



AIR CONDITIONING UNITS
Air flow rate from 2300 to 23000 m³/h
SELECTION, INSTALLATION, USE AND MAINTENANCE MANUAL

TN



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General standards



The present manual is an integral part of the documentation enclosed with the machine.

It must be conserved for future reference and must accompany the machine throughout its working life.

The manual defines the purpose for which the machine was built and establishes the correct installation and use limits.

- All use, installation and maintenance instructions of the unit are described in this manual as well as the main accident prevention standards.
- Read carefully and fully all information contained in this manual before the installation, starting, use, maintenance and cleaning of the unit. Pay particular attention to the use regulations accompanied by the words "DANGER" or "WARNING": failure to observe them could cause damage to the machine and/or persons and property.
- For irregularities not contemplated by this manual, consult the local After Sales Service.
- Aermec S.p.A. declines all responsibility for any damage due to the improper use of the machine, or to the partial or superficial reading of the information contained in this manual.
- Installation and maintenance must be carried out by trained and qualified personnel, having the requirements laid down by law 46/90 and/or DPR 380/2001 for electric/electronic and air conditioning installations, with consequent registration at the local CHAMBER of COMMERCE.
Otherwise Aermec S.p.A. declines all responsibility regarding the safety of the product.

THE MANUFACTURER DECLINES ANY RESPONSIBILITY FOR DAMAGE TO PROPERTY, PERSONS OR ANIMALS CAUSED BY THE NON-OBSERVANCE OF THE INDICATIONS AND REGULATIONS CONTAINED IN THIS MANUAL.

Even though a suitable risk analysis was carried out during the design of the TN unit, pay ATTENTION to the pictograms on the machine; these make it easier to read the manual, quickly drawing the reader's attention to risks that cannot be avoided or sufficiently limited with the adoption of protection means and measures.



GENERAL DANGER SIGNS

Carefully observe all indications at the side of the pictogram.

The non observance of the indications could cause hazardous conditions with possible injury to the operator and to the user in general.



VOLTAGE DANGER SIGN

Carefully observe all indications at the side of the pictogram.

The signs indicate components on the unit or, in the present manual, identify areas that could generate risks of an electrical nature.



GENERAL WARNING SIGNS

Carefully observe all indications to the side of the pictogram that limit some actions in order to ensure greater safety for the operator.

MAIN GUARANTEE CONDITIONS

- The guarantee does not include payment for damages due to incorrect installation by the installer.
- The warranty does not include payment for damage due to the improper use of the unit by the user.
- The manufacture is not responsible for injuries to the installer or user, caused by incorrect installation or improper use of the unit;
- The equipment must be installed in such a manner so as to permit maintenance and/or repair operations;
- The guarantee does not cover in any case costs due to turntable ladders, scaffolding or other similar elevating systems that are necessary to carry out operations under guarantee.

The warranty is not valid when:

- the services and the repairs have been carried out by non-authorized personnel or companies;
- the unit has been repaired or modified in the past with non OEM spare parts;
- the unit has not been adequately maintained;
- the instructions given in this manual have not been observed;
- if non-authorized modifications have been made.

NB

The Manufacturer reserves the right at all times to make any modification for the improvement of its product and is not obliged to add these modification to machines of previous manufacture that have already been delivered or are being built.

The warranty conditions are any subject to the general sales conditions at the moment the contract is finalised.

Description of the unit

The TN series provides an alternative to the air handling unit in the range with

flow rates of 2300 to 23000 m³/h when only filtration, cooling and/or heating

treatment is required: intended for civil, commercial, industrial or hotel plant for small and medium size areas. The units can be installed horizontally or vertically for greater flexibility of use. The units of this range are characterised by their compact size, low noise levels, and the wide choice of accessories.

Alongside the BASE configuration, there is also an UPRATED version to provide greater fan head.



Description of components

Structure

The TN series has the following characteristic elements:

The structure is made of aluminium profiles with sandwich cover paneling made of galvanised steel on the inside and pre-coated RAL 9002 galvanised steel on the outside with polyurethane insulation (density 40 kg/m³) with 25 mm thickness.

Both the panels of the base unit as well as the panels of the plenum have pre-shearing that render them compatible with the insertion of the accessories.

The fixing of the paneling using a panel block profile ensures a perfect seal between the panel and the frame and makes it extremely easy to mount and remove the panels.

The 3-way corner joint is made of glass-fibre reinforced nylon.

The condensate drip tray, in galvanised steel, has a threaded drain connection on both sides and can be used whether the unit is installed horizontally or vertically.

FANS

The fans are of the double suction centrifugal variety with high performance forward blades.

MOTORS:

The electric motors are of the three-phase asynchronous variety, enclosed construction and externally ventilated, squirrel cage rotor, B3 configuration with horizontal shaft, in conformity with IEC, CEI, UNEL standards (degree of protection IP55), single speed (4 poles).

TRANSMISSIONS:

The pulleys have a variable diameter for a better calibration of the fan.

The transmission belts can be SPA or SPB. The pulleys are supplied with "Taperlock" tapered locking set and are statically and dynamically balanced.

HEAT EXCHANGE COILS WITH WATER

Made of copper tube and aluminium finning blocked using mechanical expansion of the tubes; the main one can have 4 to 6 rows (hot or cold) and the secondary one 2,3 or 4 rows (just hot).

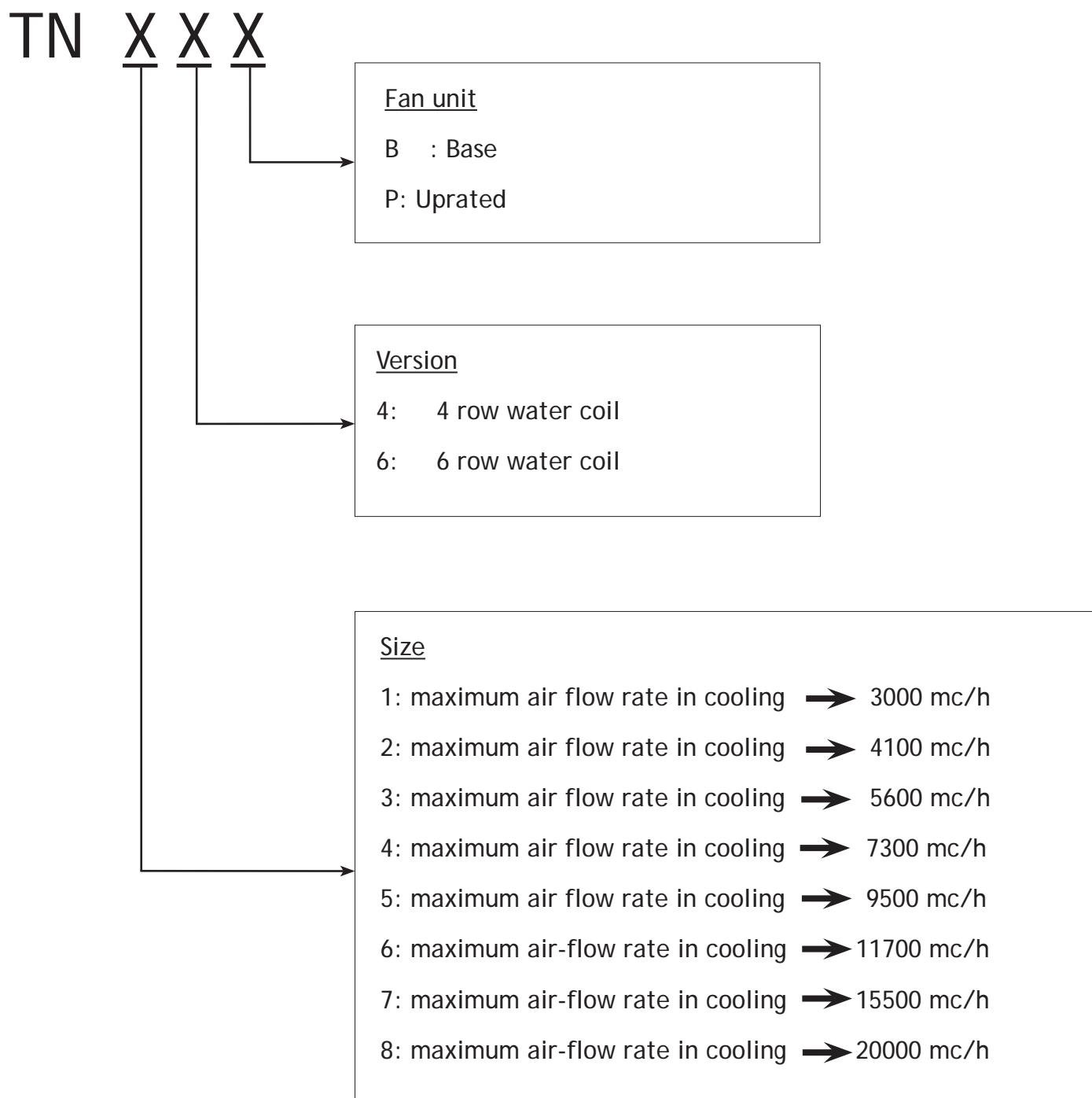
FILTERS

The air is filtered through synthetic filters, 50mm thick, in efficiency class G4 (in compliance with standard EN 779), positioned at the suction point. The filters can be easily extracted for maintenance and cleaning they are housed on guidetracks in the main coil section.

The filters are extracted by withdrawing them laterally through the door on the side of the panel with the connections.

For the FTMxT accessory, filtration takes place using compact filters with an F7 degree of filtration.

Identificazione dell'unità



Accessories

- PLxT Plenum

Composed of pre-sheared panels that can be opened on 3 sides, it can be mounted as an inlet or as an outlet; it is compatible with the accessories GAxT, GMxT, SAxT and TPPLxT. It includes mounting brackets and feet (only for the horizontal configuration).

- FT7MxT F7 compact Outlet filters of the fans

Compact filters with F7 filtration, composed of a plenum that can be opened on two sides, which can be positioned on the outlet of the machine; it is compatible with the accessories GMxT, SAxT and TPPxT. It includes fixing plates and feet (just for the horizontal configuration).

- B2RxT Hot water coil with 2 rows for lines with 4 tubes

Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

- B3RxT Hot water coil with 3 rows for lines with 4 tubes

Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

- B4RxT Hot water coil with 4 rows for lines with 4 tubes

Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

- SAxT Suction damper

Air calibration damper with galvanised steel fins. Fin pitch 50mm; galvanised steel adjusting pin : can be installed on the equipment base or the plenum.

- GMxT Outlet grille with adjustable fins

Grille with double row of fins that can be adjusted when emitting air into the room. Can be installed on the plenum.

- GAxT Suction grille

With fins fixed at an angle of 45°; Can be installed directly on the equipment base or on the plenum accessories.

- TPVSxT Protective roof for Vertical installation with top outlet

Composed of a pre-coated metal sheet, fastened to the side of the unit.

To be installed on the unit base

- TPVFxT Protective roof for Vertical installation

Composed of pre-coated diamond sheet, fastened to the side of the unit.

To be installed on: PLxT, FT7MxT and vertical unit base with front outlet.

- TPLxT Protective roof for horizontal installation with Front outlet

Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on unit base

- TPPLxT Protective roof for Plenum for horizontal installation with Front outlet

Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on PLxT and FT7MxT from size 3 to size 8.

- TPFTLxT Roof for protecting Pocket filters for installation on Line with Front outlet

Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on FT7MxT on sizes 1 and 2

- P50MBT Corner support feet for both the horizontal and vertical version

made of galvanised sheet: they can be fixed directly to the unit with the screws supplied.

- P50ACT Lateral support feet for the horizontal version.

made of galvanised sheet: they come with the accessories unit together with the bolts and screws.

TABLE SHOWING ACCESSORY COMPATIBILITY:

	Montaggio	TN 1	TN 2	TN 3	TN 4	TN 5	TN 6	TN 7	TN 8
GAxT	V - O	GA1T	GA2T	GA3T	GA4T	GA5T	GA6T	GA7T	GA8T
GMxT	V - O	GM1T	GM2T	GM3T	GM4T	GM5T	GM6T	GM7T	GM8T
SAxT	V O	SA1T	SA2T	SA3T	SA4T	SA5T	SA6T	SA7T	SA8T
B2RxT	V - O	B2R1T	B2R2T	B2R3T	B2R4T	B2R5T	B2R6T	B2R7T	B2R8T
B3RxT	V - O	B3R1T	B3R2T	B3R3T	B3R4T	B3R5T	B3R6T	B3R7T	B3R8T
B4RxT	V - O	B4R1T	B4R2T	B4R3T	B4R4T	B4R5T	B4R6T	B4R7T	B4R8T
PLxT	V - O	PL1T	PL2T	PL3T	PL4T	PL5T	PL6T	PL7T	PL8T
FT7MxT	V - O	FT7M1T	FT7M2T	FT7M3T	FT7M4T	FT7M5T	FT7M6T	FT7M7T	FT7M8T
TPVSxT	V	TPVS1T	TPVS2T	TPVS3T	TPVS4T	TPVS5T	TPVS6T	TPVS7T	TPVS8T
TPVFxT	V	TPVF1T	TPVF2T	TPVF3T	TPVF4T	TPVF5T	TPVF6T	TPVF7T	TPVF8T
TPLxT	O	TPL1T	TPL2T	TPL3T	TPL4T	TPL5T	TPL6T	TPL7T	TPL8T
TPPLxT	O	TPPL1T	TPPL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
TPFTLxT*	O	TPFTL1T	TPFTL2T	(TPPL3T)	(TPPL4T)	(TPPL5T)	(TPPL6T)	(TPPL7T)	(TPPL8T)
P50MBT	V - O	P50MBT							
P50ACT		P50ACT							

V - O = This accessory can be mounted on both the Vertical and Horizontal versions;

V = This accessory can be mounted only on the Vertical version;

O = This accessory can be mounted only on the Horizontal version;

* = On sizes 3 to 8 the TPPLxT roofs are assembled.

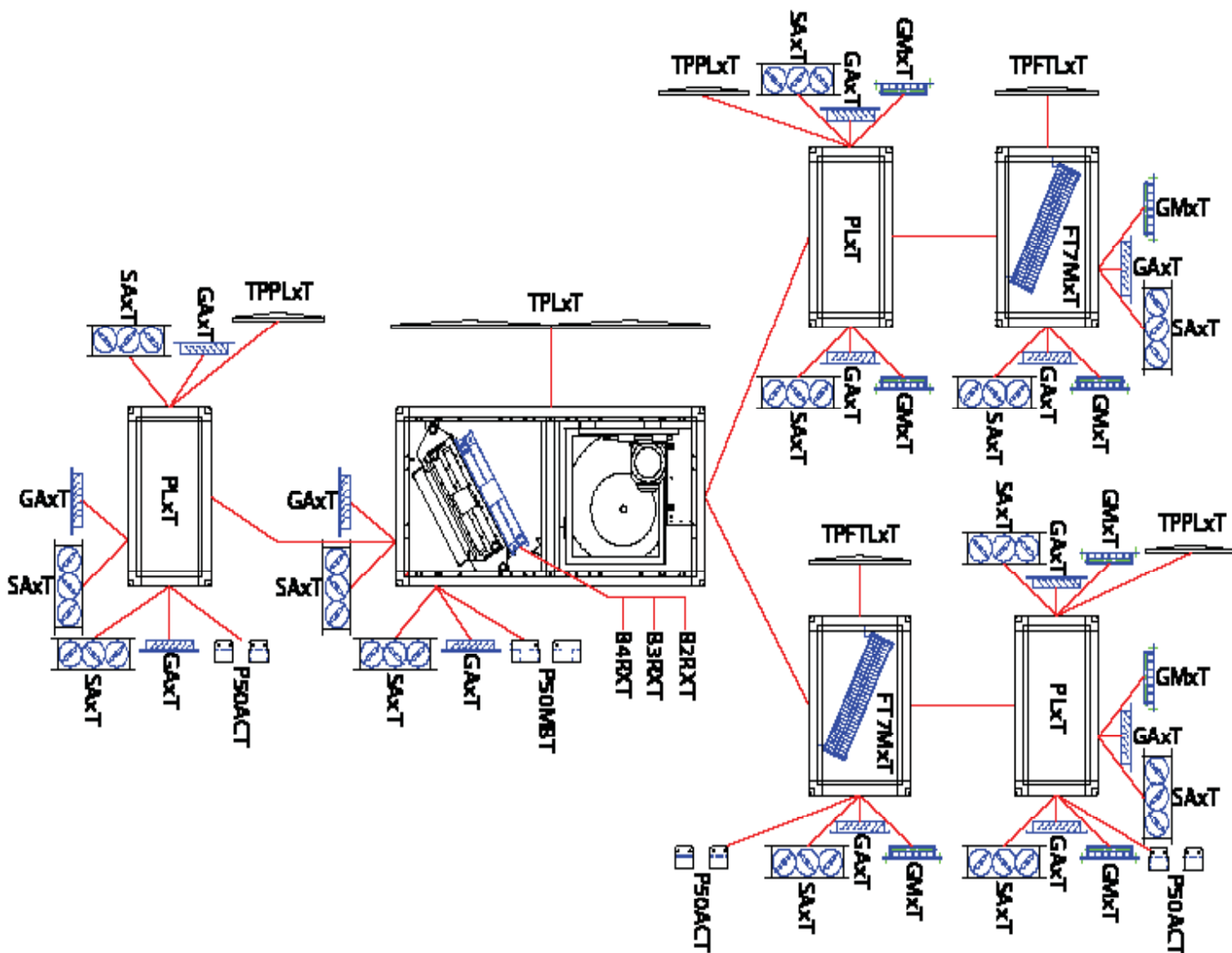
Compatibility of accessories

The various ways of combing the accessories with the unit are shown in the diagrams below. The diagrams show a horizontal and

vertical configuration of the unit respectively. The diagrams may not fully represent all the available

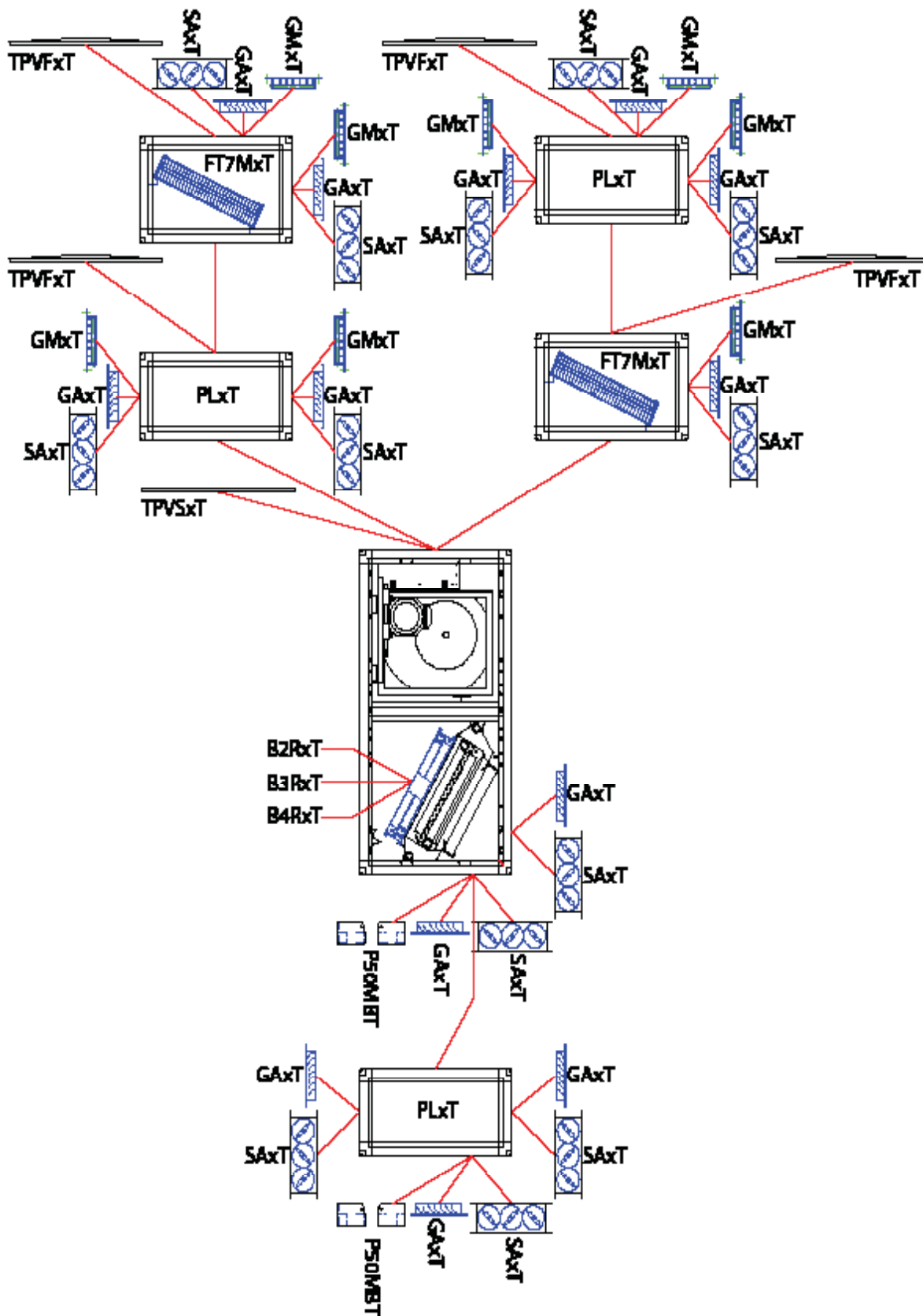
combinations: you are, however, advised to respect the rules laid out and to contact the Aermec Technical/Sales Office if necessary.

Diagram of the compatibility of TN accessories - horizontal installation.



NB: if the fan is rotated with the outlet towards the bottom, outlet accessories are not compatible

Diagram of the compatibility of TN accessories - vertical installation



NB: if the fan is rotated with the outlet at the front, the only compatible accessory on the outlet of the machine is the roof (TPVxT)

Nominal technical data

Model		TN 1	TN 2	TN 3	TN 4	TN 5	TN 6	TN 7	TN 8	
Maximum air flow rate (1)	m ³ /h	3000	4100	5650	7350	9300	11700	15500	20000	
Maximum air flow rate (2)	m ³ /h	3500	4700	6400	8000	10000	13400	17800	20000	
Maximum air flow rate (3)	m ³ /h	3500	4700	6400	8400	10900	13400	17800	23000	
Static pressure maximum fan	Base unit	Pa	425	455	452	440	383	425	436	360
	Uprated unit	Pa	600	627	674	672	567	670	625	610
Cooling capacity with 4 row coil (4)	total	kW	15,6	21,3	29,1	38,1	44,8	56,7	74,7	96,4
	sensible	kW	10,7	14,7	20,1	26,2	33,3	41,7	55,1	70,9
Cooling capacity with 6 row coil (4)	total	kW	20,0	27,4	37,7	49,2	58,3	74,5	98,9	127,8
	sensible	kW	13,4	18,3	25,2	32,8	41,1	51,8	68,8	88,5
Cooling capacity with 4 row coil (5)	total	kW	18,9	25,8	35,3	46,3	56,1	70,7	93,3	120,2
	sensible	kW	12,0	16,4	22,4	29,3	37,5	46,9	62,1	79,8
Cooling capacity with 6 row coil (5)	total	kW	23,9	32,9	45,3	59,2	71,6	90,6	120,3	155,1
	sensible	kW	15,0	20,5	28,3	36,9	46,4	58,3	77,4	99,6
Heating capacity with 2 row coil (6)	kW	25,2	34,0	46,8	61,5	84,4	103,8	138,0	178,5	
Heating capacity with 3 row coil (6)	kW	33,5	45,6	62,7	82,0	110,8	137,3	182,5	234,4	
Heating capacity with 4 row coil (6)	kW	40,0	54,5	74,9	97,6	131,1	162,9	216,1	277,3	
Heating capacity with 6 row coil (6)	kW	48,7	66,6	91,5	119,2	157,5	196,8	260,4	334,1	
Heating capacity with 2 row coil (7)	kW	14,7	19,8	27,3	36,0	49,0	60,3	80,1	103,8	
Heating capacity with 3 row coil (7)	kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3	
Heating capacity with 4 row coil (7)	kW	23,4	31,9	43,7	57,0	76,3	94,8	125,8	161,4	
Heating capacity with 6 row coil (7)	kW	28,5	38,9	53,5	69,6	91,7	114,3	151,7	194,6	
COILS										
H pack coil	mm	475	475	550	550	720	720	960	960	
L pack coil	mm	680	920	1080	1410	1390	1710	1710	2200	
Front surface	m ²	0,323	0,437	0,594	0,775	1	1,231	1,641	2,112	
4 row manifolds diameter		1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"	
6 row manifolds diameter		1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"	2"	
Diameter of condensate discharge pipe		1" M - 3/4" F	1" M - 3/4" F	1" M - 3/4" F	1" M - 3/4" F	1" M - 3/4" F	1" M - 3/4" F	1" M - 3/4" F	1" M - 3/4" F	
FAN		TLZ 280	TLZ 280	TLZ 315	TLZ 315	TLZ 400	TLZ 400	TLZ 500	TLZ 500	
MOTOR										
Power supply	V/n°/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	
Power/Poles (Base unit)	Kw/n°	0,75 / 4	1,1 / 4	1,5 / 4	2,2 / 4	2,2 / 4	4 / 4	4 / 4	5,5 / 4	
Power/Poles (Uprated unit)	Kw/n°	1,1 / 4	1,5 / 4	2,2 / 4	3 / 4	3 / 4	5,5 / 4	5,5 / 4	7,5 / 4	
FILTERS										
Flat filter efficiency (8)		G4	G4	G4	G4	G4	G4	G4	G4	
Efficiency of compact filters (8) [accessory]		F7	F7	F7	F7	F7	F7	F6	F6	

note (1) With cooling coil

note (2) With heating coil with BASE unit version

note (3) With heating coil with UPRATED unit version

note (4) Temperature of incoming air 27°C d.b. 19°C w.b.; water temperature (In-Out) 7°C 12°C

note (5) Temperature of incoming air 27°C d.b. 19°C w.b.; water temperature (In-Out) 5°C - 10°C

note (6) Temperature of incoming air 10°C; water temperature (In-Out) 70°C 60°C

note (7) Temperature of incoming air 10°C; water temperature (In-Out) 45°C 40°C

note (8) in compliance with EN 779

Transmission technical data

Model	STANDARD TRANSMISSION (version B)					UPRATED TRANSMISSION (version P)			
	Item	Description	Ø MIN	Ø FIXED	Ø MAX	Description	Ø MIN	Ø FIXED	Ø MAX
TN1x	Fan pulley diameter	Fixed 1 SPA 118		118		Fixed 1 SPA 118		118	
TN1x	Fan bushing	1610 / 25				1610 / 25			
TN1x	Motor pulley	Variable 1 SPA 108	78	98	102	Variable 1 SPA 129	97	116	123
TN1x	Motor bushing	1210 / 19				1210 / 24			
TN1x	SPA belt	1 x 732				1 x 757			
TN1x	Centre distance [mm]	193	962	1203	1258	189	1196	1435	1517
TN2x	Fan pulley diameter	Fixed 1 SPA 118		118		Fixed 1 SPA 118		118	
TN2x	Fan bushing	1610 / 25				1610 / 25			
TN2x	Motor pulley	Variable 1 SPA 108	78	96	102	Variable 1 SPA 129	97	117	123
TN2x	Motor bushing	1210 / 24				1210 / 24			
TN2x	SPA belt	1 x 732				1 x 732			
TN2x	Centre distance [mm]	193	962	1182	1258	189	1196	1438	1517
TN3x	Fan pulley diameter	Fixed 1 SPA 160		160		Fixed 1 SPA 170		170	
TN3x	Fan bushing	1610 / 25				1610 / 25			
TN3x	Motor pulley	Variable 1 SPA 129	97	114	123	Variable 1 SPA 164	134	150	158
TN3x	Motor bushing	1210 / 24				1610 / 28			
TN3x	SPA belt	1 x 882				1 x 932			
TN3x	Centre distance [mm]	217	882	1035	1119	208	1147	1282	1352
TN4x	Fan pulley diameter	Fixed 1 SPA 200		200		Fixed 2 SPA 132		132	
TN4x	Fan bushing	2012 / 25				2012 / 25			
TN4x	Motor pulley	Variable 1 SPA 164	134	148	158	Variable 2 SPA 129	97	98	123
TN4x	Motor bushing	1610 / 28				1215 / 28			
TN4x	SPA belt	1 x 1000				2 x 832			
TN4x	Centre distance [mm]	217	975	1075	1149	215	1069	1075	1356
TN5x	Fan pulley diameter	Fixed 1 SPA 250		250		Fixed 2 SPA 160		160	
TN5x	Fan bushing	2012 / 30				2012 / 30			
TN5x	Motor pulley	Variable 1 SPA 156	126	140	156	Variable 2 SPA 120	84	108	114
TN5x	Motor bushing	1610 / 28				1215 / 28			
TN5x	SPA belt	1 x 1232				2 x 1007			
TN5x	Centre distance [mm]	297	733	816	908	287	764	983	1037
TN6x	Fan pulley diameter	Fixed 2 SPA 224		224		Fixed 2 SPA 236		236	
TN6x	Fan bushing	2517 / 30				2517 / 30			
TN6x	Motor pulley	Variable 2 SPA 139	109	129	133	Variable 2 SPA 177	149	166	171
TN6x	Motor bushing	1615 / 28				2012 / 38			
TN6x	SPA belt	2 x 1157				2 x 1207			
TN6x	Centre distance [mm]	294	708	836	864	281	919	1026	1054
TN7x	Fan pulley diameter	Fixed 2 SPA 280		280		Fixed 2 SPA 280		280	
TN7x	Fan bushing	2517 / 35				2517 / 35			
TN7x	Motor pulley	Variable 2 SPA 139	109	127	133	Variable 2 SPA 164	134	157	158
TN7x	Motor bushing	1615 / 28				1615 / 38			
TN7x	SPA belt	2 x 1657				2 x 1682			
TN7x	Centre distance [mm]	498	566	660	691	493	696	818	821
TN8x	Fan pulley diameter	Fixed 2 SPA 355		355		Fixed 2 SPB 300		300	
TN8x	Fan bushing	2517 / 35				2517 / 35			
TN8x	Motor pulley	Variable 2 SPA 177	149	158	171	Variable 2 SPB 177	139	170	171
TN8x	Motor bushing	2012 / 38				2012 / 38			
TN8x	SPA belt	2 x 1832				2 x 1700 (SPB)			
TN8x	Centre distance [mm]	494	647	686	743	475	674	826	829

Sound power of the fan at the outlet (dB)

			63	125	250	500	1000	2000	4000	8000	Lw tot [dB]	Lp tot * [dB]
TN1	BASE	[1]	83	77	77	74	73	70	68	61	86	58
		[2]	76	70	71	73	69	65	64	55	79	52
	UPRATED	[1]	87	81	81	78	77	74	72	65	89	61
		[2]	83	77	77	74	73	70	68	61	85	57
TN2	BASE	[1]	76	74	76	75	76	74	72	66	83	55
		[2]	78	72	73	75	71	67	66	57	82	54
	UPRATED	[1]	79	77	79	78	79	77	75	69	86	58
		[2]	75	73	75	74	75	73	71	65	82	54
TN3	BASE	[1]	83	75	76	78	72	69	67	55	86	58
		[2]	80	73	73	75	69	66	64	52	83	55
	UPRATED	[1]	80	79	80	77	77	73	71	65	87	59
		[2]	77	76	77	74	74	70	68	62	84	56
TN4	BASE	[1]	80	78	80	77	77	73	71	65	86	58
		[2]	78	74	76	81	76	73	72	64	85	57
	UPRATED	[1]	82	80	82	79	79	75	73	67	88	60
		[2]	86	78	79	81	75	72	70	58	88	60
TN5	BASE	[1]	78	77	76	79	75	73	71	64	85	57
		[2]	77	76	75	78	74	72	70	63	84	56
	UPRATED	[1]	80	79	78	81	77	75	73	66	87	59
		[2]	78	77	76	79	75	73	71	64	84	56
TN6	BASE	[1]	82	81	80	83	79	77	75	68	89	61
		[2]	74	74	74	80	79	77	76	70	86	58
	UPRATED	[1]	83	82	81	84	80	78	76	69	90	62
		[2]	82	81	80	83	79	77	75	68	89	61
TN7	BASE	[1]	82	82	80	82	79	77	74	69	89	61
		[2]	80	80	78	80	77	75	72	67	87	59
	UPRATED	[1]	84	84	82	84	81	79	76	71	91	63
		[2]	82	82	80	82	79	77	74	69	89	61
TN8	BASE	[1]	87	85	83	85	83	82	80	75	92	64
		[2]	87	85	83	85	83	82	80	75	92	64
	UPRATED	[1]	87	87	85	87	84	82	79	74	93	65
		[2]	87	85	83	85	83	82	80	75	92	64

[1] at maximum head, at the nominal flowrate with cooling coil

[2] at minimum head, at the nominal flowrate with cooling coil

*Sound pressure at the distance of $d = 10$ m, $Q = 2$

Sound power of the fan extraction (dB)

			63	125	250	500	1000	2000	4000	8000	Lw tot [dB]	Lp tot * [dB]
TN1	BASE	[1]	76	75	72	70	69	67	63	59	80	52
		[2]	71	70	67	65	64	62	58	54	76	48
	UPRATED	[1]	79	78	75	73	72	70	66	62	84	56
		[2]	75	74	71	69	68	66	62	58	80	52
TN2	BASE	[1]	77	76	73	71	70	68	64	60	82	54
		[2]	74	73	70	68	67	65	61	57	79	51
	UPRATED	[1]	80	79	76	74	73	71	67	63	85	57
		[2]	77	76	73	71	70	68	64	60	81	53
TN3	BASE	[1]	79	78	75	73	72	70	66	62	84	56
		[2]	77	76	73	71	70	68	64	60	81	53
	UPRATED	[1]	82	81	78	76	75	73	69	65	86	58
		[2]	80	79	76	74	73	71	67	63	84	56
TN4	BASE	[1]	82	81	78	76	75	73	69	65	87	59
		[2]	81	80	77	75	74	72	68	64	86	58
	UPRATED	[1]	84	83	80	78	77	75	71	67	89	61
		[2]	86	78	79	81	75	72	70	58	88	60
TN5	BASE	[1]	81	80	77	75	74	72	68	64	85	57
		[2]	80	79	76	74	73	71	67	63	85	57
	UPRATED	[1]	83	82	79	77	76	74	70	66	88	60
		[2]	80	79	76	74	73	71	67	63	85	57
TN6	BASE	[1]	84	83	80	78	77	75	71	67	89	61
		[2]	83	82	79	77	76	74	70	66	88	60
	UPRATED	[1]	86	85	82	80	79	77	73	69	91	63
		[2]	85	84	81	79	78	76	72	68	89	61
TN7	BASE	[1]	84	83	80	78	77	75	71	67	89	61
		[2]	82	81	78	76	75	73	69	65	87	59
	UPRATED	[1]	87	86	83	81	80	78	74	70	91	63
		[2]	85	84	81	79	78	76	72	68	89	61
TN8	BASE	[1]	87	86	83	81	80	78	74	70	92	64
		[2]	87	86	83	81	80	78	74	70	92	64
	UPRATED	[1]	89	88	85	83	82	80	76	72	94	66
		[2]	87	86	83	81	80	78	74	70	92	64

[1] at maximum head, at the nominal flowrate with cooling coil

[2] at minimum head, at the nominal flowrate with cooling coil

*Sound pressure at the distance of $d = 10$ m, $Q = 2$

Characteristic ventilation curves

The following graphs represent, for each size, the indication range of the ventilating units composed of a fan, electric motor and pulley with a variable diameter.

1. Structure of the graphs:

In each graph you can see:

1.a) the performance curve for the version with a base ventilating unit (version "B" unit): the performance curve is enclosed by the continuous line and represents the maximum static pressure of the fan unit (top line) and the minimum static pressure of the fan unit (bottom line);

1.b) the performance curve for the version with a uprated fan unit (version "P" unit): the performance curve is enclosed by the dotted line and represents the maximum static pressure of the fan unit (top line) and the minimum static pressure of the fan unit (bottom line);

1.c) highlighted areas inside the performance curve: they represent the flow rate ranges that are not compatible with the use of cold coils. Therefore, if the unit has a cold coil, the performance curve of the fan unit is limited to the areas that are not highlighted; if the unit has a hot coil, the performance curve of the fan unit extends also to the areas that are highlighted;.

2. Using the graphs for verification:

2.a) the desired operating flow rate is identified: the permissible minimum and maximum flow rates have to be within the vertical segments of the workspaces. If there are cold coils, the maximum flow rate is limited (see point 1.c);

2.b) you add the useful static pressure that you want to have available for the delivery flow with the pressure drops of the internal component to the flowrate that has been identified (table below the graphs);

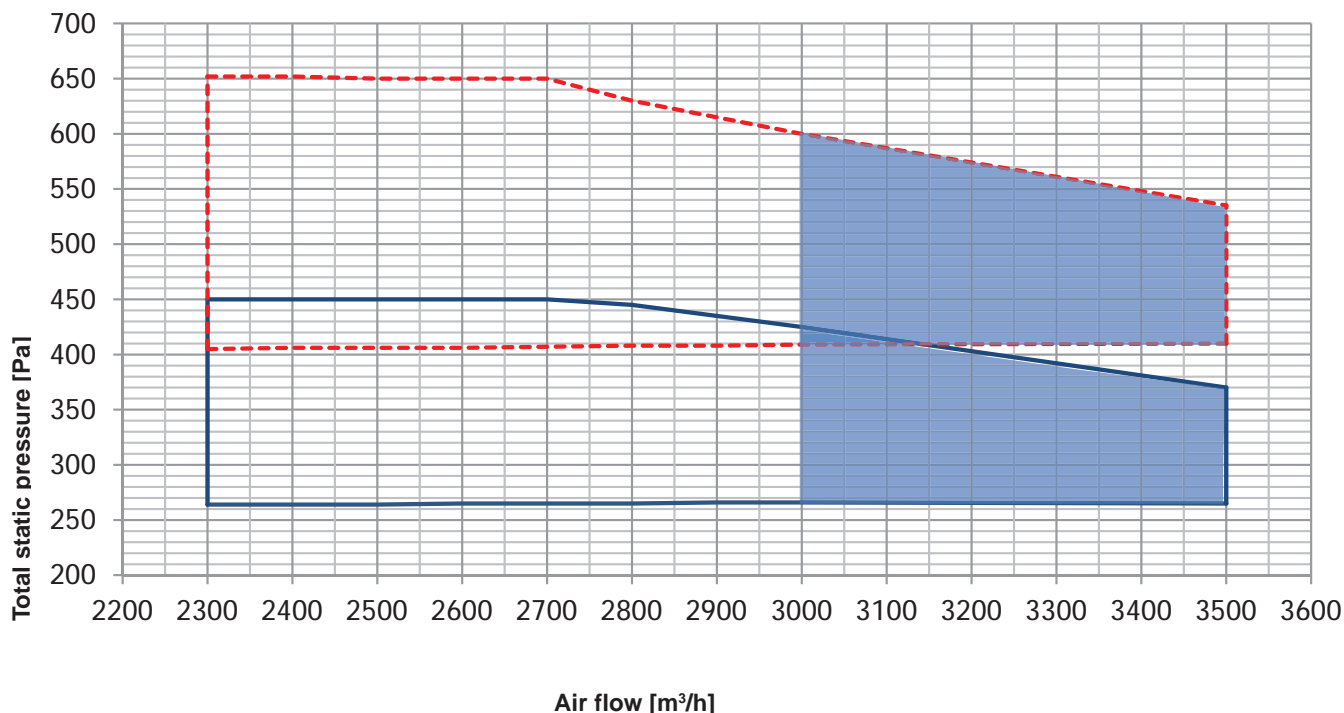
2.c) check that the pressure value is within the indication range of the base fan unit (version "B" unit) and/or the uprated fan unit (version "P" unit).

3. Use of the graphs for sizing:

3.a) identify the desired flow rate: the permissible minimum and maximum flow rates have to be within the vertical segments of the workspaces. If there are cold coils, the maximum flow rate is limited (see point 1.c);

3.b) go to the top lines of the performance curves of the base or uprated fan unit. Identify the total pressure value supplied by the base or uprated fan unit, from this value subtract the pressure drops of the internal components at the identified flow rate (table below the graphs): this results in the maximum useful static pressure delivered by the unit.

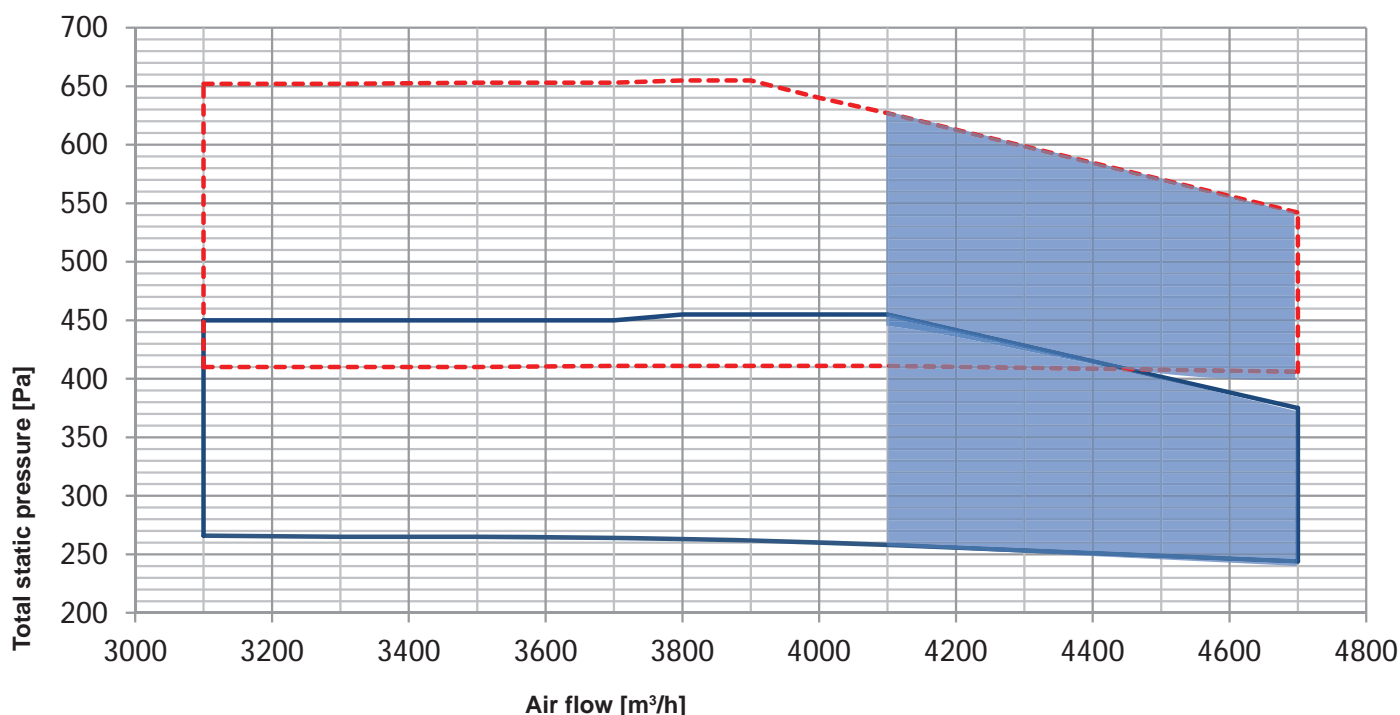
TN1



----- Version P : Uprated
 _____ Version B : Base
 ■ Field not compatible with cooling coils

Pressure drops of internal components														
Components	Flow rate [mc/h]													
	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	
TN14B - 4 Row Coil [Pa]	49	53	57	61	65	70	74	79	84	88	93	99	104	
TN16B - 6 Row Coil [Pa]	74	79	85	92	98	105	112	119	126	133	141	149	156	
B2R1TXB- 2 Row Coil (hot) [Pa]	17	18	20	21	23	24	26	27	29	31	32	34	36	
B3R1T - 3 Row Coil (hot) [Pa]	26	28	30	32	34	36	39	41	44	46	49	52	54	
B4R1T - 4 Row Coil (hot) [Pa]	49	53	57	61	65	70	74	79	84	88	93	99	104	
TN1XB - Pressure drops of flat filtersNew [Pa]	39	42	45	48	52	55	59	62	66	70	74	78	82	
TN1XB-Pressure drops of Medium Life Flat filters [Pa]	119	121	122	124	126	128	129	131	133	135	137	139	141	
FT7M1T Pressure drops of bag filtersNew [Pa]	78	84	90	97	104	111	118	126	133	141	149	157	166	
FT7M1T Pressure drops of Medium Life Pocket filters [Pa]	164	167	170	174	177	180	184	188	192	195	200	204	208	
GA1T Suction grille [Pa]	11	12	12	13	13	14	14	14	15	16	17	18	19	
GM1T Delivery grille [Pa]	12	12	13	13	14	14	15	16	16	17	18	19	20	
SA1T Calibration damper [Pa]	9	9	9	10	11	11	11	11	12	13	14	14	15	

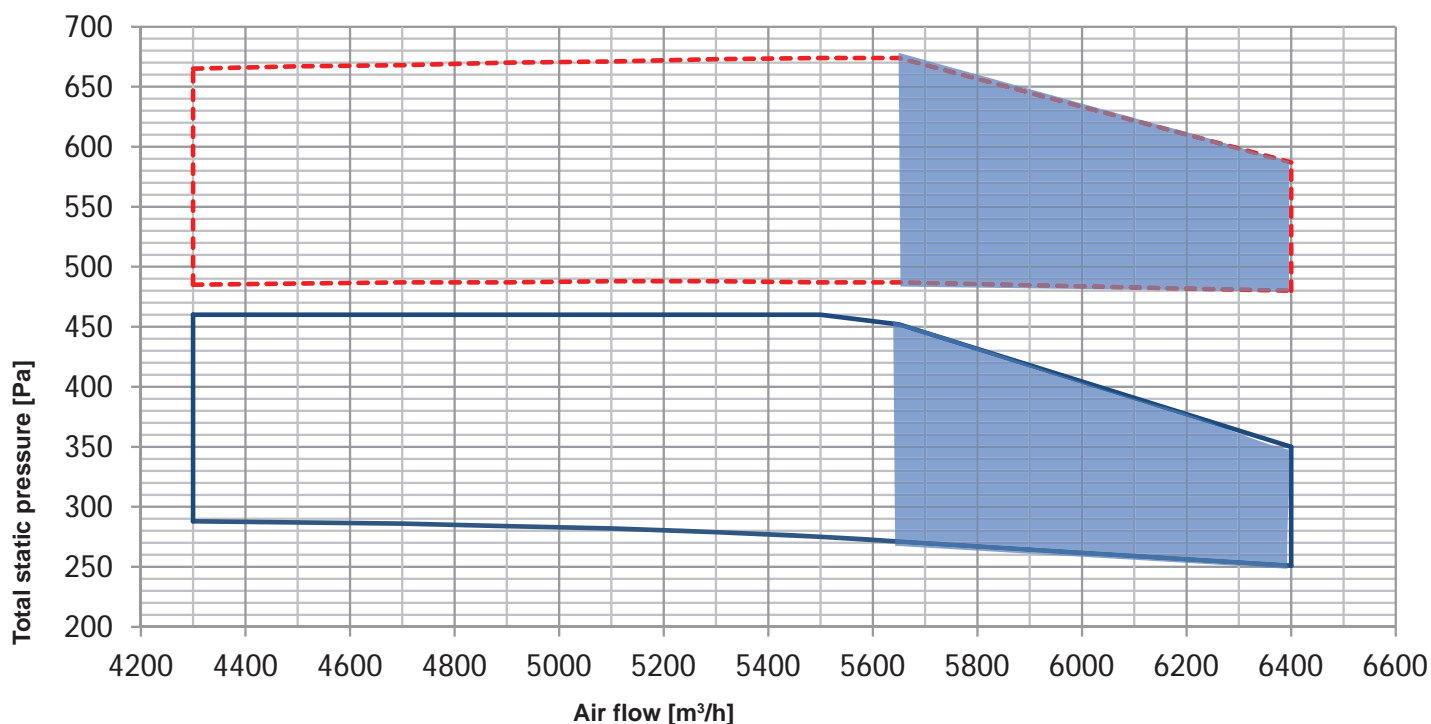
TN2



- - - - - Version P : Updated
 ————— Version B : Base
 ■■■■■ Field not compatible with cooling coils

Pressure drops of internal components											
Components	Flow rate [mc/h]										
	3100	3300	3500	3700	3800	3900	4000	4100	4300	4500	4700
TN24B - 4 Row Coil [Pa]	49	55	61	67	70	74	77	81	88	95	103
TN26B - 6 Row Coil [Pa]	74	82	91	101	106	111	116	122	132	144	155
B2R2T- 2 Row Coil (hot) [Pa]	17	19	21	23	24	25	27	28	30	33	36
B3R2T- 3 Row Coil (hot) [Pa]	25	28	31	35	36	38	40	42	46	49	54
B4R2T - 4 Row Coil (hot) [Pa]	49	55	61	67	70	74	77	81	88	95	103
TN2XB - Pressure drops of flat filtersNew [Pa]	48	53	59	65	69	72	75	79	86	93	101
TN2XB-Pressure drops of Medium Life Flat filters [Pa]	124	127	130	133	134	136	138	139	143	147	150
FT7M2T Pressure drops of Pocket filtersNew [Pa]	65	73	81	90	94	98	103	108	117	127	138
FT7M2T Pressure drops of Medium Life Pocket filters [Pa]	158	161	166	170	172	174	177	179	184	189	194
GA2T Suction grille [Pa]	11	12	12	13	13	14	14	14	16	17	18
GM2T Delivery grille [Pa]	12	12	13	14	14	15	15	15	17	18	20
SA2T Calibration damper [Pa]	9	9	10	10	10	11	11	11	12	13	14

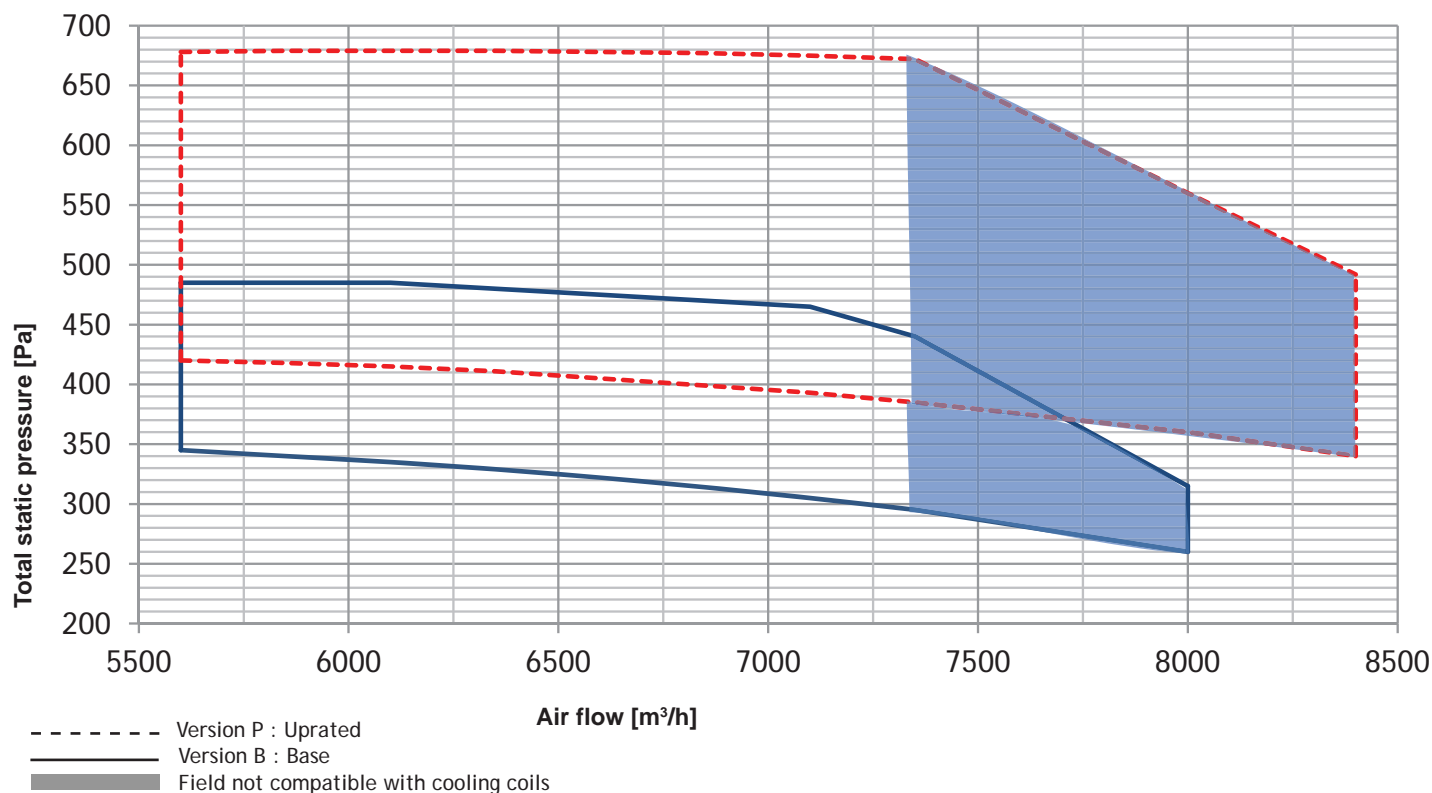
TN3



----- Version P : Upgraded
 _____ Version B : Base
 ■ Field not compatible with cooling coils

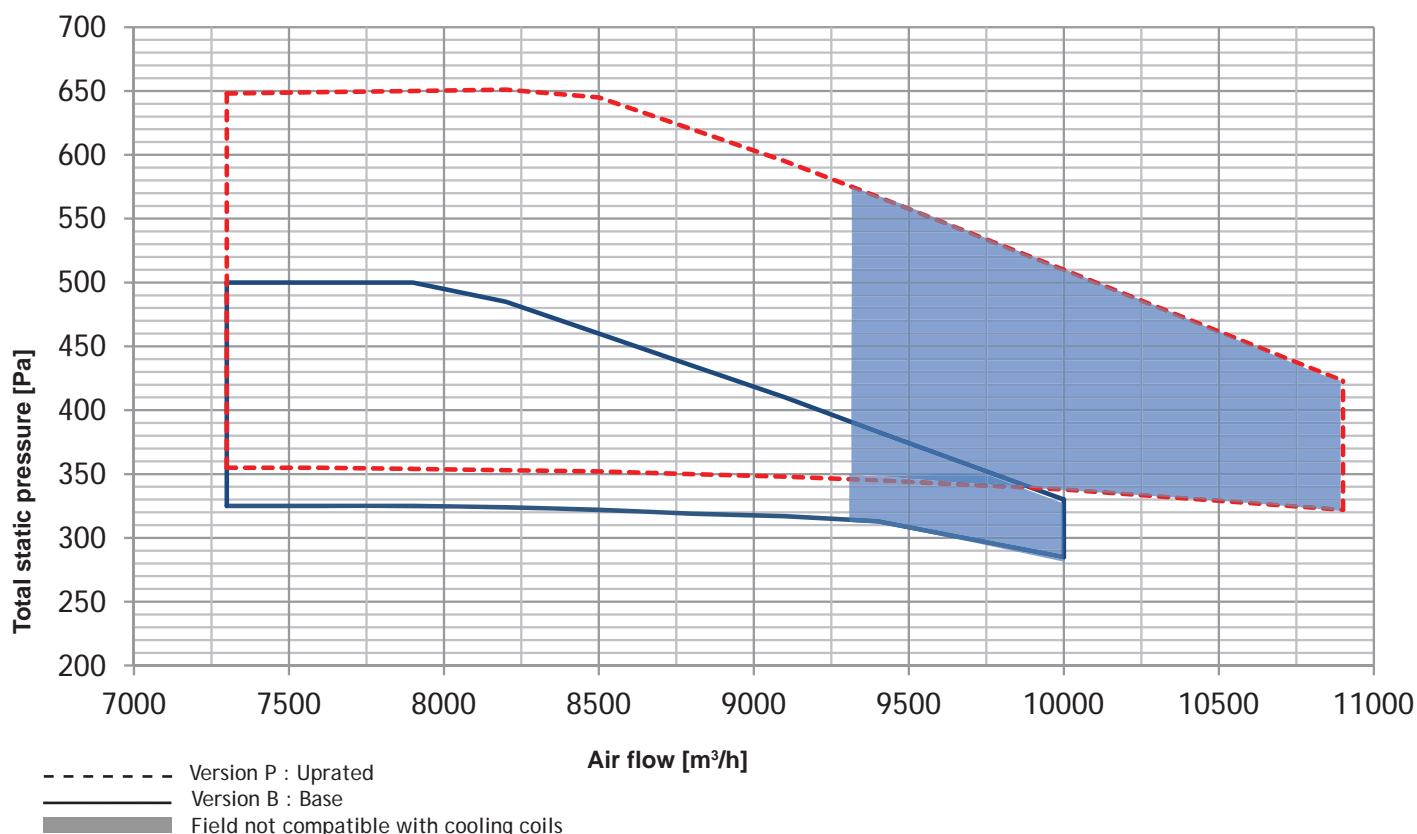
Pressure drops of internal components												
Components	Flow rate [mc/h]											
	4300	4500	4700	4900	5100	5300	5500	5650	5800	6000	6200	6400
TN34B - 4 Row Coil [Pa]	50	55	59	64	68	73	78	82	86	92	97	103
TN36B - 6 Row Coil [Pa]	76	82	89	96	103	110	118	124	130	138	146	155
B2R3T- 2 Row Coil (hot) [Pa]	17	19	20	22	24	25	27	28	30	32	34	36
B3R3T - 3 Row Coil (hot) [Pa]	26	29	31	33	36	38	41	43	45	48	51	54
B4R3T - 4 Row Coil (hot) [Pa]	50	55	59	64	68	73	78	82	86	92	97	103
TN3XB - Pressure drops of flat filters New [Pa]	42	45	49	53	56	61	65	68	71	76	80	85
TN3XB-Pressure drops of Medium Life Flat filters [Pa]	121	123	124	126	128	130	132	134	136	138	140	142
FT7M3T Pressure drops of Pocket filters New [Pa]	48	52	57	61	66	70	75	79	83	88	93	99
FT7M3T Pressure drops of Medium Life Pocket filters [Pa]	149	151	153	155	158	160	163	164	166	169	172	174
GA3T Suction grille [Pa]	9	10	10	11	11	12	12	12	13	14	15	15
GM3T Delivery grille [Pa]	10	11	11	12	12	13	13	13	14	15	16	17
SA3T Calibration damper [Pa]	7	7	8	8	8	9	9	9	10	10	11	12

TN4



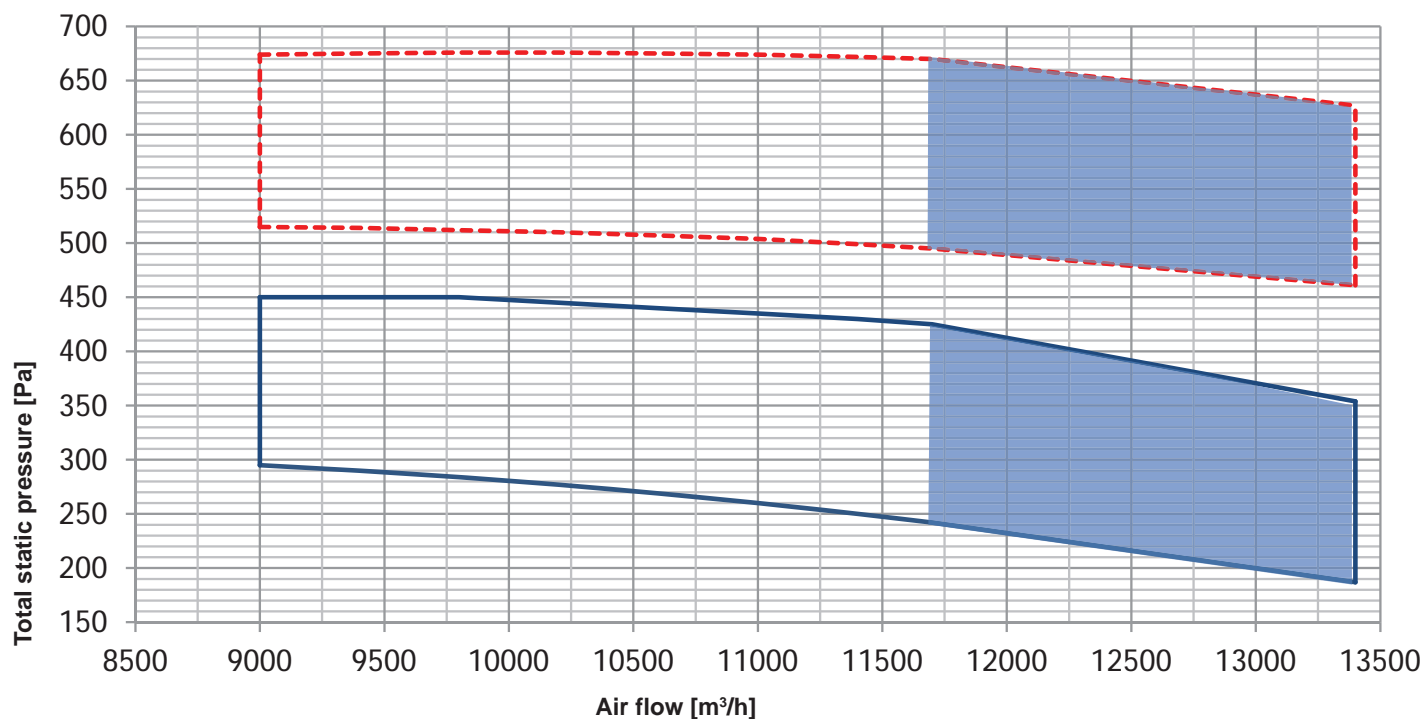
Pressure drops of internal components												
Components	Flow rate [mc/h]											
	5600	5850	6100	6350	6600	6850	7100	7350	7600	7850	8100	8400
TN44B 4 Row Coil [Pa]	50	54	58	63	67	72	77	82	87	92	97	104
TN46B - 6 Row Coil [Pa]	76	82	88	95	101	109	116	123	131	139	147	157
B2R4T - 2 Row Coil (hot) [Pa]	17	19	20	22	23	25	27	28	30	32	34	36
B3R4T - 3 Row Coil (hot) [Pa]	26	28	30	33	35	38	40	43	45	48	51	54
B4R4T - 4 Row Coil (hot) [Pa]	50	54	58	63	67	72	77	82	87	92	97	104
TN4XB - Pressure drops of flat filters New [Pa]	44	48	52	56	60	64	68	73	77	82	86	92
TN4XB-Pressure drops of Medium Life Flat filters [Pa]	122	124	126	128	130	132	134	136	139	141	143	146
FT7M4T Pressure drops of Pocket filters New [Pa]	53	57	62	67	71	76	81	87	92	97	103	110
FT7M4T Pressure drops of Medium Life Pocket filters [Pa]	152	154	156	158	161	163	166	168	171	174	177	180
GA4T Suction grille [Pa]	10	11	11	12	12	13	13	13	14	15	15	15
GM4T Delivery grille [Pa]	11	12	12	13	13	14	14	14	15	16	17	17
SA4T Calibration damper [Pa]	8	8	9	9	9	10	10	10	11	12	12	12

TN5



Pressure drops of internal components													
Components	Flow rate [mc/h]												
	7300	7600	7900	8200	8500	8800	9100	9400	9700	10000	10300	10600	10900
TN54B - 4 Row Coil [Pa]	59	63	68	73	77	82	88	93	98	104	109	115	121
TN56B - 6 Row Coil [Pa]	76	81	87	93	99	106	112	119	126	133	140	148	155
B2R5T-2 Row Coil (hot) [Pa]	26	28	30	33	35	37	39	42	44	47	49	52	54
B3R5T - 3 Row Coil (hot) [Pa]	34	37	39	42	45	48	51	54	57	60	64	67	70
B4R5T - 4 Row Coil (hot) [Pa]	59	63	68	73	77	82	88	93	98	104	109	115	121
TN5XB - Pressure drops of flat filters New [Pa]	48	52	55	59	63	67	71	76	80	84	89	94	99
TN5XB-Pressure drops of Medium Life Flat filters [Pa]	124	126	128	130	132	134	136	138	140	142	145	147	149
FT7M5T Pressure drops of Pocket filters New [Pa]	85	92	99	105	112	120	127	135	143	151	159	167	176
FT7M5T Pressure drops of Medium Life Pocket filters [Pa]	168	171	174	178	181	185	189	192	196	200	204	209	213
GA5T Suction grille [Pa]	10	11	11	12	12	13	13	13	14	15	16	17	18
GM5T Delivery grille [Pa]	11	12	12	13	13	14	14	14	15	16	17	18	19
SA5T Calibration damper [Pa]	8	8	9	9	9	10	10	10	11	12	12	13	13

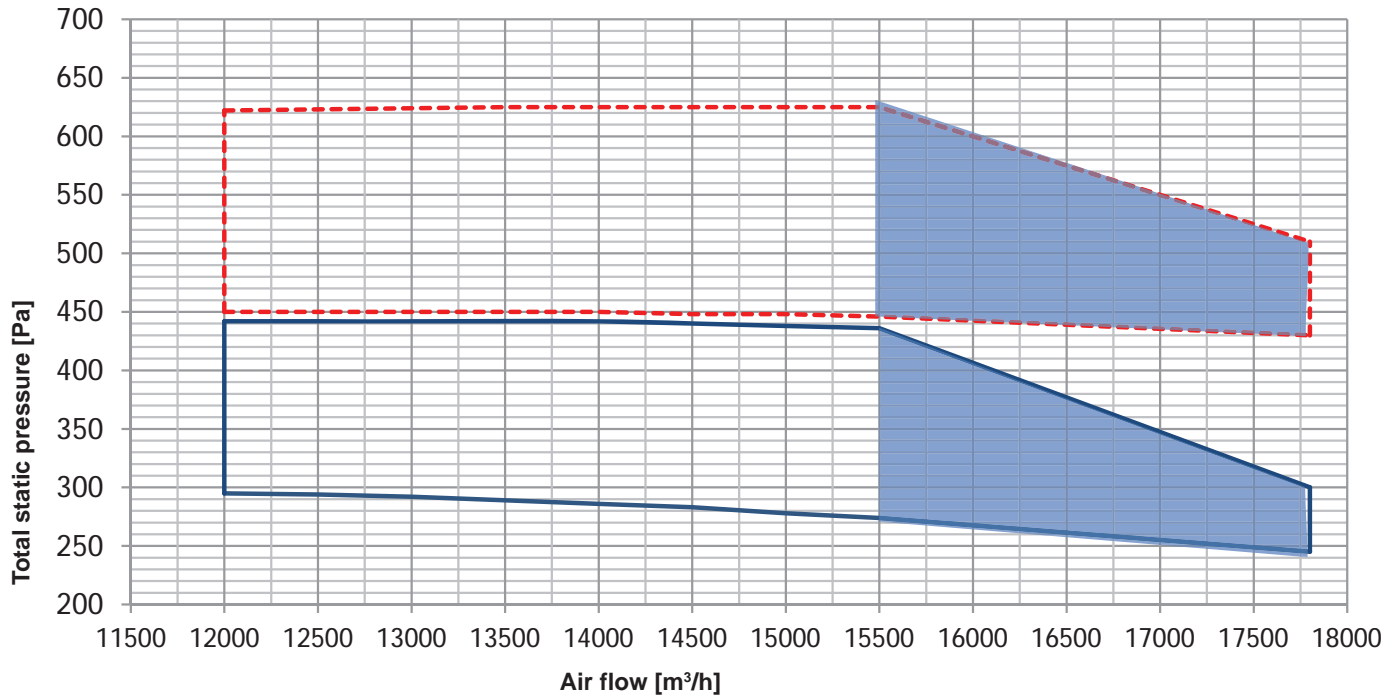
TN6



----- Version P : Updated
 _____ Version B : Base
 ■ Field not compatible with cooling coils

Pressure drops of internal components													
Components	Flow rate [mc/h]												
	9000	9400	9800	10200	10600	11000	11400	11700	12000	12400	12800	13100	13400
TN64B - 4 Row Coil [Pa]	59	64	69	74	80	85	91	95	100	106	112	117	121
TN66B - 6 Row Coil [Pa]	77	83	90	96	103	110	118	123	129	137	145	151	157
B2R6T-2 Row Coil (hot) [Pa]	27	29	31	33	36	38	41	43	45	47	50	52	54
B3R6T - 3 Row Coil (hot) [Pa]	34	37	40	43	46	49	53	55	58	61	65	68	70
B4R6T - 4 Row Coil (hot) [Pa]	59	64	69	74	80	85	91	95	100	106	112	117	121
TN6XB - Pressure drops of flat filters New [Pa]	46	50	53	57	62	66	70	73	77	82	86	90	94
TN6XB-Pressure drops of Medium Life Flat filters [Pa]	123	125	127	129	131	133	135	137	138	141	143	145	147
FT7M6T Pressure drops of Pocket filters New [Pa]	88	95	102	110	118	126	134	141	147	156	166	173	180
FT7M6T Pressure drops of Medium Life Pocket filters [Pa]	169	172	176	180	184	188	192	195	199	203	208	211	215
GA6T Suction grille [Pa]	10	11	11	12	12	13	13	13	14	15	16	16	17
GM6T Delivery grille [Pa]	11	12	12	13	13	14	14	14	15	16	17	18	18
SA6T Calibration damper [Pa]	8	8	9	9	9	10	10	10	11	11	12	13	13

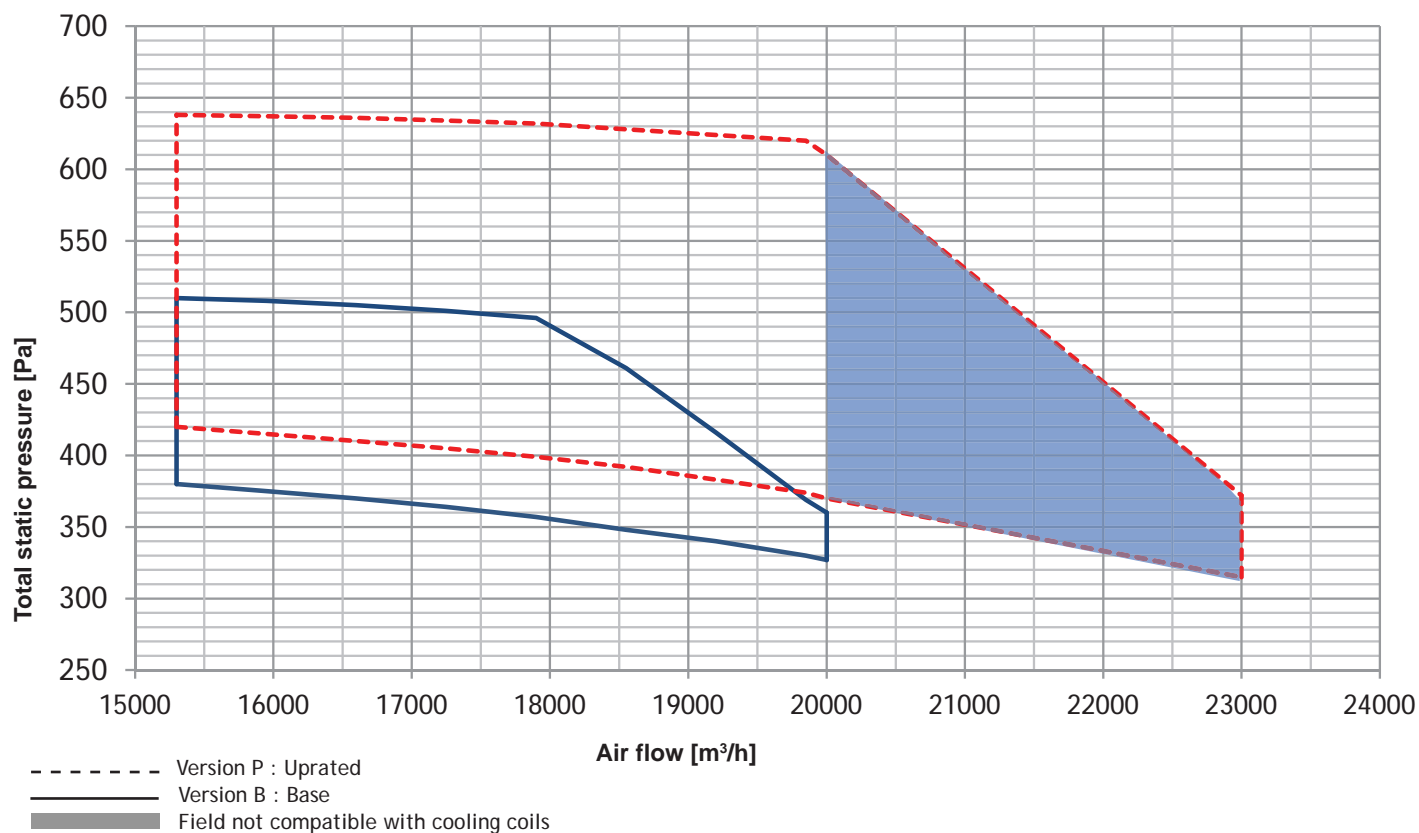
TN7



- - - - - Version P : Updated
 ————— Version B : Base
 ■■■■■ Field not compatible with cooling coils

Pressure drops of internal components													
Components	Flow rate [mc/h]												
	12000	12500	13000	13500	14000	14500	15000	15500	16000	16500	17000	14700	17800
TN74B 4 Row Coil [Pa]	59	64	68	73	78	83	89	94	100	105	111	116	121
TN76B - 6 Row Coil [Pa]	77	83	89	95	101	108	115	122	129	136	144	150	156
B2R7T - 2 Row Coil (hot) [Pa]	27	29	31	33	35	37	40	42	45	47	50	52	54
B3R7T - 3 Row Coil (hot) [Pa]	34	37	40	43	45	48	51	55	58	61	64	67	70
B4R7T - 4 Row Coil (hot) [Pa]	59	64	68	73	78	83	89	94	100	105	111	116	121
TN7XB - Pressure drops of flat filters New [Pa]	44	47	51	54	58	62	65	69	74	78	82	85	89
TN7XB-Pressure drops of Medium Life Flat filters [Pa]	122	124	125	127	129	131	133	135	137	139	141	143	145
FT7M7T Pressure drops of Pocket filters New [Pa]	72	78	84	90	96	102	108	115	122	129	136	141	147
FT7M7T Pressure drops of Medium Life Pocket filters [Pa]	161	164	167	170	173	176	179	182	186	189	193	196	199
GA7T Suction grille [Pa]	10	10	10	11	11	12	12	12	13	14	15	15	16
GM7T Delivery grille [Pa]	10	11	11	12	12	13	13	13	14	15	16	17	17
SA7T Calibration damper [Pa]	7	8	8	8	8	9	9	9	10	10	11	11	12

TN8



Pressure drops of internal components													
Components	Flow rate [mc/h]												
	15300	15950	16600	17250	17900	18550	19200	19850	20500	21150	21800	22450	23000
TN84B 4 Row Coil [Pa]	59	63	68	73	78	83	88	94	99	105	111	117	122
TN86B - 6 Row Coil [Pa]	76	82	88	94	101	107	114	121	129	136	144	152	158
B2R8T - 2 Row Coil (hot) [Pa]	26	28	30	33	35	37	40	42	45	47	50	52	55
B3R8T - 3 Row Coil (hot) [Pa]	34	37	39	42	45	48	51	54	58	61	64	68	71
B4R8T - 4 Row Coil (hot) [Pa]	59	63	68	73	78	83	88	94	99	105	111	117	122
TN8XB - Pressure drops of flat filters New [Pa]	40	44	47	50	54	57	61	65	69	73	77	81	84
TN8XB-Pressure drops of Medium Life Flat filters [Pa]	120	122	123	125	127	129	130	132	134	136	138	140	142
FT7M8T Pressure drops of Pocket filters New [Pa]	67	72	78	83	89	95	101	107	113	120	127	133	139
FT7M8T Pressure drops of Medium Life Pocket filters [Pa]	158	161	164	167	169	172	175	178	182	185	188	192	195
GA8T Suction grille [Pa]	10	10	10	11	11	12	12	12	13	14	15	15	16
GM8T Delivery grille [Pa]	10	11	11	12	12	13	13	13	14	15	16	17	18
SA8T Calibration damper [Pa]	7	7	8	8	8	9	9	9	10	10	11	12	12

Table showing operating limits

Temperature of coil inlet air (winter) (*)	min	-5°C (*)
Temperature of coil inlet water (Cold Water)	min	4°C
	max	12°C
Thermal head cold water	min	5°C
	max	8°C
Temperature of coil inlet water (Hot Water)	value	80°C
Thermal head hot water	min	5°C
	value	20°C
Percentage of ethylene glycol	value	30 %

(*) envisage anti-freeze protection

Tables showing heat exchange coil output

On the following pages you will find the tables concerning the

performance of the heat exchange coils for the typical combinations

of heat vector fluid temperature and hygrometric characteristics of the incoming air.

Key:

P	Air flow rate [m ³ /h]
Tia	Temperature of incoming air [°C]
UmRel	Relative humidity (%)
Qtot	Total heating capacity [kW]
Qsen	Sensible heating capacity [kW]
WtrFlow	Water flow rate [l/h]
WtrDP	Water side pressure drops [kPa]

COOLING

TN 1 Temp. of inlet water: 7°C Temp. of outlet water: 12°C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m ³ /h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
2300	24	50	6.8	6.8	1163	3.2	8.4	7.8	1448	3.2
2300	27	50	13.0	8.9	2233	10.3	16.4	10.9	2813	10.4
2300	30	50	17.9	10.4	3079	18.3	22.1	12.8	3798	17.8
2300	33	50	23.3	12.0	4004	29.4	28.5	14.7	4902	28.2
2400	24	50	7.1	7.1	1217	3.5	9.2	8.3	1591	3.8
2400	27	50	13.4	9.1	2300	10.8	16.9	11.2	2909	11.0
2400	30	50	18.5	10.8	3178	19.3	22.9	13.2	3932	19.0
2400	33	50	24.0	12.3	4131	31.2	29.5	15.2	5076	30.0
2500	24	50	7.1	7.0	1223	3.5	9.9	8.7	1700	4.2
2500	27	50	13.8	9.4	2366	11.4	17.4	11.6	3000	11.7
2500	30	50	19.0	11.1	3276	20.4	23.6	13.7	4064	20.1
2500	33	50	24.7	12.7	4256	32.8	30.5	15.7	5248	31.9
2600	24	50	7,6	7,3	1311	4.0	10.3	9.1	1769	4.5
2600	27	50	14.1	9.7	2431	11.9	18.0	12.0	3091	12.3
2600	30	50	19.5	11.4	3359	21.4	24.4	14.1	4194	21.3
2600	33	50	25.5	13.1	4380	34.5	31.5	16.2	5418	33.7
2700	24	50	8.0	7,6	1380	4.3	11.0	9.5	1886	5.1
2700	27	50	14.5	10.0	2495	12.5	18.5	12.3	3180	12.9
2700	30	50	20,1	11,7	3450	22,5	25,1	14,5	4323	22,5
2700	33	50	26,2	13,4	4501	36,2	32,5	16,7	5587	35,6
2800	24	50	8.4	7.8	1441	4.7	11.4	9.8	1967	5.5
2800	27	50	14.9	10.2	2558	13.1	19.0	12.7	3268	13.6
2800	30	50	20.6	12.0	3540	23.6	25.9	15.0	4451	23.6
2800	33	50	26.9	13.8	4621	38.0	33.4	17.2	5753	37.5
2900	24	50	8.7	8.1	1499	5.0	11.9	10.2	2046	5,9
2900	27	50	15.2	10.5	2619	13.7	19.5	13.0	3355	14.3
2900	30	50	21.1	12.3	3627	24.6	26.6	15.4	4577	24.8
2900	33	50	27.5	14.1	4739	39.7	34.4	17.7	5917	39.4
3000	24	50	9.1	8.4	1569	5.4	12.3	10.5	2122	6.3
3000	27	50	15,6	10,7	2680	14,3	20,0	13,4	3440	14,9
3000	30	50	21.6	12.6	3714	25.7	27.3	15.8	4701	26.0
3000	33	50	28.2	14.5	4855	41.5	35.3	18.2	6080	41.3

TN 1 Temp. of inlet water: 5°C Temp. of outlet water: 10°C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m ³ /h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
2300	24	50	10.6	8.1	1827	7.3	13.6	10.0	2344,9	7,6
2300	27	50	15,6	9,9	2682	14,5	19,4	12,1	3329,8	14,2
2300	30	50	20.6	11.5	3549	23.9	25.2	14.1	4337,0	22.9
2300	33	50	26.1	13.0	4489	36.4	31.4	15.8	5399,1	33.9
2400	24	50	11.0	8.4	1899	7.8	14.2	10.3	2441,4	8.2
2400	27	50	16.1	10.2	2769	15.3	20.0	12.5	3445,8	15.2
2400	30	50	21.3	11.8	3664	25.2	26.1	14.5	4490,3	24.4
2400	33	50	27.0	13.4	4636	38.5	32.5	16.4	5588,9	36.1
2500	24	50	11.6	8.7	1994	8.5	14.7	10.7	2535,9	8.7
2500	27	50	16.6	10.5	2853	16.2	20.7	13.0	3562,0	16.1
2500	30	50	21.8	12.2	3754	26.5	27.0	15.0	4641,7	25.9
2500	33	50	27.6	13.7	4741	40.3	33.8	17.0	5806,6	38.7
2600	24	50	12.0	9.0	2063	9.0	15.3	11.1	2628,6	9.3
2600	27	50	17.1	10.8	2937	17,0	21,4	13,4	3675,4	17,0
2600	30	50	22.5	12.5	3862	27.9	27.9	15.5	4791,4	27.4
2600	33	50	28.4	14.1	4879	42.5	34.9	17.6	5995,9	41.0
2700	24	50	12.4	9.3	2131	9.5	15.8	11.5	2719,9	9.9
2700	27	50	17.6	11.1	3019	17.8	22.0	13.8	3787,8	18.0
2700	30	50	23.1	12.8	3969	29.2	28.7	16.0	4939,4	28.9
2700	33	50	29.2	14.5	5016	44.5	36.0	18.1	6183,2	43.3
2800	24	50	12.8	9.5	2197	10.1	16,3	11,9	2809,8	10.5
2800	27	50	18.0	11.4	3100	18.7	22.7	14.2	3899,7	18.9
2800	30	50	23.7	13.2	4073	30.6	29.6	16.5	5085,3	30.4
2800	33	50	29.9	14,9	5151	46,7	37,0	18,6	6368,5	45,6
2900	24	50	13.1	9.8	2258	10.6	16.9	12.2	2898,4	11.1
2900	27	50	18.5	11.7	3180	19.6	23.3	14.6	4008,8	19.8
2900	30	50	24.3	13.5	4176	32.0	30.4	16.9	5230,7	32.0
2900	33	50	30.7	15.3	5284	48.9	38.1	19.1	6552,0	47.9
3000	24	50	13.4	10.0	2310	11.1	17.4	12.6	2985,5	11.7
3000	27	50	18.9	12.0	3252	20.5	23.9	15.0	4117,6	20,8
3000	30	50	24.9	13.9	4278	33.5	31.2	17.4	5374,0	33.5
3000	33	50	31.5	15,6	5415	51.1	39.2	19.7	6732,5	50.3

COOLING

TN 2 Temp. of inlet water: 7 °C Temp. of outlet water: 12 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m ³ /h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
3100	24	50	9.0	9.0	1541	2.8	11.2	11.2	1924	2.9
3100	27	50	17.6	12.0	3024	9.3	22.2	14.7	3821	9.9
3100	30	50	24.2	14.1	4168	16.6	29.9	17.3	5151	16.9
3100	33	50	31.5	16.2	5414	26.7	38.6	19.8	6637	26.7
3300	24	50	9.6	9.6	1656	3.2	13.1	11.6	2246	3.8
3300	27	50	18.4	12.5	3158	10.0	23.3	15.5	4008	10.8
3300	30	50	25.4	14.8	4366	18.0	31.5	18.2	5420	18.5
3300	33	50	32.9	16.9	5668	28.9	40.6	20.9	6986	29.3
3500	24	50	9.9	9.7	1704	3.3	14.1	12.3	2429	4.4
3500	27	50	19.1	13.1	3289	10.8	24.4	16.2	4191	11.7
3500	30	50	26.4	15.4	4540	19.4	33.0	19.1	5683	20.2
3500	33	50	34.4	17.6	5916	31.2	42.6	21.9	7330	31.9
3700	24	50	11.0	10.4	1892	4.0	15.4	13.1	2643	5.1
3700	27	50	19.9	13.6	3417	11.6	25.4	16.9	4370	12.6
3700	30	50	27.5	16.0	4723	20.8	34.5	19.9	5943	21.8
3700	33	50	35.8	18.4	6160	33.5	44.6	22.9	7668	34.5
3800	24	50	11.4	10.6	1960	4.3	15.9	13.5	2727	5.4
3800	27	50	20.2	13.9	3480	12.0	25.9	17.3	4458	13.0
3800	30	50	28.0	16.4	4811	21.5	35.3	20.4	6071	22.7
3800	33	50	36.5	18.7	6279	34.7	45.5	23.4	7835	35.9
3900	24	50	11.8	10.9	2023	4.5	16.3	13.8	2809	5.7
3900	27	50	20.6	14.1	3542	12.4	26.4	17.6	4546	13.5
3900	30	50	28.5	16.7	4900	22.2	36.0	20.8	6197	23.5
3900	33	50	37.2	19.1	6398	35.9	46.5	23.9	8001	37.2
4000	24	50	12.1	11.2	2082	4.7	16.8	14.2	2888	6.0
4000	27	50	21.0	14.4	3604	12.7	26.9	18.0	4633	14.0
4000	30	50	29.0	17.0	4988	22.9	36.8	21.2	6323	24.4
4000	33	50	37.9	19.4	6514	37.1	47.5	24.4	8165	38.6
4100	24	50	12.5	11.5	2156	5.0	17.2	14.5	2964	6.3
4100	27	50	21.3	14.7	3663	13.1	27.4	18.3	4717	14.4
4100	30	50	29.5	17.3	5075	23.7	37.5	21.6	6448	25.2
4100	33	50	38.5	19.8	6630	38.3	48.4	24.8	8328	39.9

TN 2 Temp. of inlet water: 5 °C Temp. of outlet water: 10 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m ³ /h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
3100	24	50	14.4	10.9	2480	6.6	18.6	13.5	3202	7.3
3100	27	50	21.1	13.4	3632	13.1	26.3	16.4	4518	13.5
3100	30	50	27.9	15.5	4801	21.6	34.2	19.0	5875	21.7
3100	33	50	35.3	17.6	6069	33.0	42.5	21.4	7303	32.0
3300	24	50	15.3	11.5	2625	7.3	19.8	14.3	3398	8.1
3300	27	50	22.1	14.0	3805	14.3	27.6	17.3	4753	14.8
3300	30	50	29.1	16.2	5001	23.4	35.9	20.0	6183	23.8
3300	33	50	36.7	18.3	6310	35.5	44.7	22.5	7684	35.1
3500	24	50	16.3	12.2	2800	8.2	20.9	15.1	3588	8.9
3500	27	50	23.1	14.6	3974	15.4	29.0	18.1	4984	16.1
3500	30	50	30.3	16.9	5219	25.2	37.7	21.0	6485	25.9
3500	33	50	38.3	19.1	6589	38.3	47.1	23.7	8107	38.7
3700	24	50	17.1	12.7	2938	8.9	21.9	15.8	3774	9.8
3700	27	50	24.1	15.2	4138	16.5	30.3	18.9	5210	17.5
3700	30	50	31.6	17.6	5432	27.0	39.4	21.9	6783	28.0
3700	33	50	39.9	19.8	6863	41.2	49.3	24.8	8483	42.0
3800	24	50	17.5	13.0	3002	9.3	22.5	16.2	3865	10.2
3800	27	50	24.5	15.5	4219	17.1	30.9	19.3	5321	18.1
3800	30	50	32.2	17.9	5536	28.0	40.3	22.4	6929	29.1
3800	33	50	40.7	20.2	6998	42.7	50.4	25.3	8668	43.6
3900	24	50	17.8	13.2	3055	9.6	23.0	16.6	3950	10.6
3900	27	50	25.0	15.8	4300	17.7	31.6	19.7	5432	18.8
3900	30	50	32.8	18.2	5640	28.9	41.1	22.9	7075	30.2
3900	33	50	41.5	20.6	7131	44.2	51.5	25.9	8853	45.3
4000	24	50	18.1	13.5	3108	9.9	23.4	16.9	4025	11.0
4000	27	50	25.4	16.1	4364	18.3	32.2	20.1	5542	19.5
4000	30	50	33.4	18.6	5742	29.9	42.0	23.3	7220	31.3
4000	33	50	42.2	21.0	7263	45.7	52.5	26.4	9037	46.9
4100	24	50	18.4	13.7	3160	10.2	23.8	17.2	4099	11.3
4100	27	50	25.8	16.4	4440	18.9	32.9	20.5	5651	20.2
4100	30	50	34.0	18.9	5843	30.9	42.8	23.8	7364	32.4
4100	33	50	43.0	21.3	7394	47.2	53.6	26.9	9218	48.6

COOLING

TN 3 Temp. of inlet water: 7°C Temp. of outlet water: 12 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
4300	24	50	12.0	12.0	2063	2.4	16.9	15.1	2904	3.4
4300	27	50	24.2	16.5	4157	8,6	30.8	20,4	5293	10.1
4300	30	50	33.4	19.5	5737	15,4	41.5	23,9	7143	17.3
4300	33	50	43.3	22.3	7457	24.8	53.5	27.5	9196	27.3
4500	24	50	12.8	12.8	2198	2.7	18.2	15.9	3131	3.9
4500	27	50	24.9	17.1	4290	9.1	31.9	21.1	5480	10.7
4500	30	50	34.5	20,1	5934	16,3	43.1	24.8	7412	18.5
4500	33	50	44.8	23.0	7709	26.3	55.5	28.5	9545	29.2
4700	24	50	13.5	13.5	2315	3.0	19.3	16.7	3312	4.3
4700	27	50	25.7	17.6	4421	9,6	32.9	21.8	5665	11.4
4700	30	50	35.5	20.7	6105	17.3	44.6	25.7	7675	19.7
4700	33	50	46.3	23.8	7958	27.8	57.5	29.5	9890	31.1
4900	24	50	14.1	14.1	2424	3.3	20.6	17.5	3542	4.9
4900	27	50	26.5	18.1	4550	10.1	34.0	22.6	5846	12.1
4900	30	50	36.6	21.4	6289	18.2	46.1	26.6	7938	20.9
4900	33	50	47.7	24.5	8202	29.4	59.5	30.5	10231	33.0
5100	24	50	14.2	13.9	2446	3.3	21.6	18.3	3716	5.3
5100	27	50	27.2	18.7	4676	10.6	35.0	23.3	6025	12.7
5100	30	50	37.6	22.0	6469	19.2	47.7	27.5	8197	22.1
5100	33	50	49.1	25.2	8443	31.0	61.4	31.5	10567	35.0
5300	24	50	15.4	14.6	2642	3.8	22.6	19.0	3880	5.8
5300	27	50	27.9	19.2	4801	11.1	36.1	24.0	6202	13.4
5300	30	50	38.6	22.6	6645	20,1	49.1	28.3	8452	23.4
5300	33	50	50.5	25.9	8680	32.6	63.4	32.5	10901	37.0
5500	24	50	16.2	15.2	2786	4.2	23.5	19.6	4037	6.2
5500	27	50	28.6	19.7	4923	11.7	37.1	24.7	6374	14.0
5500	30	50	39.6	23.2	6820	21.1	50.6	29.2	8705	24.6
5500	33	50	51.8	26.6	8912	34.2	65.3	33.5	11231	38.9
5650	24	50	16.7	15,6	2878	4,4	24.1	20,1	4151	6.5
5650	27	50	29.1	20,1	5013	12,1	37.7	25.2	6480	14.6
5650	30	50	40.4	23.7	6950	21.8	51.3	29.7	8829	25.4
5650	33	50	52.8	27.1	9085	35.4	66.7	34.2	11476	40.4

TN 3 Temp. of inlet water: 5 °C Temp. of outlet water: 10 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
4300	24	50	20.0	15.1	3438	6.2	26.0	18.8	4479,4	7.5
4300	27	50	29.1	18.4	4998	12.2	36.4	22.7	6267,2	13.8
4300	30	50	38.4	21.4	6612	20,1	47.3	26.3	8141,2	22.2
4300	33	50	48.6	24.2	8363	30.7	58.8	29.6	10110,8	32.7
4500	24	50	20.6	15,6	3544	6.5	27.2	19.6	4675,3	8.2
4500	27	50	30.1	19.0	5169	12.9	37.8	23.6	6501,7	14.8
4500	30	50	39.5	22.0	6801	21.2	49.1	27.3	8448,9	23.7
4500	33	50	49.9	24.9	8585	32.4	61.0	30.7	10491,1	35.0
4700	24	50	21.4	16.2	3686	7.0	28.3	20,4	4867,2	8.8
4700	27	50	31.0	19.7	5337	13.7	39.2	24.4	6734,0	15.7
4700	30	50	40.8	22.7	7019	22.5	50.9	28.3	8752,8	25.2
4700	33	50	51.5	25.7	8864	34.3	63.6	32.0	10933,4	37.8
4900	24	50	22.5	16.9	3873	7.6	29.4	21.2	5055,4	9.4
4900	27	50	32.0	20,3	5501	14.4	40.5	25.3	6962,3	16.7
4900	30	50	42.1	23.4	7233	23.8	52.6	29.3	9053,1	26.8
4900	33	50	53.1	26.4	9139	36.1	65.8	33.1	11312,5	40.1
5100	24	50	23.3	17.4	4012	8.1	30.5	21,9	5237,6	10.0
5100	27	50	32.9	20.9	5666	15.2	41.8	26.1	7186,9	17.7
5100	30	50	43.3	24.1	7444	24.9	54.4	30.2	9349,9	28.4
5100	33	50	54.7	27.2	9410	38.1	68.0	34.1	11687,3	42.5
5300	24	50	24.1	18.0	4139	8,6	31.3	22.6	5391,0	10.5
5300	27	50	33.9	21.5	5826	16.0	43.1	26.9	7411,2	18.7
5300	30	50	44.5	24.8	7651	26.2	56.1	31.1	9643,0	30.0
5300	33	50	56.3	28.0	9677	40.1	70.1	35.2	12058,0	44.9
5500	24	50	24.7	18.4	4244	9.0	32.2	23.2	5540,6	11.1
5500	27	50	34.7	22.0	5966	16.8	44.4	27.7	7631,6	19.7
5500	30	50	45.7	25.4	7854	27.5	57.8	32.1	9932,9	31.6
5500	33	50	57.8	28.7	9940	42.1	72.2	36.2	12423,6	47.4
5650	24	50	25.1	18.8	4321	9.3	32.9	23.7	5651,5	11.5
5650	27	50	35.3	22.4	6078	17.3	45.3	28.3	7795,3	20.4
5650	30	50	46.5	25.9	8005	28.5	59.0	32.8	10148,3	32.8
5650	33	50	58.9	29.3	10135	43.6	73.8	37.0	12697,0	49.2

COOLING

TN 4 Temp. of inlet water: 7 °C Temp. of outlet water: 12 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
5600	24	50	15.7	15.7	2703	2.4	21.5	19.4	3691	3.1
5600	27	50	31.7	21.6	5451	8.4	40.2	26.6	6917	9.6
5600	30	50	43.7	25.4	7519	15.1	54.2	31.2	9332	16.4
5600	33	50	56.7	29.1	9753	24.3	69.8	35.8	12004	25.9
5850	24	50	16.7	16.7	2880	2.7	23.7	20.7	4083	3.7
5850	27	50	32.7	22.3	5619	8.9	41.6	27.5	7152	10.2
5850	30	50	45.2	26.3	7767	16.0	56.2	32.4	9669	17.5
5850	33	50	58.5	30.0	10070	25.7	72.3	37.1	12442	27.6
6100	24	50	17.6	17.6	3031	2.9	25.1	21.7	4326	4.1
6100	27	50	33.6	23.0	5784	9.4	43.0	28.4	7384	10.8
6100	30	50	46.4	27.0	7974	16.9	58.1	33.5	10000	18.6
6100	33	50	60.4	31.0	10383	27.2	74.8	38.4	12875	29.4
6350	24	50	18.4	18.4	3170	3.2	26.5	22.6	4552	4.5
6350	27	50	34.6	23.6	5947	9.9	44.2	29.3	7612	11.4
6350	30	50	47.7	27.8	8206	17.8	60.1	34.6	10330	19.7
6350	33	50	62.1	31.9	10691	28.6	77.3	39.7	13303	31.1
6600	24	50	19.3	18.4	3317	3.5	28.2	23.7	4843	5.0
6600	27	50	35.5	24.3	6107	10.4	45.6	30.3	7837	12.0
6600	30	50	49.0	28.6	8432	18.6	61.9	35.7	10655	20.8
6600	33	50	63.9	32.8	10994	30.1	79.8	40.9	13727	32.9
6850	24	50	20.6	19.2	3537	3.9	29.4	24.6	5056	5.4
6850	27	50	36.4	25.0	6264	10.9	46.8	31.1	8057	12.5
6850	30	50	50.3	29.4	8656	19.5	63.8	36.8	10976	21.9
6850	33	50	65.6	33.7	11294	31.6	82.2	42.2	14146	34.7
7100	24	50	21.5	19.8	3705	4.2	30.6	25.5	5259	5.8
7100	27	50	37.3	25.6	6416	11.3	47.9	31.9	8242	13.2
7100	30	50	51.6	30.2	8877	20.5	65.7	37.8	11294	23.1
7100	33	50	67.4	34.5	11586	33.1	84.6	43.4	14560	36.5
7350	24	50	22.4	20.5	3859	4.5	31.7	26.3	5454	6.2
7350	27	50	38.1	26.2	6560	11.8	49.2	32.8	8470	13.8
7350	30	50	52.9	30.9	9095	21.4	67.0	38.7	11521	24.0
7350	33	50	69.0	35.4	11877	34.7	87.0	44.6	14970	38.3

TN 4 Temp. of inlet water: 5 °C Temp. of outlet water: 10 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
5600	24	50	26.2	19.7	4501	6.0	34.1	24.6	5871	7.2
5600	27	50	38.1	24.1	6554	12.0	47.6	29.7	8190	13.1
5600	30	50	50.3	27.9	8656	19.7	61.8	34.4	10630	21.0
5600	33	50	63.6	31.6	10938	30.1	76.7	38.7	13192	31.0
5850	24	50	27.6	20.6	4742	6.6	35.6	25.6	6120	7.8
5850	27	50	39.4	24.9	6770	12.7	49.3	30.7	8484	14.0
5850	30	50	51.7	28.7	8887	20.8	64.0	35.6	11016	22.4
5850	33	50	65.2	32.4	11208	31.6	79.5	40.0	13669	33.1
6100	24	50	28.6	21.4	4926	7.1	37.0	26.6	6363	8.3
6100	27	50	40.6	25.7	6986	13.4	51.0	31.8	8776	14.9
6100	30	50	53.3	29.6	9161	22.0	66.3	36.8	11397	23.8
6100	33	50	67.2	33.4	11560	33.5	82.2	41.4	14140	35.2
6350	24	50	29.7	22.1	5106	7.6	38.4	27.6	6601	8.9
6350	27	50	41.8	26.4	7191	14.1	52.7	32.8	9063	15.7
6350	30	50	54.8	30.5	9430	23.1	68.5	38.0	11774	25.3
6350	33	50	69.2	34.4	11906	35.2	85.5	43.0	14705	37.8
6600	24	50	30.6	22.8	5270	8.0	39.6	28.5	6817	9.4
6600	27	50	43.0	27.2	7397	14.8	54.3	33.9	9347	16.6
6600	30	50	56.4	31.3	9696	24.3	70.6	39.3	12149	26.7
6600	33	50	71.2	35.4	12247	37.0	88.2	44.3	15175	40.0
6850	24	50	31.4	23.4	5405	8.4	40.7	29.3	7009	9.9
6850	27	50	44.1	27.9	7577	15.5	56.0	34.9	9628	17.5
6850	30	50	57.9	32.2	9958	25.4	72.8	40.4	12516	28.2
6850	33	50	73.2	36.3	12583	38.9	90.9	45.7	15641	42.2
7100	24	50	32.2	24.0	5537	8.8	41.8	30.1	7197	10.4
7100	27	50	45.2	28.6	7769	16.3	57.6	35.9	9905	18.5
7100	30	50	59.4	33.0	10214	26.7	74.9	41.6	12880	29.6
7100	33	50	75.1	37.3	12915	40.8	93.6	47.0	16104	44.4
7350	24	50	33.0	24.6	5667	9.1	42.9	30.9	7383	10.9
7350	27	50	46.3	29.3	7958	17.0	59.2	36.9	10180	19.4
7350	30	50	60.9	33.8	10468	27.9	77.0	42.7	13241	31.1
7350	33	50	77.0	38.2	13242	42.7	96.3	48.3	16558	46.6

COOLING

TN 5 Temp. of inlet water: 7 °C Temp. of outlet water: 12 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
7300	24	50	23.8	22.8	4099	3.1	31.7	27.5	5447	3.4
7300	27	50	39.0	28.5	6709	7.5	49.6	34.3	8529	7.7
7300	30	50	55.8	34.0	9597	14.5	69.0	40.8	11865	14.0
7300	33	50	74.0	39.3	12735	24.3	89.8	47.1	15452	22.8
7600	24	50	24.3	23.4	4185	3.2	32.5	28.4	5582	3.6
7600	27	50	39.7	29.1	6829	7.8	50.9	35.3	8762	8.1
7600	30	50	57.2	34.9	9838	15.2	70.9	42.1	12198	14.8
7600	33	50	75.9	40.3	13062	25.4	92.5	48.6	15914	24.0
7900	24	50	24.8	24.0	4270	3.3	33.2	29.2	5716	3.7
7900	27	50	40.6	29.9	6985	8.1	52.3	36.3	8989	8.5
7900	30	50	58.6	35.8	10072	15.9	72.9	43.3	12536	15.6
7900	33	50	77.8	41.3	13381	26.6	95.2	50.0	16368	25.3
8200	24	50	25.3	24.6	4352	3.4	34.0	30.0	5845	3.9
8200	27	50	41.5	30.6	7136	8.4	53.6	37.3	9212	8.9
8200	30	50	59.9	36.6	10301	16.5	74.7	44.4	12852	16.3
8200	33	50	79.6	42.3	13693	27.7	97.7	51.3	16809	26.5
8500	24	50	25.8	25.1	4431	3.5	34.7	30.8	5972	4.0
8500	27	50	42.3	31.3	7284	8.8	54.8	38.3	9429	9.3
8500	30	50	61.2	37.5	10525	17.2	76.6	45.6	13173	17.1
8500	33	50	81.4	43.2	13997	28.9	100.3	52.7	17244	27.7
8800	24	50	26.2	25.7	4508	3.7	35.4	31.5	6095	4.2
8800	27	50	43.2	32.0	7428	9.1	56.1	39.3	9642	9.6
8800	30	50	62.5	38.3	10743	17.9	78.4	46.8	13488	17.8
8800	33	50	83.1	44.2	14294	30.0	102.7	54.0	17672	29.0
9100	24	50	26.6	26.2	4583	3.8	36.1	32.3	6216	4.4
9100	27	50	44.0	32.6	7569	9.4	57.1	40.2	9822	9.9
9100	30	50	63.7	39.1	10956	18.5	80.2	47.9	13791	18.5
9100	33	50	84.8	45.1	14584	31.1	105.2	55.3	18092	30.3
9400	24	50	27.1	26.8	4656	3.9	35.6	32.6	6120	4.2
9400	27	50	44.8	33.3	7705	9.7	58.3	41.1	10031	10.3
9400	30	50	64.9	39.8	11164	19.2	81.9	49.0	14094	19.2
9400	33	50	86.4	46.0	14868	32.3	107.6	56.6	18504	31.5

TN 5 Temp. of inlet water: 5 °C Temp. of outlet water: 10 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
7300	24	50	33.2	26.5	5717	5.7	42.7	32.1	7341	6.0
7300	27	50	48.4	32.0	8320	11.3	60.2	38.6	10357	11.1
7300	30	50	65.0	37.4	11172	19.3	79.3	45.1	13640	18.4
7300	33	50	83.2	42.7	14315	30.4	100.1	51.3	17208	28.0
7600	24	50	34.0	27.2	5848	5.9	43.8	33.0	7537	6.2
7600	27	50	49.6	32.9	8525	11.8	61.9	39.8	10646	11.7
7600	30	50	66.6	38.4	11456	20.2	81.7	46.4	14043	19.4
7600	33	50	85.4	43.8	14690	31.8	103.1	52.8	17732	29.6
7900	24	50	34.3	27.7	5906	6.0	44.9	34.0	7729	6.5
7900	27	50	50.7	33.7	8723	12.3	63.6	41.0	10942	12.3
7900	30	50	68.2	39.4	11732	21.1	83.9	47.8	14439	20.4
7900	33	50	87.5	44.8	15056	33.3	106.1	54.4	18247	31.1
8200	24	50	35.1	28.4	6032	6.3	46.0	34.9	7917	6.8
8200	27	50	51.9	34.5	8919	12.8	65.3	42.1	11229	12.8
8200	30	50	69.8	40.3	12001	22.0	86.2	49.1	14826	21.4
8200	33	50	89.6	45.9	15413	34.8	109.0	55.9	18752	32.7
8500	24	50	35.8	29.0	6155	6.5	47.1	35.8	8100	7.1
8500	27	50	53.0	35.3	9109	13.3	67.0	43.2	11516	13.4
8500	30	50	71.3	41.2	12264	22.9	88.4	50.4	15206	22.4
8500	33	50	91.6	46.9	15762	36.2	111.9	57.3	19247	34.3
8800	24	50	36.5	29.6	6275	6.8	48.1	36.7	8279	7.4
8800	27	50	54.0	36.0	9295	13.8	68.5	44.3	11785	14.1
8800	30	50	72.8	42.1	12521	23.8	90.6	51.6	15575	23.3
8800	33	50	93.6	47.9	16103	37.7	114.7	58.8	19734	35.9
9100	24	50	37.2	30.3	6392	7.0	49.2	37.6	8455	7.7
9100	27	50	55.1	36.8	9477	14.3	70.1	45.4	12054	14.7
9100	30	50	74.3	42.9	12772	24.7	92.7	52.9	15940	24.3
9100	33	50	95.6	48.9	16436	39.1	117.5	60.2	20207	37.4
9400	24	50	37.8	30.9	6506	7.2	50.2	38.4	8627	8.0
9400	27	50	56.1	37.5	9654	14.8	71.6	46.4	12318	15.3
9400	30	50	75.7	43.8	13017	25.6	94.8	54.1	16298	25.3
9400	33	50	97.5	49.9	16762	40.5	120.2	61.5	20676	39.0

COOLING

TN 6 Temp. of inlet water: 7 °C Temp. of outlet water: 12 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
9000	24	50	30.2	28.4	5191	3.4	40.5	34.5	6969	4.3
9000	27	50	48.7	35.3	8384	8.2	62.6	42.8	10775	9.5
9000	30	50	69.5	42.1	11956	15.8	86,4	50.9	14864	17.1
9000	33	50	92.1	48.7	15846	26.4	112,2	58.7	19301	27.5
9400	24	50	30.9	29.2	5311	3.6	41.6	35.6	7160	4.5
9400	27	50	50.0	36.3	8602	8,6	64,5	44.2	11096	10.0
9400	30	50	71.4	43.3	12276	16.5	89,1	52.6	15331	18.1
9400	33	50	94,7	50.1	16288	27.7	115.8	60.6	19929	29.0
9800	24	50	31.5	30.0	5426	3.7	42.7	36.7	7347	4.7
9800	27	50	51.2	37.3	8814	9.0	66,2	45.6	11385	10.5
9800	30	50	73.2	44.5	12588	17.3	91.8	54.2	15788	19.1
9800	33	50	97.2	51.4	16718	29.1	119.4	62.5	20541	30.6
10200	24	50	32.2	30.8	5539	3.9	43.8	37.8	7528	5.0
10200	27	50	52.4	38.3	9020	9.4	68.0	46.9	11697	11.0
10200	30	50	74.9	45.6	12891	18.1	94.3	55.8	16228	20.0
10200	33	50	99.6	52.7	17136	30.4	122,9	64.3	21142	32.3
10600	24	50	32.8	31.5	5647	4.0	44.8	38.9	7704	5.2
10600	27	50	53.6	39.2	9221	9.8	69.8	48.3	12002	11.5
10600	30	50	76.7	46.7	13186	18.9	96.9	57.4	16664	21.0
10600	33	50	102,0	54.0	17544	31.8	126,3	66.1	21732	34.0
11000	24	50	33.4	32.3	5753	4.1	45.8	39.9	7876	5.4
11000	27	50	54.7	40.1	9415	10.2	71.5	49.6	12297	12.1
11000	30	50	78.3	47.8	13474	19.6	99,4	58.9	17091	22.0
11000	33	50	104.3	55.2	17942	33.1	129.7	67.9	22310	35.6
11400	24	50	34.0	33.0	5856	4.3	46.8	41.0	8044	5.6
11400	27	50	55.8	41.0	9606	10.6	73.2	50.9	12591	12.6
11400	30	50	80.0	48.9	13755	20,4	101,8	60.4	17510	23.0
11400	33	50	106.6	56.4	18330	34.4	133.0	69.7	22876	37.3
11700	24	50	34.5	33.5	5931	4,4	47.5	41.7	8167	5.7
11700	27	50	56.7	41.7	9752	10.9	74.5	51.8	12813	13.0
11700	30	50	81.2	49.6	13961	21.0	103.6	61.5	17818	23.7
11700	33	50	108.2	57.3	18616	35.4	135.4	70.9	23294	38.5

TN 6 Temp. of inlet water: 5 °C Temp. of outlet water: 10 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
9000	24	50	41.8	33.0	7186	6.3	54.1	40.1	9297	7,4
9000	27	50	60.5	39.8	10407	12,4	75.8	48.3	13042	13.6
9000	30	50	80.9	46.4	13914	21.0	99.2	56.2	17059	22.2
9000	33	50	103.4	52.9	17788	32.9	124,7	63.8	21452	33.6
9400	24	50	42.8	33.9	7364	6.6	55.6	41.4	9569	7.7
9400	27	50	62.1	41.0	10686	13.0	78.1	49.9	13440	14.4
9400	30	50	83,1	47.7	14297	22.1	102,4	58.0	17608	23.5
9400	33	50	106,4	54.4	18293	34.6	128,9	65.9	22163	35.7
9800	24	50	43.4	34.6	7471	6.7	57.2	42.7	9834	8.1
9800	27	50	63.7	42.1	10957	13.6	80.5	51.4	13839	15.2
9800	30	50	85.3	49.0	14669	23.1	105,5	59.8	18146	24.8
9800	33	50	109,2	55.8	18785	36.3	132.9	67.9	22859	37.7
10200	24	50	44.4	35.5	7643	7.0	58.7	44.0	10092	8.5
10200	27	50	65.2	43.1	11222	14.2	82.6	52.9	14212	15.9
10200	30	50	87.4	50.2	15032	24.2	108,5	61.5	18667	26.0
10200	33	50	112,0	57.2	19264	38.0	136,9	69.9	23541	39.8
10600	24	50	45.4	36.4	7811	7.3	60.1	45.2	10345	8.9
10600	27	50	66.7	44.2	11479	14.8	84.8	54.4	14589	16.7
10600	30	50	89.5	51.4	15385	25.3	111,5	63.3	19181	27.4
10600	33	50	114.7	58.6	19731	39.7	140,7	71.9	24209	41.7
11000	24	50	46.4	37.2	7974	7,6	61.6	46.4	10591	9.3
11000	27	50	68.2	45.2	11730	15,4	87.0	55.8	14959	17.5
11000	30	50	91.5	52.6	15729	26.3	114,5	65.0	19685	28.7
11000	33	50	117.4	59.9	20186	41.4	144.5	73.8	24865	43.8
11400	24	50	47.3	38.1	8132	7.9	63.0	47.6	10833	9.7
11400	27	50	69.6	46.2	11975	16.0	89.0	57.2	15313	18.2
11400	30	50	93.4	53.8	16065	27.3	117,3	66.6	20179	30.0
11400	33	50	120.0	61.2	20631	43.1	148.3	75.7	25508	45.9
11700	24	50	48.0	38.7	8247	8.1	64,0	48.4	11010	10.0
11700	27	50	70,7	46.9	12154	16.4	90,6	58.3	15579	18.8
11700	30	50	94.8	54.6	16312	28.1	119.4	67.8	20543	31.0
11700	33	50	121,9	62.1	20958	44.4	151.0	77.1	25977	47.5

COOLING

TN 7 Temp. of inlet water: 7 °C Temp. of outlet water: 12 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
12000	24	50	39.8	37.7	6853	3.2	54.0	46.0	9292	4.3
12000	27	50	64,5	46.9	11096	7.7	83.5	57.1	14366	9.5
12000	30	50	92,3	56.0	15872	14,9	115.2	67.8	19818	17.1
12000	33	50	122,4	64.8	21048	25.0	149.6	78.2	25735	27.5
12500	24	50	40.7	38.7	7000	3.3	55.4	47.4	9531	4.5
12500	27	50	66.1	48.2	11366	8.1	85.9	58.9	14768	10.0
12500	30	50	94.5	57.5	16261	15,6	118,6	69.9	20403	18.0
12500	33	50	125,6	66.5	21598	26.2	154,2	80.6	26521	28.9
13000	24	50	41.5	39.7	7143	3,5	56.8	48.8	9766	4.7
13000	27	50	67.6	49.4	11630	8.4	87.9	60.5	15127	10.4
13000	30	50	96.8	59.0	16649	16,3	121,9	72.0	20975	18.9
13000	33	50	128.7	68.2	22133	27.4	158,6	83.0	27286	30.4
13500	24	50	42.3	40.7	7282	3.6	58.1	50.2	9993	4.9
13500	27	50	69.1	50.6	11886	8.8	90.2	62.2	15518	10.9
13500	30	50	99,0	60.4	17027	17,0	125.1	74.0	21527	19.8
13500	33	50	131.7	69.8	22656	28.6	163.0	85.3	28041	32.0
14000	24	50	43.1	41.6	7417	3.7	59.4	51.5	10214	5.1
14000	27	50	70.6	51.8	12136	9.1	92.4	63.9	15902	11.4
14000	30	50	101,1	61.8	17396	17.6	128.3	76.0	22075	20.7
14000	33	50	134.7	71.4	23166	29.7	167,3	87,6	28781	33.5
14500	24	50	43.9	42.5	7549	3.8	60.6	52.8	10430	5.3
14500	27	50	72.0	52.9	12379	9.5	94.6	65.5	16270	11.9
14500	30	50	103,2	63.1	17755	18.3	131.5	77.9	22612	21.7
14500	33	50	137,6	72.9	23664	30.9	171,5	89.8	29507	35.1
15000	24	50	44.6	43.4	7676	3.9	61.9	54.1	10642	5.5
15000	27	50	73.3	54.0	12615	9.8	96.8	67.2	16650	12,4
15000	30	50	105.3	64.4	18107	19.0	134,5	79.8	23139	22.6
15000	33	50	140,4	74.4	24150	32.1	175.7	92.0	30220	36.7
15500	24	50	45.4	44.3	7801	4.1	63.1	55.4	10849	5.7
15500	27	50	74.7	55.1	12848	10.1	98,9	68.8	17011	12.9
15500	30	50	107,3	65.7	18450	19.6	137,5	81,7	23655	23.5
15500	33	50	143.2	75.9	24626	33.3	179.8	94,2	30920	38.2

TN 7 Temp. of inlet water: 5 °C Temp. of outlet water: 10 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
12000	24	50	55.3	43.8	9511	5.9	72,1	53.5	12396	7,4
12000	27	50	80.2	52.9	13796	11.7	101,1	64.4	17389	13.6
12000	30	50	107.4	61.7	18476	19.9	132.2	74.9	22746	22.2
12000	33	50	137,4	70.3	23639	31.2	166,3	85.0	28603	33.6
12500	24	50	56.6	44.9	9731	6.2	74.0	55.1	12736	7.7
12500	27	50	82.2	54.3	14143	12.2	104.0	66.4	17887	14.3
12500	30	50	110.2	63.4	18952	20,8	136.2	77,2	23432	23.4
12500	33	50	141,1	72.2	24268	32.7	171,5	87.7	29491	35.5
13000	24	50	57.3	45.8	9850	6.3	76.0	56.7	13068	8.1
13000	27	50	84.2	55.7	14480	12.7	106.9	68.3	18387	15.1
13000	30	50	112,9	65.0	19416	21.8	140.2	79.4	24105	24.7
13000	33	50	144.7	74.0	24881	34.2	176,5	90.2	30363	37.5
13500	24	50	58.5	47.0	10064	6.5	77.9	58.3	13392	8.4
13500	27	50	86.1	57.0	14809	13.3	109.8	70.2	18876	15.8
13500	30	50	115,5	66.5	19868	22.7	144.0	81,6	24759	25.8
13500	33	50	148.1	75.7	25479	35.7	181.5	92.8	31218	39.4
14000	24	50	59.7	48.0	10272	6.8	79,7	59.8	13709	8.8
14000	27	50	88.0	58.3	15130	13.8	112,4	72.0	19328	16.5
14000	30	50	118,1	68.0	20310	23.6	147,7	83.8	25404	27.0
14000	33	50	151,5	77.4	26063	37.3	186.4	95.2	32058	41.2
14500	24	50	60.9	49.1	10474	7.0	81.5	61.4	14020	9.2
14500	27	50	89.8	59.6	15444	14.3	115.1	73.8	19792	17.2
14500	30	50	120.6	69.5	20740	24.6	151.4	85.9	26038	28.3
14500	33	50	154,9	79.1	26634	38.8	191,2	97.6	32882	43.2
15000	24	50	62.1	50.1	10672	7,3	83.3	62.8	14324	9.5
15000	27	50	91.6	60.9	15750	14,9	117,7	75.6	20238	17.9
15000	30	50	123.0	70.9	21161	25.5	155.0	88.0	26659	29.5
15000	33	50	158,1	80.7	27192	40.3	195,9	100,0	33691	45.1
15500	24	50	63.2	51.2	10864	7.5	85.0	64.3	14622	9.9
15500	27	50	93,3	62.1	16048	15,4	120,3	77.4	20684	18.6
15500	30	50	125,4	72.3	21573	26.4	158,6	90.0	27269	30.8
15500	33	50	161.3	82.3	27737	41.8	200.5	102.3	34479	47.1

COOLING

TN 8 Temp. of inlet water: 7 °C Temp. of outlet water: 12 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
15300	24	50	51.4	48.4	8842	3.1	69.8	59.1	12008	4.3
15300	27	50	83.0	60.1	14278	7.4	107,5	73.3	18490	9.4
15300	30	50	118.4	71.8	20365	14.3	148,0	87.0	25451	16.8
15300	33	50	156,9	83.0	26991	23.9	191,9	100.2	33001	27.0
15950	24	50	52.5	49.7	9037	3.2	71.6	60.9	12325	4.5
15950	27	50	85.1	61.8	14634	7.8	110,5	75.6	19011	9.8
15950	30	50	121,4	73.7	20888	14,9	152,4	89.7	26219	17.8
15950	33	50	161.1	85.2	27711	25.1	197.8	103.3	34032	28.4
16600	24	50	53.6	51.0	9226	3.3	73.4	62.7	12634	4.7
16600	27	50	87.1	63.4	14981	8.1	113,4	77.8	19508	10.3
16600	30	50	124.4	75.6	21397	15,6	156,7	92.4	26961	18.6
16600	33	50	165,2	87.4	28414	26.3	203,7	106.4	35043	30.0
17250	24	50	54.7	52.3	9410	3,5	75.2	64,5	12937	4.9
17250	27	50	89,1	65.0	15318	8.4	116.4	80.0	20024	10.8
17250	30	50	127.3	77.5	21893	16,3	161,0	95.0	27696	19.6
17250	33	50	169,2	89.5	29098	27.4	209,4	109.5	36026	31.6
17900	24	50	55.7	53.5	9588	3.6	76.9	66.3	13231	5.1
17900	27	50	91.0	66.5	15646	8.8	119,3	82.2	20523	11.4
17900	30	50	130,1	79.3	22376	17,0	165,2	97.6	28416	20.5
17900	33	50	173,0	91.6	29766	28.6	215,1	112,5	36997	33.1
18550	24	50	56.7	54.7	9762	3.7	78.6	68.0	13517	5.3
18550	27	50	92.8	68.0	15967	9.1	122.2	84.3	21020	11.8
18550	30	50	132.8	81.0	22848	17.6	169.3	100.1	29121	21.4
18550	33	50	176.8	93.6	30418	29.8	220,6	115,4	37949	34.7
19200	24	50	57.7	55.9	9930	3.8	80.2	69.7	13797	5.5
19200	27	50	94.6	69.5	16278	9.4	125.1	86.5	21520	12.3
19200	30	50	135,5	82.8	23309	18.3	173.3	102.6	29812	22.4
19200	33	50	180.5	95.6	31055	30.9	226,0	118,3	38883	36.3
19850	24	50	58.7	57.0	10095	3.9	81.8	71.3	14071	5.7
19850	27	50	96,4	70.9	16584	9.8	127,8	88.5	21986	12.9
19850	30	50	138.1	84.5	23758	18.9	177.3	105.0	30491	23.3
19850	33	50	184,2	97.5	31678	32.1	231,4	121,1	39800	37.9

TN 8 Temp. of inlet water: 5 °C Temp. of outlet water: 10 °C			4 Row coil (main coil)				6 Row coil (main coil)			
P (m³/h)	Tia (°C)	UmRel (%)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	Qsen (kW)	WtrFlow (l/h)	WtrDP (kPa)
15300	24	50	71.2	56.1	12240	5.7	92.8	68.7	15969	7.2
15300	27	50	103,1	67.8	17725	11.2	130.0	82.6	22361	13.4
15300	30	50	137,8	79.1	23700	19.0	169.7	95.9	29181	21.8
15300	33	50	176,2	90.1	30297	29.8	213.1	108.9	36654	33.0
15950	24	50	72.9	57.7	12531	5,9	95.5	70.8	16418	7,6
15950	27	50	105.7	69.7	18180	11.7	133,8	85.2	23006	14.1
15950	30	50	141,4	81.2	24325	19.9	174.9	98,9	30082	23.0
15950	33	50	180.9	92.5	31121	31.3	219,9	112,4	37820	34.9
16600	24	50	73.8	58.9	12699	6.0	98.0	72.9	16856	8.0
16600	27	50	108.3	71.5	18624	12.2	137,4	87,6	23635	14.8
16600	30	50	145.0	83.3	24933	20.9	180.0	101,9	30959	24.2
16600	33	50	185.6	94.8	31925	32.8	226,5	115,7	38962	36.9
17250	24	50	75.5	60.3	12980	6.3	100,5	74.9	17283	8.4
17250	27	50	110.8	73.2	19056	12.8	141,1	90.1	24271	15,6
17250	30	50	148.4	85.3	25526	21.8	185,0	104.8	31823	25.5
17250	33	50	190,2	97.1	32708	34.3	233,0	119.0	40083	38.9
17900	24	50	77.1	61.7	13254	6.5	102.9	77.0	17702	8.7
17900	27	50	113.2	74.9	19477	13.3	144.7	92.6	24894	16,3
17900	30	50	151.8	87.3	26105	22.7	189,9	107,6	32670	26.7
17900	33	50	194,6	99.4	33473	35.8	239,4	122.2	41182	40.7
18550	24	50	78.6	63.1	13521	6.8	105.3	78.9	18111	9.1
18550	27	50	115,6	76.6	19888	13.8	148,2	94.9	25494	17,0
18550	30	50	155.1	89.2	26669	23.6	194,8	110.4	33501	28.0
18550	33	50	199,0	101.5	34219	37.3	245,7	125,4	42262	42.6
19200	24	50	80,1	64,5	13781	7.0	107,6	80.9	18512	9.5
19200	27	50	118,0	78.2	20290	14.3	151,7	97.3	26090	17.7
19200	30	50	158,3	91.1	27220	24.5	199,5	113.1	34316	29.2
19200	33	50	203,2	103,7	34949	38.7	251.8	128,5	43322	44.6
19850	24	50	81,6	65.8	14035	7.3	109,6	82.7	18852	9.8
19850	27	50	120.2	79.8	20682	14.8	155.1	99.6	26675	18.5
19850	30	50	161.4	92.9	27759	25.4	204,2	115.8	35115	30.5
19850	33	50	207.3	105,8	35662	40.2	257.9	131.5	44354	46.6

HEAT

TN 1 Temp. of inlet water: 70°C Temp. of outlet water: 60°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
2300	-5	50	27.7	2427	20.9	36.4	3191	18.8	43.0	3769	20.1	51.6	4520	18.4
2300	2	50	24.7	2160	16.9	32.4	2835	15.2	38.2	3344	16.2	45.7	4004	14.8
2300	10	50	21.2	1859	12.9	27.8	2437	11.5	32.8	2873	12.3	39.2	3435	11.2
2300	18	50	17.9	1564	9.4	23.4	2048	8.4	27.6	2414	9.0	33.0	2886	8.2
2400	-5	50	28.5	2496	22.0	37.5	3288	19.9	44.4	3891	21.3	53.4	4681	19.6
2400	2	50	25.4	2221	17.8	33.4	2921	16.0	39.4	3453	17.1	47.3	4147	15.8
2400	10	50	21.8	1912	13.6	28.7	2511	12.2	33.9	2966	13.0	40.6	3558	12.0
2400	18	50	18.4	1608	9.9	24.1	2111	8.9	28.5	2493	9.5	34.1	2990	8.7
2500	-5	50	29.3	2563	23.1	38.6	3384	20.9	45.8	4012	22.5	55.3	4841	20.9
2500	2	50	26.0	2281	18.7	34.3	3007	16.9	40.7	3561	18.1	49.0	4289	16.8
2500	10	50	22.4	1963	14.2	29.5	2585	12.8	34.9	3059	13.7	42.0	3680	12.7
2500	18	50	18.9	1652	10.4	24.8	2173	9.3	29.4	2571	10.0	35.3	3092	9.3
2600	-5	50	30.0	2629	24.2	39.7	3478	22.0	47.2	4131	23.7	57.1	4998	22.1
2600	2	50	26.7	2339	19.6	35.3	3090	17.7	41.9	3666	19.1	50.6	4429	17.8
2600	10	50	23.0	2014	14.9	30.3	2657	13.5	36.0	3150	14.5	43.4	3800	13.5
2600	18	50	19.3	1694	10.9	25.5	2233	9.8	30.2	2648	10.6	36.5	3193	9.8
2700	-5	50	30.8	2694	25.3	40.8	3571	23.1	48.5	4248	24.9	58.8	5154	23.4
2700	2	50	27.4	2397	20.5	36.2	3173	18.6	43.1	3771	20.1	52.1	4567	18.8
2700	10	50	23.6	2064	15.6	31.1	2728	14.1	37.0	3240	15.3	44.7	3919	14.2
2700	18	50	19.8	1736	11.4	26.2	2293	10.3	31.1	2723	11.1	37.6	3293	10.4
2800	-5	50	31.5	2757	26.4	41.8	3662	24.1	49.8	4364	26.2	60.6	5308	24.6
2800	2	50	28.0	2454	21.4	37.2	3254	19.5	44.2	3874	21.1	53.7	4704	19.8
2800	10	50	24.1	2113	16.3	31.9	2798	14.8	38.0	3328	16.0	46.1	4037	15.0
2800	18	50	20.3	1778	11.9	26.9	2352	10.8	31.9	2798	11.7	38.7	3392	11.0
2900	-5	50	32.2	2820	27.5	42.8	3752	25.2	51.1	4478	27.4	62.4	5461	25.9
2900	2	50	28.7	2510	22.3	38.1	3335	20.4	45.4	3976	22.1	55.3	4840	20.9
2900	10	50	24.7	2161	17.0	32.7	2867	15.5	39.0	3416	16.8	47.4	4153	15.8
2900	18	50	20.8	1818	12.4	27.5	2410	11.3	32.8	2872	12.3	39.8	3490	11.6
3000	-5	50	32.9	2882	28.6	43.9	3841	26.3	52.4	4591	28.7	64.1	5612	27.2
3000	2	50	29.3	2566	23.2	39.0	3414	21.3	46.5	4076	23.1	56.8	4974	21.9
3000	10	50	25.2	2209	17.6	33.5	2936	16.2	40.0	3503	17.6	48.7	4268	16.6
3000	18	50	21.2	1858	12.9	28.2	2468	11.8	33.6	2944	12.8	41.0	3588	12.1
3500	-5	50	36.3	3179	34.2	48.7	4268	31.9	58.6	5135	35.2	72.5	6346	34.0
3500	2	50	32.3	2830	27.7	43.3	3794	25.8	52.1	4561	28.4	64.2	5626	27.4
3500	10	50	27.8	2437	21.1	37.3	3263	19.6	44.8	3920	21.5	55.1	4829	20.8
3500	18	50	23.4	2050	15.4	31.3	2743	14.3	37.6	3295	15.7	46.3	4058	15.2

TN 1 Temp. of inlet water: 45°C Temp. of outlet water: 40°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
2300	-5	50	18.7	3247	39.1	24.6	4262	35.0	29.0	5024	37.3	34.7	6011	34.1
2300	2	50	15.8	2730	28.5	20.7	3578	25.5	24.3	4216	27.1	29.1	5038	24.8
2300	10	50	12.4	2149	18.5	16.2	2815	16.5	19.2	3319	17.6	22.9	3967	16.1
2300	18	50	9.1	1579	10.6	12.0	2071	9.5	14.1	2447	10.2	16.9	2935	9.4
2400	-5	50	19.3	3339	41.1	25.3	4392	37.0	29.9	5189	39.5	35.9	6226	36.3
2400	2	50	16.2	2807	30.0	21.3	3688	26.9	25.1	4354	28.8	30.1	5219	26.4
2400	10	50	12.8	2210	19.4	16.7	2901	17.4	19.8	3427	18.7	23.7	4109	17.2
2400	18	50	9.4	1623	11.1	12.3	2134	10.0	14.6	2527	10.8	17.5	3040	10.0
2500	-5	50	19.8	3429	43.2	26.1	4520	38.9	30.9	5351	41.7	37.2	6439	38.6
2500	2	50	16.6	2883	31.5	21.9	3796	28.4	25.9	4491	30.4	31.2	5398	28.1
2500	10	50	13.1	2269	20.4	17.2	2986	18.4	20.4	3534	19.7	24.5	4250	18.3
2500	18	50	9.6	1667	11.7	12.7	2196	10.5	15.0	2605	11.4	18.1	3144	10.6
2600	-5	50	20.3	3517	45.2	26.8	4646	40.9	31.8	5510	44.0	38.4	6650	40.9
2600	2	50	17.1	2957	33.0	22.5	3902	29.8	26.7	4625	32.1	32.2	5575	29.8
2600	10	50	13.4	2328	21.4	17.7	3070	19.3	21.0	3639	20.8	25.3	4389	19.4
2600	18	50	9.9	1710	12.2	13.0	2257	11.1	15.5	2683	12.0	18.7	3246	11.3
2700	-5	50	20.8	3604	47.3	27.5	4771	42.9	32.7	5667	46.3	39.6	6858	43.2
2700	2	50	17.5	3031	34.5	23.1	4006	31.3	27.5	4757	33.7	33.2	5750	31.5
2700	10	50	13.8	2385	22.3	18.2	3152	20.3	21.6	3744	21.9	26.1	4527	20.5
2700	18	50	10.1	1752	12.8	13.4	2318	11.6	15.9	2759	12.6	19.3	3347	11.9
2800	-5	50	21.3	3690	49.3	28.2	4893	45.0	33.6	5822	48.6	40.8	7064	45.6
2800	2	50	17.9	3103	36.0	23.7	4109	32.8	28.2	4887	35.4	34.2	5923	33.2
2800	10	50	14.1	2442	23.3	18.7	3233	21.2	22.2	3846	23.0	26.9	4663	21.6
2800	18	50	10.3	1793	13.3	13.7	2377	12.2	16.4	2834	13.3	19.9	3447	12.5
2900	-5	50	21.8	3774	51.4	28.9	5014	47.0	34.5	5975	51.0	41.9	7268	48.0
2900	2	50	18.3	3174	37.5	24.3	4211	34.3	28.9	5016	37.1	35.2	6094	35.0
2900	10	50	14.4	2498	24.3	19.1	3313	22.2	22.8	3947	24.1	27.7	4797	22.7
2900	18	50	10.6	1834	13.9	14.1	2436	12.7	16.8	2909	13.9	20.5	3546	13.2
3000	-5	50	22.3	3858	53.5	29.6	5133	49.0	35.4	6126	53.3	43.1	7470	50.4
3000	2	50	18.7	3244	39.0	24.9	4311	35.7	29.7	5143	38.9	36.1	6263	36.7
3000	10	50	14.7	2553	25.3	19.6	3392	23.1	23.4	4047	25.2	28.5	4931	23.9
3000	18	50	10.8	1874	14.4	14.4	2494	13.3	17.2	2982	14.5	21.0	3644	13.9
3500	-5	50	24.6	4256	63.9	32.9	5705	59.4	39.6	6855	65.3	48.8	8451	63.0
3500	2	50	20.7	3579	46.6	27.7	4793	43.3	33.2	5756	47.6	40.9	7088	45.9
3500	10	50	16.3	2817	30.2	21.8	3770	28.0	26.1	4530	30.9	32.2	5579	29.8
3500	18	50	11.9	2067	17.2	16.0	2770	16.0	19.2	3335	17.8	23.8	4120	17.3

HEAT

TN 2 Temp. of inlet water: 70°C Temp. of outlet water: 60°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
3100	-5	50	37.1	3251	12.1	49.1	4299	14.9	58.1	5087	18.2	69.7	6101	17.4
3100	2	50	33.0	2890	9.7	43.6	3818	12.0	51.5	4514	14.7	61.7	5404	14.0
3100	10	50	28.4	2486	7.4	37.5	3282	9.1	44.3	3878	11.1	52.9	4637	10.6
3100	18	50	23.8	2088	5.4	31.5	2758	6.6	37.2	3259	8.1	44.5	3897	7.7
3300	-5	50	38.7	3386	13.0	51.3	4493	16.2	60.9	5331	19.9	73.3	6423	19.1
3300	2	50	34.4	3011	10.5	45.6	3991	13.0	54.0	4732	16.0	65.0	5691	15.4
3300	10	50	29.6	2589	8.0	39.2	3431	9.9	46.4	4065	12.1	55.8	4883	11.7
3300	18	50	24.8	2175	5.8	32.9	2883	7.2	39.0	3417	8.8	46.9	4104	8.5
3500	-5	50	40.2	3517	14.0	53.5	4682	17.5	63.6	5571	21.5	77.0	6740	20.9
3500	2	50	35.7	3128	11.3	47.5	4159	14.1	56.5	4945	17.3	68.2	5973	16.8
3500	10	50	30.7	2691	8.5	40.8	3575	10.7	48.5	4248	13.1	58.5	5125	12.7
3500	18	50	25.8	2260	6.2	34.3	3005	7.8	40.8	3571	9.6	49.2	4308	9.3
3700	-5	50	41.6	3646	14.9	55.6	4867	18.8	66.3	5805	23.2	80.5	7052	22.7
3700	2	50	37.0	3242	12.0	49.4	4324	15.1	58.8	5154	18.7	71.4	6250	18.2
3700	10	50	31.8	2789	9.1	42.4	3717	11.5	50.6	4428	14.2	61.2	5363	13.8
3700	18	50	26.7	2343	6.6	35.7	3124	8.3	42.5	3722	10.3	51.5	4508	10.1
3800	-5	50	42.3	3709	15.4	56.6	4958	19.4	67.6	5921	24.0	82.3	7206	23.6
3800	2	50	37.7	3298	12.4	50.3	4405	15.6	60.0	5257	19.3	72.9	6387	18.9
3800	10	50	32.4	2837	9.4	43.2	3787	11.8	51.6	4517	14.7	62.6	5481	14.4
3800	18	50	27.2	2383	6.8	36.3	3182	8.6	43.3	3797	10.7	52.6	4607	10.5
3900	-5	50	43.1	3771	15.9	57.6	5047	20.0	68.9	6035	24.9	84.0	7360	24.5
3900	2	50	38.3	3354	12.8	51.2	4485	16.2	61.2	5358	20.0	74.5	6522	19.7
3900	10	50	32.9	2885	9.7	44.0	3856	12.2	52.6	4604	15.2	63.9	5598	14.9
3900	18	50	27.7	2423	7.0	37.0	3240	8.9	44.2	3871	11.1	53.7	4705	10.9
4000	-5	50	43.8	3832	16.4	58.6	5136	20.7	70.2	6149	25.7	85.8	7512	25.4
4000	2	50	38.9	3409	13.2	52.1	4564	16.7	62.3	5459	20.7	76.0	6657	20.4
4000	10	50	33.5	2932	10.0	44.8	3924	12.6	53.6	4691	15.7	65.2	5714	15.5
4000	18	50	28.1	2463	7.3	37.7	3298	9.2	45.0	3944	11.5	54.8	4803	11.3
4100	-5	50	44.5	3893	16.9	59.7	5225	21.4	71.5	6261	26.6	87.5	7662	26.3
4100	2	50	39.5	3463	13.6	53.0	4643	17.2	63.5	5559	21.4	77.5	6791	21.2
4100	10	50	34.0	2979	10.3	45.6	3992	13.0	54.5	4777	16.3	66.6	5829	16.1
4100	18	50	28.6	2502	7.5	38.3	3355	9.5	45.9	4016	11.9	55.9	4900	11.7
4700	-5	50	48.5	4246	19.8	65.5	5736	25.3	78.9	6914	31.9	97.5	8543	32.1
4700	2	50	43.1	3777	15.9	58.2	5098	20.4	70.1	6141	25.7	86.5	7575	25.8
4700	10	50	37.1	3249	12.1	50.1	4384	15.5	60.3	5278	19.5	74.2	6502	19.6
4700	18	50	31.2	2730	8.8	42.1	3684	11.3	50.7	4438	14.2	62.4	5465	14.3

TN 2 Temp. of inlet water: 45°C Temp. of outlet water: 40°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
3100	-5	50	25.1	4348	22.6	33.1	5742	27.8	39.1	6782	33.8	46.8	8113	32.2
3100	2	50	21.1	3652	16.4	27.8	4820	20.2	32.9	5691	24.6	39.3	6802	23.4
3100	10	50	16.6	2869	10.5	21.9	3791	13.0	25.9	4480	16.0	30.9	5356	15.2
3100	18	50	12.1	2102	6.0	16.1	2787	7.5	19.1	3305	9.2	22.9	3965	8.9
3300	-5	50	26.1	4529	24.3	34.6	6001	30.1	41.0	7111	36.9	49.3	8544	35.4
3300	2	50	22.0	3804	17.6	29.1	5038	21.9	34.4	5968	26.8	41.3	7163	25.7
3300	10	50	17.2	2988	11.3	22.9	3962	14.1	27.1	4697	17.4	32.6	5641	16.7
3300	18	50	12.6	2189	6.4	16.8	2913	8.1	20.0	3464	10.0	24.1	4174	9.7
3500	-5	50	27.2	4706	26.1	36.1	6254	32.5	42.9	7431	39.9	51.8	8968	38.6
3500	2	50	22.8	3952	18.9	30.3	5251	23.6	36.0	6237	29.1	43.4	7519	28.1
3500	10	50	17.9	3105	12.2	23.8	4130	15.3	28.3	4909	18.8	34.2	5921	18.3
3500	18	50	13.1	2274	6.9	17.5	3035	8.7	20.9	3620	10.8	25.3	4380	10.6
3700	-5	50	28.2	4878	27.9	37.5	6502	34.9	44.7	7745	43.0	54.2	9384	41.9
3700	2	50	23.6	4097	20.2	31.5	5459	25.4	37.5	6501	31.3	45.4	7869	30.5
3700	10	50	18.6	3219	13.0	24.8	4294	16.4	29.5	5117	20.3	35.8	6196	19.8
3700	18	50	13.6	2357	7.3	18.2	3155	9.3	21.8	3772	11.7	26.4	4583	11.5
3800	-5	50	28.6	4963	28.7	38.2	6624	36.1	45.6	7900	44.6	55.3	9590	43.6
3800	2	50	24.1	4168	20.9	32.1	5562	26.2	38.3	6631	32.5	46.4	8041	31.7
3800	10	50	18.9	3275	13.4	25.2	4374	16.9	30.1	5220	21.0	36.5	6332	20.6
3800	18	50	13.8	2397	7.6	18.5	3214	9.7	22.2	3847	12.1	27.0	4683	12.0
3900	-5	50	29.1	5046	29.6	38.9	6744	37.3	46.5	8053	46.2	56.5	9794	45.3
3900	2	50	24.5	4238	21.5	32.7	5663	27.1	39.0	6760	33.6	47.4	8213	33.0
3900	10	50	19.2	3330	13.8	25.7	4454	17.5	30.7	5321	21.8	37.3	6467	21.4
3900	18	50	14.1	2438	7.8	18.9	3273	10.0	22.6	3921	12.5	27.6	4782	12.4
4000	-5	50	29.6	5129	30.5	39.6	6864	38.5	47.4	8205	47.8	57.7	9997	47.0
4000	2	50	24.9	4307	22.2	33.3	5763	28.0	39.7	6888	34.8	48.4	8383	34.2
4000	10	50	19.5	3384	14.2	26.2	4533	18.1	31.3	5421	22.5	38.1	6601	22.2
4000	18	50	14.3	2477	8.0	19.2	3330	10.3	23.1	3995	13.0	28.2	4881	12.9
4100	-5	50	30.1	5210	31.4	40.3	6982	39.7	48.2	8355	49.4	58.9	10198	48.7
4100	2	50	25.3	4376	22.8	33.8	5863	28.9	40.5	7014	36.0	49.4	8552	35.5
4100	10	50	19.8	3438	14.7	26.6	4611	18.6	31.9	5521	23.3	38.9	6734	23.0
4100	18	50	14.5	2517	8.3	19.5	3387	10.6	23.5	4067	13.4	28.7	4979	13.4
4700	-5	50	32.8	5683	36.9	44.2	7667	47.1	53.3	9230	59.2	65.7	11377	59.4
4700	2	50	27.6	4774	26.8	37.2	6439	34.3	44.7	7750	43.1	55.1	9543	43.2
4700	10	50	21.6	3750	17.2	29.2	5064	22.1	35.2	6100	27.9	43.4	7513	28.1
4700	18	50	15.8	2744	9.7	21.5	3717	12.6	25.9	4493	16.0	32.0	5551	16.2

HEAT

TN 3 Temp. of inlet water: 70°C Temp. of outlet water: 60°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
4300	-5	50	51.3	4493	14.0	67.8	5942	16.9	80.1	7018	17.1	96.3	8437	17.8
4300	2	50	45.6	3997	11.3	60.3	5280	13.6	71.1	6227	13.7	85.3	7475	14.3
4300	10	50	39.3	3439	8.6	51.8	4539	10.3	61.1	5350	10.4	73.2	6414	10.8
4300	18	50	33.0	2890	6.2	43.6	3816	7.5	51.3	4496	7.6	61.5	5391	7.9
4500	-5	50	52.8	4628	14.8	70.1	6136	17.9	82.9	7261	18.2	100.0	8759	19.1
4500	2	50	47.0	4117	11.9	62.2	5452	14.4	73.6	6444	14.6	88.6	7761	15.3
4500	10	50	40.4	3543	9.1	53.5	4687	10.9	63.2	5537	11.1	76.0	6659	11.6
4500	18	50	34.0	2978	6.6	45.0	3941	8.0	53.1	4653	8.1	63.9	5597	8.5
4700	-5	50	54.4	4760	15.6	72.2	6326	18.9	85.6	7501	19.3	103.6	9077	20.3
4700	2	50	48.4	4235	12.6	64.2	5621	15.2	76.0	6658	15.5	91.8	8043	16.3
4700	10	50	41.6	3644	9.5	55.2	4833	11.6	65.3	5719	11.8	78.8	6902	12.4
4700	18	50	35.0	3063	6.9	46.4	4063	8.4	54.9	4807	8.6	66.2	5801	9.0
4900	-5	50	55.8	4890	16.4	74.4	6513	19.9	88.3	7737	20.4	107.2	9390	21.6
4900	2	50	49.7	4351	13.2	66.1	5788	16.1	78.4	6868	16.4	95.0	8322	17.4
4900	10	50	42.7	3743	10.0	56.8	4977	12.2	67.4	5900	12.5	81.5	7142	13.2
4900	18	50	35.9	3147	7.3	47.8	4184	8.9	56.6	4960	9.1	68.5	6003	9.6
5100	-5	50	57.3	5018	17.2	76.5	6696	21.0	91.0	7969	21.5	110.8	9700	23.0
5100	2	50	51.0	4465	13.9	67.9	5951	16.9	80.8	7075	17.3	98.2	8597	18.4
5100	10	50	43.9	3842	10.5	58.4	5118	12.8	69.4	6078	13.1	84.2	7379	14.0
5100	18	50	36.9	3229	7.6	49.1	4303	9.3	58.3	5109	9.6	70.8	6203	10.2
5300	-5	50	58.7	5144	18.0	78.5	6877	22.0	93.6	8199	22.7	114.3	10008	24.3
5300	2	50	52.3	4576	14.5	69.8	6113	17.8	83.1	7279	18.3	101.3	8870	19.5
5300	10	50	45.0	3938	11.0	60.0	5257	13.5	71.4	6254	13.8	86.9	7613	14.8
5300	18	50	37.8	3310	8.0	50.5	4420	9.8	60.0	5258	10.1	73.1	6400	10.8
5500	-5	50	60.1	5267	18.8	80.6	7056	23.1	96.2	8425	23.8	117.7	10311	25.6
5500	2	50	53.5	4686	15.2	71.6	6271	18.6	85.4	7480	19.2	104.4	9140	20.6
5500	10	50	46.0	4033	11.5	61.6	5393	14.1	73.4	6428	14.6	89.6	7844	15.6
5500	18	50	38.7	3390	8.4	51.8	4535	10.3	61.7	5403	10.6	75.3	6594	11.4
5650	-5	50	61.2	5358	19.4	82.1	7187	23.9	98.1	8592	24.7	120.3	10536	26.7
5650	2	50	54.4	4768	15.7	72.9	6389	19.3	87.1	7629	19.9	106.6	9340	21.4
5650	10	50	46.8	4103	11.9	62.7	5495	14.6	74.9	6556	15.1	91.5	8016	16.2
5650	18	50	39.4	3449	8.6	52.7	4620	10.6	62.9	5511	11.0	76.9	6739	11.9
6400	-5	50	66.2	5800	22.5	89.4	7827	27.9	107.4	9406	29.2	132.9	11636	31.9
6400	2	50	58.9	5161	18.1	79.5	6959	22.5	95.4	8354	23.5	117.8	10317	25.7
6400	10	50	50.7	4442	13.7	68.3	5986	17.1	82.0	7180	17.8	101.1	8858	19.5
6400	18	50	42.6	3734	10.0	57.5	5032	12.4	68.9	6036	13.0	85.0	7445	14.2

TN 3 Temp. of inlet water: 45°C Temp. of outlet water: 40°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
4300	-5	50	34.7	6011	26.2	45.8	7937	31.4	54.0	9359	31.7	64.8	11221	32.9
4300	2	50	29.1	5050	19.0	38.5	6665	22.8	45.3	7852	23.0	54.3	9408	23.9
4300	10	50	22.9	3972	12.2	30.3	5244	14.7	35.7	6181	14.9	42.8	7410	15.6
4300	18	50	16.8	2913	6.9	22.3	3860	8.4	26.3	4558	8.6	31.6	5485	9.0
4500	-5	50	35.7	6192	27.6	47.3	8196	33.3	55.9	9685	33.8	67.2	11651	35.3
4500	2	50	30.0	5202	20.1	39.7	6883	24.2	46.9	8127	24.5	56.4	9769	25.6
4500	10	50	23.6	4091	12.9	31.3	5416	15.6	36.9	6396	15.9	44.4	7694	16.6
4500	18	50	17.3	3001	7.3	23.0	3985	8.9	27.20	4716	9.1	32.9	5694	9.7
4700	-5	50	36.8	6369	29.1	48.8	8450	35.2	57.7	10005	35.8	69.7	12075	37.6
4700	2	50	30.9	5352	21.2	41.0	7097	25.6	48.5	8397	26.0	58.4	10125	27.4
4700	10	50	24.3	4208	13.6	32.2	5585	16.5	38.2	6608	16.8	46.0	7974	17.8
4700	18	50	17.8	3086	7.7	23.7	4109	9.4	28.1	4872	9.7	34.0	5901	10.3
4900	-5	50	37.8	6544	30.6	50.2	8701	37.1	59.6	10321	37.9	72.1	12494	40.0
4900	2	50	31.7	5498	22.2	42.2	7308	27.0	50.0	8663	27.6	60.5	10477	29.1
4900	10	50	25.0	4324	14.3	33.2	5751	17.4	39.3	6817	17.8	47.6	8251	18.9
4900	18	50	18.3	3170	8.1	24.4	4231	10.0	29.0	5026	10.2	35.2	6105	11.0
5100	-5	50	38.8	6715	32.1	51.6	8947	39.0	61.4	10633	40.0	74.5	12909	42.4
5100	2	50	32.6	5642	23.3	43.4	7515	28.4	51.5	8925	29.1	62.5	10825	30.9
5100	10	50	25.6	4437	15.0	34.1	5914	18.3	40.5	7024	18.8	49.2	8525	20.0
5100	18	50	18.8	3253	8.5	25.1	4350	10.5	29.9	5177	10.8	36.4	6306	11.6
5300	-5	50	39.7	6883	33.6	53.0	9190	41.0	63.1	10940	42.1	76.9	13318	44.9
5300	2	50	33.4	5784	24.4	44.5	7719	29.8	53.0	9183	30.6	64.5	11169	32.7
5300	10	50	26.2	4548	15.7	35.1	6074	19.3	41.7	7227	19.8	50.8	8796	21.2
5300	18	50	19.2	3335	8.9	25.8	4467	11.0	30.7	5325	11.4	37.5	6506	12.3
5500	-5	50	40.7	7049	35.1	54.4	9429	43.0	64.9	11242	44.3	79.2	13723	47.4
5500	2	50	34.2	5923	25.5	45.7	7920	31.3	54.5	9437	32.2	66.4	11509	34.5
5500	10	50	26.9	4657	16.4	36.0	6232	20.2	42.9	7427	20.8	52.3	9063	22.4
5500	18	50	19.7	3414	9.3	26.4	4583	11.5	31.6	5473	12.0	38.7	6703	13.0
5650	-5	50	41.4	7171	36.2	55.4	9605	44.4	66.2	11467	45.9	80.9	14024	49.3
5650	2	50	34.8	6026	26.3	46.6	8069	32.3	55.5	9626	33.4	67.9	11762	35.9
5650	10	50	27.3	4738	16.9	36.6	6349	20.9	43.7	7576	21.6	53.5	9262	23.3
5650	18	50	20.0	3473	9.6	26.9	4668	11.9	32.2	5580	12.4	39.5	6849	13.5
6400	-5	50	44.8	7763	41.9	60.4	10462	51.9	72.5	12557	54.1	89.4	15496	59.1
6400	2	50	37.7	6524	30.4	50.7	8789	37.8	60.8	10543	39.4	75.0	12999	43.0
6400	10	50	29.6	5129	19.6	39.9	6916	24.4	47.9	8297	25.5	59.1	10236	27.9
6400	18	50	21.7	3758	11.1	29.3	5083	13.9	35.3	6110	14.6	43.7	7563	16.1

HEAT

TN 4 Temp. of inlet water: 70°C Temp. of outlet water: 60°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
5600	-5	50	67.3	5895	18.6	88.7	7766	18.5	104.5	9154	16.7	125.6	10997	16.9
5600	2	50	59.9	5247	15.0	78.8	6901	14.9	92.7	8123	13.4	111.2	9743	13.6
5600	10	50	51.6	4518	11.4	67.8	5935	11.3	79.7	6979	10.2	95.5	8361	10.3
5600	18	50	43.4	3802	8.3	57.0	4992	8.2	67.0	5867	7.4	80.2	7028	7.5
5850	-5	50	69.2	6065	19.6	91.4	8009	19.6	108.0	9459	17.8	130.2	11400	18.1
5850	2	50	61.6	5398	15.8	81.3	7118	15.8	95.9	8395	14.3	115.3	10101	14.5
5850	10	50	53.1	4649	12.0	69.9	6122	12.0	82.3	7213	10.8	99.0	8668	11.0
5850	18	50	44.7	3912	8.7	58.8	5149	8.7	69.2	6063	7.9	83.2	7286	8.0
6100	-5	50	71.2	6232	20.6	94.2	8248	20.7	111.4	9759	18.8	134.7	11798	19.2
6100	2	50	63.3	5548	16.6	83.7	7331	16.6	98.9	8663	15.1	119.4	10455	15.4
6100	10	50	54.5	4778	12.6	72.0	6305	12.6	85.0	7443	11.5	102.4	8972	11.7
6100	18	50	45.9	4020	9.2	60.6	5304	9.2	71.4	6257	8.3	86.1	7542	8.5
6350	-5	50	73.0	6397	21.6	96.9	8483	21.8	114.8	10055	19.9	139.2	12191	20.4
6350	2	50	65.0	5694	17.4	86.1	7540	17.5	101.9	8926	16.0	123.4	10804	16.4
6350	10	50	56.0	4904	13.3	74.1	6486	13.3	87.6	7669	12.1	105.9	9272	12.4
6350	18	50	47.1	4127	9.6	62.3	5456	9.7	73.6	6448	8.8	89.0	7795	9.0
6600	-5	50	74.9	6558	22.6	99.5	8714	22.9	118.1	10347	20.9	143.6	12580	21.6
6600	2	50	66.7	5838	18.3	88.4	7746	18.4	104.9	9186	16.8	127.3	11149	17.4
6600	10	50	57.4	5028	13.9	76.1	6664	14.0	90.1	7894	12.8	109.3	9569	13.1
6600	18	50	48.3	4231	10.1	64.0	5605	10.2	75.8	6637	9.3	91.8	8045	9.6
6850	-5	50	76.7	6717	23.6	102.1	8942	24.0	121.4	10635	22.0	148.0	12966	22.8
6850	2	50	68.3	5980	19.1	90.8	7949	19.3	107.8	9442	17.7	131.2	11491	18.3
6850	10	50	58.8	5150	14.5	78.1	6839	14.7	92.6	8114	13.4	112.6	9863	13.9
6850	18	50	49.5	4334	10.6	65.7	5752	10.7	77.9	6822	9.8	94.7	8292	10.1
7100	-5	50	78.5	6873	24.7	104.7	9166	25.1	124.7	10919	23.1	152.4	13346	24.1
7100	2	50	69.9	6119	19.9	93.0	8149	20.2	110.7	9695	18.6	135.1	11830	19.3
7100	10	50	60.2	5271	15.1	80.1	7011	15.3	95.1	8332	14.1	115.9	10154	14.6
7100	18	50	50.6	4435	11.0	67.3	5897	11.2	80.0	7005	10.3	97.5	8537	10.7
7350	-5	50	80.2	7027	25.7	107.2	9388	26.2	127.9	11200	24.2	156.7	13723	25.3
7350	2	50	71.4	6257	20.7	95.3	8347	21.1	113.5	9945	19.5	138.9	12165	20.3
7350	10	50	61.5	5389	15.8	82.0	7181	16.0	97.6	8547	14.8	119.2	10441	15.4
7350	18	50	51.8	4535	11.5	69.0	6040	11.7	82.0	7186	10.7	100.2	8778	11.2
8400	-5	50	87.4	7650	30.0	117.4	10286	31.0	140.9	12340	28.9	174.3	15263	30.7
8400	2	50	77.8	6812	24.3	104.4	9147	25.0	125.1	10961	23.3	154.5	13534	24.7
8400	10	50	67.0	5869	18.4	89.9	7871	19.0	107.6	9422	17.6	132.7	11620	18.7
8400	18	50	56.4	4938	13.4	75.6	6621	13.8	90.4	7922	12.8	111.5	9768	13.6

TN 4 Temp. of inlet water: 45°C Temp. of outlet water: 40°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
5600	-5	50	45.5	7886	34.6	59.9	10372	34.4	70.4	12207	31.0	84.4	14626	31.3
5600	2	50	38.3	6632	25.2	50.3	8714	25.0	59.1	10243	22.5	70.8	12263	22.7
5600	10	50	30.1	5223	16.3	39.6	6862	16.2	46.5	8064	14.6	55.7	9659	14.7
5600	18	50	22.2	3841	9.3	29.2	5055	9.3	34.3	5949	8.4	41.3	7152	8.5
5850	-5	50	46.8	8115	36.5	61.7	10698	36.4	72.8	12615	33.0	87.5	15164	33.4
5850	2	50	39.4	6825	26.6	51.9	8988	26.5	61.1	10588	24.0	73.4	12715	24.3
5850	10	50	31.0	5375	17.2	40.8	7077	17.1	48.1	8334	15.5	57.8	10015	15.7
5850	18	50	22.8	3952	9.8	30.1	5213	9.8	35.5	6147	8.9	42.8	7414	9.1
6100	-5	50	48.1	8339	38.4	63.6	11018	38.4	75.1	13018	34.9	90.6	15695	35.5
6100	2	50	40.5	7013	27.9	53.4	9257	27.9	63.1	10926	25.4	76.0	13161	25.8
6100	10	50	31.9	5524	18.0	42.1	7289	18.1	49.6	8600	16.4	59.8	10366	16.8
6100	18	50	23.4	4060	10.3	31.0	5369	10.3	36.6	6344	9.4	44.3	7672	9.7
6350	-5	50	49.4	8559	40.3	65.4	11333	40.4	77.4	13414	36.9	93.6	16220	37.7
6350	2	50	41.5	7199	29.3	55.0	9522	29.4	65.0	11260	26.8	78.5	13602	27.4
6350	10	50	32.7	5670	18.9	43.3	7498	19.0	51.2	8864	17.3	61.8	10714	17.8
6350	18	50	24.1	4167	10.8	31.9	5522	10.9	37.7	6536	9.9	45.7	7928	10.3
6600	-5	50	50.6	8776	42.1	67.2	11643	42.5	79.7	13805	38.8	96.6	16740	40.0
6600	2	50	42.6	7381	30.7	56.5	9783	30.9	66.9	11588	28.2	81.0	14039	29.0
6600	10	50	33.6	5813	19.8	44.5	7703	20.0	52.6	9123	18.3	63.8	11057	18.8
6600	18	50	24.7	4272	11.3	32.7	5672	11.4	38.8	6726	10.5	47.2	8181	10.9
6850	-5	50	51.9	8989	44.0	69.0	11948	44.5	81.9	14190	40.9	99.6	17254	42.2
6850	2	50	43.6	7561	32.1	57.9	10040	32.4	68.7	11913	29.7	83.5	14470	30.7
6850	10	50	34.4	5954	20.7	45.6	7906	20.9	54.1	9378	19.2	65.8	11397	19.9
6850	18	50	25.3	4376	11.8	33.6	5820	12.0	39.9	6913	11.0	48.7	8431	11.5
7100	-5	50	53.1	9199	45.9	70.7	12249	46.6	84.1	14571	42.9	102.5	17762	44.5
7100	2	50	44.7	7737	33.5	59.4	10293	33.9	70.6	12233	31.2	86.0	14897	32.3
7100	10	50	35.2	6093	21.6	46.8	8105	21.9	55.6	9630	20.1	67.7	11732	21.0
7100	18	50	25.8	4478	12.3	34.4	5965	12.5	41.0	7097	11.6	50.1	8678	12.1
7350	-5	50	54.3	9406	47.8	72.4	12546	48.7	86.3	14946	44.9	105.4	18264	46.8
7350	2	50	45.7	7911	34.8	60.8	10543	35.4	72.4	12548	32.6	88.4	15319	34.0
7350	10	50	36.0	6230	22.5	47.9	8302	22.9	57.0	9878	21.1	69.6	12065	22.1
7350	18	50	26.4	4578	12.8	35.3	6111	13.1	42.0	7279	12.1	51.5	8924	12.8
8400	-5	50	59.1	10241	55.9	79.4	13750	57.6	95.1	16474	53.6	117.3	20326	56.8
8400	2	50	49.7	8615	40.7	66.7	11556	41.9	79.8	13833	39.0	98.4	17052	41.3
8400	10	50	39.2	6784	26.3	52.5	9099	27.1	62.8	10889	25.2	77.5	13429	26.8
8400	18	50	28.8	4983	14.9	38.6	6695	15.5	46.3	8022	14.4	57.3	9924	15.5

HEAT

TN 5 Temp. of inlet water: 70°C Temp. of outlet water: 60°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
7300	-5	50	98.0	8587	22.0	126,3	11063	18.9	146.9	12864	19.4	171.9	15051	16.8
7300	2	50	86.9	7613	17.6	111.8	9794	15.1	129.9	11381	15.5	151.9	13302	13.4
7300	10	50	74.5	6522	13.2	95.7	8383	11.3	111.2	9739	11.6	129.9	11380	10.1
7300	18	50	62.3	5454	9.5	80.0	7010	8.1	93.0	8150	8.4	108.8	9534	7.3
7600	-5	50	100.1	8763	22.9	129.4	11330	19.8	150.9	13214	20.4	177.3	15532	17.8
7600	2	50	88.7	7770	18.3	114.5	10032	15.8	133.5	11692	16.3	156.7	13727	14.2
7600	10	50	76.0	6658	13.7	98.0	8587	11.8	114.2	10006	12.2	134.1	11744	10.7
7600	18	50	63.6	5567	9.9	82.0	7180	8.5	95.6	8374	8.8	112.3	9838	7.7
7900	-5	50	102.0	8934	23.7	132.3	11591	20.6	154.8	13557	21.4	182.7	16003	18.8
7900	2	50	90.5	7923	19.0	117.2	10264	16.5	137.0	11996	17.1	161.5	14145	15.0
7900	10	50	77.5	6789	14.2	100.3	8786	12.3	117.2	10267	12.8	138.2	12101	11.3
7900	18	50	64.8	5677	10.2	83.9	7347	8.9	98.1	8592	9.2	115.7	10138	8.2
8200	-5	50	103.9	9101	24.5	135.2	11844	21.4	158.6	13891	22.4	188.0	16466	19.9
8200	2	50	92.2	8071	19.6	119.8	10489	17.1	140.4	12293	17.9	166.2	14555	15.8
8200	10	50	79.0	6916	14.7	102.5	8980	12.8	120.1	10522	13.4	142.2	12452	11.9
8200	18	50	66.0	5784	10.6	85.7	7509	9.2	100.5	8805	9.7	119.1	10432	8.6
8500	-5	50	105.8	9262	25.3	138.1	12091	22.3	162.3	14217	23.3	193.2	16920	20.9
8500	2	50	93.8	8215	20.3	122.3	10709	17.8	143.7	12584	18.6	170.8	14958	16.7
8500	10	50	80.4	7040	15.2	104.7	9168	13.3	123.0	10771	14.0	146.1	12797	12.5
8500	18	50	67.2	5888	10.9	87.5	7667	9.6	102.9	9014	10.1	122.4	10720	9.0
8800	-5	50	107.5	9419	26.1	140.8	12331	23.1	166.0	14536	24.3	198.3	17366	21.9
8800	2	50	95.4	8355	20.9	124.7	10924	18.5	146.9	12867	19.4	175.3	15353	17.5
8800	10	50	81.8	7161	15.7	106.8	9352	13.8	125.8	11015	14.6	150.0	13137	13.1
8800	18	50	68.4	5989	11.3	89.3	7821	9.9	105.2	9218	10.5	125.6	11004	9.5
9100	-5	50	109.3	9573	26.9	143.5	12568	23.9	169.5	14848	25.3	203.3	17804	22.9
9100	2	50	97.0	8492	21.6	127.1	11134	19.1	150.1	13145	20.2	179.7	15742	18.3
9100	10	50	83.1	7278	16.2	108.8	9533	14.3	128.5	11253	15.2	153.8	13470	13.7
9100	18	50	69.5	6087	11.6	91.0	7971	10.3	107.5	9417	10.9	128.8	11283	9.9
9400	-5	50	111.0	9722	27.7	146.1	12797	24.7	173.0	15153	26.3	208.2	18235	23.9
9400	2	50	98.5	8625	22.2	129.4	11338	19.8	153.2	13416	21.0	184.1	16124	19.1
9400	10	50	84.4	7392	16.7	110.8	9708	14.8	131.1	11486	15.8	157.5	13798	14.4
9400	18	50	70.6	6183	12.0	92.7	8118	10.7	109.7	9612	11.3	131.9	11556	10.4
10900	-5	50	118.9	10416	31.5	158.3	13869	28.7	189.4	16588	31.0	231.6	20283	29.1
10900	2	50	105.5	9243	25.2	140.3	12292	23.0	167.8	14694	24.8	204.9	17943	23.2
10900	10	50	90.5	7924	19.0	120.2	10529	17.2	143.7	12584	18.6	175.3	15358	17.5
10900	18	50	75.7	6628	13.6	100.5	8805	12.4	120.2	10530	13.4	146.85	12862	12.6

TN 5 Temp. of inlet water: 45°C Temp. of outlet water: 40°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
7300	-5	50	66.2	11475	41	85.2	14758	35.0	98.9	17132	35.9	115.4	19989	31.0
7300	2	50	55.4	9598	29	71.2	12334	25.1	82.6	14319	25.8	96.4	16707	22.3
7300	10	50	43.3	7497	19	55.6	9639	16.0	64.7	11207	16.5	75.6	13104	14.3
7300	18	50	31.4	5446	10	40.5	7023	8.9	47.3	8199	9.3	55.7	9645	8.2
7600	-5	50	67.6	11712	42	87.2	15117	36.6	101.6	17602	37.7	119.1	20630	32.8
7600	2	50	56.5	9797	30	72.9	12635	26.3	84.9	14713	27.1	99.5	17243	23.7
7600	10	50	44.2	7654	19	57.0	9874	16.7	66.5	11515	17.3	78.0	13523	15.2
7600	18	50	32.1	5557	11	41.5	7190	9.3	48.6	8422	9.7	57.4	9950	8.7
7900	-5	50	68.9	11942	44	89.3	15467	38.1	104.2	18061	39.5	122.7	21263	34.7
7900	2	50	57.7	9990	32	74.6	12928	27.4	87.1	15098	28.4	102.6	17769	25.0
7900	10	50	45.0	7805	20	58.3	10103	17.4	68.2	11815	18.1	80.4	13934	16.0
7900	18	50	32.7	5666	11	42.4	7354	9.7	49.9	8638	10.2	59.1	10249	9.1
8200	-5	50	70.2	12165	45	91.2	15807	39.7	106.8	18510	41.3	126.3	21882	36.6
8200	2	50	58.7	10179	33	76.3	13213	28.5	89.3	15473	29.7	105.6	18290	26.4
8200	10	50	45.9	7952	21	59.6	10325	18.1	69.9	12109	19.0	82.8	14338	16.9
8200	18	50	33.3	5771	11	43.4	7516	10.1	51.1	8850	10.7	60.8	10542	9.6
8500	-5	50	71.5	12382	47	93.1	16139	41.3	109.4	18948	43.1	129.8	22489	38.4
8500	2	50	59.8	10361	34	77.9	13491	29.6	91.4	15840	31.1	108.5	18799	27.7
8500	10	50	46.7	8094	21	60.8	10542	18.8	71.5	12395	19.8	85.1	14738	17.8
8500	18	50	33.9	5875	12	44.3	7673	10.5	52.3	9058	11.1	62.5	10831	10.1
8800	-5	50	72.7	12594	49	95.0	16462	42.8	111.8	19376	45.0	133.2	23086	40.3
8800	2	50	60.8	10539	35	79.4	13762	30.8	93.5	16199	32.4	111.4	19298	29.1
8800	10	50	47.5	8232	22	62.1	10754	19.5	73.2	12676	20.6	87.3	15128	18.6
8800	18	50	34.5	5975	12	45.2	7825	10.9	53.4	9261	11.6	64.1	11116	10.6
9100	-5	50	73.9	12799	50	96.8	16777	44.3	114.2	19794	46.8	136.6	23673	42.2
9100	2	50	61.8	10711	36	81.0	14027	31.9	95.5	16550	33.7	114.2	19789	30.4
9100	10	50	48.3	8367	23	63.3	10960	20.2	74.7	12950	21.5	89.5	15512	19.5
9100	18	50	35.0	6072	13	46.0	7974	11.3	54.6	9459	12.1	65.7	11390	11.1
9400	-5	50	75.0	13002	51	98.6	17085	45.8	116.6	20204	48.5	139.9	24249	44.1
9400	2	50	62.8	10880	37	82.4	14285	32.9	97.5	16893	34.9	117.0	20272	31.8
9400	10	50	49.0	8499	23	64.4	11162	20.9	76.3	13218	22.3	91.7	15889	20.4
9400	18	50	35.6	6166	13	46.9	8120	11.6	55.7	9654	12.5	67.3	11666	11.6
10900	-5	50	80.4	13935	58	106.9	18525	53.2	127.7	22130	57.4	155.8	26994	53.7
10900	2	50	67.3	11662	42	89.4	15492	38.3	106.8	18508	41.3	130.3	22570	38.7
10900	10	50	52.6	9110	27	69.9	12107	24.3	83.6	14480	26.3	102.1	17685	24.8
10900	18	50	38.1	6606	15	50.8	8801	13.5	61.0	10567	14.8	74.9	12971	14.1

HEAT

TN 6 Temp. of inlet water: 70°C Temp. of outlet water: 60°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
9000	-5	50	120.2	10525	18.1	155.6	13632	18.8	181.3	15876	20.8	212.4	18599	19.9
9000	2	50	106.5	9329	14.5	137.8	12071	15.0	160.4	14049	16.6	187.7	16440	15.9
9000	10	50	91.2	7988	10.8	118.0	10333	11.2	137.3	12026	12.5	160.7	14071	11.9
9000	18	50	76.2	6676	7.7	98.7	8642	8.1	115.0	10069	9.0	134.7	11797	8.6
9400	-5	50	122.8	10758	18.9	159.7	13988	19.7	186.6	16344	22.0	219.7	19241	21.2
9400	2	50	108.9	9536	15.1	141.4	12387	15.7	165.2	14465	17.5	194.2	17011	16.9
9400	10	50	93.2	8167	11.3	121.1	10605	11.8	141.4	12383	13.2	166.2	14558	12.7
9400	18	50	77.9	6825	8.1	101.3	8870	8.5	118.4	10367	9.5	139.3	12204	9.2
9800	-5	50	125.4	10983	19.6	163.7	14333	20.6	191.8	16799	23.1	226.9	19869	22.5
9800	2	50	111.2	9737	15.7	144.9	12695	16.5	169.8	14870	18.5	200.6	17568	18.0
9800	10	50	95.2	8340	11.7	124.1	10869	12.3	145.4	12731	13.9	171.7	15035	13.5
9800	18	50	79.6	6970	8.4	103.8	9091	8.9	121.7	10659	10.0	143.9	12604	9.8
10200	-5	50	127.9	11202	20.3	167.5	14669	21.5	196.9	17243	24.3	233.9	20486	23.8
10200	2	50	113.4	9932	16.3	148.4	12993	17.2	174.3	15265	19.4	206.8	18115	19.0
10200	10	50	97.1	8507	12.2	127.0	11125	12.9	149.2	13070	14.6	177.0	15506	14.3
10200	18	50	81.2	7109	8.7	106.2	9306	9.3	124.9	10943	10.5	148.4	12996	10.3
10600	-5	50	130.3	11414	21.1	171.2	14995	22.4	201.8	17676	25.4	240.8	21090	25.1
10600	2	50	115.6	10121	16.8	151.7	13284	17.9	178.7	15649	20.3	212.9	18651	20.0
10600	10	50	99.0	8669	12.6	129.9	11375	13.4	153.0	13401	15.2	182.3	15966	15.1
10600	18	50	82.7	7246	9.0	108.6	9515	9.6	128.1	11220	11.0	152.8	13381	10.9
11000	-5	50	132.7	11620	21.8	174.8	15314	23.3	206.6	18098	26.5	247.6	21683	26.4
11000	2	50	117.6	10304	17.4	154.9	13568	18.6	183.0	16025	21.2	219.0	19177	21.1
11000	10	50	100.8	8827	13.0	132.7	11619	14.0	156.7	13723	15.9	187.4	16417	15.9
11000	18	50	84.2	7378	9.3	111.0	9718	10.0	131.2	11490	11.5	157.1	13758	11.5
11400	-5	50	135.0	11820	22.5	178.4	15623	24.2	211.4	18510	27.7	254.2	22265	27.7
11400	2	50	119.7	10482	18.0	158.1	13843	19.3	187.2	16392	22.1	224.9	19694	22.1
11400	10	50	102.5	8980	13.5	135.4	11856	14.5	160.3	14038	16.6	192.5	16860	16.6
11400	18	50	85.7	7506	9.6	113.2	9916	10.4	134.2	11754	12.0	161.3	14130	12.0
11700	-5	50	136.6	11966	23.0	181.0	15850	24.9	214.8	18813	28.5	259.1	22694	28.7
11700	2	50	121.2	10613	18.4	160.4	14045	19.9	190.2	16662	22.8	229.2	20075	22.9
11700	10	50	103.8	9092	13.8	137.3	12030	14.9	162.9	14270	17.1	196.2	17187	17.2
11700	18	50	86.8	7599	9.9	114.9	10061	10.7	136.4	11948	12.3	164.5	14404	12.5
13400	-5	50	145.5	12744	25.9	194.8	17060	28.5	233.4	20438	33.2	285.7	25020	34.3
13400	2	50	129.1	11305	20.7	172.7	15123	22.8	206.8	18109	26.6	252.8	22141	27.4
13400	10	50	110.6	9688	15.5	147.9	12956	17.1	177.1	15515	20.0	216.5	18960	20.6
13400	18	50	92.5	8098	11.1	123.7	10838	12.3	148.3	12990	14.4	181.4	15890	14.9

TN 6 Temp. of inlet water: 45°C Temp. of outlet water: 40°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
9000	-5	50	81.2	14064	33.6	105.0	18186	34.8	122.0	21145	38.5	142.6	24698	36.7
9000	2	50	67.9	11758	24.1	87.7	15202	25.0	102.0	17680	27.7	119.2	20653	26.4
9000	10	50	53.0	9177	15.2	68.6	11884	15.8	79.9	13846	17.7	93.6	16211	17.0
9000	18	50	38.4	6657	8.4	50.0	8660	8.8	58.5	10138	10.0	68.9	11947	9.7
9400	-5	50	83.0	14378	35.0	107.7	18664	36.5	125.7	21772	40.6	147.5	25555	39.0
9400	2	50	69.4	12020	25.1	90.1	15603	26.2	105.1	18206	29.2	123.4	21371	28.1
9400	10	50	54.2	9384	15.8	70.4	12197	16.6	82.3	14257	18.6	96.8	16772	18.1
9400	18	50	39.3	6804	8.7	51.3	8887	9.3	60.2	10435	10.5	71.3	12356	10.3
9800	-5	50	84.7	14681	36.4	110.4	19127	38.2	129.2	22383	42.7	152.4	26401	41.4
9800	2	50	70.8	12275	26.1	92.3	15992	27.4	108.0	18718	30.7	127.4	22079	29.9
9800	10	50	55.3	9582	16.5	72.1	12501	17.4	84.6	14657	19.6	100.0	17326	19.2
9800	18	50	40.1	6947	9.1	52.6	9106	9.7	61.9	10727	11.0	73.6	12756	11.0
10200	-5	50	86.4	14974	37.7	113.0	19578	39.8	132.6	22978	44.8	157.1	27226	43.8
10200	2	50	72.3	12523	27.1	94.5	16369	28.6	110.9	19217	32.3	131.4	22769	31.6
10200	10	50	56.4	9775	17.1	73.9	12796	18.2	86.8	15048	20.6	103.1	17866	20.3
10200	18	50	40.9	7085	9.4	53.8	9319	10.1	63.5	11010	11.6	75.9	13150	11.6
10600	-5	50	88.1	15259	39.1	115.5	20016	41.5	136.0	23559	46.9	161.8	28034	46.2
10600	2	50	73.7	12762	28.0	96.6	16737	29.8	113.7	19704	33.8	135.3	23446	33.3
10600	10	50	57.5	9961	17.7	75.5	13083	18.9	89.0	15428	21.5	106.2	18396	21.4
10600	18	50	41.7	7218	9.7	55.0	9526	10.5	65.1	11286	12.1	78.1	13536	12.2
11000	-5	50	89.7	15535	40.4	118.0	20443	43.2	139.2	24126	49.0	166.4	28828	48.6
11000	2	50	75.0	12994	29.0	98.7	17095	31.0	116.5	20179	35.3	139.1	24111	35.1
11000	10	50	58.5	10142	18.3	77.1	13362	19.7	91.2	15800	22.5	109.2	18916	22.5
11000	18	50	42.4	7348	10.0	56.1	9728	10.9	66.7	11555	12.7	80.3	13914	12.8
11400	-5	50	91.2	15807	41.7	120.4	20858	44.8	142.4	24679	51.1	170.9	29607	51.1
11400	2	50	76.3	13220	29.9	100.7	17443	32.2	119.1	20643	36.8	142.9	24763	36.8
11400	10	50	59.5	10318	18.9	78.7	13634	20.4	93.3	16163	23.5	112.1	19427	23.6
11400	18	50	43.1	7476	10.4	57.3	9924	11.4	68.2	11818	13.2	82.5	14285	13.5
11700	-5	50	92.4	16004	42.7	122.1	21163	46.0	144.8	25086	52.7	174.2	30182	52.9
11700	2	50	77.2	13385	30.6	102.2	17698	33.1	121.1	20984	37.9	145.7	25245	38.1
11700	10	50	60.3	10446	19.3	79.8	13834	21.0	94.8	16430	24.2	114.3	19804	24.5
11700	18	50	43.7	7569	10.6	58.1	10068	11.7	69.3	12012	13.6	84.0	14562	14.0
13400	-5	50	98.4	17050	48.0	131.5	22788	52.8	157.4	27266	61.4	192.2	33298	63.3
13400	2	50	82.3	14261	34.4	110.0	19062	37.9	131.7	22813	44.2	160.8	27856	45.7
13400	10	50	64.2	11130	21.7	86.0	14902	24.1	103.1	17861	28.2	126.1	21848	29.3
13400	18	50	46.5	8060	11.9	62.6	10839	13.4	75.3	13048	15.8	92.6	16050	16.7

HEAT

TN 7 Temp. of inlet water: 70°C Temp. of outlet water: 60°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
12000	-5	50	160.2	14033	18.1	207.5	18175	18.8	241.5	21149	19.8	283.1	24799	19.9
12000	2	50	142.0	12438	14.5	183.8	16094	15.0	213.7	18714	15.8	250.3	21920	15.9
12000	10	50	121.6	10651	10.8	157.3	13777	11.2	182.9	16017	11.9	214.2	18761	11.9
12000	18	50	101.6	8901	7.7	131.6	11523	8.1	153.1	13410	8.6	179.6	15729	8.6
12500	-5	50	163.5	14324	18.8	212.6	18621	19.7	248.1	21733	20.9	292.3	25601	21.1
12500	2	50	145.0	12698	15.0	188.3	16490	15.7	219.6	19233	16.7	258.4	22634	16.9
12500	10	50	124.2	10875	11.2	161.2	14117	11.8	188.0	16463	12.5	221.2	19370	12.7
12500	18	50	103.8	9088	8.0	134.8	11808	8.4	157.3	13781	9.0	185.4	16239	9.2
13000	-5	50	166.8	14607	19.5	217.6	19054	20.5	254.6	22303	21.9	301.3	26389	22.3
13000	2	50	147.9	12950	15.6	192.7	16876	16.4	225.4	19740	17.5	266.4	23332	17.8
13000	10	50	126.6	11091	11.7	165.0	14448	12.3	192.9	16898	13.1	228.0	19968	13.4
13000	18	50	105.8	9269	8.3	138.0	12085	8.8	161.5	14144	9.4	191.1	16740	9.7
13500	-5	50	169.9	14882	20.2	222.4	19475	21.4	261.0	22859	22.9	310.1	27161	23.6
13500	2	50	150.6	13194	16.1	197.0	17251	17.1	231.0	20234	18.3	274.2	24018	18.8
13500	10	50	129.0	11301	12.1	168.7	14770	12.8	197.8	17323	13.7	234.7	20558	14.1
13500	18	50	107.8	9445	8.6	141.1	12355	9.2	165.6	14501	9.9	196.7	17231	10.2
14000	-5	50	173.0	15149	20.9	227.1	19886	22.2	267.2	23402	23.9	318.8	27920	24.8
14000	2	50	153.4	13432	16.7	201.1	17616	17.7	236.5	20717	19.1	281.9	24691	19.8
14000	10	50	131.4	11505	12.5	172.2	15084	13.3	202.5	17737	14.3	241.3	21135	14.9
14000	18	50	109.8	9615	8.9	144.1	12617	9.5	169.5	14848	10.3	202.3	17714	10.8
14500	-5	50	175.9	15408	21.6	231.6	20288	23.0	273.3	23933	24.9	327.3	28665	26.0
14500	2	50	156.0	13663	17.2	205.2	17974	18.4	241.9	21189	19.9	289.5	25352	20.8
14500	10	50	133.6	11704	12.9	175.7	15392	13.8	207.2	18143	15.0	247.8	21702	15.6
14500	18	50	111.7	9782	9.2	147.0	12873	9.9	173.4	15188	10.8	207.7	18188	11.3
15000	-5	50	178.8	15660	22.2	236.1	20678	23.9	279.2	24452	25.9	335.6	29397	27.2
15000	2	50	158.6	13888	17.8	209.2	18321	19.1	247.2	21651	20.7	296.9	26002	21.7
15000	10	50	135.8	11897	13.3	179.1	15690	14.3	211.7	18539	15.6	254.1	22260	16.3
15000	18	50	113.5	9944	9.5	149.8	13123	10.3	177.2	15520	11.2	213.0	18654	11.8
15500	-5	50	181.6	15906	22.9	240.4	21059	24.7	285.0	24959	27.0	343.9	30116	28.5
15500	2	50	161.1	14107	18.3	213.1	18660	19.7	252.4	22102	21.5	304.2	26640	22.7
15500	10	50	138.0	12086	13.7	182.5	15982	14.8	216.1	18927	16.2	260.4	22807	17.1
15500	18	50	115.3	10102	9.8	152.6	13367	10.6	180.9	15844	11.6	218.2	19115	12.4
17800	-5	50	193.7	16963	25.8	259.2	22702	28.4	310.1	27161	31.5	379.9	33272	34.2
17800	2	50	171.8	15048	20.6	229.8	20124	22.7	274.8	24064	25.2	336.2	29443	27.3
17800	10	50	147.2	12895	15.5	196.8	17240	17.0	235.4	20614	18.9	287.9	25213	20.5
17800	18	50	123.1	10778	11.1	164.7	14422	12.2	197.0	17255	13.6	241.3	21130	14.9

TN 7 Temp. of inlet water: 45°C Temp. of outlet water: 40°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m³/h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
12000	-5	50	108.2	18753	33.6	139.9	24247	34.8	162.6	28167	36.6	190.1	32931	36.7
12000	2	50	90.5	15677	24.1	117.0	20269	25.0	135.9	23549	26.4	158.9	27538	26.4
12000	10	50	70.6	12237	15.2	91.5	15846	15.8	106.4	18438	16.8	124.8	21615	17.0
12000	18	50	51.2	8876	8.4	66.6	11547	8.8	77.9	13493	9.5	91.9	15930	9.7
12500	-5	50	110.5	19144	34.9	143.4	24845	36.4	167.1	28951	38.5	196.3	34003	38.9
12500	2	50	92.4	16006	25.0	119.9	20771	26.1	139.7	24205	27.7	164.1	28435	28.0
12500	10	50	72.1	12495	15.8	93.7	16237	16.6	109.4	18951	17.7	128.8	22317	18.0
12500	18	50	52.3	9060	8.7	68.3	11831	9.2	80.0	13867	10.0	94.9	16441	10.3
13000	-5	50	112.7	19524	36.2	146.7	25427	38.0	171.5	29715	40.4	202.3	35063	41.1
13000	2	50	94.2	16324	25.9	122.7	21258	27.3	143.4	24846	29.1	169.2	29322	29.6
13000	10	50	73.5	12744	16.4	95.9	16618	17.3	112.3	19452	18.5	132.8	23006	19.0
13000	18	50	53.3	9239	9.0	69.9	12106	9.6	82.1	14229	10.4	97.8	16942	10.9
13500	-5	50	114.8	19893	37.5	150.0	25993	39.5	175.8	30461	42.3	208.3	36096	43.3
13500	2	50	96.0	16637	26.9	125.4	21733	28.4	147.0	25471	30.4	174.2	30187	31.3
13500	10	50	74.9	12985	17.0	98.0	16988	18.0	115.1	19941	19.4	136.7	23688	20.1
13500	18	50	54.3	9412	9.3	71.4	12373	10.0	84.2	14585	10.9	100.6	17436	11.5
14000	-5	50	116.9	20251	38.7	153.2	26544	41.1	180.0	31190	44.2	214.2	37112	45.6
14000	2	50	97.7	16938	27.8	128.1	22195	29.5	150.5	26082	31.8	179.1	31037	32.9
14000	10	50	76.3	13220	17.5	100.1	17349	18.7	117.8	20418	20.3	140.5	24353	21.1
14000	18	50	55.3	9580	9.6	72.9	12634	10.4	86.2	14931	11.4	103.4	17920	12.1
14500	-5	50	118.9	20600	40.0	156.3	27081	42.6	184.1	31902	46.1	219.9	38109	47.9
14500	2	50	99.4	17230	28.7	130.7	22645	30.6	154.0	26679	33.2	183.9	31872	34.5
14500	10	50	77.6	13448	18.1	102.2	17701	19.4	120.5	20885	21.1	144.3	25006	22.2
14500	18	50	56.2	9744	9.9	74.4	12887	10.8	88.1	15269	11.9	106.2	18395	12.6
15000	-5	50	120.9	20939	41.2	159.3	27605	44.2	188.1	32598	47.9	225.6	39089	50.1
15000	2	50	101.1	17514	29.6	133.2	23084	31.7	157.3	27263	34.5	188.7	32693	36.2
15000	10	50	78.9	13670	18.7	104.1	18044	20.1	123.2	21341	22.0	148.0	25649	23.2
15000	18	50	57.2	9905	10.3	75.8	13135	11.2	90.0	15600	12.4	108.9	18862	13.2
15500	-5	50	122.8	21274	42.4	162.3	28117	45.7	192.1	33280	49.8	231.1	40052	52.4
15500	2	50	102.7	17792	30.4	135.7	23513	32.8	160.6	27834	35.8	193.3	33500	37.8
15500	10	50	80.1	13886	19.2	106.1	18379	20.8	125.8	21788	22.8	151.7	26280	24.3
15500	18	50	58.1	10061	10.6	77.2	13377	11.6	91.9	15923	12.8	111.5	19325	13.8
17800	-5	50	131.0	22694	47.9	175.0	30324	52.6	209.1	36236	58.2	255.5	44279	63.0
17800	2	50	109.6	18983	34.3	146.4	25364	37.8	175.0	30314	41.9	213.8	37043	45.4
17800	10	50	85.5	14815	21.7	114.4	19829	24.0	136.9	23727	26.7	167.7	29053	29.2
17800	18	50	61.9	10728	11.9	83.2	14423	13.3	100.0	17327	15.0	123.2	21343	16.6

HEAT

TN 8 Temp. of inlet water: 70°C Temp. of outlet water: 60°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m ³ /h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
15300	-5	50	206,3	18073	21,7	265,7	23272	18,6	308,8	27044	19,0	361,8	31693	19,6
15300	2	50	183,0	16029	17,4	235,3	20610	14,8	273,2	23931	15,2	319,9	28018	15,6
15300	10	50	156,9	13739	13,0	201,5	17646	11,1	233,9	20485	11,4	273,8	23980	11,7
15300	18	50	131,3	11495	9,3	168,6	14763	8,0	195,8	17149	8,2	229,6	20108	8,5
15950	-5	50	210,7	18458	22,6	272,4	23855	19,5	317,5	27807	20,0	373,8	32740	20,8
15950	2	50	186,9	16372	18,1	241,2	21128	15,5	281,0	24610	16,0	330,5	28947	16,6
15950	10	50	160,2	14034	13,6	206,6	18091	11,6	240,5	21067	12,0	282,9	24776	12,4
15950	18	50	134,1	11743	9,7	172,8	15136	8,3	201,4	17637	8,6	237,2	20774	9,0
16600	-5	50	215,0	18830	23,5	278,8	24421	20,3	326,0	28551	21,0	385,5	33768	22,0
16600	2	50	190,7	16704	18,8	247,0	21632	16,2	288,5	25271	16,8	340,9	29859	17,5
16600	10	50	163,5	14320	14,1	211,5	18525	12,2	247,0	21636	12,6	291,8	25560	13,2
16600	18	50	136,8	11983	10,1	177,0	15499	8,7	206,8	18114	9,0	244,7	21427	9,5
17250	-5	50	219,1	19192	24,3	285,1	24972	21,2	334,3	29277	22,0	397,1	34777	23,2
17250	2	50	194,4	17026	19,5	252,6	22123	16,9	295,9	25917	17,6	351,1	30754	18,5
17250	10	50	166,7	14597	14,6	216,3	18946	12,7	253,4	22190	13,2	300,6	26327	13,9
17250	18	50	139,5	12215	10,5	181,0	15852	9,1	212,1	18578	9,5	252,0	22070	10,1
17900	-5	50	223,1	19543	25,2	291,3	25508	22,1	342,4	29986	23,0	408,4	35766	24,4
17900	2	50	198,0	17339	20,1	258,1	22600	17,6	303,1	26547	18,4	361,2	31632	19,5
17900	10	50	169,7	14866	15,1	221,0	19356	13,2	259,5	22731	13,8	309,2	27080	14,7
17900	18	50	142,0	12441	10,8	184,9	16195	9,5	217,3	19031	9,9	259,2	22700	10,6
18550	-5	50	227,0	19884	26,0	297,2	26033	22,9	350,3	30679	24,0	419,5	36738	25,7
18550	2	50	201,4	17643	20,8	263,4	23068	18,3	310,1	27163	19,2	371,0	32495	20,5
18550	10	50	172,7	15128	15,6	225,6	19758	13,7	265,6	23260	14,4	317,6	27820	15,4
18550	18	50	144,5	12660	11,2	188,7	16530	9,8	222,4	19474	10,3	266,3	23319	11,1
19200	-5	50	230,8	20216	26,8	303,0	26543	23,8	358,0	31355	25,0	430,4	37693	26,9
19200	2	50	204,8	17939	21,4	268,6	23521	19,0	317,0	27765	20,0	380,7	33342	21,5
19200	10	50	175,6	15383	16,1	230,0	20148	14,2	271,5	23778	15,0	325,9	28547	16,1
19200	18	50	147,0	12873	11,5	192,5	16856	10,2	227,3	19908	10,8	273,2	23930	11,7
19850	-5	50	234,5	20539	27,6	308,7	27040	24,6	365,6	32017	26,0	441,1	38630	28,2
19850	2	50	208,1	18228	22,1	273,6	23964	19,6	323,7	28354	20,8	390,2	34175	22,5
19850	10	50	178,5	15631	16,6	234,4	20529	14,7	277,3	24283	15,6	334,1	29262	16,9
19850	18	50	149,4	13081	11,9	196,1	17177	10,6	232,1	20331	11,2	280,1	24529	12,2
23000	-5	50	251,2	21997	31,4	334,4	29292	28,5	400,0	35031	30,7	490,4	42954	34,2
23000	2	50	223,0	19527	25,1	296,5	25970	22,8	354,4	31040	24,6	434,0	38015	27,3
23000	10	50	191,2	16750	18,9	254,1	22254	17,1	303,6	26593	18,4	371,8	32559	20,6
23000	18	50	160,1	14019	13,5	212,6	18622	12,3	254,2	22266	13,3	311,6	27292	14,9

TN 8 Temp. of inlet water: 45°C Temp. of outlet water: 40°C			2 row coil Second coil (B2RxT)			3 row coil Second coil (B3RxT)			4 row coil Main/second coil (B4RxT)			6 row coil Main coil		
P (m ³ /h)	Tia (°C)	UmRel(%)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)	Qtot (kW)	WtrFlow (l/h)	WtrDP (kPa)
15300	-5	50	139,4	24153	40	179,2	31046	34,4	207,9	36018	35,1	242,9	42084	36,0
15300	2	50	116,7	20212	29	149,8	25958	24,7	173,8	30115	25,2	203,1	35196	25,9
15300	10	50	91,2	15805	18	117,2	20301	15,6	136,1	23584	16,1	159,5	27633	16,6
15300	18	50	66,3	11492	10	85,4	14802	8,7	99,7	17269	9,0	117,6	20373	9,5
15950	-5	50	142,4	24669	42	183,7	31829	36,0	213,8	37041	36,9	251,0	43483	38,2
15950	2	50	119,2	20645	30	153,6	26615	25,8	178,8	30973	26,6	209,9	36367	27,5
15950	10	50	93,2	16144	19	120,1	20813	16,4	140,0	24255	16,9	164,8	28550	17,7
15950	18	50	67,7	11737	11	87,6	15176	9,1	102,5	17754	9,5	121,4	21045	10,1
16600	-5	50	145,3	25170	43	188,1	32589	37,6	219,5	38039	38,8	258,9	44866	40,4
16600	2	50	121,6	21065	31	157,3	27252	27,0	183,6	31809	27,9	216,6	37525	29,1
16600	10	50	95,1	16473	20	123,0	21312	17,1	143,8	24909	17,8	170,0	29455	18,7
16600	18	50	69,1	11974	11	89,7	15536	9,5	105,2	18230	10,0	125,2	21698	10,7
17250	-5	50	148,1	25655	45	192,4	33329	39,2	225,2	39013	40,7	266,7	46215	42,7
17250	2	50	123,9	21478	32	160,9	27873	28,1	188,3	32626	29,2	223,1	38655	30,8
17250	10	50	96,9	16792	20	125,8	21796	17,8	147,4	25547	18,6	175,1	30340	19,7
17250	18	50	70,4	12206	11	91,7	15886	9,9	107,9	18693	10,5	128,9	22342	11,3
17900	-5	50	150,8	26127	47	196,5	34049	40,8	230,6	39964	42,5	274,4	47540	45,0
17900	2	50	126,2	21874	33	164,4	28477	29,3	192,9	33423	30,6	229,5	39764	32,4
17900	10	50	98,7	17101	21	128,5	22268	18,6	151,0	26171	19,5	180,1	31208	20,8
17900	18	50	71,7	12430	12	93,7	16227	10,3	110,5	19145	10,9	132,6	22974	11,9
18550	-5	50	153,5	26585	48	200,6	34751	42,4	236,0	40893	44,4	281,9	48841	47,2
18550	2	50	128,5	22259	35	167,8	29065	30,4	197,4	34202	31,9	235,8	40854	34,1
18550	10	50	100,4	17403	22	131,2	22728	19,3	154,6	26780	20,3	185,0	32061	21,8
18550	18	50	73,0	12647	12	95,6	16559	10,7	113,0	19586	11,4	136,2	23594	12,5
19200	-5	50	156,0	27031	50	204,5	35435	43,9	241,2	41801	46,2	289,2	50118	49,5
19200	2	50	130,6	22634	36	171,1	29639	31,5	201,8	34964	33,2	241,9	41924	35,7
19200	10	50	102,1	17696	23	133,8	23177	20,0	158,0	27375	21,1	189,9	32899	22,9
19200	18	50	74,2	12858	12	97,4	16883	11,1	115,5	20018	11,9	139,7	24209	13,1
19850	-5	50	158,5	27471	51	208,4	36103	45,5	246,4	42689	48,0	296,5	51374	51,8
19850	2	50	132,7	22999	37	174,3	30199	32,7	206,1	35708	34,5	248,0	42976	37,4
19850	10	50	103,8	17981	23	136,3	23614	20,7	161,4	27958	22,0	194,6	33723	24,0
19850	18	50	75,4	13064	13	99,3	17199	11,5	118,0	20440	12,3	143,2	24809	13,7
23000	-5	50	169,8	29431	58	225,8	39127	52,8	269,7	46736	56,8	329,9	57165	63,0
23000	2	50	142,2	24644	42	189,0	32737	37,9	225,7	39103	40,8	276,0	47831	45,5
23000	10	50	111,2	19267	26	147,8	25604	24,0	176,7	30613	26,0	216,6	37525	29,1
23000	18	50	80,8	13992	15	107,5	18635	13,3	129,1	22364	14,6	159,2	27578	16,6

INSTALLATION, USE AND MAINTENANCE MANUAL

General safety requirements



WARNING!

The units of the TN range are designed for the public and service sectors: any other use (in highly corrosive environments, in the presence of potentially explosive surroundings, etc.) is not permitted.

Installation and maintenance

Before installation, make sure that the unit has not been damaged during transportation: the use of a damaged machine may be hazardous.

Installation and supplementary maintenance must be carried out by trained personnel in accordance with the present laws.

The unit must not be used as recovery of equipment or spare parts. Any other use other than that indicated in the present manual may be hazardous and is therefore prohibited.

Before starting any maintenance or cleaning operations, make sure the units is disconnected from the power supply and that it cannot be reconnected without the knowledge of the maintenance engineer.

During maintenance and cleaning, take

care of possible scalding from heating coils.

Before starting the unit, make sure that the electrical parts have been connected to the building's earth system.

During installation, maintenance and cleaning, Personal Protective Equipment (PPE) must be worn and the correct tools used.



Access to the unit

Access to the unit once it has been installed must only be permitted to qualified operators and technicians. The operator is a person who has been authorised by the owner of the machine to carry out operations on the said machine (in accordance with the indications given in this manual). The technician is a person authorised by Aermec, or subordinate under their own responsibility by a Aermec distributor, to carry out operations on the machine. The owner of the machine is the legal representative of the

company, entity or individual owner of the system in which the Aermec machine is installed. These persons are responsible for the observance of all safety standards indicated in this manual and the existing law.

Residual risks

The installation, start-up, shutdown and maintenance of the machine must be carried out in accordance with that stipulated in the technical documentation of the product and in such a manner that no hazardous situations are generated. The machine has been designed so as to reduce to a minimum the risks for the safety of those persons interacting with it. During the design phase, it was not technically possible to completely eliminate the risk causes. Therefore it is imperative to refer to the following instructions.

CONSIDERED PART	RESIDUAL RISK	METHOD	PRECAUTION
Inside the unit: finned heat exchanger coil	Small cuts	Contact	avoid contact, use protective gloves
Inside the unit: metal parts and electrical cables	Intoxication, electrocution, severe burns	Defective insulation of the power cables; live metal parts	suitable electrical protection of the power supply line; maximum care when earthing the metal parts
Outside the unit: Area around the unit	Serious burns	Fire caused by short-circuit or overheating of the power line	cable section and power supply line safety system conforming with existing laws

Handling

PACKAGING

The air conditioning units of the TN series are usually protected on the top with a polyethylene cover to prevent rain, leaves and/or small animals from entering.

ON-SITE STORAGE

The units of the TN series should be stored under cover at about a temperature between 5 and 40 degrees centigrade, should not be put one on top of another, and no type of material should be put directly on top of them.

TRANSPORT

Transportation must be carried out with the following precautions:

- the load must be well blocked on the lorry;
- protection to prevent contact with protruding parts such as the plumbing connections of the coils, outlets, dampers;
- protection of the load with tarpaulin or something similar;
- have side protections available to prevent rubbing between units positioned close together on the bed of the truck; remember that, since they stand upright on the bed of the truck, the units **CANNOT** be put on top of each other, nor support other material on their tops.

CHECKS UPON RECEIPT

Upon receipt of the unit or single parts, an initial visual check must be made for any damage resulting from transportation. If damage is discovered, this must be highlighted on the accompanying travel document.

The checks are the following:

- dampers: check the integrity of the pins, fins and gears;
- filters: check quantity and type;
- finned coils: check the integrity of the manifolds, outlets and the finned pack if visible;
- panelling and base; check their integrity;
- check the integrity of the roof.

Minimum operating spaces

All the necessary operating spaces must be checked before beginning the installation:

- the position of any canalisation of the intake and expulsion air;
- the passage of the electrical power supply cables;
- the correct maintenance and cleaning operations.

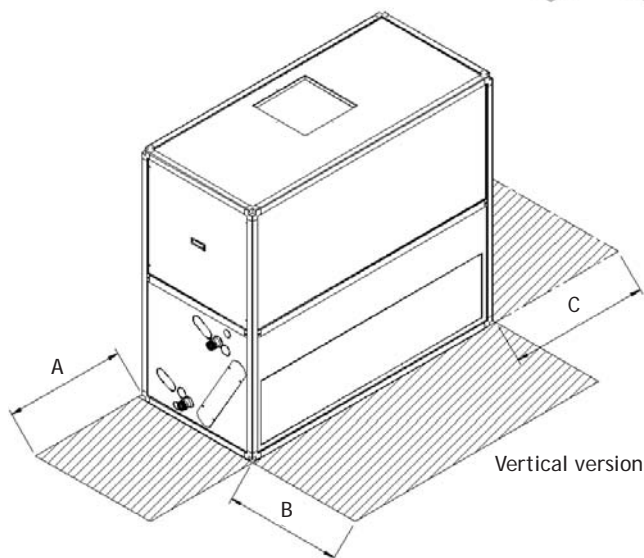
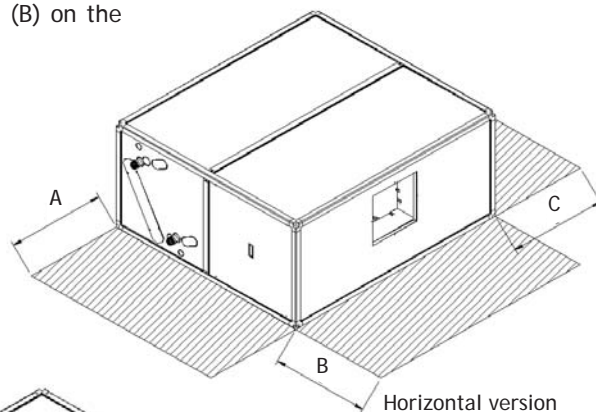
In particular:

- there must be a space of at least 200 mm in correspondence with the condensate discharge point, for the drain-trap (more detailed instructions can be found on the label attached to the discharge point itself);

The optimal situation is a corridor of 700 mm (A) minimum on the inspection and header side and leave a distance equal to the width of the unit plus 100 mm (C) on the opposite side to remove the coils from the opposite side to the manifolds without having to dismantle the valve group.

If the unit has to be placed next to a wall, leave a corridor with a width equal to

that of the unit plus 100 mm (B) on the opposite side.



Changing the base configuration

Dismounting and assembling panels

All the panels of the unit, side, top and bottom can be dismantled and re-assembled.

For the standard unit, therefore vertical: to dismantle the panels, first take out the panel block profiles of the sides (vertical) and later the top and bottom (horizontal) base profiles are removed.

Get a plastic hammer and a metal spatula; a - rest the spatula on the edge of the panel block next to the aluminium profile near a plastic bracket;

b - with the plastic hammer hit the spatula a few times in a direction opposite to the way the panel block went in, until it comes out completely;

c - continue to hit the panel block along the entire length of the profile until it comes out completely.

d - once all four panel blocks have been removed, the panel is free and can easily be removed.

To assemble the paneling, you should prop the panel in its position after checking its integrity;

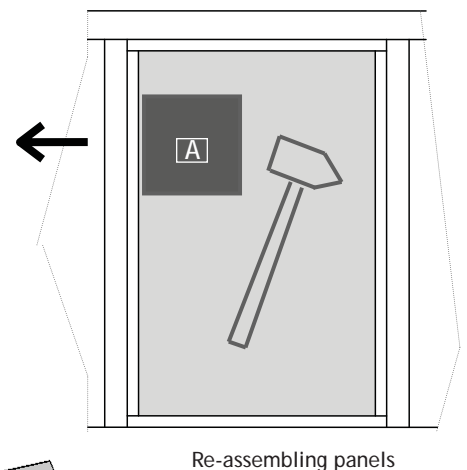
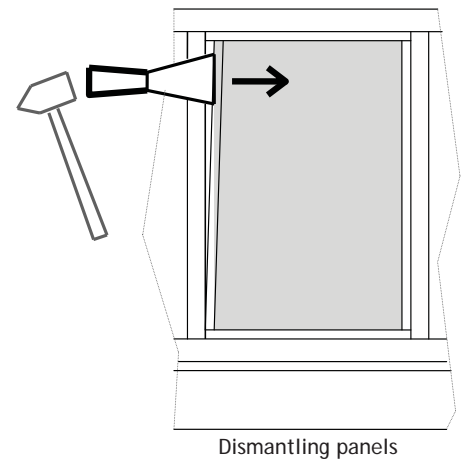
a - Rest the top base panel block on the slot of the aluminium profile near a bracket;

b - Use the plastic hammer to gently hit the panel block until it goes completely inside the aluminium profile (in order to avoid damaging the panel block with the hammer you can use a wooden cube [A] as a base);

c - Repeat the procedure on the opposite part of the panel block;

d - Once both end parts have been inserted, continually hit along the entire length of the panel block so as to completely insert it into the aluminium profile.

e - Once the top has been fully inserted, proceed with the bottom (horizontal) and finally with the sides (vertical).



Panel shearing

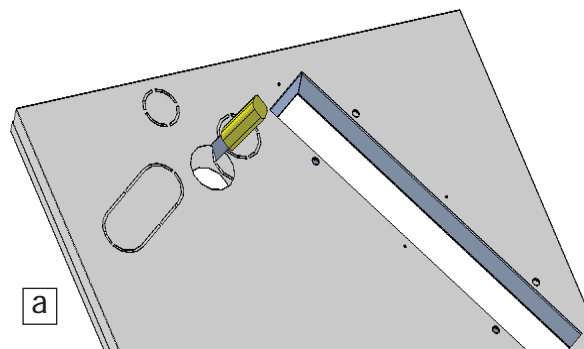
All the panels on which accessories are mounted (supply grille, damper, return grille, plenum) or which are part of the fan section, have been given pre-shearing. a - To make the necessary openings get a plastic hammer, a hammer chisel and a cutter.

With the hammer and the chisel separate the metallic tabs; once this has been done it is easy to cut the polyurethane foam around the edge of the pre-shearing with the cutter (a1).

b - Rest the panel in the correct position and check that all the openings are matched with the manifolds, condensate drains, grilles and dampers.

In the event that there is some interference, hammer the inside of the panel to fix this.

Cover all the old holes that have been used with the plates and small parts provided.



a

a1



b



Changing the direction of the delivery flow of the fan

(THE UNIT IS ALWAYS SUPPLIED IN VERTICAL VERSION).

The base configuration is always in a vertical position

a - Put the unit on the ground in a horizontal position in such a way that the only panel of the fan section without any pre-shearing is facing the ground. During this operation make sure that all the panels are fixed to the unit to make it more stable;

b - Remove the panel block profiles of all 4 panels of the fan section (two sides, one top and the ventilation one); Pay attention to the weight of the fan that has to be handled: if the unit is larger than size 4 (fan weight = 24 Kg.), the fan should be handled by two people for safety reasons;

c - Loosen the tension of the belt using the screws of the tensioner slide (make sure to first loosen the lateral locking grub screw);

c1 - Slip off the belt (s) of the fan pulley;

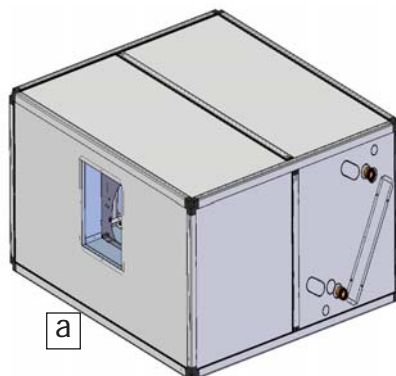
d - Unscrew the screws that connect the fan and the extension mounted on its port;

d1 - Dismantle the extension;

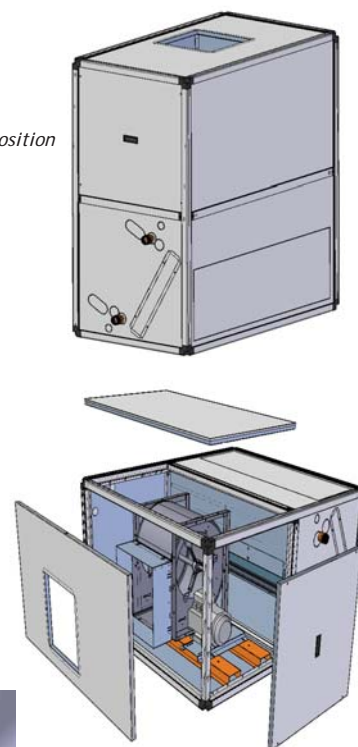
e1 - Remove the screws that fix the fan to the supports.

e2 - Turn it over by 90° making sure that the fan port is facing the desired direction. Re-assemble and tighten the screws fixing the fan to the supports;

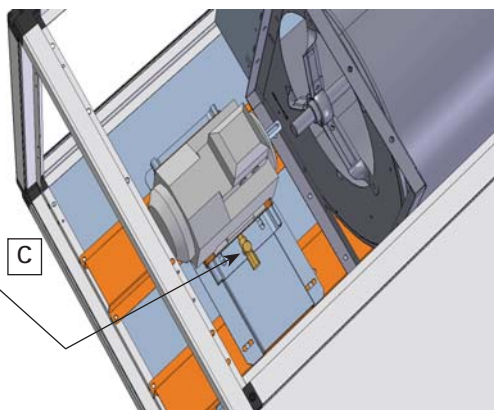
f - Re-assemble the fan extension fixing it with the screws, making sure that the joints are in the right position;



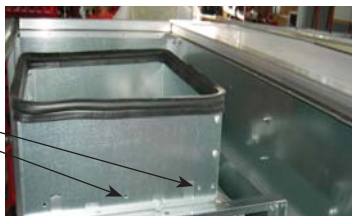
a



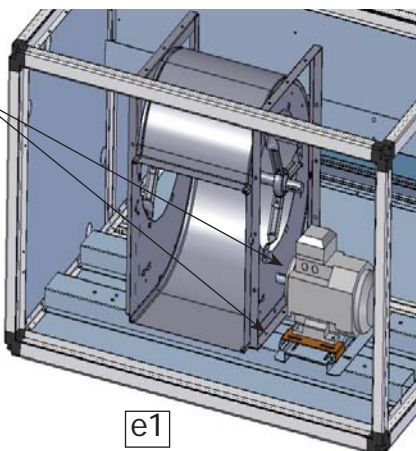
b



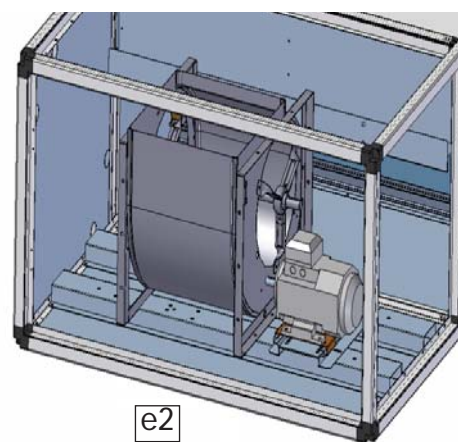
c



d



e1



e2

g - With the aid of a rod, align the fan pulley and the motor pulley;

g



h - Insert the belt that had been previously dismantled between the two pulleys;

i - Using the adjustment screws of the belt tensioner, carry out the tensioning of the belt(s) and then fix the screws of the motor (IF THE BELT IS NOT ALIGNED WITH THE PULLEYS, REPEAT THIS STEP).

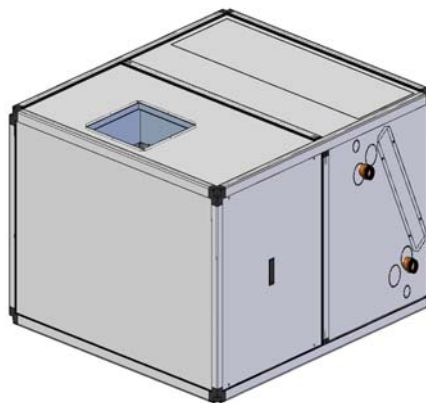
At the end of the procedure, tighten the grub screw of the slide to prevent any accidental decoupling;

i



l - Re-assemble the panels and the panel blocks

l



Changing the Vertical - Horizontal or Right - Left configuration

The condensate drip tray is positioned so that the unit can operate in vertical position.

To ensure that the unit is fit for operating in a horizontal position it is absolutely necessary to change the position of the coil unit in the following way.

Put the unit on the ground in a horizontal position in such a way that the only panel of the fan section without any pre-shearing is facing upwards.

During this operation make sure that all the panels are fixed to the unit to make it more stable.

a - Remove the panel blocks and the panels on the connections side and those on the side opposite the connections side (do not damage the black rubber seals around the manifolds because they will be needed later);

b - Remove the flat filters from the unit;

c - Unscrew the 2 screws of the coil unit block near the condensate drip tray: one towards the manifolds side and the other towards the opposite side;

d - In two people, or with the help of suitable equipment, take out the coil-drip trays-filters block;

d1 - to change the configuration from vertical to horizontal re-insert the coil-drip trays-filters block with the correct inclination into the specially prepared guide-tracks;

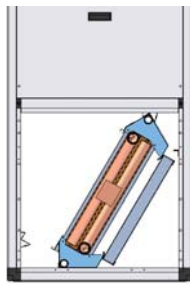
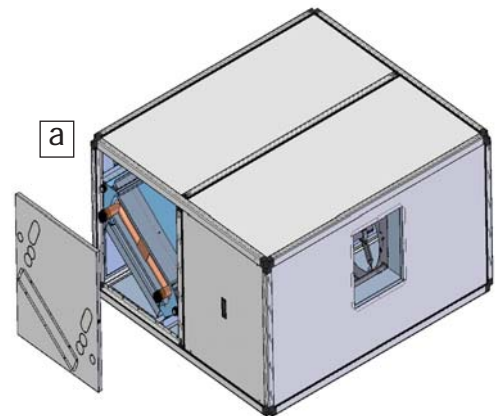
d2 - to change the connections side of the coil-drip trays-filters block overturn it and re-insert the block from the opposite side of the unit making sure to maintain the correct inclination.

Overturning the coil-drip trays-filters unit guarantees the countercurrent exchange.

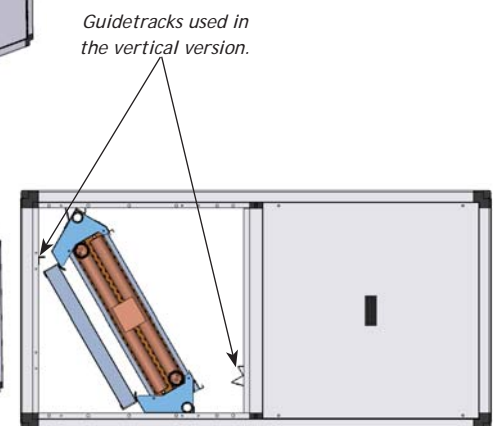
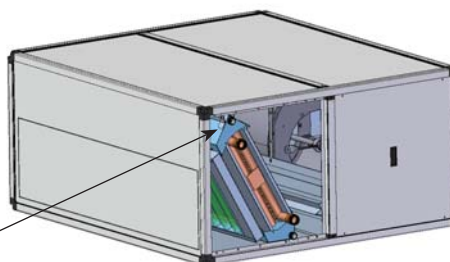
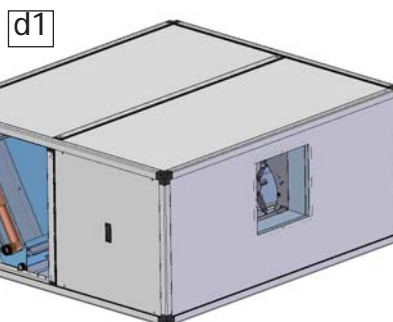
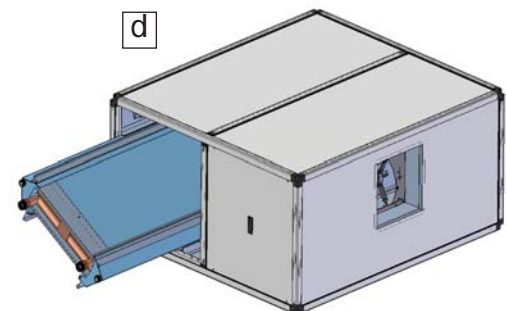
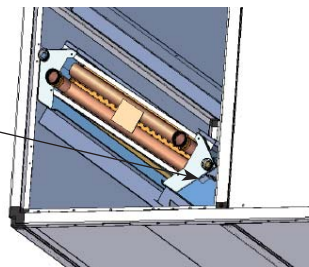
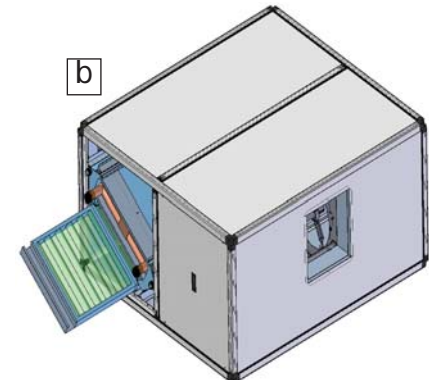
e - Fix the coil unit with its screw near the bottom condensate drip tray;



Standard version unit, Vertical



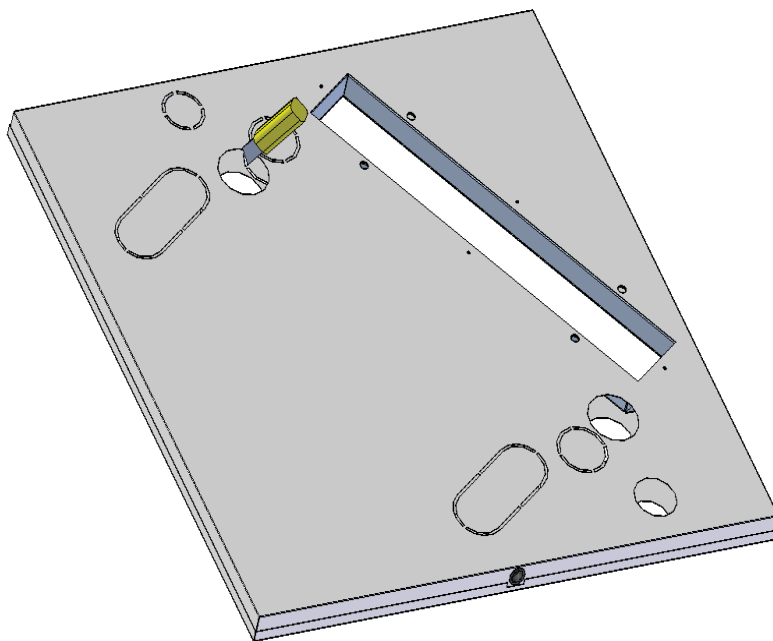
Position for the coil for vertical running



New position for the coil for horizontal running.

f - With a plastic hammer and a small chisel separate the metallic micro-joints of the pre-sheared holes at the new position of the manifolds and the condensate drain; then finish off the holes with a cutter.

f



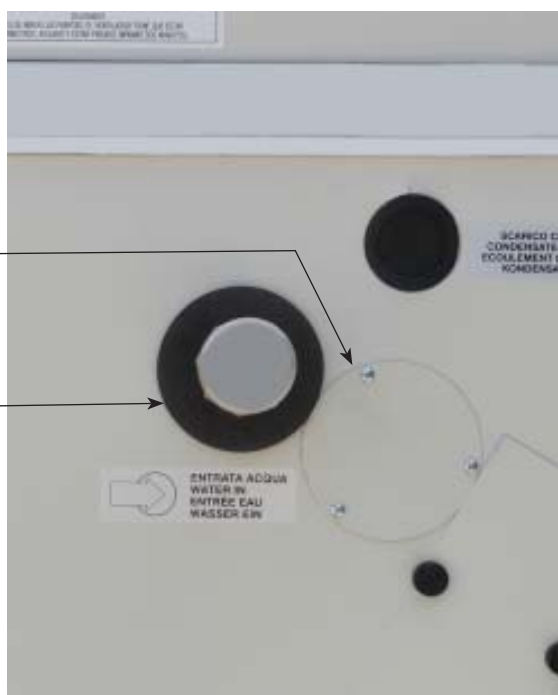
g - Check, and if required, restore the seal applied to the profile of the unit;

h - Re-insert the flat filters into their guiderails;

i - position the panels in their respective housings and fix them with their respective panel blocks;

l - With the round metal plates that were provided, cover the holes left open by the shifting of the heads;

m - Slip the black seals on the heads protruding from the panel.



Inserting a second coil

a - Remove the panel blocks and the panels on the connections side and those on the side opposite the connections side (do not damage the black rubber seals around the manifolds because they will be needed later);

b - Unscrew the 2 screws of the coil unit block near the condensate drip tray: one towards the manifolds side and the other towards the opposite side;

- In two people, or with the help of suitable equipment, take out the coil-drip trays-filters block by about 20-25 cm.

c - With the self-threading screws provided with the accessory, put on the coil guiderails in accordance with the diagram on the side. Make sure that the two rails are different: one should be applied on the top drip tray and one on the bottom drip tray.

Both drip trays have three aligned holes on each side; the upper guiderail has just a single hole and the lower one has two.

The top guiderail is fixed to the central hole [c1] while the lower guiderail is fixed to the two holes at the end [c2];

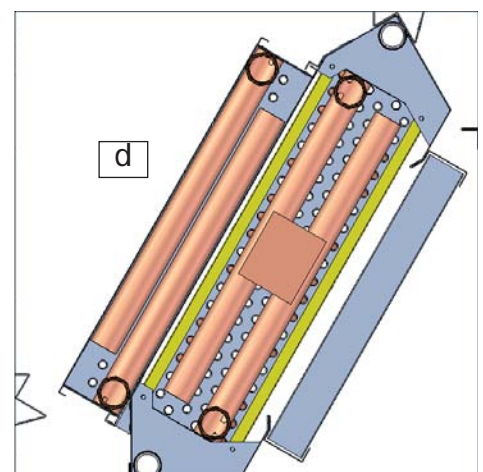
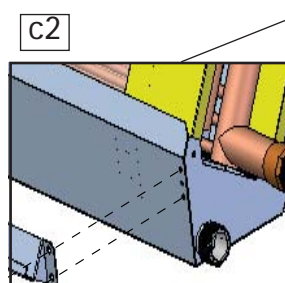
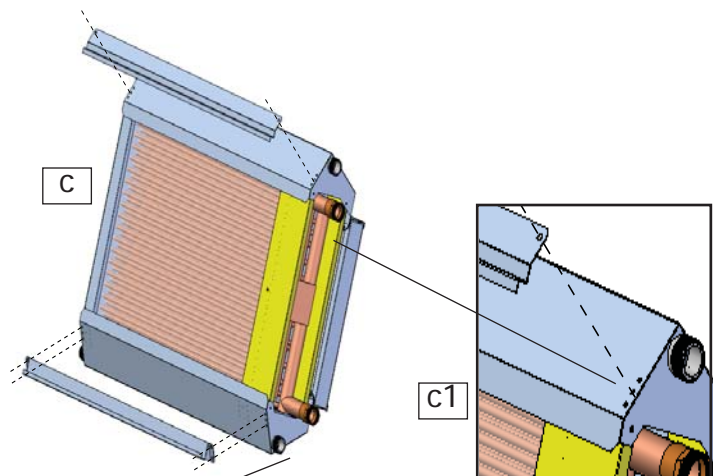
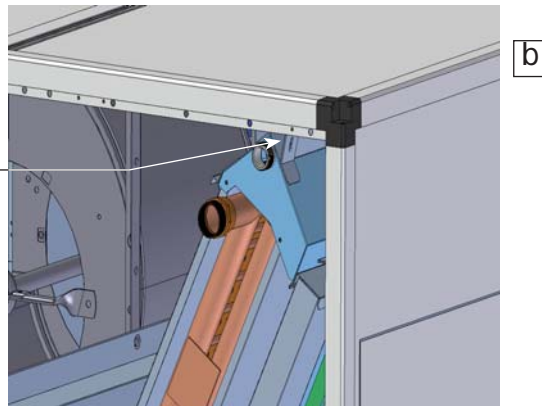
- Repeat the operation from the opposite side;

d - Then insert the second coil in the guide-rails (the diagram is not binding - it is just to show how the coil is applied);

f - Fix the coil unit with its screw near the bottom condensate drip tray;

g - Make new holes on the ventilation panel according to the position of the manifolds of the new coil.

h - Re-assemble the panels and the panel blocks.



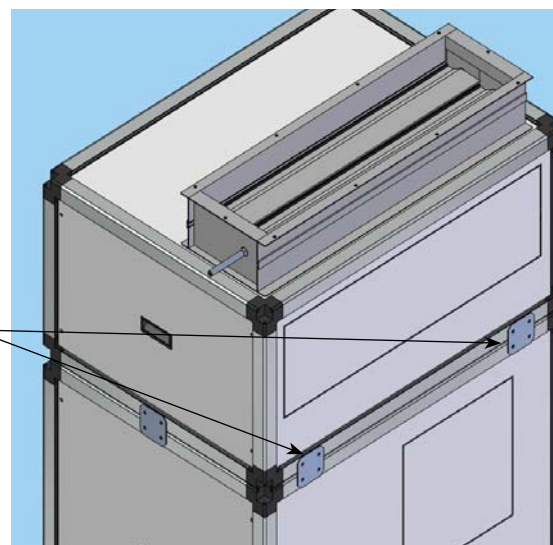
Connecting the base unit - accessory modules

All the base units have been designed to facilitate configuration and customisation to the greatest extent possible, by way of modular accessories designed to fully satisfy the needs of the customer. To this end, standard connection modes have been provided in order to simplify the process of connecting the base unit and accessories or between multiple accessories and the unit itself.

Together with all the required accessories, an assembly kit has been supplied which consists of plates, screws and a flat self-adhesive seal to be applied to the adjoining walls in order to avoid air leaking between one module and another.

The assembly of the accessories can be carried out with the machine configured in a horizontal position as well as in a vertical position.

The diagram on the side shows an example of a connection between the base unit and a plenum: the plates, the sealing and the screws are supplied as standard.



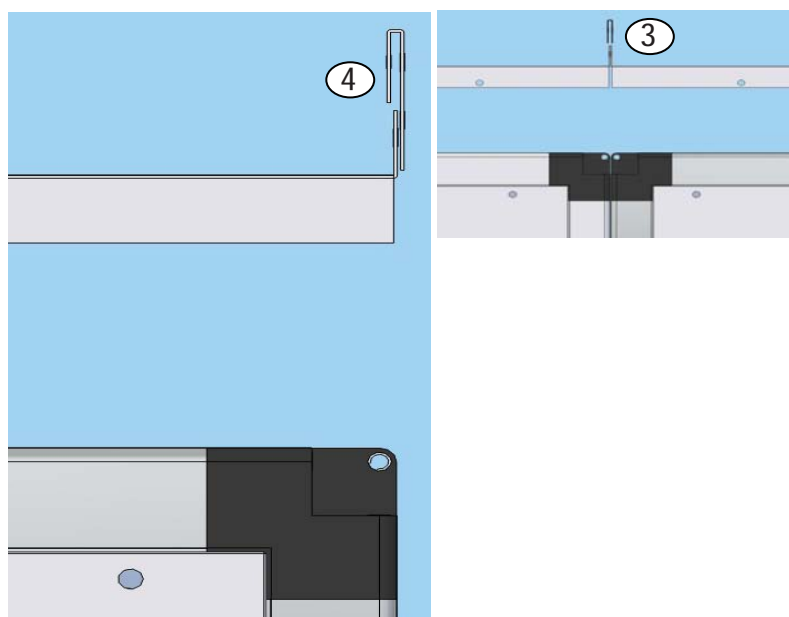
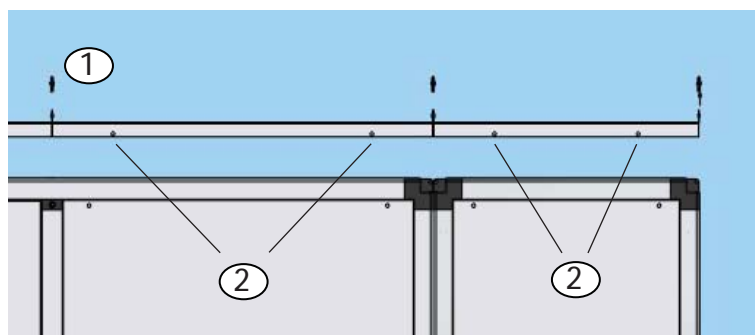
Assembling the rain-proof roof (accessory)

To assemble the roof in the vertical version of the unit do as follows:

- 1 - rest the roof on the top part of the unit;
- 2 - fasten the side of the roof to the aluminium profile using the self-drilling screws provided. The holes of the roof have already been prepared.

To assemble the roof in the horizontal version of the unit do as follows:

- 1 - rest the roof on the top part of the unit;
- 3 - join the sectors of the roof with the covers of the intermediate flaps (for the small units the roof can be a single piece and therefore this operation might not be necessary. In any event, the operation is required where the roof of the base unit has to be solidly fixed to the roof of any eventual accessory modules);
- 4 - fix the final covers to the ends of the roof and then to the aluminium profile of the unit in such a way that the roof is solidly attached to the unit;
- 2 - fasten the side of the roof to the aluminium profile using the self-drilling screws provided. The holes of the roof have already been prepared.



Assembling support feet (accessory)

The support feet are supplied in two varieties depending on their use: corner (1) or side (2). the base version of the unit (A) can have 4 corner feet to be applied, using the screws provided, on the bottom corners of the base; for both the vertical version and the horizontal version.

In the horizontal version (just the base machine):

the 4 corner feet (1) are fixed to the lower profile on each corner (A);

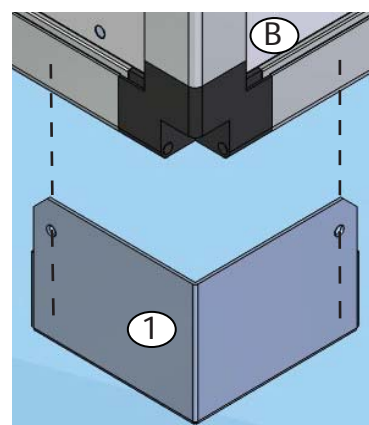
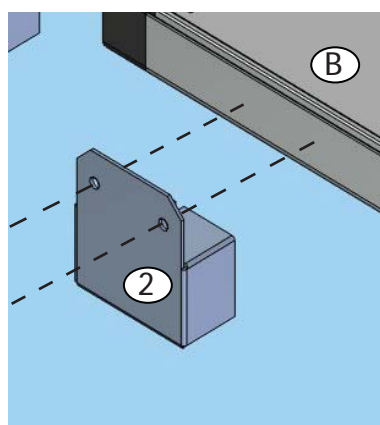
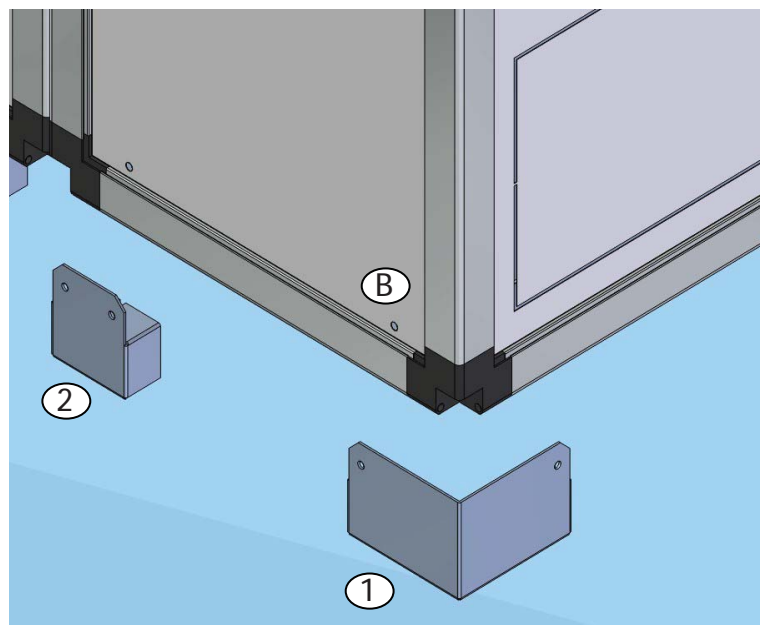
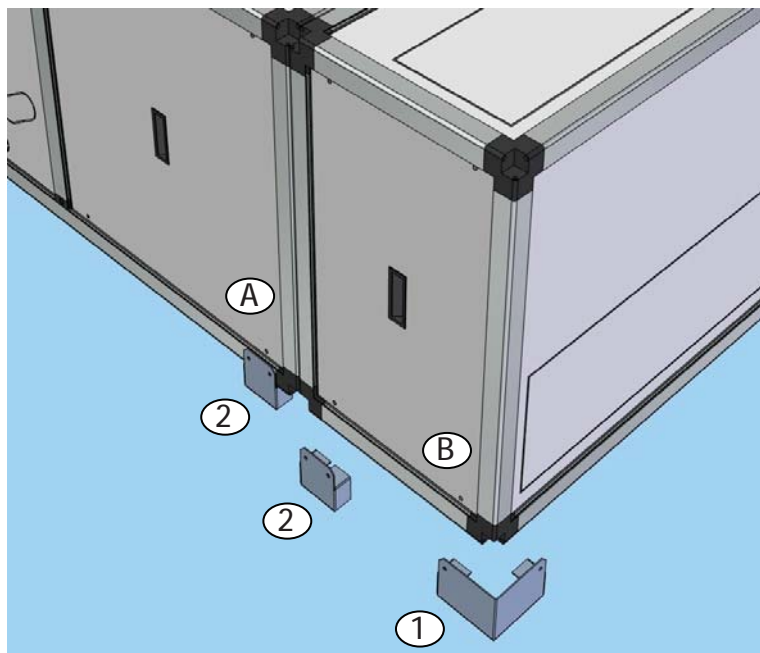
In the horizontal version with plenum accessories:

the 4 corner feet (1) are fixed to the lower profile on each end corner of the complete unit (base + plenum) (B).

The 4 side feet (2) are fixed to the lower profile near where the plenum and the base unit are connected

In the vertical version, the 4 corner feet (1) will be fixed to the lower profile on each corner.

In the case where between the support surface and the base unit it is necessary to insert a plenum, the feet will be installed on this latter.



Connections

Aeraulic connections



WARNING!

It is prohibited to start the machine if the fan inlets are not ducted or are not protected by an accident-prevention system

For installation, proceed as follows:

- prepare suitable brackets to support the channelling so as to prevent them weighing on the unit;
- connect the delivery and intake ports to the channels with vibration-damping joints in between (canvas). The vibration-damping joint must be secured to the panel with self-tapping screws making sure that the canvas joints are taught when running;

- arrange an earth cable that acts as a bridge on the anti-vibration joint to guarantee the equipotential connection between the channels and the recovery unit;
- before connecting any bends or branches, etc., set out the delivery channel with a straight section with a length of at least 2.5 times the shorter side of the channel A, avoiding an inclination of more than 7° for the channelling (to avoid any possible reduction in fan performance levels).

Hydraulic connections: condensate discharge

The condensate drip tray has a threaded outlet with a diameter of 1" M - 3/4" F. A discharge system must provide a suitable drain-trap to:

- allow the free discharge of the condensate;
- prevent the undesired entry of air in vacuum systems;
- prevent the infiltration of odours or insects.

The lower part of the trap should have a discharge plug or should in any case allow easy dismantling for cleaning.

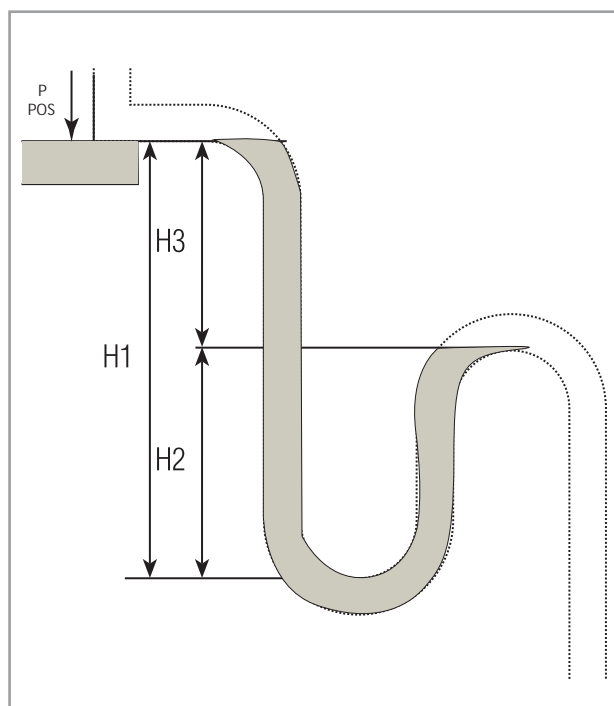
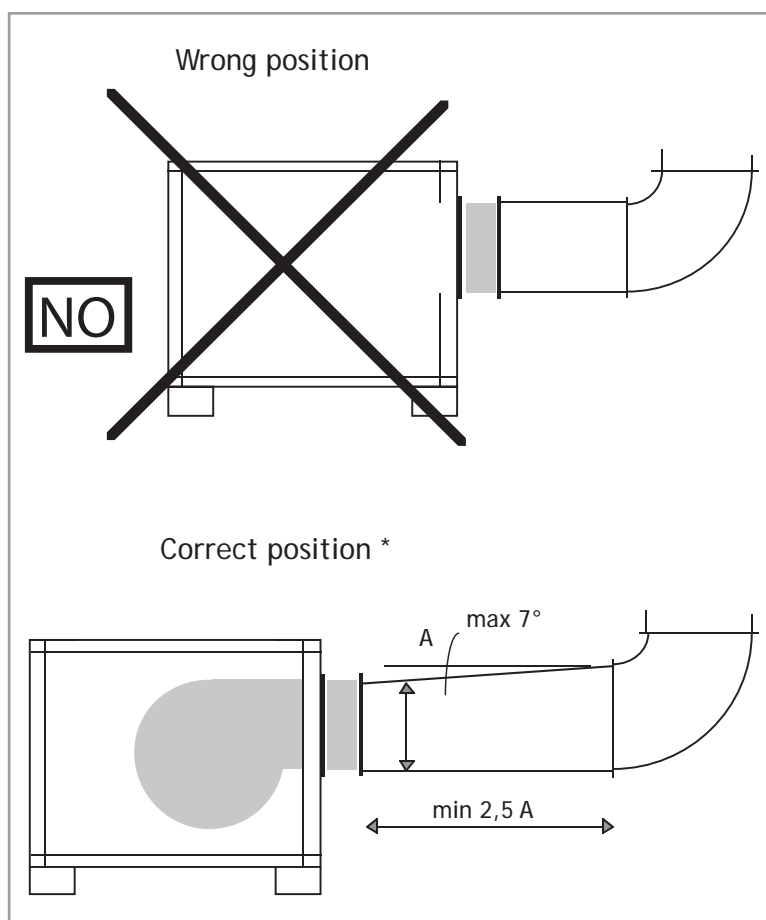
The instructions for the dimensioning and execution of the trap are as follows (see diagram below):

$$H1 = 2P$$

$$H2 = H1 / 2$$

where P is the pressure of the water column expressed in mm (1mm w.c. = 9.81 Pa).

It is important to provide suitable protection against the formation of ice inside the trap



Drain-trap measurements diagram

*= THE CORRECT POSITION SHOULD ALSO BE USED ON THE VERTICAL VERSION

Connection of water coils

All water coil manifolds have threaded male connectors for the entrance and exit of water.

For correct installation follow the simple indications below:

- anti-freeze devices should be present in the event of adverse weather conditions;
- the course of the piping must be such so as not to create obstacles in the event the coil must be removed and so as not to compromise inspection and maintenance of the unit and possible accessories;
- when screwing together the manifolds and hydraulic circuit, avoid stresses that could damage the coil manifolds;
- provide a stop valve to isolate the coil from the rest of the circuit in the even it must be disconnected from the hydraulic circuit;
- firmly clamp the pipes outside the unit, to prevent them weighing on the coil;
- for the connection of water feed pipes, follow the indications on the "WATER INLET" and "WATER OUTLET" plate on the outside panelling ;
- fit an air bleed valve on the highest section of the circuit and a water discharge valve on the lowest section of the circuit;
- once the connections have been made, position the external rubber seal flush with the panelling to avoid air seepage.



WARNING!

To avoid burns during the heating function, the piping must be carefully insulated with suitable material as far as the panelling.

Electrical connections: earth



WARNING!

The electrical connections and wiring must be carried out by qualified personnel in accordance with the present laws.



WARNING!

Each electrical appliance must be connected to the earth of the system.

Use the connectors with the earth symbol to connect the earth of the unit and possible accessories to the earth of the building.

Mains power supply connection



WARNING!

Make sure that the characteristics of the mains power supply are compatible with the electrical characteristics indicated on the machine's rating plate.

Electrical connections: electric motors



WARNING!

Make sure that the characteristics of the mains power supply are compatible with the electrical characteristics indicated on the part's rating plates.

Comply with the following instructions for the connection of the electric motors:

- this is carried out on the control boards mounted directly on the motor;

The motors are three-phase asynchronous with squirrel cage rotor, enclosed construction, external ventilation in compliance with the electrical characteristics of IEC 34-1 standards and CEI 2-3 1110, and for the dimensional characteristics with IEC 72 and UNEL 13113-71-IM B3.

Protection rating: IP55

Stator winding class: B

The single-speed electric motors and two power supplies with direct start, are star connected if the voltage is increased, or delta if less;

Motor 220/400 V (up to 4 kW not included):

delta connection for 220V power supply;

star connection for 400 V power supply.

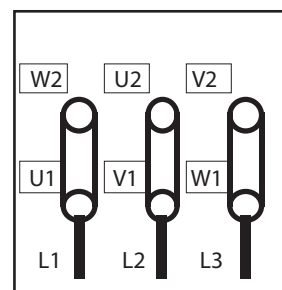
Motor 400/690 V (from 4 kW included and up) :

delta connection for 400V power supply;

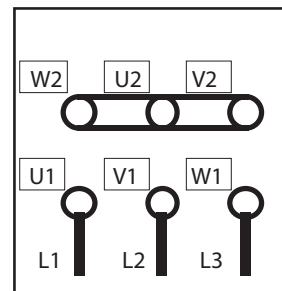
star connection for 690 V power supply. All motors can operate equally well in both rotation directions; The direction of rotation can be inverted by exchanging the two line connections to the stator clamps.

Typical diagrams of connecting three-phase electric motors are shown in the general diagram. In any event it is recommended that the diagram contained inside the control board of the motor or applied to the back of the cover of the control board itself is consulted.

SINGLE SPEED MOTORS



DELTA



STAR

First start-up



WARNING!

Make sure that all the indications in the present manual have been carried out before carrying out the controls on the first start-up.

Before starting up the unit, check:

- that the voltage on the terminals matches what is declared on the technical data plate applied to the outside panelling ± 5% controllable with a tester: if the voltage is subject to frequent changes, contact our Technical department for the choice of suitable protections;

• that the unit is correctly secured;

- the connection of the unit to the building's earth;
- the channel connections;

- the connection of the condensate discharge with the trap;
- the insulation of the coil's supply pipes;
- the absence of air in the water coils;
- the closure of the examinable panels;
- the presence of voltage.

Maintenance

WARNING!

Use suitable personal protective equipment (PPE) during maintenance operations



WARNING!

Before accessing the unit for maintenance or cleaning operations, make sure the unit is disconnected from the power supply, that the supply can not be switched on again without the maintenance engineer's knowledge and that the heat exchange coils are off.



WARNING!

Take particular care when working close to finned coils because the fins are particularly sharp.



WARNING!

After finishing the maintenance operations, always close the unit using the specific panelling, fixing them with their panel block profiles.

The units of the TN range have been designed to require less maintenance, and to make each operation easier. Below are some simple instructions for correct maintenance of the unit.

The maintenance program must in any case be carried out by a qualified technician.

Routine maintenance

Routine maintenance consists of simple operations that should be carried out monthly, as follows:

- check the tightness of the screws fixing the fan;
- check that the machine's power supply cable has not undergone any alterations that could compromise its insulation;

- check the screws fixing the earth connections are tight.

Fan maintenance

It is essential to check and clean the fans, to maintain the low noise level of the unit in the room where it is installed. Check every two months:

- the clean state of the impeller;
- the noise level of the bearings.

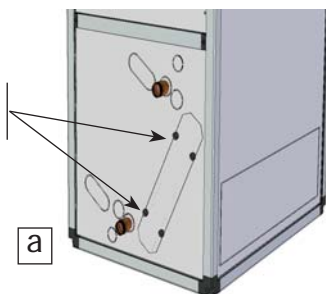
Coil maintenance

It is essential to check and clean the coils, to maintain the high standard of quality and renewal of fresh air in the room.

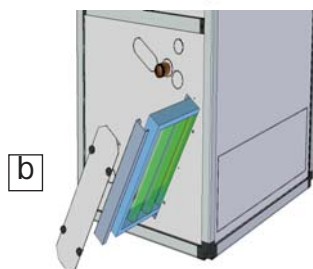
- Check annually:
- the clean state of the finned unit.

Removal and maintenance of flat filters (standard)

a - Unscrew the handwheels on the side panel;



b - Remove the side guiderail and the G4 flat filters;



c - Blow and/or wash the filter cells with water;

d - Insert the new or reconditioned filters in the guiderails remembering to also insert the side guide;

e - Close the panel again screwing in the plastic handwheels

Table of the number of flat panels used in the units.

TN	FLAT FILTER 400x207	FLAT FILTER 400x500	FLAT FILTER 400x625	FLAT FILTER 500x500	FLAT FILTER 500x625	FLAT FILTER 300x900
1	1		1			
2		2				
3		3				
4				3		
5					3	
6			1		3	
7						6
8						8

-Extraction and maintenance of compact filters F7 (accessory)

To access the compact filters proceed as follows:

a - Remove the side panel of the plenum by unscrewing the screws;

b - Take out the compact filters for checking and/or replacing them: remove the "clamps" that keep the filters joined to one another;

c - Insert the new filters complete with coupling "clamps";

d - Check the integrity of the seal on the aluminium profile to make sure it is tight;

e - Put back the side panel screwing in the screws.

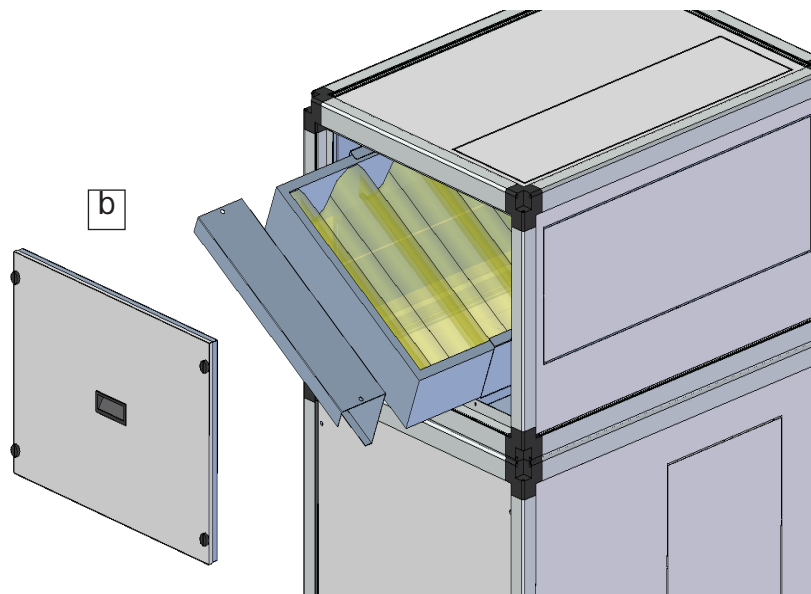
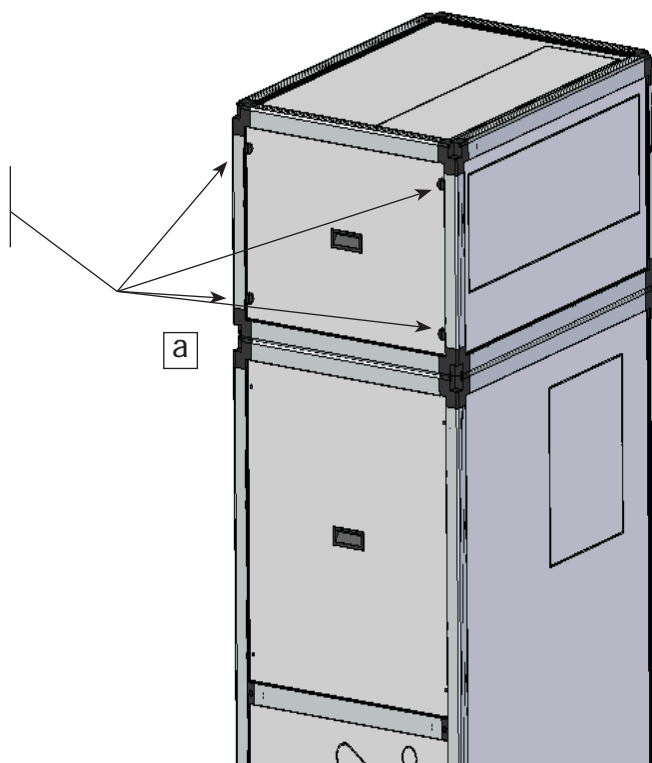


Table of the number of compact filters used in the units (accessory).

TN	COMPACT FILTER 290 x 490	COMPACT FILTER 595 x 490	COMPACT FILTER 595 x 595	COMPACT FILTER 595 x 882
1		1		
2	1	1		
3			2	
4		3		
5		3		
6			3	
7				3
8				4

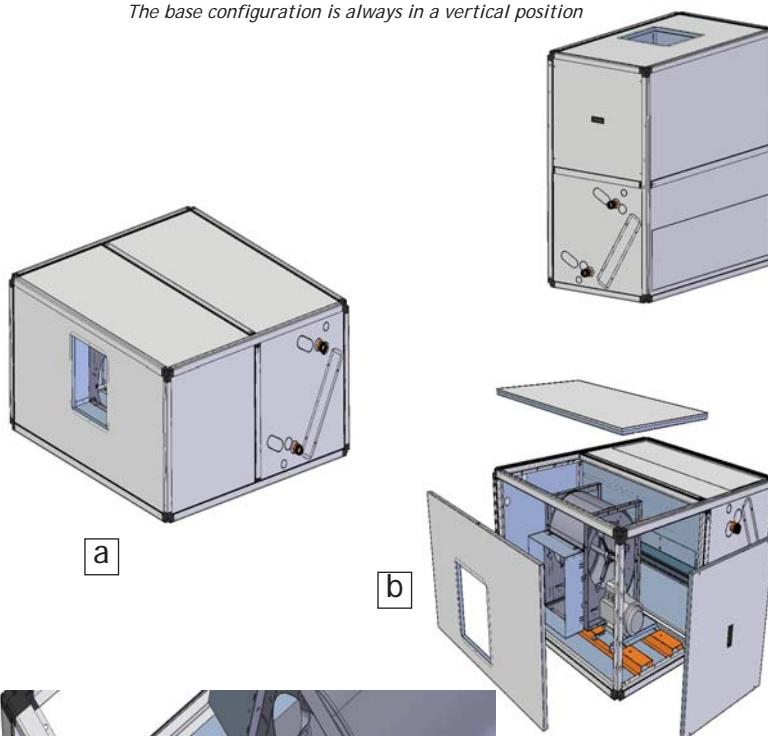
Motor replacement

To replace the unit's motor make sure that all the panels are fixed to the unit to make it more stable. After which you proceed as follows: (THE VERTICAL VERSION OF THE UNIT IS ALWAYS SUPPLIED).

a - Position the unit on the ground in a horizontal position so that the only panel of the fan section without any pre-shearing is facing the ground;

b - Remove the panel block profiles of all 4 panels of the fan section (two sides, one top and the ventilation one);.

The base configuration is always in a vertical position



c - Loosen the tension of the belt using the screws of the tensioner slide (c1) (make sure to first loosen the lateral locking grub screw);. Slip off the belt(s) of the fan pulley;

d - Unscrew the fixing screws of the motor at the slide and remove it;

e - With the hex key loosen and dismantle the pulley with its conical bush from the motor replaced;

f - Re-assemble and fix in the same order the bush and the pulley onto the new updated motor;

g - Reposition the new motor on the slide and tighten the fixing screws;

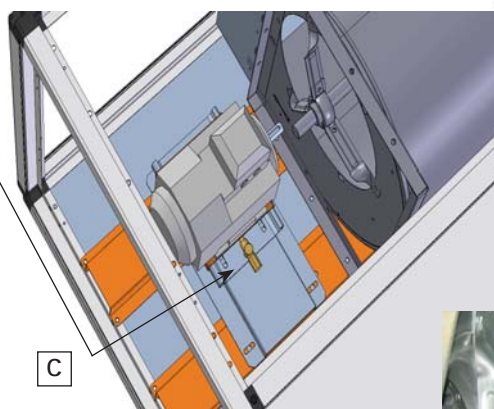
g - With the aid of an aluminium rod, align the fan pulley and the motor pulley;

i - Insert the belt that had been previously dismantled between the two pulleys;

l - Using the regulation screw of the tensioner slide tension the belt(s) and, once this has been done, tighten the fixing screws of the motor (IF THE BELT IS NOT ALIGNED WITH THE PULLEYS, REPEAT THIS STEP).

At the end of the procedure, tighten the grub screw of the slide to prevent any accidental decoupling;

m - Re-assemble the panels and the panel blocks.

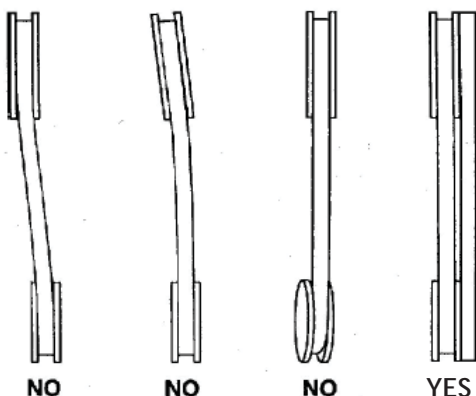


Alignment of the pulleys

If the tension is incorrect the following will be occur:

- if the tension is weak the belt will wear out quickly and the transmission's performance will be low
- if the tension is excessive there will be damage to the bearings of the motor and to those of the fan.

Every time you tighten the belts, you need to check the alignment of the transmission using a RULER.



Section belt	external Ø min pulley	no. pulley revolutions min. [rpm.]	F' minimum	F" maximum
SPA	90-145	900-1800	25 N	35 N
	150-195	600-1200	30 N	45 N
	200-250	400-900	35 N	50 N
SPB	170-235	900-1800	35 N	45 N
	250-320	600-1500	40 N	60 N
	330-400	400-900	45 N	65 N

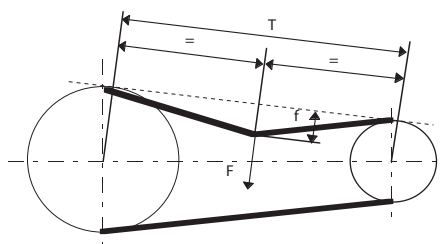
Replacing the transmission belt

- loosen the transmission using the appropriate device and take out the worn belt;
- check the cleanliness and state of wear of the pulleys and, if necessary, replace them;
- insert the new belt without forcing it in the least; this is to prevent any microtrauma on the transmission that could prejudice its useful life;
- align and tighten the transmission;
- after 10 hours of operation, check the tension of the transmission again.

Check belt tension

The belt tension must be checked again after a few hours according to the procedure in the diagram below;

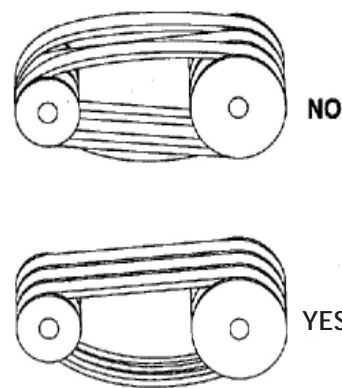
- Measure the free tract T.
- Use a dynamometer to apply a force F to a belt perpendicularly at half of T. This must be able to cause an arrow f of 1.5 mm for every 100 mm of T.
- Compare the value of F supplied by the dynamometer with the values of F' and F" given in the table below:
 - If $F < F'$ the belt must be tensioned.
 - If $F > F''$ it must be loosened.



- Since there is rapid decrease of tension during the break-in period of new transmissions, the new belt will need to be tightened so that the force F to obtain the arrow f, is 1.3 times the value of F" shown in the table. Belt tension is adjusted by acting on the motor slide screws

Drives with pulleys having several races

- In the case of transmissions with several belts, these have to be replaced at the same time; in the same transmission, therefore, there should be no belts that are more worn than others;
- the number of belts should always match the number of races;
- in a transmission like the one considered, before tensioning the belts, these should be aligned from the same side, as shown in the following diagram



FREQUENCY OF CONTROLS

The components installed must undergo the operations described in the following table with the indicated frequency. The frequency indicated is approximate (average): particularly for the filters, the dirtying of which can vary considerably according to function of the unit.

The intervals may be shorter for the fans in the case of continuous functioning.

COMPONENT	PHASE	TYPE OF CONTROL	INSTRUMENT	SCHEDULED TIME
Ventilating section	Check belt tension	Instrumental	Dynamometer	Every two months
Ventilating section	Check belt wear	Visual	//	Every two months
Ventilating section	Check installation of the pulleys	Visual	//	Every two months
Ventilating section	Check rotor cleanliness	Visual	//	Every two months
Ventilating section	Check bearings noise	Visual-Auditive	//	Every two months
Synthetic filters	Check dirtying	Visual	//	Every two months
Compact filters	Check dirtying	Visual	//	Every two months
Coils	Check pack cleanliness	Visual	//	Yearly
Coils	Check condensate tray cleanliness	Visual	//	Yearly

Diagnosis and fault solving

PROBLEM	CAUSE	REMEDY
1. INSUFFICIENT AIR FLOW RATE	1. Blocked filters	- Clean the filters
	2. Blocked coils	- Clean the coils
3. NO AIR FLOW RATE	1. Power supply off	- Check for the presence of power
	2. Electric motor burnt out	- Replace the electric motor
4. ABNORMAL NOISE	1. Excessive flow rate	- Reduce the flow rate
	2. Fan bearings worn or defective	- Replace bearings
	3. Foreign bodies on the fans' impellers	- Clean the impellers
5. MOISTURE CARRYOVER	1. Drain-trap blocked	- Clean drain-trap
	2. No drain-trap or incorrectly made	- Correctly prepare a drain-trap as indicated in this manual
6. REQUIRED TEMPERATURE NOT ACHIEVED	1. Temperature of the inlet air on coil outside the envisaged limits	- Check the air temperature
	2. Air in the water coils	- Bleed the coils
	3. Insufficient water flow rate in the water coils	- Increase the water flow rate
	4. Insufficient coil inlet water temperature	- Check the water temperature
	5. Dirty coil unit surface	- Clean the surface of the pack

Unit disposal

The components have been designed to guarantee continual operations. The duration of some main parts depends on the maintenance to which it has undergone.

At the end of their useful life, the units must be disposed of in accordance with the current laws in force.

If the unit is to be disposed of, the opera-

tion must be carried out by specialised personnel.

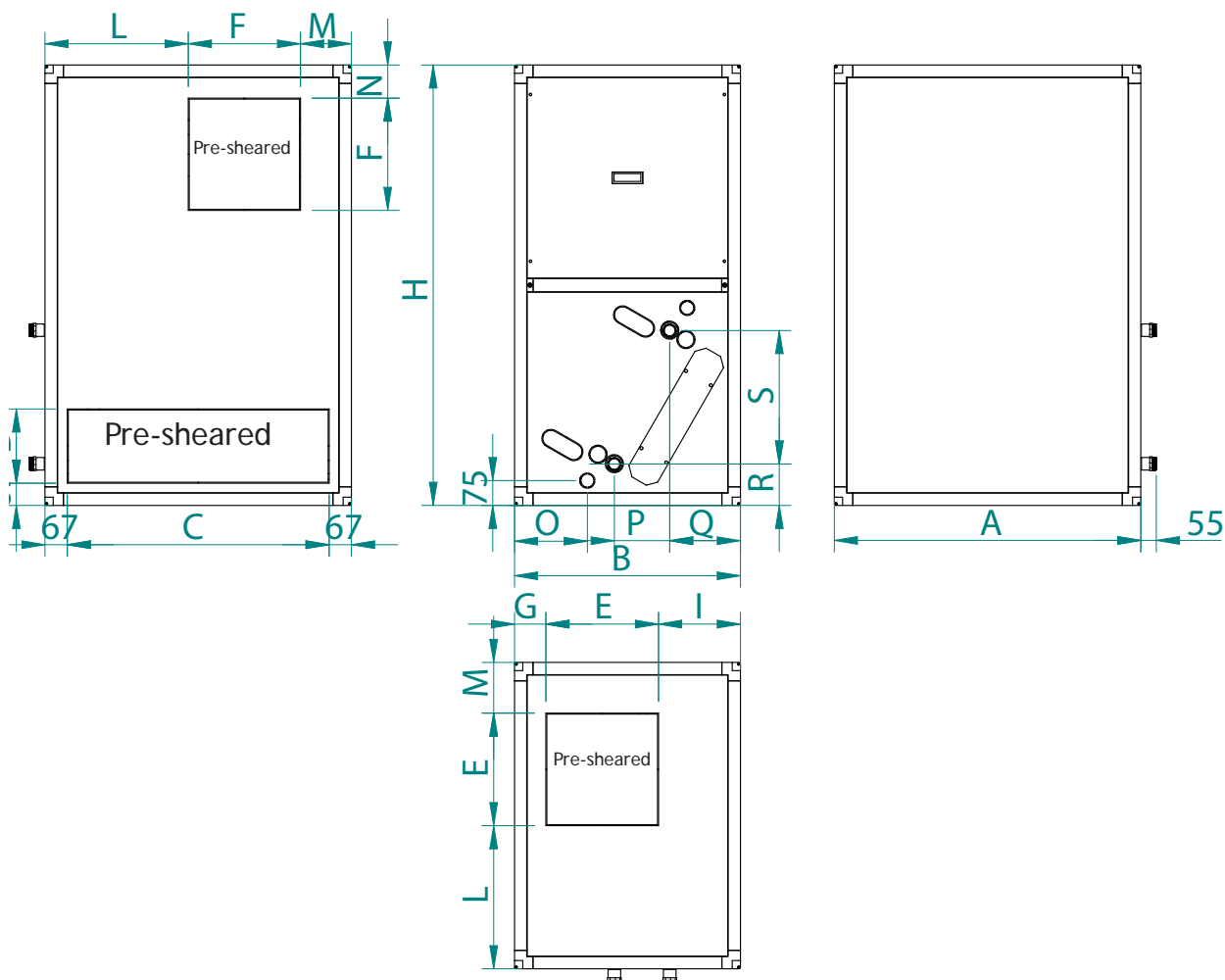
The main materials that make up the units are:

- galvanised steel and/or pre-coated sheet (panels, fans, condensate drip tray, internal metalwork);
- aluminium sheet or aluminium

alloy (coil fins, grilles, electric motor frame);

- copper (coil pipes, winding of the electric motors);
- polyurethane foam (sandwich panels insulation).

Dimensional data of the vertical version



VERTICAL FUNCTIONING (mm)

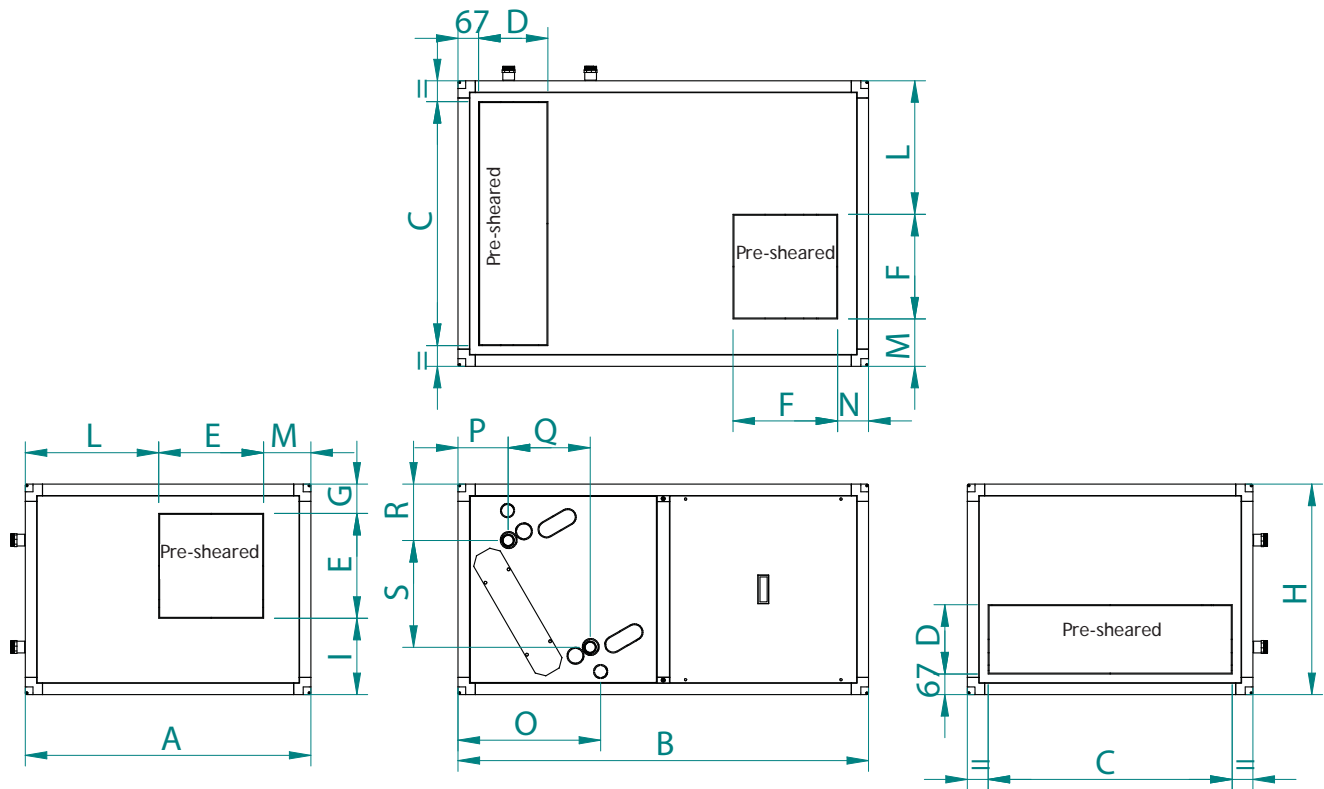
Size	A	B	H	C	D	E	F	G	I	L	M	N	O	P	Q	R	S
1	928	684	1334	793	225	340	340	95	249	434	154	100	220	168	214	126	404
2	1172	684	1334	1037	225	340	340	95	249	516	316	100	220	168	214	126	404
3	1334	765	1497	1200	387	362	-	117	286	586	386	-	236	202	246	140	463
4	1659	765	1497	1525	387	362	-	117	286	649	649	-	236	202	246	140	463
5	1659	828	1822	1525	468	468	-	116	344	596	596	-	279	258	275	131	627
6	1984	828	1822	1850	468	468	-	116	344	758	758	-	279	258	275	131	627
7	1984	1172	2309	1850	550	578	-	161	434	703	703	-	318	347	375	151	841
8	2472	1172	2309	2337	550	578	-	161	434	947	947	-	318	347	375	151	841

UNIT WEIGHT AND SHIFTABLE COMPONENTS (kg)

Size	TNx4B	TNx6B	TNx4P	TNx6P	4R coil and tray unit	6R coil and tray unit	Fan	Motor+transmission	
								Base	Upated
1	187	190	197	200	22	25	18	22	32
2	216	220	219	223	28	32	18	31	34
3	270	275	279	283	35	40	23	34.5	43
4	314	320	316	321	44	50	23	43.5	45
5	408	415	410	417	53	61	40	44	46
6	466	475	493	502	64	73	40	54	81
7	619	630	646	657	81	92	64	55	82
8	793	807	799	813	100	114	64	83	89

The weight of the accessories is expressed in kg.

Dimensional data of the horizontal version



VERTICAL FUNCTIONING (mm)

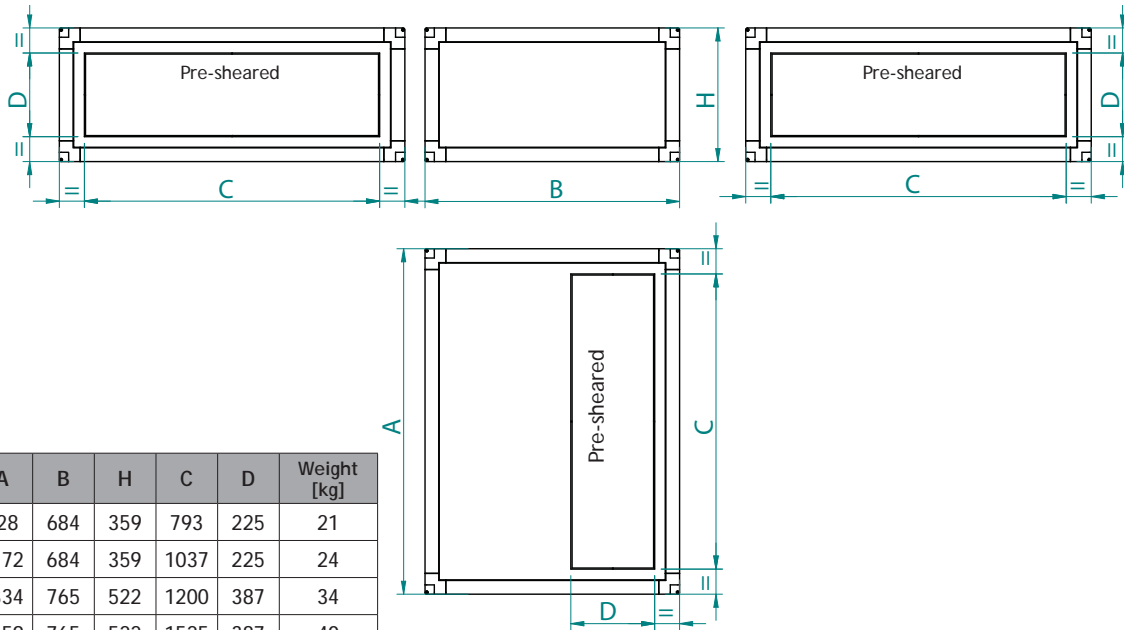
Size	A	B	H	C	D	E	F	G	I	L	M	N	O	P	Q	R	S
1	928	1334	684	793	225	340	340	95	249	434	154	100	464	164	266	182	347
2	1172	1334	684	1037	225	340	340	95	249	516	316	100	464	164	266	182	347
3	1334	1497	765	1200	387	362	-	117	286	586	386	-	529	197	300	190	406
4	1659	1497	765	1525	387	362	-	117	286	649	649	-	529	197	300	190	406
5	1659	1822	928	1525	468	468	-	116	344	596	596	-	649	196	414	215	537
6	1984	1822	928	1850	468	468	-	116	344	758	758	-	649	196	414	215	537
7	1984	2309	1172	1850	550	578	-	161	434	703	703	-	855	271	555	239	721
8	2472	2309	1172	2337	550	578	-	161	434	947	947	-	855	271	555	239	721

UNIT WEIGHT AND SHIFTABLE COMPONENTS (kg)

Size	TNx4B	TNx6B	TNx4P	TNx6P	4R coil and tray unit	6R coil and tray unit	Fan	Motor+transmission	
								Base	Upated
1	187	190	197	200	22	25	18	22	32
2	216	220	219	223	28	32	18	31	34
3	270	275	279	283	35	40	23	34.5	43
4	314	320	316	321	44	50	23	43.5	45
5	408	415	410	417	53	61	40	44	46
6	466	475	493	502	64	73	40	54	81
7	619	630	646	657	81	92	64	55	82
8	793	807	799	813	100	114	64	83	89

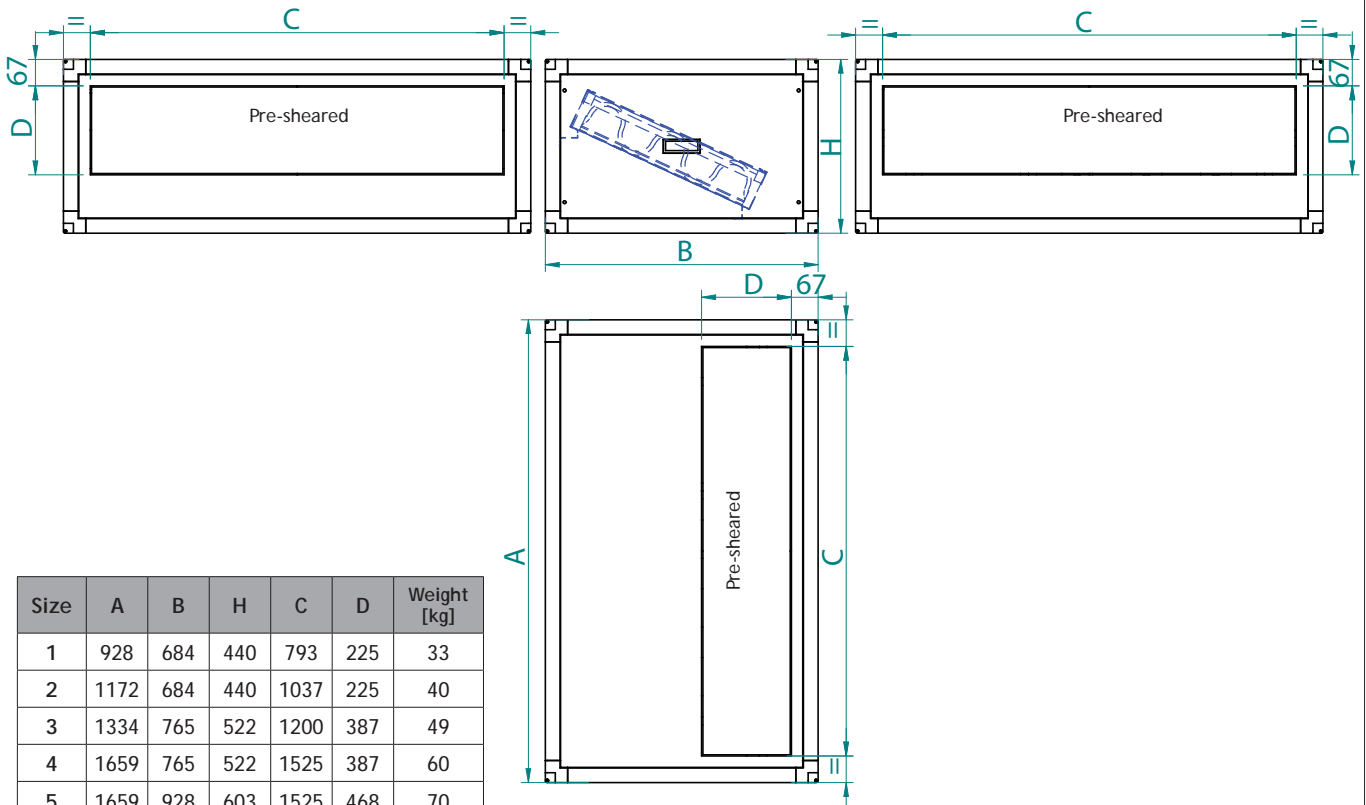
The weight of the accessories is expressed in kg.

« PLxT » Plenum



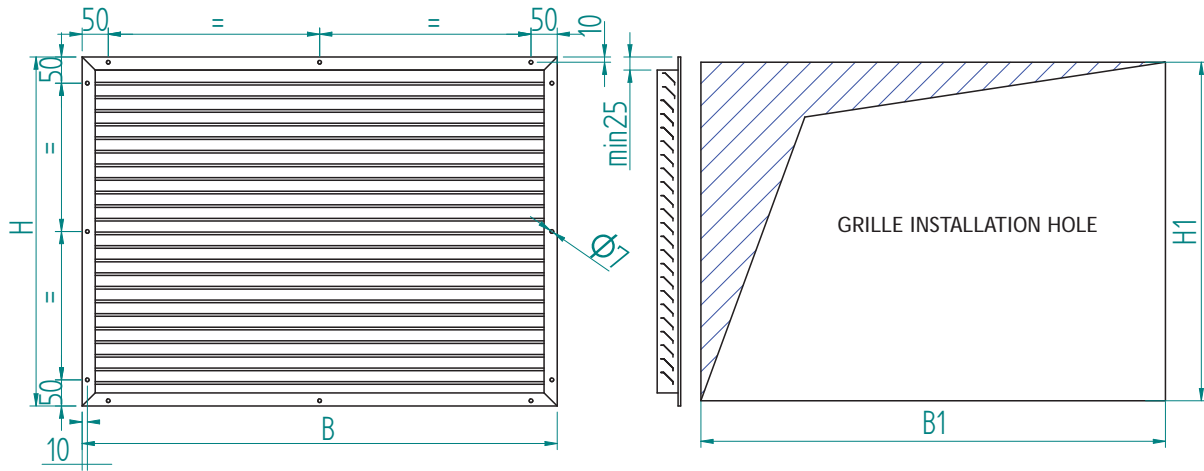
Size	A	B	H	C	D	Weight [kg]
1	928	684	359	793	225	21
2	1172	684	359	1037	225	24
3	1334	765	522	1200	387	34
4	1659	765	522	1525	387	40
5	1659	928	603	1525	468	48
6	1984	928	603	1850	468	55
7	1984	1172	684	1850	550	67
8	2472	1172	684	2337	550	79

« FT7MxT » Plenum



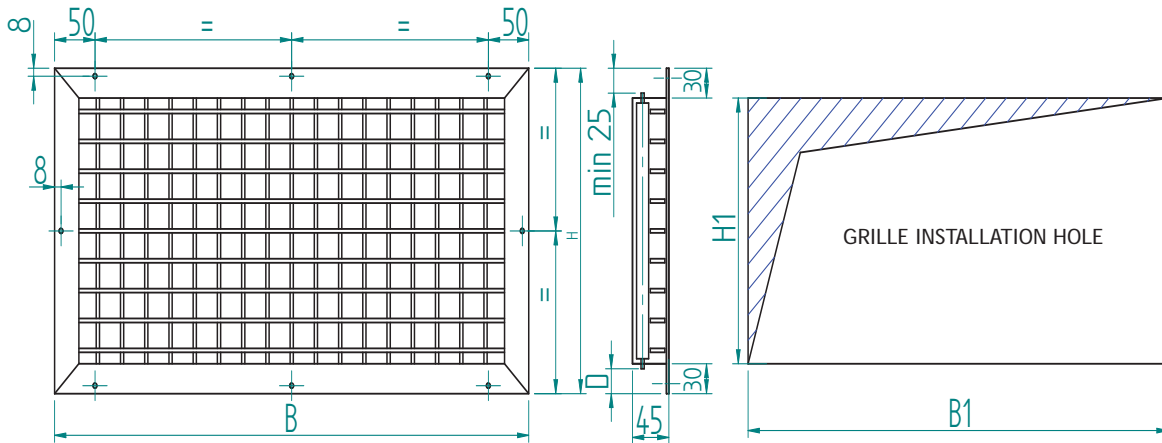
Size	A	B	H	C	D	Weight [kg]
1	928	684	440	793	225	33
2	1172	684	440	1037	225	40
3	1334	765	522	1200	387	49
4	1659	765	522	1525	387	60
5	1659	928	603	1525	468	70
6	1984	928	603	1850	468	84
7	1984	1172	684	1850	550	114
8	2472	1172	684	2337	550	154

« GAxT » Suction grille



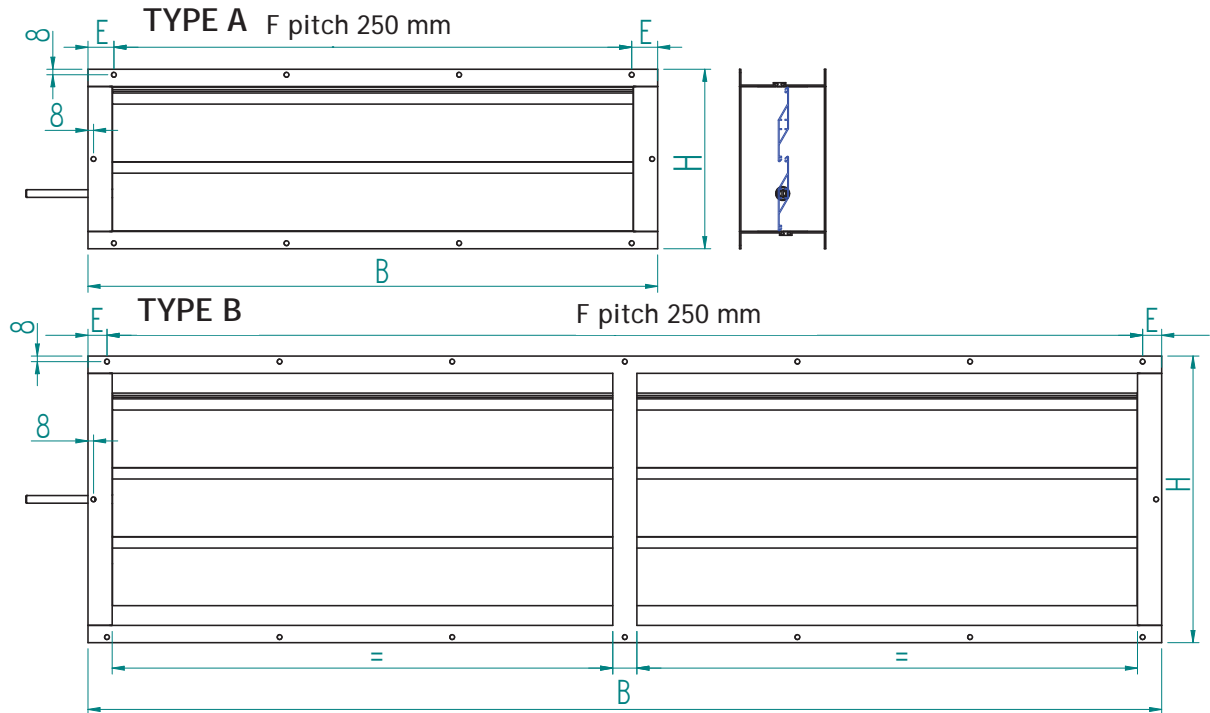
Size	B x H		B1 x H1		Weight Kg
1	825	255	793	225	2.4
2	1065	255	1037	225	2.7
3	1230	415	1200	387	3.9
4	1555	415	1525	387	4.3
5	1555	500	1525	468	5.5
6	1880	500	1850	468	6.5
7	1880	580	1850	550	7.4
8	2365	580	2337	550	9

« GMxT » Delivery grille



Size	B x H		B1 x H1		Weight Kg
1	825	255	793	225	2,8
2	1065	255	1037	225	3.3
3	1230	415	1200	387	4.7
4	1555	415	1525	387	5.3
5	1555	500	1525	468	6.7
6	1880	500	1850	468	7.8
7	1880	580	1850	550	8.9
8	2365	580	2337	550	10.9

« SAxT » Damper



Size	B	H	E	F	Type	Weight Kg
1	825	260	37.5	750	A	3.9
2	1065	260	32.5	1000	A	5
3	1230	415	115	1000	A	7.1
4	1555	415	27.5	1500	B	8
5	1555	500	27.5	1500	B	10.1
6	1880	500	65	1750	B	11.8
7	1880	580	65	1750	B	13.6
8	2365	580	57.5	2250	B	16.6



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