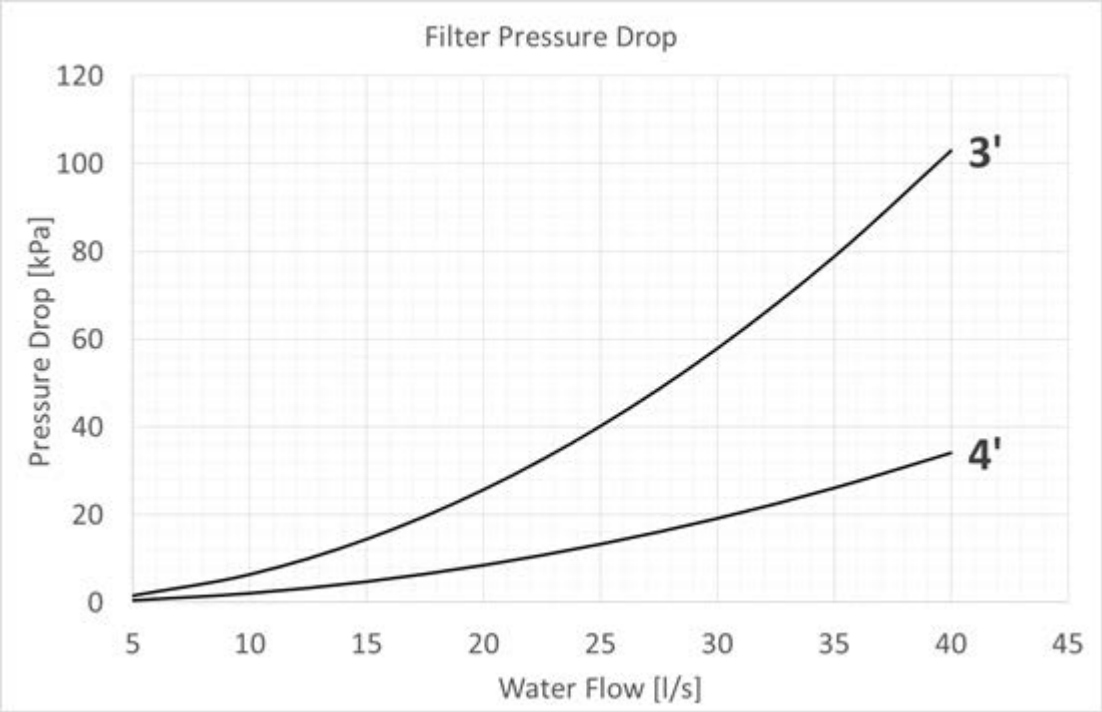
| | Model | | | Pump motor power [kW] | Pump motor current [A] | Power Supply | PN | Motor Protection | Insulation Class | Working temperature* [°C] | Max Ambient temperature [°C] | Ref. Curve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single circuit | EWAD190TZPSB1 | EWAD190TZPLB1 | EWAD190TZPRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD220TZPSB1 | EWAD220TZPLB1 | EWAD220TZPRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | A |
| | EWAD240TZPSB1 | EWAD240TZPLB1 | EWAD240TZPRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD290TZPSB1 | EWAD290TZPLB1 | EWAD290TZPRB1 | 5.5 | 10.5 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | B |
| | EWAD300TZPSB1 | EWAD300TZPLB1 | EWAD300TZPRB1 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | C |
| Dual circuit | EWAD350TZPSB2 | EWAD350TZPLB2 | EWAD350TZPRB2 | 7.5 | 14.1 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | D |
| | EWAD420TZPSB2 | EWAD420TZPLB2 | EWAD420TZPRB2 | 9.2 | 17.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | E |
| | EWAD495TZPSB2 | EWAD495TZPLB2 | EWAD495TZPRB2 | 11 | 20.2 | 400V-3ph-50Hz | 16 | IP55 | F | -25/120 | 40 | F |

Note: to calculate the total electrical data of the base unit selected with hydronic kit, the electrical data of the pump must be added to the electrical data of the base unit. Electrical data are subject to modification without notice. Please refer to unit nameplate.

NOTE:
The above curves refers to the available static pressure taking into account the pressure drops in the heat exchanger, units piping and filters. the pressure drop across the filter is considered only for single circuit units which are provided as standard with filter (the filter is shipped loose).
In case where the filter provided from factory is replaced with other type of filters the above curves are not applicable. For dual circuit units the curves are not considering the pressure drop for the filter (which is not provided by factory). The installation of the filter for single and dual circuit units is mandatory.

**How to calculate the overall chiller water side pressure drops (pump by others)**
In order to calculate the overall pressure drops introduced by the chiller in an installation the following points have to be considered:

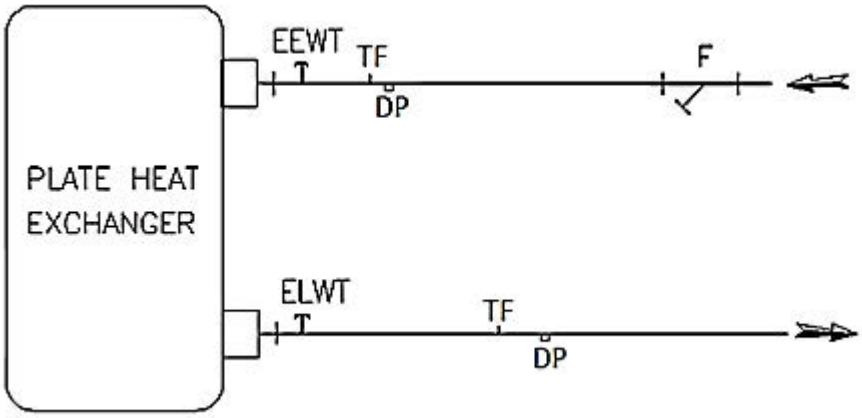
Overall chiller pressure drops = evaporator [kPa] Filter pressure drop [kPa]
a) Select the chiller with CSS tool, you get easily the design water flow rate and the corresponding 'evaporator pressure drops' value (in CSS tool kPa figures are referred to evaporator only).
b) Refer to "Specification" chapter or unit dimensional drawing to check the water connection diameters (equal to filters size).
c) Considering the design flow rate and water filter size and piping diameter, from graph "Filter pressure drops" get the corresponding kPa value.
d) By adding the values at point "a" and "c", 'Overall chiller pressure drops' figure is got.




In case where the filter provided from factory is replaced with other type of filters the above curves are not applicable.
The installation of the filter for single and dual circuit units is mandatory.
The pressure drop value showed in CSS (Chiller Selection Software) are referred to chiller's evaporator only.
For EWAD~TZB factory provides the water filter as standard option only for single circuit unit.
The filters is shipped loose
Note: when using mixture of water and glycol please contact factory as above specification could change.

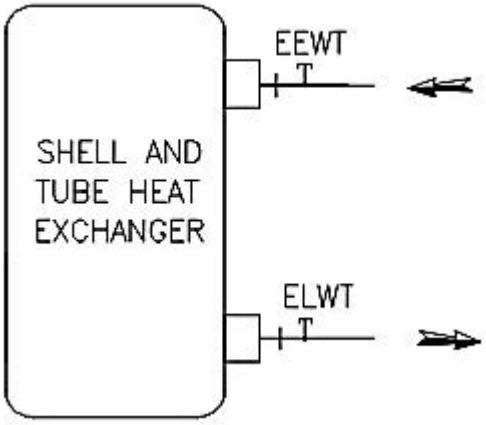
## Hydraulic scheme

**Single circuit unit without hydronic kit**




| | | | |
|---|---|---|---|
| F | Y-TYPE STRAINER (shipped lose) | EEWT | EVAPOR. ENTERING WATER TEMPERATURE PROBE |
| DP | DRAIN PLUG | ELWT | EVAPOR. LEAVING WATER TEMPERATURE PROBE |
| TF | THREADED FITTING | | |

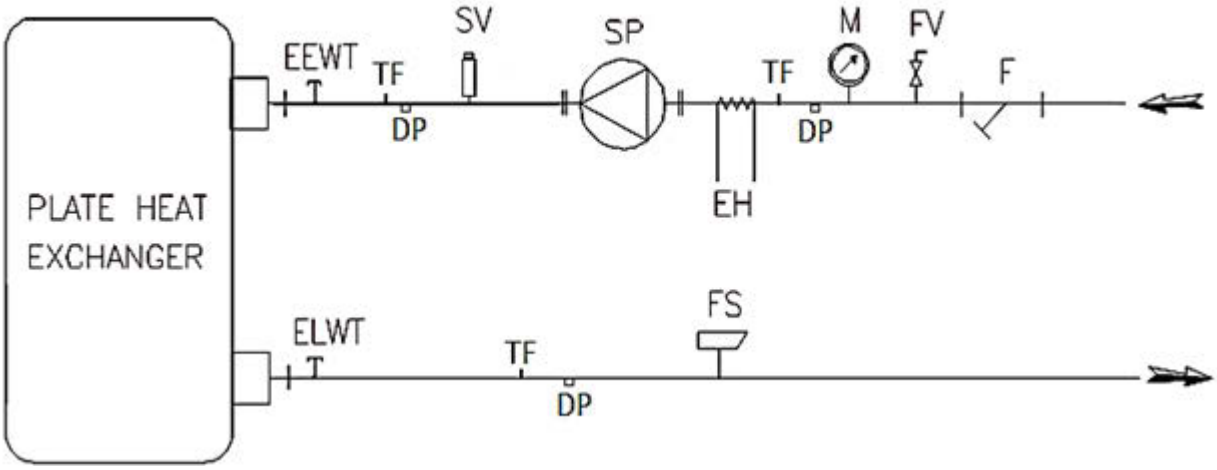
**Dual circuit unit without hydronic kit**




| | |
|---|---|
| EEWT EVAPOR. ENTERING WATER TEMPERATURE PROBE | EEWT EVAPOR. LEAVING WATER TEMPERATURE PROBE |

Note: drain plug and threaded fitting are on the shell and tube exchanger

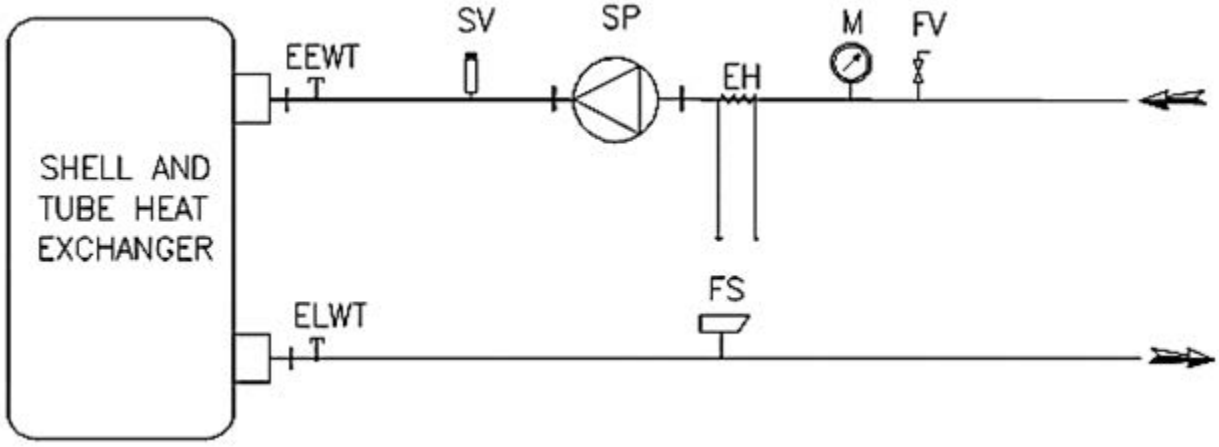
**Single circuit unit with single pump low/high lift**




| | | | |
|---|---|---|---|
| F | Y-TYPE STRAINER (shipped lose) | SP | IN LINE SINGLE PUMP |
| FV | FILLING VALVE | SV | SAFETY VALVE |
| M | PRESSURE GAUGE | EEWT | EVAPOR. ENTERING WATER TEMPERATURE PROBE |
| DP | DRAIN PLUG | EEWT | EVAPOR. LEAVING WATER TEMPERATURE PROBE |
| TF | THREADED FITTING | FS | FLOW SWITCH * |
| EH | ELECTRIC HEATER/THERMOSTAT | | |

*Flow switch available as option (opt. code 58)
safety valve set at 10 bar

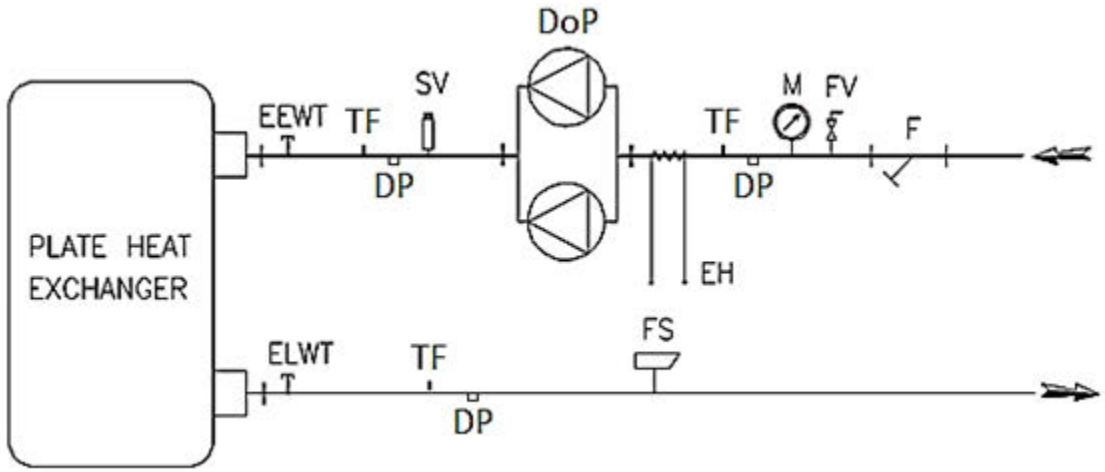
**Dual circuit unit with single pump low/high lift**




| | | | |
|---|---|---|---|
| FV | FILLING VALVE | SV | SAFETY VALVE |
| M | PRESSURE GAUGE | EEWT | EVAPOR. ENTERING WATER TEMPERATURE PROBE |
| EH | ELECTRIC HEATER/ THERMOSTAT | EEWT | EVAPOR. LEAVING WATER TEMPERATURE PROBE |
| SP | IN LINE SINGLE PUMP | FS | FLOW SWITCH * |

*Flow switch available as option (opt. code 58)
safety valve set at 10 bar
Note: drain plug and threaded fitting are on the shell and tube exchanger

**Single circuit unit with dual pump low/high lift**

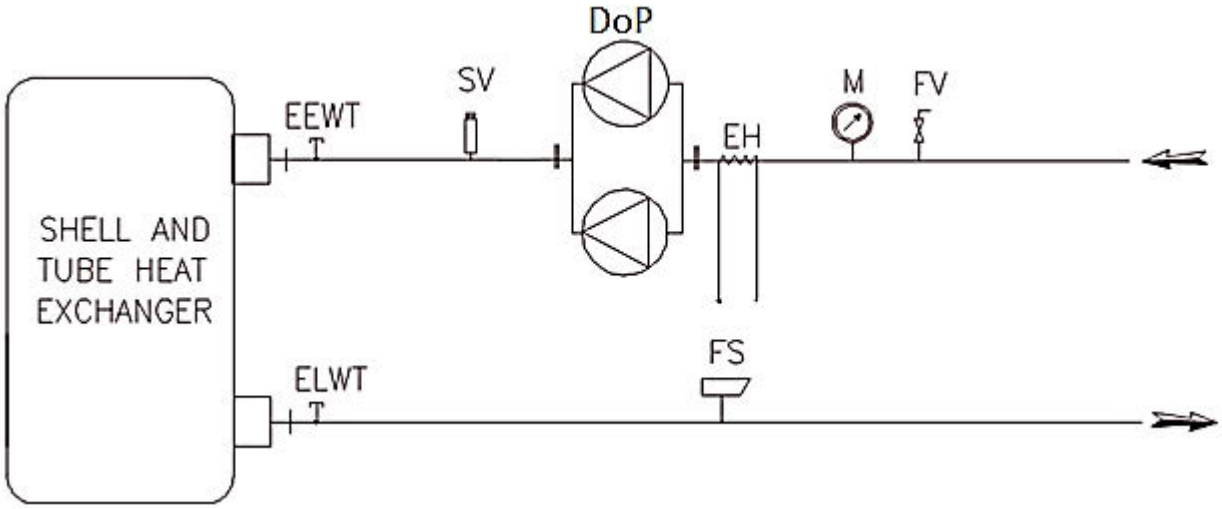



| | | | |
|---|---|---|---|
| F | Y-TYPE STRAINER (shipped lose) | DoP | IN LINE DOUBLE PUMP |
| FV | FILLING VALVE | SV | SAFETY VALVE |
| M | PRESSURE GAUGE | EEWT | EVAPOR. ENTERING WATER TEMPERATURE PROBE |
| DP | DRAIN PLUG | EEWT | EVAPOR. LEAVING WATER TEMPERATURE PROBE |
| TF | THREADED FITTING | FS | FLOW SWITCH * |
| EH | ELECTRIC HEATER/THERMOSTAT | | |

*Flow switch available as option (opt. code 58)

safety valve set at 10 bar

**Dual circuit unit  with dual pump low/high lift**




| | | | |
|---|---|---|---|
| FV | FILLING VALVE | SV | SAFETY VALVE |
| M | PRESSURE GAUGE | EEWT | EVAPOR. ENTERING WATER TEMPERATURE PROBE |
| EH | ELECTRIC HEATER/ THERMOSTAT | EEWT | EVAPOR. LEAVING WATER TEMPERATURE PROBE |
| DoP | IN LINE DOUBLE PUMP | FS | FLOW SWITCH * |

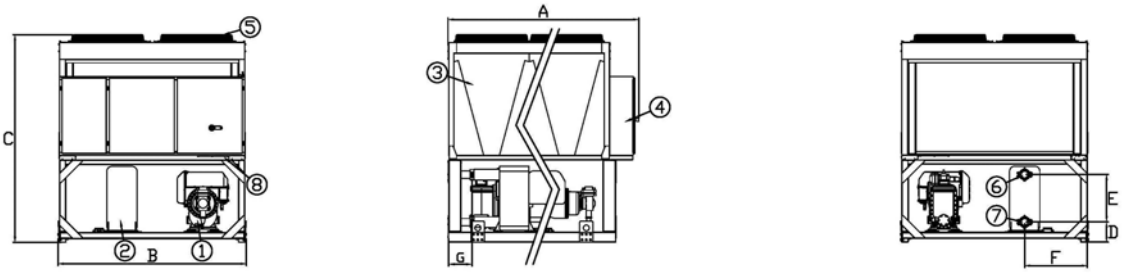
*Flow switch available as option (opt. code 58)
safety valve set at 10 bar
Note: drain plug and threaded fitting are on the shell and tube exchanger

**Water piping**

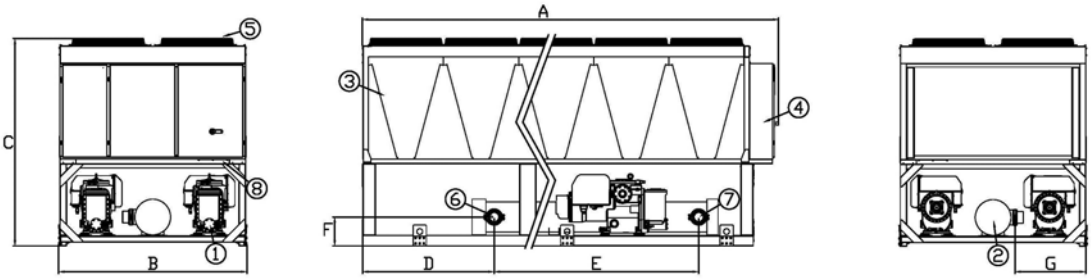
The water system must have:

1. Anti-vibration joint in order to reduce transmission of vibrations to the structures.
2. Isolating valves to isolate the unit from the water system during maintenance.
3. Flow switch.
4. Manual or automatic air venting device at the system's highest point.; drain device at the system's lowest point.
5. A suitable device that can maintain the water system under pressure (expansion tank, etc.).
6. Water temperature and pressure indicators to assist the operator during service and maintenance.
7. A filter or device that can remove particles from the fluid. The installation of the filter is mandatory. The use of a filter extends the life of the evaporator and pump and helps to keep the water system in a better condition.
8. Precautions should be provided to protect the unit against freezing.
9. The heat recovery device must be emptied of water during the winter season, unless an ethylene glycol mixture in appropriate percentage is added to the water circuit.
10. If case of unit substitution, the entire water system must be emptied and cleaned before the new unit is installed. Regular tests and proper chemical treatment of water are recommended after starting up the new unit.
11. In the event that glycol is added to the water system as anti-freeze protection, pay attention to the fact that suction pressure will be lower, the unit's performance will be lower and water pressure drops will be greater. All unit-protection systems, such as anti-freeze, and low-pressure protection will need to be readjusted.
12. Before insulating water piping, check that there are no leaks.

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2



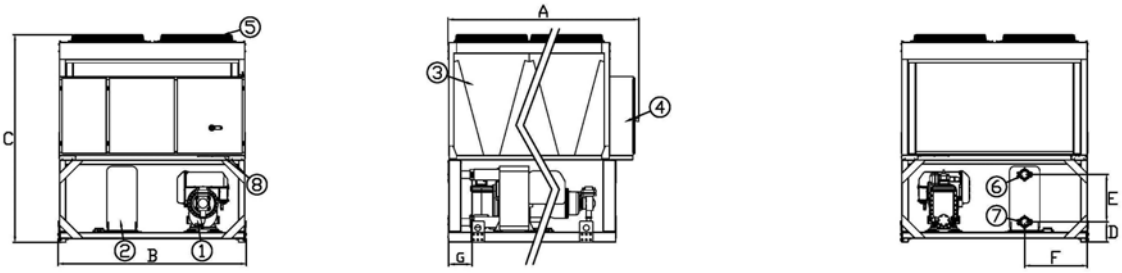

LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

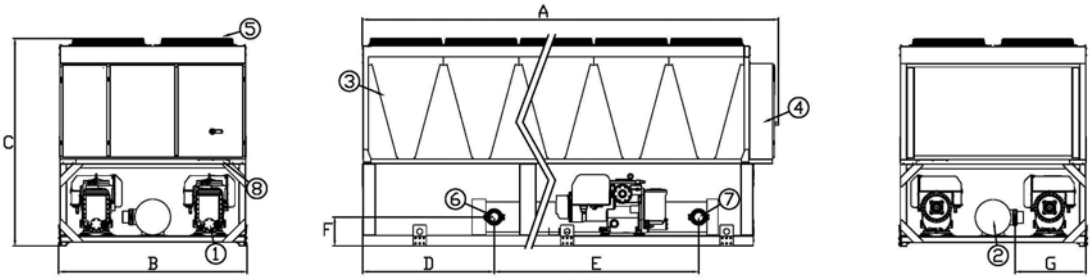
note:
the above drwawings are not contractually binding. For the design of installation refer to the dedicated dimensional drawing available from the factory
on request. The data ara subject to change without notice.

| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD160TZ-SS B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 281 |
| **EWAD190TZ-SS B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 210 |
| **EWAD240TZ-SS B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 81 |
| **EWAD270TZ-SS B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 783 |
| **EWAD300TZ-SS B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 652 |
| **EWAD360TZ-SS B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD380TZ-SS B2** | 4085 | 2258 | 2484 | 673 | 2450 | 346 | 850 |
| **EWAD450TZ-SS B2** | 4085 | 2258 | 2484 | 673 | 2450 | 346 | 850 |
| **EWAD495TZ-SS B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD570TZ-SS B2** | 5885 | 2258 | 2484 | 2465 | 2450 | 346 | 850 |
| **EWAD610TZ-SS B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD660TZ-SS B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD700TZ-SS B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2



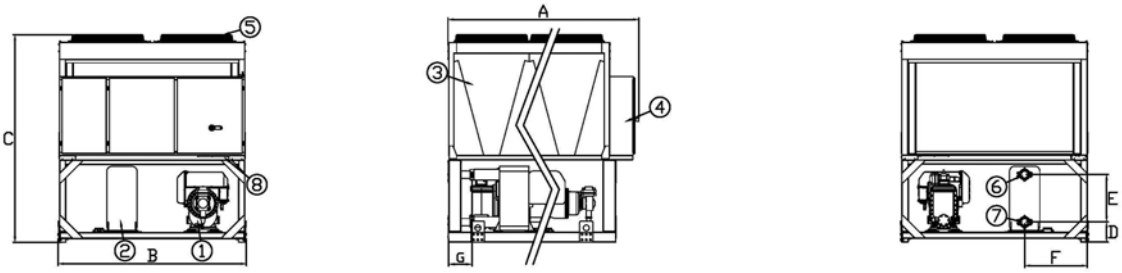

LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

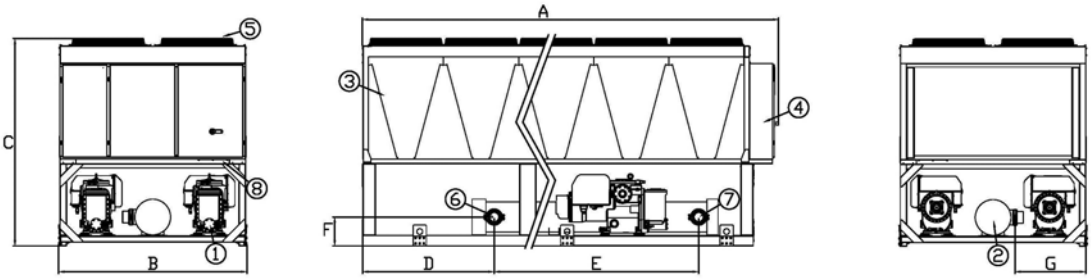
note:
the above drwawings are not contractually binding. For the design of installation refer to the dedicated dimensional drawing available from the factory
on request. The data ara subject to change without notice.

| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD160TZ-SL B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 281 |
| **EWAD190TZ-SL B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 210 |
| **EWAD240TZ-SL B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 81 |
| **EWAD270TZ-SL B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 783 |
| **EWAD300TZ-SL B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 652 |
| **EWAD360TZ-SL B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD380TZ-SL B2** | 4085 | 2258 | 2484 | 673 | 2450 | 346 | 850 |
| **EWAD450TZ-SL B2** | 4085 | 2258 | 2484 | 673 | 2450 | 346 | 850 |
| **EWAD495TZ-SL B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD570TZ-SL B2** | 5885 | 2258 | 2484 | 2465 | 2450 | 346 | 850 |
| **EWAD610TZ-SL B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD660TZ-SL B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD700TZ-SL B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2




LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

note:
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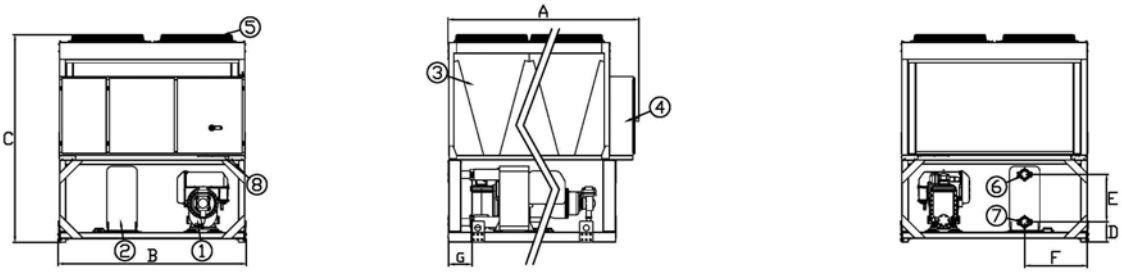
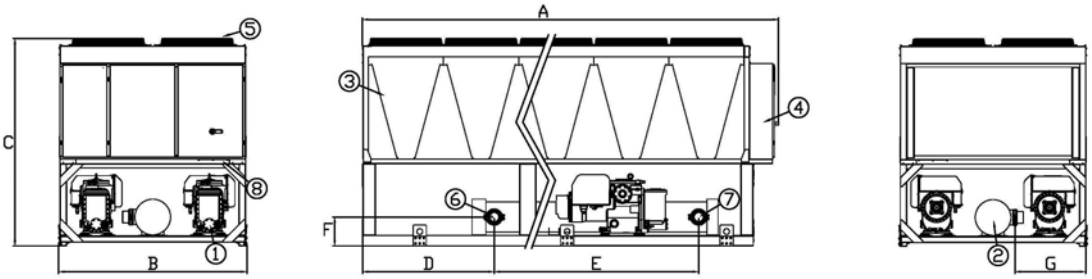
on request. The data ara subject to change without notice.

| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD160TZ-SR B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 281 |
| **EWAD190TZ-SR B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 210 |
| **EWAD240TZ-SR B1** | 2286 | 2258 | 2484 | 241 | 568 | 750 | 81 |
| **EWAD270TZ-SR B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 783 |
| **EWAD300TZ-SR B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 652 |
| **EWAD360TZ-SR B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD380TZ-SR B2** | 4085 | 2258 | 2484 | 673 | 2450 | 346 | 850 |
| **EWAD450TZ-SR B2** | 4085 | 2258 | 2484 | 673 | 2450 | 346 | 850 |
| **EWAD495TZ-SR B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD570TZ-SR B2** | 5885 | 2258 | 2484 | 2465 | 2450 | 346 | 850 |
| **EWAD610TZ-SR B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD660TZ-SR B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD700TZ-SR B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2




LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

note:
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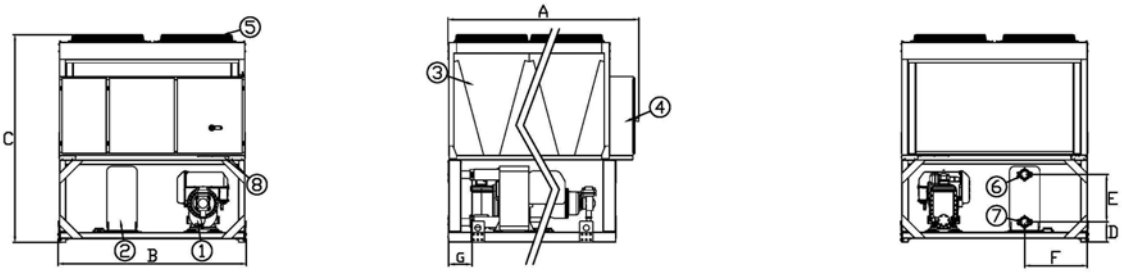
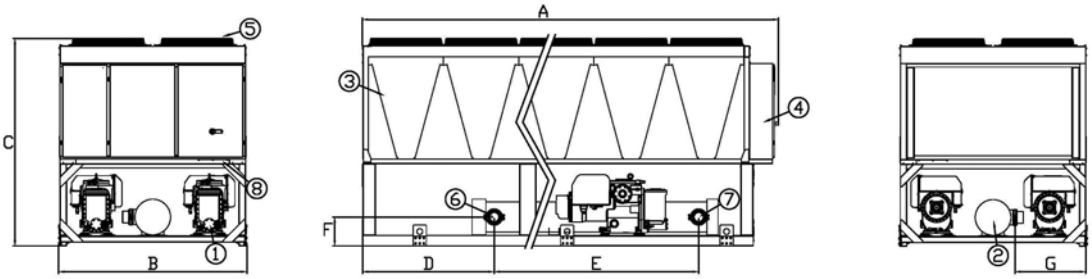
on request. The data ara subject to change without notice.

| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD190TZ-XS B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 783 |
| **EWAD220TZ-XS B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 652 |
| **EWAD240TZ-XS B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 563 |
| **EWAD290TZ-XS B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD320TZ-XS B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD360TZ-XS B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD420TZ-XS B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD450TZ-XS B2** | 5885 | 2258 | 2484 | 2465 | 2450 | 346 | 850 |
| **EWAD540TZ-XS B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD570TZ-XS B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD610TZ-XS B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |
| **EWAD660TZ-XS B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |
| **EWAD680TZ-XS B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2




LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

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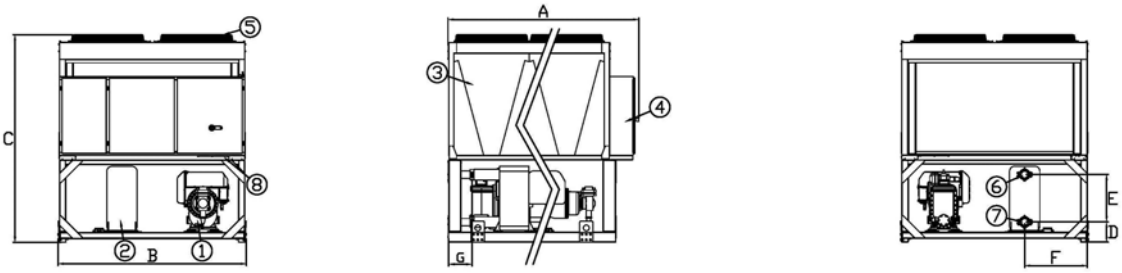
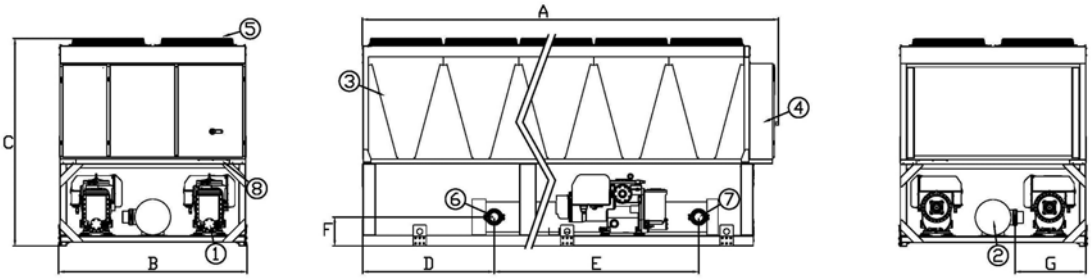
on request. The data ara subject to change without notice.

| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD190TZ-XL B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 783 |
| **EWAD220TZ-XL B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 652 |
| **EWAD240TZ-XL B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 563 |
| **EWAD290TZ-XL B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD320TZ-XL B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD360TZ-XL B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD420TZ-XL B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD450TZ-XL B2** | 5885 | 2258 | 2484 | 2465 | 2450 | 346 | 850 |
| **EWAD540TZ-XL B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD570TZ-XL B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD610TZ-XL B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |
| **EWAD660TZ-XL B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |
| **EWAD680TZ-XL B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2




LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

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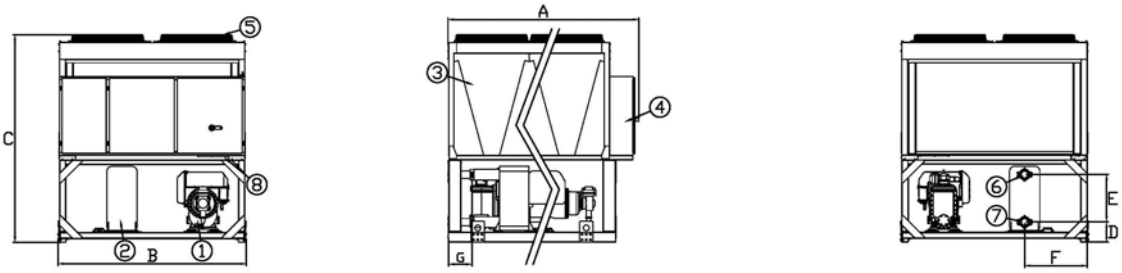
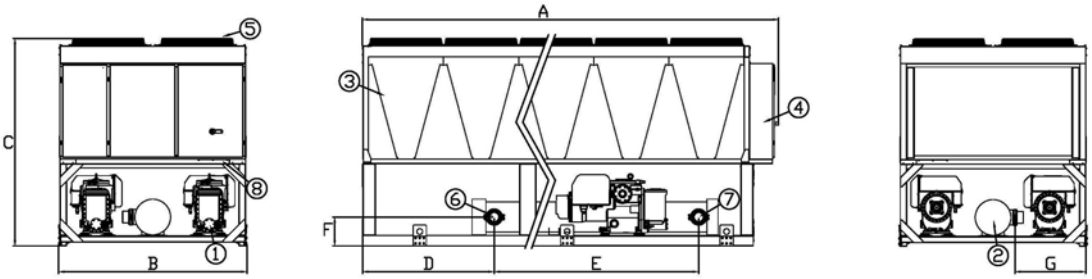
on request. The data ara subject to change without notice.

| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD190TZ-XR B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 783 |
| **EWAD220TZ-XR B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 652 |
| **EWAD240TZ-XR B1** | 3185 | 2258 | 2484 | 241 | 568 | 750 | 563 |
| **EWAD290TZ-XR B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD320TZ-XR B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD360TZ-XR B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD420TZ-XR B2** | 4985 | 2258 | 2484 | 1573 | 2450 | 346 | 850 |
| **EWAD450TZ-XR B2** | 5885 | 2258 | 2484 | 2465 | 2450 | 346 | 850 |
| **EWAD540TZ-XR B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD570TZ-XR B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD610TZ-XR B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |
| **EWAD660TZ-XR B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |
| **EWAD680TZ-XR B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2




LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

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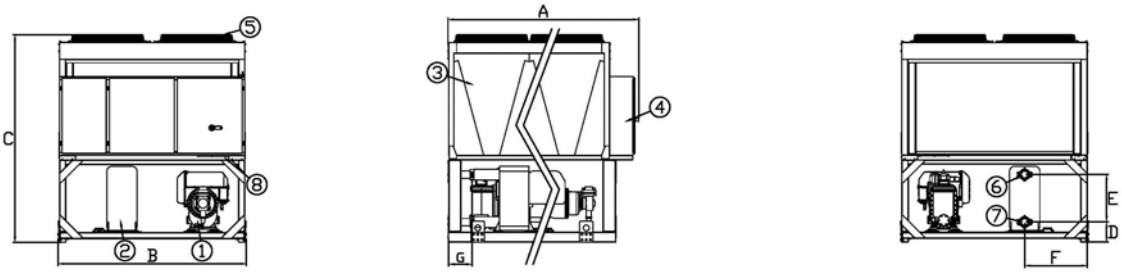
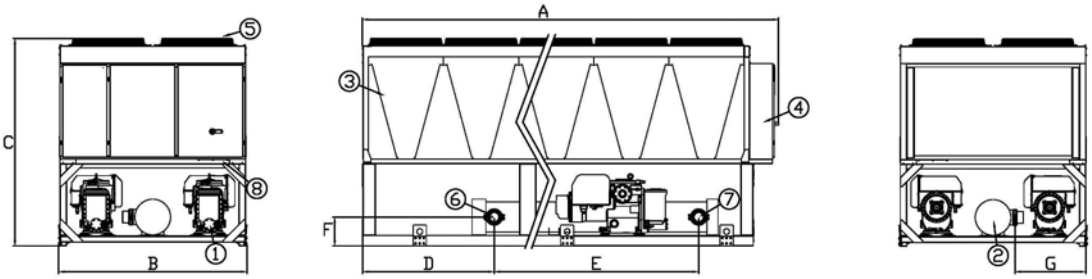
on request. The data ara subject to change without notice.

| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD190TZ-PS B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD220TZ-PS B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD240TZ-PS B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD290TZ-PS B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD300TZ-PS B1** | 4985 | 2258 | 2484 | 241 | 568 | 750 | 2340 |
| **EWAD350TZ-PS B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD420TZ-PS B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |
| **EWAD495TZ-PS B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2




LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

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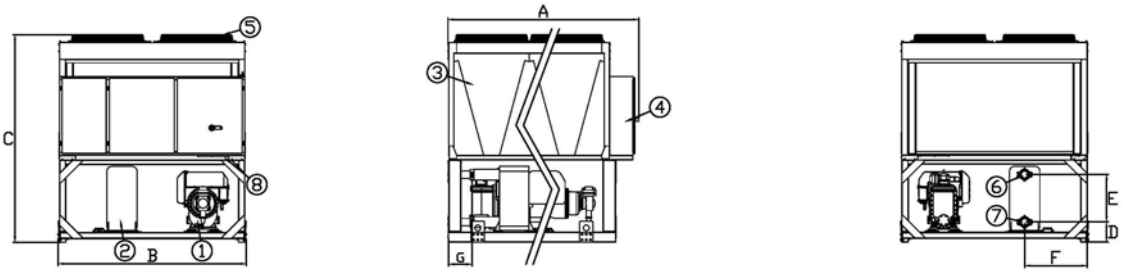
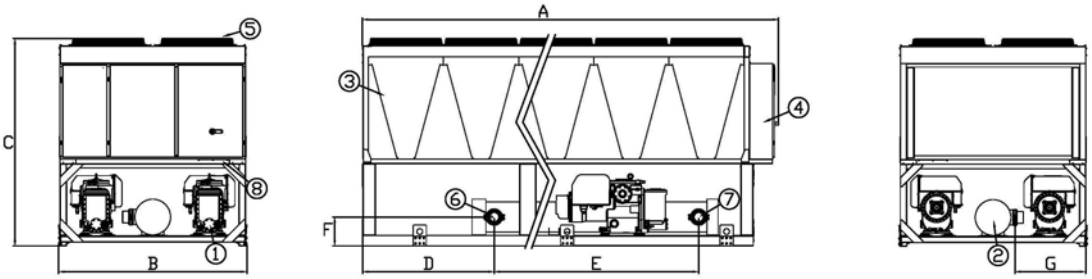
| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD190TZ-PL B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD220TZ-PL B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD240TZ-PL B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD290TZ-PL B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD300TZ-PL B1** | 4985 | 2258 | 2484 | 241 | 568 | 750 | 2340 |
| **EWAD350TZ-PL B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD420TZ-PL B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |
| **EWAD495TZ-PL B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |

SINGLE CIRCUIT -B1




DUAL CIRCUIT -B2




LEGEND

1. COMPRESSOR
2. EVAPORATOR
3. CONDENSER COIL
4. ELECTRICAL PANEL
5. FAN
6. EVAPORATOR WATER INLET
7. EVAPORATOR WATER OUTLET
8. SLOT FOR POWER AND CONTROL PANEL CONNCTION

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on request. The data ara subject to change without notice.

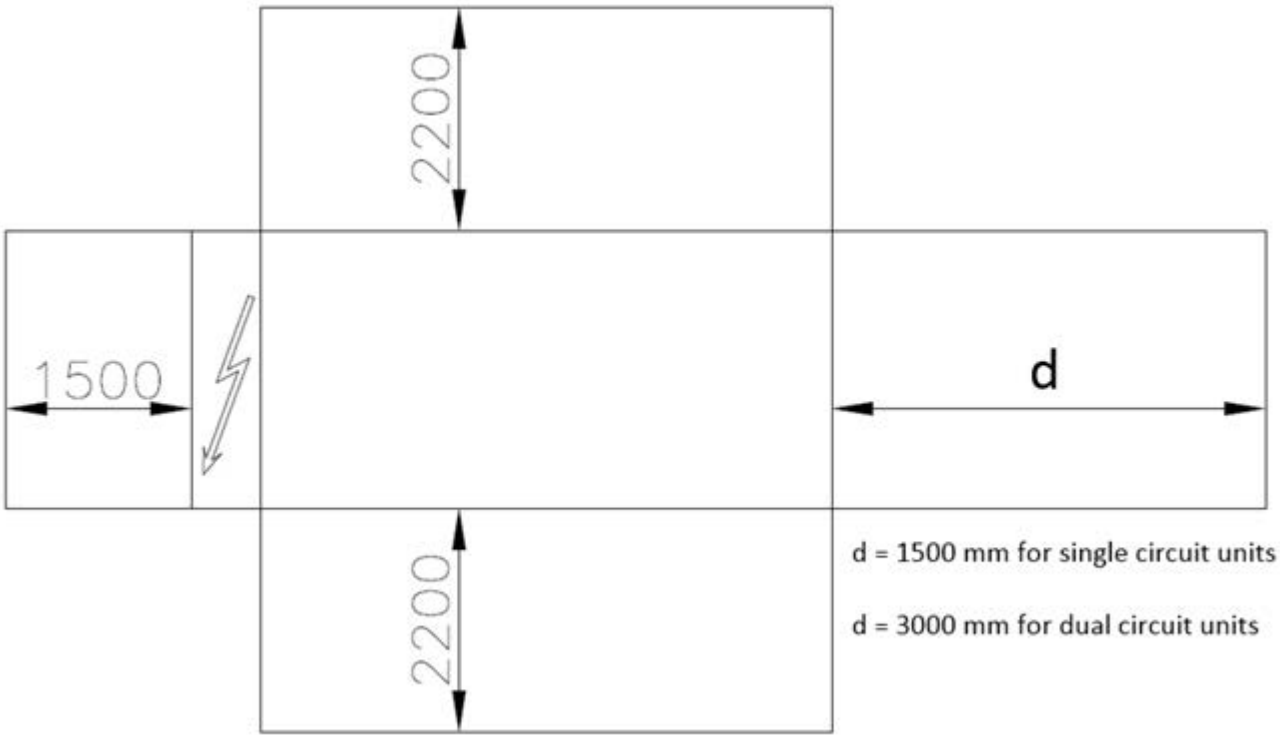
| MODEL | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **EWAD190TZ-PR B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD220TZ-PR B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD240TZ-PR B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD290TZ-PR B1** | 4085 | 2258 | 2484 | 241 | 568 | 750 | 1440 |
| **EWAD300TZ-PR B1** | 4985 | 2258 | 2484 | 241 | 568 | 750 | 2340 |
| **EWAD350TZ-PR B2** | 5885 | 2258 | 2484 | 2437 | 2412 | 386 | 809 |
| **EWAD420TZ-PR B2** | 6785 | 2258 | 2484 | 3337 | 2412 | 386 | 809 |
| **EWAD495TZ-PR B2** | 7685 | 2258 | 2484 | 4237 | 2412 | 386 | 809 |

**Warning** Installation and maintenance of the unit must be performed only by qualified personnel who have knowledge with local codes and regulations, and experience with this type of equipment. Must be avoided the unit installation in places that could be considered dangerous for all the maintenance operations.

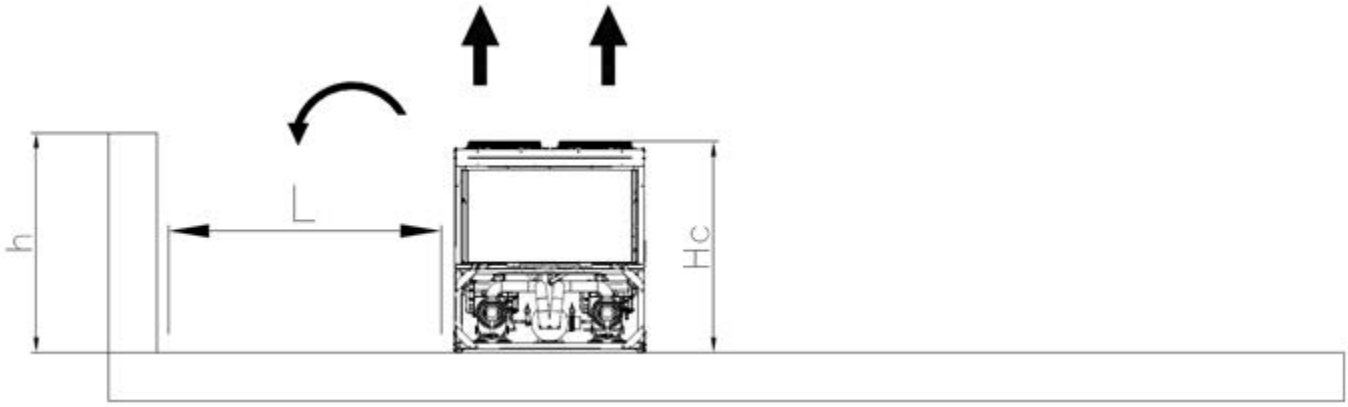
**Handling** Care should be taken to avoid rough handling or shock due to dropping the unit. Do not push or pull the unit from anything other than the base frame. Never allow the unit to fall during unloading or moving as this may result in serious damage. To lift the unit, rings are provided in the base frame of the unit. Spreader bar and cables should be arranged to prevent damage to cabinet.

**Location** The units are produced for outdoor installation on roofs, floors or below ground level on condition that the area is free from obstacles for the passage of the condenser air. The unit should be positioned on solid foundations and perfectly leveled; in the case of installation on roofs or floors, it may be advisable to arrange the use of suitable weight distribution beams. When the units are installed on the ground, a concrete base at least 250 mm wider and longer than the unit's footprint should be laid. Furthermore, this base should withstand the unit weight mentioned in the technical data table.

**Space requirements** The units are air-cooled, then it is important to respect the minimum distances which guarantee the best ventilation of the condenser coils. Limitations of space reducing the air flow could cause significant reductions in cooling capacity and an increase in electricity consumption.
To determinate unit placement, careful consideration must be given to assure a sufficient air flow across the condenser heat transfer surface. Two conditions must be avoided to achieve the best performance: warm air recirculation and coil starvation. Both these conditions cause an increase of condensing pressures that results in reductions in unit efficiency and capacity. Moreover the unique microprocessor has the ability to calculate the operating environment of the air cooled chiller and the capacity to optimize its performance staying on-line during abnormal conditions.
Each side of the unit must be accessible after installation for periodic service. The following pictures shows you minimum recommended clearance requirements.

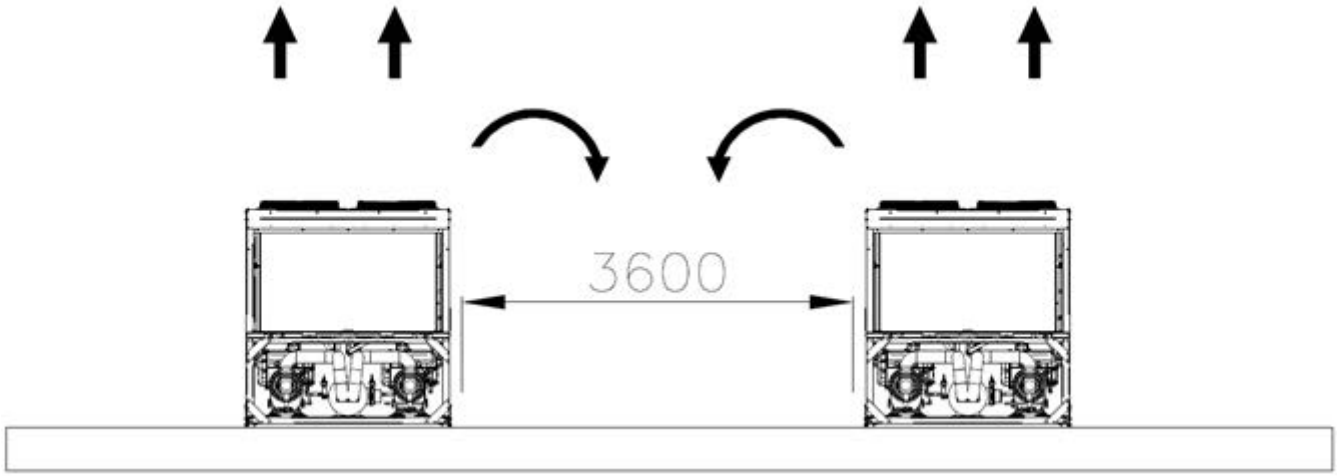


For single chiller installation in proximity of a wall the following indications are recommended:

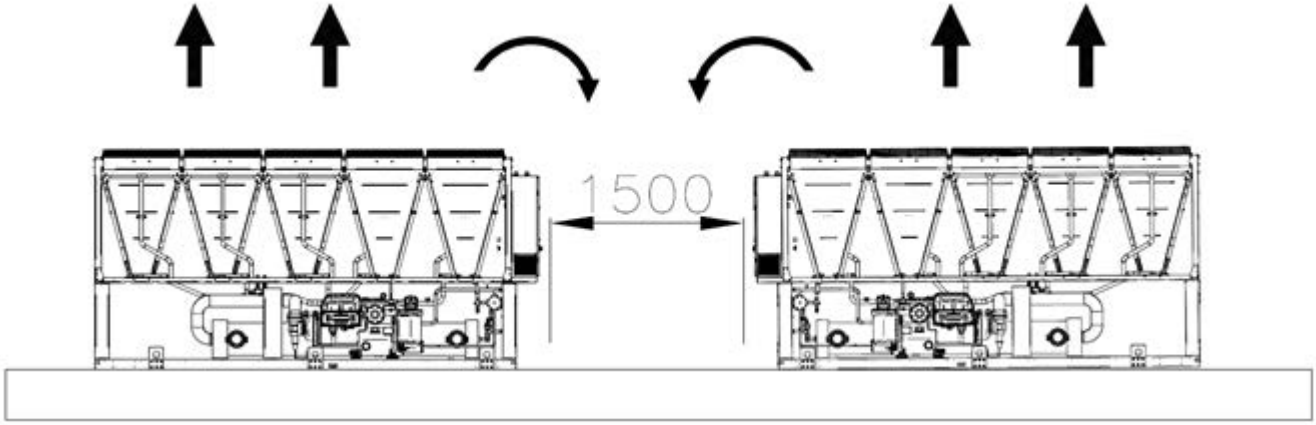



- if h < Hc → L must at least 3 m
- if h ≥ Hc or L < 3 m contact local Daikin representative to evaluate possible arrangements

In case of two chillers installed side by side in free filed, the minimum distance recommended between the chillers is indicated in the below picture




In case of two chillers installed in a compound contact local Daikin representative to evaluate possible arrangements.
For mutliple chiller installation it is recommended to install the chillers is a single row as hown in the below picture




For additional information refer to the Installation Manual.
If the site does not allow this kind of installation contact Daikin representative to evaluate possible arrangements.

General The chiller will be designed and manufactured in accordance with the following European directives:
• Construction of pressure vessel 2014/68/EU
• Machinery Directive 2006/42/EC
• Low Voltage 2014/35/EU
• Electromagnetic Compatibility 2014/30/EU
• Electrical & Safety codes EN 60204–1 / EN 60335-2-40
• Manufacturing Quality Standards UNI – UNI EN ISO 1400
To avoid any losses, the unit will be tested at full load in the factory (at the nominal working conditions and water temperatures). The chiller will be delivered to the job site completely assembled and charged with refrigerant and oil.
The installation of the chiller must comply with the manufacturer's instructions for rigging and handling equipment.

The unit will be able to start up and operate (as standard) at full load with:
- outside air temperature from ..... °C to ..... °C
- evaporator leaving fluid temperature between ..... °C and ..... °C
**Refrigerant** HFC 134a

**Performance** Chiller shall supply the following performances:
• Number of chiller(s) : ..... unit(s)
• Cooling capacity for single chiller : ..... kW
• Power input for single chiller in cooling mode : ..... kW
• Heat exchanger entering water temperature in cooling mode : ..... °C
• Heat exchanger leaving water temperature in cooling mode : ..... °C
• Heat exchanger water flow : ..... l/s
• Nominal outside working ambient temperature in cooling mode : ..... °C
• Minimum full load efficiency (EER): …….. (kW/kW)
• Minimum part load efficiency (ESEER): …….. (kW/kW)

Operating voltage range should be 400V ±10%, 3ph, 50Hz (or 380V ±10%, 3ph, 60Hz) , voltage unbalance maximum 3%, without neutral conductor and shall only have one power connection point.

**Unit description** Chiller shall include one or two independent refrigerant circuits, semi-hermetic type rotary single screw compressors, refrigerant cooled inverter drive for each compressor, electronic expansion device (EEXV), direct expansion 'shell & tube' or PHE evaporator, air-cooled condenser section made with aluminum Microchannel technology, R-134a refrigerant, lubrication system, motor starting components, discharge line shut-off valve, suction line shut-off valve, control system and all components necessary for a safe and stable unit operation.
The chiller will be factory assembled on a robust base frame made of galvanized steel, protected by an epoxy paint.

**Sound level and vibrations** Sound power level shall not exceed ……dB(A). The sound power levels must be rated in accordance to ISO 9614 (other types of rating cannot be used). Vibration on the base frame should not exceed 2 mm/s.

**Dimensions** Unit dimensions shall not exceed following indications:
- Unit length ..... mm
- Unit width ..... mm
- Unit height ..... mm

**Compressors**
• Semi-hermetic, single-screw type with one main helical rotor meshing with the gaterotor. The gaterotor will be constructed of a carbon impregnated engineered composite material. The gaterotor supports will be constructed of cast iron.
• Each compressor shall be fitted with inverter drive for variable capacity control. Inverter shall be integrated within the compressor casing and it shall be cooled by liquid refrigerant.
• Each compressor shall be provided with Variable Volume Ratio (VVR) technology. The system shell modify the volumetric compression ratio according to the operating conditions in order to enhance the efficiency.
• Each compressor shall be provided with DC motors (for GOLD and PLATINUM efficiency series)
• The oil injection shall be used in order to get high EER (Energy Efficiency Ratio) also at high condensing pressure and low sound pressure levels in each load condition.
• Refrigerant system differential pressure shall provide oil flow through service replaceable, 0.5 micron, full flow, cartridge type oil filter internal to compressor.
• Refrigerant system differential pressure shall provide oil injection on all moving compressor parts to correctly lubricate them. Electrical oil pump lubricating system is not acceptable.
• The compressor's oil cooling must be realized, when necessary, by refrigerant liquid injection. External

dedicated heat exchanger and additional piping to carry the oil from the compressor to heat exchanger and viceversa will be not accepted.
• The compressor shall be provided with an integrated, high efficiency, cyclonic type oil separator and with built-in oil filter, cartridge type.
• The compressor shall be direct electrical driven, without gear transmission between the screw and the electrical motor.
• The compressor casing shall be provided with ports to realize economized refrigerant cycles.
• The economizer cycle shall be provided with electronic expansion valve
• The unit shell be provided with two thermal protection realized by a thermistor for high temperature protection: one temperature sensor to protect electrical motor and another sensor to protect unit and lubricating oil from high discharge gas temperature.
• The compressor shall be equipped with an electric oil-crankcase heater.
• Compressor shall be fully field serviceable. Compressor that must be removed and returned to the factory for service shall be unacceptable. Cooling capacity control system The chiller will have a microprocessor for the control of the compressor capacity through inverter in order to continuously modulate the compressor's rotational speed.
• The unit capacity control shall be infinitely modulating between 100% and the minimum.
The chiller shall be capable of stable operation to minimum capacity without hot gas bypass.
• The system shall control the unit based on the leaving evaporator water temperature that shall be controlled by PID (Proportional Integral Derivative) logic.
• Unit control logic shall to manage frequency level of the compressor electric motor to exactly match plant load request in order to keep constant the set point for delivered chilled or hot water temperature.
• The microprocessor unit control shall detect conditions that approach protective limits and take self corrective action prior to an alarm occurring. The system shall automatically reduce the chiller capacity when any of the following parameters are outside their normal operating range:
- High condenser pressure
- Low evaporating refrigerant temperature Unit-mounted Compressor's Inverter and Electrical Requirement
Customer electrical connection for compressor motor power shall be limited to the main power lead to the single point power connection located into electrical panel.
• The Inverter shall be refrigerant cooled. Water cooled or air cooled inverter cooling are not acceptable.
• Base motor frequency shall permit motor to be utilized at nameplate voltage. Adjustable frequency range, monitored by unit's microprocessor control, shall permit a stable unit capacity control down to minimum capacity without hot-gas bypass.
• Unit displacement power factor shall be not less than 0.95 on entire unit capacity range, from 100% down to minimum capacity.

**Evaporator**
(Single circuit unit)
The units shall be equipped with a direct expansion plate to plate type evaporator.
• The evaporator will be made of stainless steel brazed plates and shall be linked with an electrical heater to prevent freezing down to -28°C ambient temperature, controlled by a thermostat and shall be insulated with flexible, closed cell polyurethane insulation material (20-mm thick).
• The evaporator will have 1 refrigerant circuit for each compressor.
• The water connections shall be VICTAULIC type connections as standard to ensure quick mechanical disconnection between the unit and the hydronic network.
• The evaporator will be manufactured in accordance to PED approval.
• Flow switch on evaporator available as option (shipped loose).
• Water filter will be standard.
(Dual Circuit units)
The units shall be equipped with a direct expansion shell & tube evaporator with copper tubes rolled into steel tube sheets. The evaporator shall be single-pass on both the refrigerant and water sides for pure counter-flow heat exchange and low refrigerant pressure drops.
• The external shell shall be linked with an electrical heater to prevent freezing down to -28°C ambient temperature, controlled by a thermostat and shall be insulated with flexible, closed cell polyurethane insulation material (20-mm thick).
• The evaporator will have 2 circuits, one for each compressor and shall be single refrigerant pass.
• The water connections shall be VICTAULIC type connections as standard to ensure quick mechanical disconnection between the unit and the hydronic network.
• The evaporator will be manufactured in accordance to PED approval.
• Flow switch on evaporator available as option (shipped loose).
• Water filter needs to be provided on the plant.

**Condenser coil** The condenser is made entirely of aluminum with flat tubes containing small channels. Full - depth louvered aluminum fins are inserted between the tubes maximizing the heat exchange. The Microchannel
technology ensures the highest performance with the minimum surface for the exchanger. The quantity of

refrigerant is also reduced compared to Cu/Al condenser. Special treatments ensure resistance to the corrosion by atmospheric agents extending the life time (available on request).

**Condenser fans** The condenser fans used in conjunction with the condenser coils, shall be propeller type or Brushless with glass reinforced resin blades for higher efficiencies and lower sound. Each fan shall be protected by a fan guard.
• The air discharge shall be vertical and each fan must be coupled to the electrical motor, supplied as standard to IP54 and capable to work to ambient temperatures of - 20°C to + 65°C.
• The condenser fans shall have as a standard a thermally protection by internal thermal motor protection and protected by circuit breaker installed inside the electrical panel as a standard.

**Refrigerant circuit** The unit shall have one or two independent refrigerant circuits and one variable electrical frequency driver per compressor (Inverter).
• The circuit shall include as standard: electronic expansion device piloted by unit's microprocessor control, compressor suction and discharge shut-off valves, liquid line shut-off valve, economizer circuit with electronic expansion valve, sight glass with moisture indicator, replaceable filter drier, charging valves, high pressure switch, high and low pressure transducers, oil pressure transducer and insulated suction line. Condensation control The units will be provided with an automatic control for condensing pressure which ensures the working at low external temperatures down to - …… °C, to maintain condensing pressure.
• The compressor automatically unloads when abnormal high condensing pressure is detected. This to prevent the shutdown of the refrigerant circuit (shutdown of the unit) due to a high-pressure fault.
Reduced Sound unit configurations (on request) The compressor shall be connected with unit's metal base frame by rubber anti vibration supports to prevent the transmission of vibrations to all metal unit structure, in order to limit the unit noise emissions. The chiller shall be provided with an acoustical compressor enclosure (according to the version). This enclosure shall be realized with a light, corrosion resisting aluminum structure and metal panels. The compressor sound-proof enclosure shall be internally fitted with flexible, multi-layer, high density materials.

**Hydronic kit** options (on request) The hydronic module shall be integrated in the chiller chassis without increasing its dimensions and includes the following elements: centrifugal pump with motor protected by a circuit breaker installed in control panel, water filling system with pressure gauge, safety valve, drain valve.
• The hydronic module shall be assembled and wired to the control panel.
• The water piping shall be protected against corrosion and freezing and insulated to prevent condensation.
• A choice of two pump types shall be available:
- in-line single pump
- in-line twin pumps.
The unit should be able to operate in Primary only system with two-ways valve on terminals with Variable Primary Flow control strategy (available as option on request).

**Master/Slave** the unit shell be able to operate in Master / Slave mode in order to be connected with other similar unit (up to 4). The master unit shall manage the slaves units connected in series on the hydraulic plant with the aim of optimize the running hours of each compressor and to balance the load between the units.

**Electrical control panel** Power and control shall be located in the main panel that will be manufactured to ensure protection against all weather conditions.
• The electrical panel shall be IP54 and (when opening the doors) internally protected against possible accidental contact with live parts.
• The main panel shall be fitted with a main switch interlocked door that shuts off power supply when opening.
• The power section will include compressors and fans protection devices, fans starters and control circuit power supply.
Controller The controller will be installed as standard and it will be used to modify unit set-points and check control parameters.
• A built-in display will shows chiller operating status plus temperatures and pressures of water, refrigerant and air, programmable values, set-points.
• A sophisticated software with predictive logic, will select the most energy efficient combination of compressors, EEXV and condenser fans to keep stable operating conditions to maximize chiller energy efficiency and reliability.
• The controller will be able to protect critical components based on external signals from its system (such as motor temperatures, refrigerant gas and oil pressures, correct phase sequence, pressure switches and evaporator). The input coming from the high pressure switch cuts all digital output from the controller in less than 50ms, this will be an additional security for the equipment.
• Fast program cycle (200ms) for a precise monitoring of the system.
• Floating point calculations supported for increased accuracy in P/T conversions.
Controller main features
Controller shall be guarantee following minimum functions:
• Management of the compressor stepless capacity and fans modulation.

• Chiller enabled to work in partial failure condition.
• Full routine operation at condition of:
- high ambient temperature value
- high thermal load
- high evaporator entering water temperature (start-up)
• Display of evaporator entering/leaving water temperature.
• Display of Outdoor Ambient Temperature.
• Display of condensing-evaporating temperature and pressure, suction and discharge superheat for each circuit.
• Leaving water evaporator temperature regulation.
• Compressor and evaporator pumps hours counter.
• Display of Status Safety Devices.
• Number of starts and compressor working hours.
• Optimized management of compressor load.
• Fan management according to condensing pressure.
• Re-start in case of power failure (automatic / manual).
• Soft Load (optimized management of the compressor load during the start-up).
• Start at high evaporator water temperature.
• Return Reset (Set Point Reset based on return water temperature).
• OAT (Outside Ambient temperature) Reset.
• Set point Reset (optional).
• Application and system upgrade with commercial SD cards.
• Ethernet port for remote or local servicing using standard web browsers.
• Master / Slave (provided as standard)
• Variable primary Flow (available as option)
• Two different sets of default parameters could be stored for easy restore. High Level Communications Interface (on request) The chiller shall be able to communicate to BMS (Building Management System) based on the most common protocols as:
- ModbusRTU
- LonWorks, now also based on the international 8040 Standard Chiller Profile and LonMark Technology
- BacNet BTP certifief over IP