

FCZ U - UA - H



FCZ P-PO-PPC-HP-HPO



FCZ D-DS



FCZ A - AS - ACT - APC



FCZ AF -UF

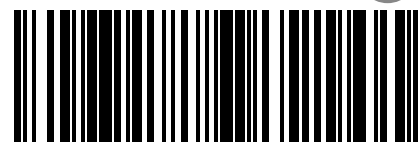


## Technical Manual

fan coils  
hanging installation  
universal installation, and underfloor







**FCZ**  
**A-AF-AS-ACT-APC**  
**U-UA**  
**P-PO-PPC**  
**D-DS**  
**H-HT-HP-HPO**

EN



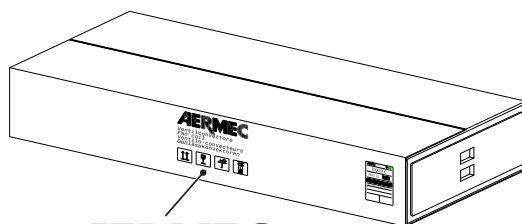
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**TRASPORTO • TRANSPORT • TRANSPORT • TRANSPORT • TRANSPORTE**

	NON bagnare. Tenere al riparo dalla pioggia.	KEEP DRY. Keep out of the rain.	NE PAS mouiller. Tenir à l'abri de la pluie.	NICHT nass machen. Vor Regen geschützt anbringen	NO mojar. Conservar protegido de la lluvia.
	NON calpestare.	DO NOT step on unit.	NE PAS marcher sur l'appareil.	NICHT betreten .	NO pisar.
	Sovrapponibilità: controllare sull'imballo per conoscere il numero di macchine impilabili.	Stackability: check the package to know the number of stackable machines.	Empilement : vérifier sur l'emballage le nombre d'appareils empilables.	Stapelbarkeit: Auf der Verpackung nachsehen, wie die Anzahl der stapelbaren Geräte lautet.	Superponibilidad: observar en el embalaje la cantidad de máquinas que pueden apilarse.
	NON trasportare la macchina da soli se il suo peso supera i 25Kg.	DO NOT carry the equipment alone if weight exceeds 25Kg.	NE PAS faire transporter l'appareil par une seule personne si son poids est supérieur à 25kg.	NICHT das Gerät allein transportieren, wenn sein Gewicht die 25kg übersteigt.	NO transportar la máquina solos si su peso es superior a los 25Kg.
	NON lasciare gli imballi sciolti durante il trasporto. Non rovesciare.	DO NOT leave boxes unsecured during transportation. Do not overturn.	NE PAS laisser les emballages sans attaches durant le transport. Ne pas renverser.	NICHT die Verpackungen während des Transports geöffnet lassen. Nicht stürzen.	NO dejar los embalajes sin sujetar durante el transporte. No invertir.
	Fragile, maneggiare con cura.	Fragile, handle with care.	Fragile, manipuler avec soin.	Zerbrechlich, sorgfältig handhaben.	Frágil, manipular con cuidado.

**SIMBOLI DI SICUREZZA • SAFETY SYMBOL • SIMBOLES DE SECURITE • SICHERHEITSSYMBOLS • SÍMBOLOS DE SEGURIDAD**

	Pericolo: Tensione	Danger: Power supply	Danger: Tension	Gefahr ! Spannung	Peligro: Tensión
	Pericolo: Organi in movimento	Danger: Movings parts	Danger: Organes en mouvement	Gefahr ! Rotierende Teile	Peligro: Elementos en movimiento
	Pericolo!!!	Danger!!!	Danger!!!	Gefahr!!!	Peligro!!!
	Imballo: indicazioni per trasporto e stoccaggio	Packing: indications for transport and storage	Emballage: indications pour le transport et le stockage	Verpackung: Anweisungen für Transport und Lagerung	Embalaje: indicaciones para el transporte y el almacenamiento



**AERMEC**  
 Ventilconvettore  
 Fan coil  
 Ventilconvecteurs  
 Gebläsekonvektoren



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## 1. DESCRIPTION OF THE UNIT

The FCZ series units are fan coil terminals to treat air indoors, both during winter and summer.

The FCZ fan coil combines high technological and functional features that make it ideal to heat and cool all environments. The supply of heated or cooled air is immediate and distributed throughout the room.

FCZ generates heat if included in a heating system with boiler or heat pump. However, it may also be used in the summer as an air conditioner, if the heating system has a water chiller.

The fan coil fully complies with accident-prevention standards.

The tray and the augers of the inspectionable fans allow even the internal parts to be cleaned accurately.

Particularly silent centrifugal ventilation unit.

Reversibility of the hydraulic connections in the installation phase.

The **FCZ** fan coil has been designed to meet every system requirement, thanks also to the accessories supplied.

In particular, the fact that the unit can be integrated in the **VMF** system gives you control over the individual fan coil with accessories up to the management of the fan coil inserted in complex networks.

## 2. FEATURES

Drawing from its wide experience in the field of fan coils, Aermec presents the new FCZ series, where the elegant design goes hand in hand with cutting-edge performance in terms of low noise and energy savings.

They can be installed on any system with 2/4 pipes and it fits with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

### Versions:

**Without control on the unit,**

**Vertical and horizontal installation:**

**FCZ\_U**

**FCZ\_UA**

**FCZ\_UF**

**Vertical installation**

**FCZ\_DS**

**FCZ\_AS**

**With control on the unit,**

**Only vertical installation:**

**FCZ\_D**

**FCZ\_A**

**FCZ\_AF**

**FCZ\_ACT**

**FCZ\_APC**

**Versions**

**Without control on the unit,**

**Vertical and horizontal recessed installation:**

**FCZ\_P**

**FCZ\_PO**

**FCZ\_PPC**

**Versions**

**With germicidal lamp**

**FCZ\_H**

**FCZ\_HT**

**FCZ\_HP**

**FCZ\_HPO**

## VMF (VARIABLE MULTIFLOW)

The VMF (Variable Multi Flow) system can manage a complete hydronic system, consisting of a chiller/heat pump, a boiler, a fan coil network (multi-speed or continuous speed modulation) divided into up to 64 areas, up to 12 circulation pumps and up to 3 heat recovery units with air quality probes. This optimises air conditioning and heating performance and guarantees comfort and energy saving.

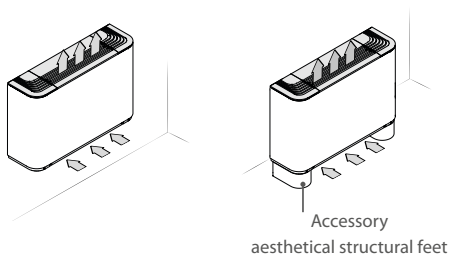


**VMF**

- Case RAL9003, Head RAL 7047
- Three-speed centrifugal fan.
- Electrical motors with condensers permanently on.
- Metal protection cabinet with polyester anti-corrosion paint.
- Adjustable air distribution grid, with fan coil switch-off and air distribution grid closure, for U versions.
- Low pressure drop in heat exchange coils.
- Easy installation and maintenance.
- Class G2 air filter for all versions, easy to extract and clean. In versions APC with Cold Plasma air purifier.
- Removable augers for easy and effective cleaning.
- The coils can be rotated on site (reversible coil), except for the versions with double circuit coil (NOT reversible), which must be ordered indicating the connection side.
- In units with the T-Touch electronic controller and the ThermApp application, by simply placing the smart device on the fan coil it is possible to set operating modes and weekly hour programming using the APP's graphic interface. It is also possible to access a wealth of additional information such as the alarms list, the closest Technical Service Centre etc.
- Available for Android OS.

### 3. DESCRIPTION OF VERSIONS

#### VERSIONS WITH FIXED GRID (TALL CABINET) - A



- **FCZ\_A**

- With switch-over.

- **FCZ\_AS**

- Without control panel Compatible with the VMF system.

- **FCZ\_ACT**

- With electronic thermostat.

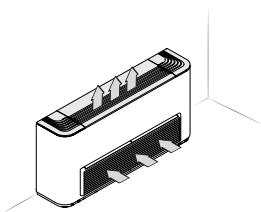
- **FCZ\_APC**

- With electronic thermostat on board.

- Cold Plasma air purifier.

#### Only vertical installation

- For 2/4-pipe systems.



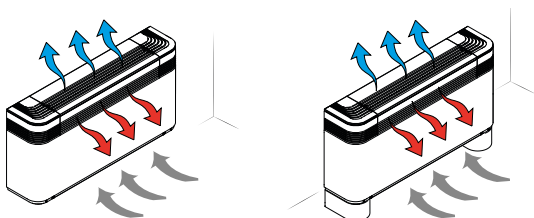
- **FCZ\_AF**

- Without installed controller

- Compatible with VMF system

- Front intake louver

#### VERSIONS WITH DOUBLE FLOW (DUALJET) - D



Fan coil able to offer a pleasant feeling of comfort by directing air so as to assure even temperature distribution in the whole room.

In winter, the warm air is directed towards the floor. In summer, the cool air is directed towards the ceiling.

- **FCZ\_D** With thermostat on the unit.

- **FCZ\_DS** Without user Interface.

All units are compatible with the VMF system. In the event of installation of a centralised VMF-E5B/VMF-E5N control or third-party BMS systems, the office must be contacted.

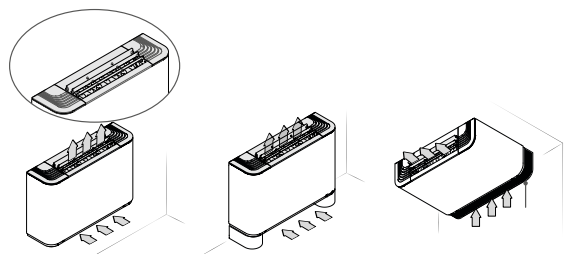
- The air supply orientation can be changed, frontal or from above, by selector on the unit.

#### Only vertical installation

- For 2-pipe systems.

#### VERSIONS WITH ADJUSTABLE AND FIXED GRID (UNIVERSAL) - U

##### WITH ADJUSTABLE GRID - U



- **FCZ\_U**

- Without control panel Compatible with the VMF system.

- Adjustable air distribution grid.

Single for sizes 1-2-3.

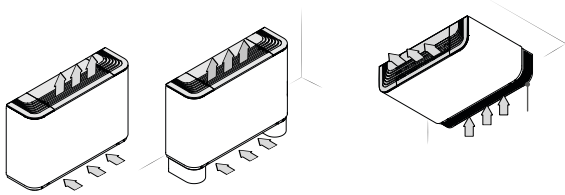
Three independent ones for sizes 4-5-6-7-8-9-10.

When louvers are closed the unit is off.

#### Vertical and horizontal installation

- For 2/4-pipe systems.

### VERSIONS WITH FIXED GRID - UA

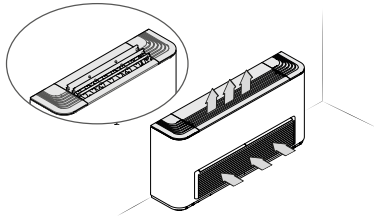


- **FCZ-UA**

- Without control panel Compatible with the VMF system. - Fixed air distribution grid.

#### Vertical and horizontal installation

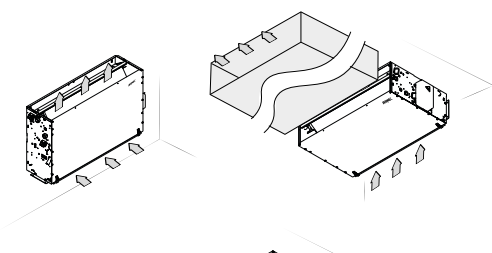
- For 2/4-pipe systems.



- **FCZ-UF**

- Without installed controller  
- Compatible with VMF system  
- Adjustable grille front intake louver

### WALL-CEILING MOUNTED VERSIONS



- **FCZ-P**

- Wall/ceiling mounted without cabinet.

- **FCZ-PPC**

- Wall/ceiling mounted with Cold Plasma air purifier.

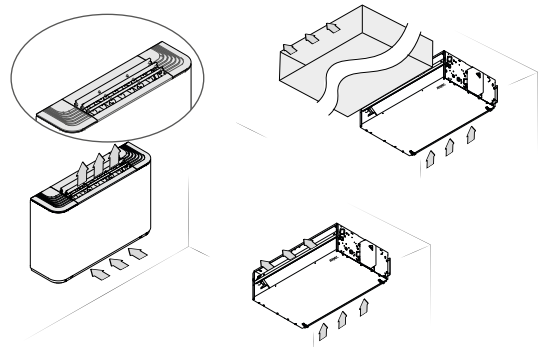
- **FCZ-PO**

- Wall/ceiling mounted with upgraded motor.

#### Vertical and horizontal installation

- For 2/4-pipe systems.

### VERSIONS WITH GERMICIDAL LAMP



- **FCZ-H**

- 3-rung battery, 3 speed motor, mobile universal for vertical and horizontal installation

- **FCZ-HT**

- version cabinet for vertical installation only with on-board thermostat PTINZ;

- **FCZ-HP**

- 3 or 4 ranks, 3-watt motorless version, for horizontal and vertical mounting

- Requires external control panel: PXAE; VMF system.

- **FCZ-HPO**

- 3-way or 4-rung batteries, without casing version, with 7-speed engine, for horizontal and vertical mounting

- Requires external control panel: PXAE; VMF system.

#### Vertical and horizontal installation

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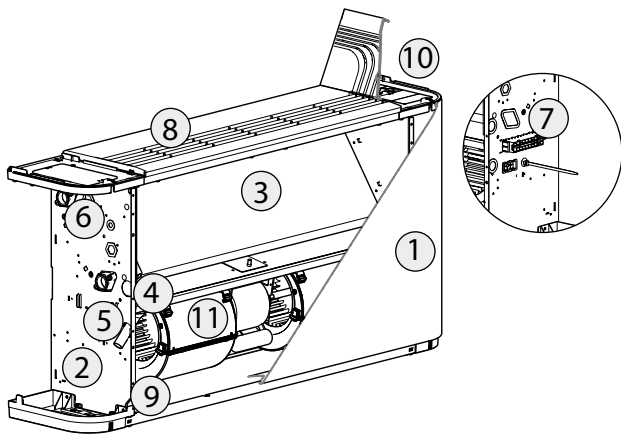
## 4. CONFIGURATOR

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field	Description
<b>1,2,3</b>	<b>FCZ</b>
<b>4</b>	<b>Size</b> 1-2-3-4-5-6-7-8-9-10
<b>5</b>	<b>Main coil</b> <b>0</b> Standard <b>5</b> Larger (1)
<b>6</b>	<b>Secondary coil</b> <b>0</b> Without coil <b>1</b> Standard <b>2</b> Larger
<b>7,8,9</b>	<b>Version</b> <b>D</b> Dualjet with installed controller <b>DS</b> Dualjet without installed controller <b>A</b> Free standing with switch <b>AS</b> Free standing without switch <b>AF</b> Free standing without switch Front intake louver <b>ACT</b> Free standing with electronic controller <b>APC</b> Free standing, electronic controller and Cold Plasma purifier <b>U</b> Universal with adjustable grille, without installed controller <b>UF</b> Universal with adjustable grille, without installed controller front intake louver <b>UA</b> Universal with fixed grille without installed controller <b>P</b> Concealed mounted without cabinet <b>PO</b> Concealed with oversized motor <b>PPC</b> Concealed with Cold Plasma purifier <b>PR</b> Concealed mounted without cabinet, hydraulic connections to the right <b>POR</b> Concealed with oversized motor, hydraulic connections to the right

(1) With larger coil "5"no coil can be fitted with heat only "1 or 2"

## 5. MAIN COMPONENTS



- 1 - Covering cabinet (RAL 9003)
- 2 - Structure Carrier
- 3 - Heat exchange
- 4 - Condensate collection tray
- 5 - Condensate drain
- 6 - Hydraulic connection
- 7 - Electrical Connections
- 8 - Delivery grille (RAL7047)
- 9 - Section Filter
- 10 - Accommodation of the control panel
- 11 - Ventilation Group

### PROTECTIVE CABINET

Casing colour RAL9003

Flow grids colour RAL7047

The casing is made with galvanised steel sheet metal and painted with polyester powder to guarantee high resistance to rust and corrosion. The feet (accessory) for the units with casing are made of plastic colour RAL9003.

### SUPPORT STRUCTURE

It is made with galvanised steel sheet metal of suitable thickness. There are holes on the rear to fasten the appliance on the wall. For the models without cabinet, the closing panel of the ventilation unit is mounted on the front. The feet (accessory) for the ducted units are made of galvanised steel sheet metal.

### HEAT EXCHANGE COIL

Coil made with copper pipes and aluminium louvers blocked by the mechanical expansion of the pipes. The collectors are equipped with female connections and air vents on the upper part of the coil and water drains in the lower part of the coil.

#### 2-pipe systems:

- Standard main coil (reversible on site).
- Larger main coil (reversible on site).

#### 4-pipe systems:

- With standard main coil combined with VCZ\_X4R valve accessories. (Reversible on site VCZ\_X4L).
- Larger main coil combined with VCZ\_X4R valve accessories. (Reversible on site VCZ\_X4L).
- With standard main coil coupled with BV coil accessory. (Reversible on site).
- With secondary coil non reversible on site but with right-side connections (to be specified in the order)

### CONDENSATE DRIP TRAY

Fan coils that **only allow for vertical installation** are equipped with a condensate drip tray.

Fan coil that **also allow for horizontal installation** are equipped with a second tray.

All the condensate drip trays are thermally insulated and have double drain on the right and left.

Seal the drain that is not used.

### CONDENSATE DRAIN

Every fan coil installed to run in cooling mode must be connected to the condensate drain system, which must be suitably sized and tilted to allow the water to flow.

### HYDRAULIC CONNECTIONS

The hydraulic connections are female type and are usually positioned on the left side.

The hydraulic connections must be positioned on the opposite side of the electric connections.

**The coils can be rotated on site (reversible coil), except for the versions with double circuit coil (NOT reversible), which must be ordered indicating the connection side.**

### ELECTRICAL CONNECTIONS

On the opposite side of the hydraulic connections there is a terminal board for the connection to the mains.

The fan coil must be always connected to an earth cable.

### FLOW GRID

In versions fitted it is made in plastic material colour RAL7047 and may be with fixed or movable louvers according to the selected model.

For fan coils fitted with flow grid with movable louvers, pay attention to the connection with the micro switch on the louver opening control.

**Closed louvers disable ventilation.**

### FILTERING SECTION

Easy to remove, it is manufactured with renewable materials and it can be cleaned via vacuum.

The versions are equipped with class G2 filters. In APC versions with Cold Plasma air purifier.

### CONTROL PANEL

The control panel is located in the fan coil head, under the door on the right, in the versions that provide for its installation on the unit, and may be protected from tampering by locking the cover door with a screw.

In units with the T-Touch electronic controller and the ThermApp application, by simply placing the smart device on the fan coil it is possible to set operating modes and weekly hour programming using the APP's graphic interface. It is also possible to access a wealth of additional information such as the alarms list, the closest Technical Service Centre etc. Available for Android OS.

In versions where the control panel is an accessory, it can be installed on the fan coil or be wall-mounted.

In wall-ceiling mounted versions the control panel (accessory) can only be installed on the wall.

The AERMEC fan coils can be integrated in the VMF System in versions without control panel.

For options, refer to the control panel features in the "Accessories" chapter.

### FAN UNIT

It consists of double intake centrifugal fans with longer blades, in order to achieve high flow rate with a low number of revs.

The motor with start condenser always engaged is protected against overloads, directly coupled with the fans and buffered with elastic supports.

**Standard versions are equipped with 3-speed motor.**

The versions without case are equipped with **6- or 7-speed upgraded motor (3 of which can be selected during installation).**



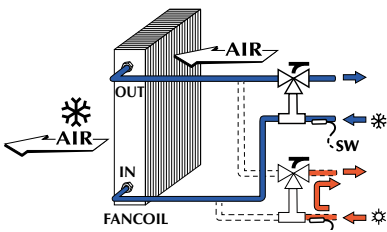
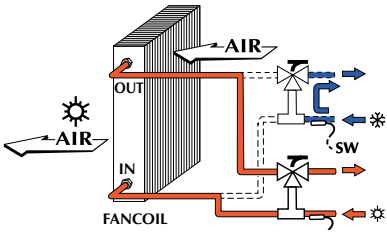
6. EXAMPLES OF SYSTEM CONFIGURATIONS WITH FCZ

Key:

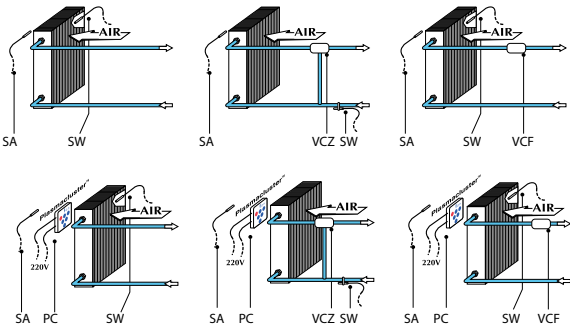
SW Water temperature probe  
VCF Solenoid valve (Heating/ Cooling)  
VC Solenoid valve (Heating),  
VF Solenoid valve (Cooling)

SA Ambient temperature probe  
V3,V2,V1 Maximum, Medium, Minimum speed of the fan  
RX Heater  
PC Plasmacluster

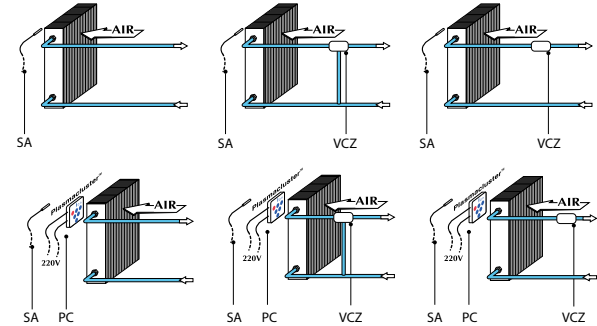
4-pipe system with standard coil and VCZ\_X4 valve



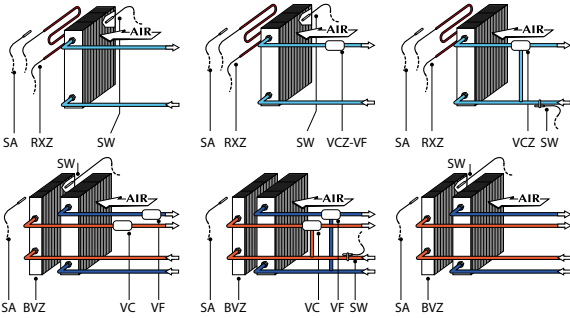
2-pipe system with water probe



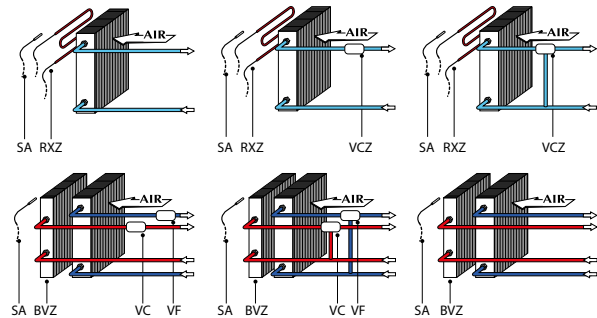
2-pipe system without water probe



4-pipe system with water probe



4-pipe system without water probe



OPERATING ENVIRONMENT

The units are designed for installation in closed environments in conditions of ‘urban’, non-marine atmosphere with non-corrosive and non-dusty characteristics. Under no circumstances the following concentrations of pollutants in the air, in which the unit must operate, shall be exceeded:

SO <sub>2</sub>	<0,02 ppm
H <sub>2</sub> S	<0,02 ppm
NO,NO <sub>2</sub>	<1 ppm
NH <sub>3</sub>	<6 ppm
N <sub>2</sub> O	<0,25 ppm

The unit should not be installed in locations characterized by the presence of flammable gases or acidic or alkaline substances. Otherwise the coils and the internal components of the equipment could suffer serious and irreparable damage from corrosion.

WARNINGS FOR THE QUALITY OF THE WATER CIRCULATING IN THE COILS

It is recommended to perform an analysis of the water circulating in the coil focusing on the research of the possible presence of bacteria (detection of iron bacteria and micro-organisms that can produce H<sub>2</sub>S or chemically reduce sulphates) and on the chemical composition of the water, to prevent corrosion and fouling inside the tubes. The water circuit must be supplied and replenished with treated water that does not exceed the threshold levels indicated below.

Total hardness in mmol/l	I < mmol/l < 1,5
Chlorides [CL <sup>-</sup> ]	< 10 mg/litre
Sulphates [SO <sub>4</sub> <sup>2-</sup> ]	< 30 mg/litre
Nitrates [NO <sub>3</sub> <sup>-</sup> ]	= 0 mg/litre
Dissolved iron	< 0,5 mg/litre
Dissolved oxygen	4 < [O <sub>2</sub> ] < 9 mg/litre
Carbon dioxide [CO <sub>2</sub> ]	< 30 mg/litre
Resistivity	20 Ohm·m < Resistivity < 50 Ohm·m
pH	6,9 < pH < 8

## 7. SIZES AVAILABLE FOR VERSION

Versions	Sizes available with Single Battery with movable																		
FCZ	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AF	.	.	.	.	.	.	.	.	.	.	/	/	/	/	/	/	.	.	.
ACT	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
APC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
U	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
UF	.	.	.	.	.	.	.	.	.	.	/	/	/	/	/	/	.	.	/
UA	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
D	/	/	.	/	.	/	.	/	.	/	/	/	/	/	/	/	/	/	/
DS	/	/	.	/	.	/	.	/	.	/	/	/	/	/	/	/	/	/	/

Versions	Size available with main and supplementary coil (4 pipes)																	
FCZ	101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
A	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ACT	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
APC	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
D	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
DS	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

Versions	Sizes available with Single Battery for units not equipped movable																		
FCZ	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
P	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PO	/	/	.	.	.	.	.	.	.	.	.	.	.	.	/	/	.	.	/
PPC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Versions	Sizes available with dual battery not equipped mobile																	
FCZ	101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
P	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PO	/	/	.	.	.	.	.	.	.	.	.	.	.	.	/	.	.	/

Versions	Sizes available with Single Battery																		
FCZ	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
H	/	/	.	/	.	/	.	/	.	/	.	/	/	/	/	/	.	/	/
HT	/	/	.	/	.	/	.	/	.	/	.	/	/	/	/	/	.	/	/
HP	/	/	.	/	.	/	.	/	.	/	.	/	/	/	/	/	.	/	/
HPO	/	/	.	/	.	/	.	/	.	/	.	/	/	/	/	/	.	/	/

### BATTERY WATER CONTENT

Model	FCZ	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450
Main coil water content	[L]	0,4	0,4	0,4	0,5	0,5	0,5	0,5	0,7	0,8	0,8	0,8	1,0	1,0	1,0	1,0	1,4
Secondary coil water content	[L]	-	0,1	0,2	-	-	0,2	0,3	-	-	0,3	0,4	-	-	0,3	0,5	-

Model	FCZ	500	501	502	550	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
Main coil water content	[L]	1,0	1,0	1,0	1,4	1,2	1,2	1,2	1,6	1,2	1,2	1,2	1,6	1,2	1,2	1,2	1,6	1,8	1,8	2,3	1,8	1,8
Secondary coil water content	[L]	-	0,3	0,5	-	-	0,4	0,7	-	-	0,4	0,7	-	-	0,4	0,7	-	-	0,7	0,7	-	-

FCZ	all size
Maximum inlet water temperature (Tw) 80 °C	80°C
Maximum inlet water temperature recommended (Tw) 65 °C	65°C
Maximum operating pressure of 800 kPa (8 bar)	800 kPa (8 bar)
Minimum operating pressure 100 kPa (1 bar)	100 kPa (1 bar)
the ambient temperatures (Ta) 0 °C < Ta < 45 °C	0°C < Ta < 45°C
Relative humidity limits in the environment (R.H.) R.H. < 85%	U.R. < 85%
230V power supply (± 10%) 50Hz ~	230V ( ±10% ) ~ 50Hz

## 8. OPERATING LIMITS

		100	200	300	400	500	600	700	800	900	1000
Maximum water inlet temperature (Tw)	°C	80									
Maximum water inlet temperature recommended (Tw)	°C	65									
Maximum operating pressure	kPa	800 kPa (8 bar)									
Environment temperature limits (Ta)	°C	0° < Ta < 45°									
Relative humidity limits in the environment (R.H.)		R.H. < 85%									
Electric power supply		230V ( ±10% ) ~ 50Hz									
		100	200	300	400	500	600	700	800	900	1000
Minimum water flow rate (Qw)	l/h	100	100	100	150	150	300	300	300	300	300
Maximum water flow rate (Qw)	l/h	750	750	750	1100	1100	2200	2200	2200	2200	2200
		150	250	350	450	550	650	750	850	950	1050
Minimum water flow rate (Qw)	l/h	150	150	150	150	150	300	300	300	300	300
Maximum water flow rate (Qw)	l/h	1100	1100	1100	1100	1100	2200	2200	2200	2200	2200
		101	201	301	401	501	601	701	801	901	1001
Minimum water flow rate (Qw)	l/h	50	50	50	50	50	100	100	100	100	100
Maximum water flow rate (Qw)	l/h	400	400	400	400	400	900	900	900	900	900
		102	202	302	402	502	602	702	802	902	1002
Minimum water flow rate (Qw)	l/h	50	50	50	50	50	150	150	150	150	150
Maximum water flow rate (Qw)	l/h	700	700	700	700	700	1200	1200	1200	1200	1200

Type tests carried out at atmospheric pressure at minimum selectable speed.

### WATER TEMPERATURE

In order to prevent air stratification in the environment and thus have a better mixture, the fan coil should not be supplied with water that is hotter than 65°C.

Using water at a very high temperature can cause creaking due to the heat expansion of the elements (plastic and metal), however, this does not cause damage to the unit unless the maximum operating temperature is exceeded.

### MINIMUM AVERAGE WATER TEMPERATURE

If the fan coil runs continuously in cooling mode in an environment with high relative humidity, condensate may form on the air flow.

This condensate could drip onto the floor and onto any underlying objects. To prevent condensation phenomena on the external structure of the appliance with the fan running, the average water temperature must not drop below the limits indicated in the table. These limits depend on the temperature and humidity conditions of the room air.

These limits refer to operation with the fan running at minimum speed.

Condensation may form in the event the fan is off for a prolonged period and cold water flows in the coil; therefore, we recommend installing the 3-way valve (accessory).

	Dry bulb temperature of the ambient air (Ta) °C					
Room temperature wet bulb (Ta) °C	21	23	25	27	29	31
15	3	3	3	3	3	3
17	3	3	3	3	3	3
19	3	3	3	3	3	3
21	6	5	4	3	3	3
23	-	8	7	6	5	5
minimum average water temperature (Tw) °C						

9. TECHNICAL DATA

Mod	FCZ	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	
Water heating capacity 20 C° air 45/40°C	W ( vel 3)	1190	-	-	1320	1840	-	-	2010	2740	-	-	3060	3560	-	-	3890	4230	-	-	4850	
	W ( vel 2)	1000	-	-	1090	1470	-	-	1580	2220	-	-	2450	2850	-	-	3130	3640	-	-	4150	
	W ( vel 1)	720	-	-	770	1000	-	-	1090	1720	-	-	1870	2150	-	-	2270	2620	-	-	2900	
Water flow rate	l/h ( vel 3)	205	-	-	227	316	-	-	346	471	-	-	526	612	-	-	669	727	-	-	834	
	l/h ( vel 2)	172	-	-	187	253	-	-	272	382	-	-	421	490	-	-	538	626	-	-	714	
	l/h ( vel 1)	124	-	-	132	172	-	-	187	296	-	-	322	370	-	-	390	451	-	-	499	
Water pressure drops	kPa ( vel 3)	9	-	-	12	17	-	-	22	17	-	-	20	23	-	-	15	30	-	-	25	
	kPa ( vel 2)	6	-	-	8	11	-	-	14	12	-	-	13	15	-	-	10	23	-	-	19	
	kPa ( vel 1)	4	-	-	5	6	-	-	7	7	-	-	8	9	-	-	6	13	-	-	10	
Water heating capacity 70-60	W ( vel 3)	2400	-	-	2650	3700	-	-	4050	5500	-	-	6150	7150	-	-	7820	8500	-	-	9750	
	W ( vel 2)	2000	-	-	2190	2950	-	-	3180	4460	-	-	4920	5740	-	-	6290	7310	-	-	8340	
	W ( vel 1)	1450	-	-	1550	2020	-	-	2200	3470	-	-	3770	4320	-	-	4570	5270	-	-	5820	
Water flow rate 70°C main coil	l/h ( vel 3)	206	-	-	232	324	-	-	355	482	-	-	539	627	-	-	685	745	-	-	855	
	l/h ( vel 2)	172	-	-	192	258	-	-	278	391	-	-	431	503	-	-	551	641	-	-	731	
	l/h ( vel 1)	125	-	-	136	177	-	-	193	304	-	-	330	379	-	-	400	462	-	-	510	
Water pressure drops	kPa ( vel 3)	9	-	-	12	18	-	-	23	18	-	-	20	24	-	-	16	28	-	-	26	
	kPa ( vel 2)	7	-	-	9	12	-	-	15	12	-	-	14	16	-	-	11	21	-	-	20	
	kPa ( vel 1)	4	-	-	5	6	-	-	7	7	-	-	8	9	-	-	6	12	-	-	10	
Power with secondary coil water 65-55°C air 20°C	W ( vel 3)	-	1171	1966	-	-	1609	2726	-	-	2565	4325	-	-	3128	5290	-	-	3735	6443	-	
	W ( vel 2)	-	1019	1662	-	-	1358	2225	-	-	2189	3584	-	-	2654	4343	-	-	3342	5657	-	
	W ( vel 1)	-	751	1233	-	-	1019	1573	-	-	1805	2842	-	-	2127	3351	-	-	2592	4164	-	
Secondary coil water flow rate	l/h ( vel 3)	-	100,7	169,0	-	-	138,3	234,4	-	-	220,5	371,9	-	-	268,9	454,9	-	-	321,2	554,0	-	
	l/h ( vel 2)	-	87,6	142,9	-	-	116,8	191,3	-	-	188,3	308,1	-	-	228,2	373,4	-	-	287,4	486,4	-	
	l/h ( vel 1)	-	64,5	106,0	-	-	87,6	135,2	-	-	155,2	244,4	-	-	182,9	288,1	-	-	222,8	358,1	-	
Water pressure drops	kPa ( vel 3)	-	4,1	3,2	-	-	9,8	7,4	-	-	29,4	22,1	-	-	8,2	7,4	-	-	9,8	7,4	-	
	kPa ( vel 2)	-	3,3	2,4	-	-	7,4	4,9	-	-	22,2	15,5	-	-	6,6	4,1	-	-	8,1	6,5	-	
	kPa ( vel 1)	-	1,6	1,6	-	-	4,9	3,2	-	-	15,5	10,6	-	-	4,1	3,3	-	-	4,9	3,3	-	
Total cooling capacity water 7-12	W ( vel 3)	1000	1000	1000	1270	1600	1600	1600	1940	2650	2650	2650	3030	3600	3600	3600	4040	4250	4250	4250	4800	
	W ( vel 2)	840	840	840	1060	1290	1285	1285	1560	2180	2180	2180	2460	2930	2930	2930	3210	3690	3690	3690	4130	
	W ( vel 1)	650	650	650	800	890	890	890	1060	1680	1680	1680	1890	2210	2210	2210	2410	2680	2680	2680	2910	
Sensitive cooling capacity water 7-12	W ( vel 3)	830	830	830	970	1330	1330	1330	1520	2045	2045	2045	2180	2670	2670	2670	2908	3180	3180	3180	3490	
	W ( vel 2)	690	690	690	800	1050	1050	1050	1200	1650	1650	1650	1760	2140	2140	2140	2300	2730	2730	2730	2980	
	W ( vel 1)	510	510	510	570	710	710	710	795	1260	1260	1260	1330	1590	1590	1590	1690	1940	1940	1940	2070	
Water flow rate	l/h ( vel 3)	172	172	172	218	275	275	275	334	456	456	456	521	619	619	619	695	731	731	731	834	
	l/h ( vel 2)	144	144	144	188	222	221	221	268	375	375	375	423	504	504	504	552	635	634	634	714	
	l/h ( vel 1)	112	112	112	133	153	153	153	182	289	289	289	325	380	380	380	414	461	460	460	499	
Water pressure drops	kPa ( vel 3)	8	8	8	12	18	18	18	25	18	18	18	25	24	24	24	22	34	49	49	33	
	kPa ( vel 2)	6	6	6	9	12	12	12	17	13	13	13	17	17	17	17	15	26	42	42	25	
	kPa ( vel 1)	4	4	4	5	6	6	6	8	8	8	8	11	10	10	10	9	15	25	25	13	
Air flow rate	m³/h ( vel 3)	200	200	200	200	290	290	290	290	450	450	450	450	600	600	600	600	720	720	720	720	
	m³/h ( vel 2)	160	160	160	160	220	220	220	220	350	350	350	350	460	460	460	460	600	600	600	600	
	m³/h ( vel 1)	110	110	110	110	140	140	140	140	260	260	260	260	330	330	330	330	400	400	400	400	
Number of centrifugal fans	n.	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	
Input power	W ( vel 3)	35	30	30	30	33	35	35	35	44	44	44	44	57	57	57	57	76	76	76	76	
	W ( vel 2)	29	25	25	25	29	25	25	25	33	33	33	33	43	43	43	43	52	52	52	52	
	W ( vel 1)	19	20	20	20	25	13	13	13	25	25	25	25	30	30	30	30	38	38	38	38	
Maximum input current	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sound power level	dB(A) ( vel 3)	45	45	45	45	50	50	50	50	48	48	48	48	51	51	51	51	56	56	56	56	
	dB(A) ( vel 2)	38	38	38	38	43	43	43	43	41	41	41	41	44	44	44	44	51	51	51	51	
	dB(A) ( vel 1)	31	31	31	31	31	31	31	31	34	34	34	34	39	39	39	39	42	42	42	42	
Main coil connections	ø Gas (Femmina)	1/2"										3/4"										
Protection rating		IP20																				

REFERENCE CONDITIONS [°C]		COOLING EUROVENT	HEATING 45°C EUROVENT	HEATING 70°C	HEATING 70°C EUROVENT
					SECONDARY COOLING
Inlet air temperature D.B. [°C]	[°C]	27	20	20	20
Inlet air temperature W.B. [°C]	[°C]	19	15	15	15
Water inlet temperature [°C]	[°C]	7	45	70	65
Water outlet temperature[°C]	[°C]	12	40	60	55
Water flow rate [l/h]	[l/h]	depending on the Dtw constant	same as Cooling test	Water flow rate depending on the ΔTw constant	Water flow rate depending on the ΔTw constant

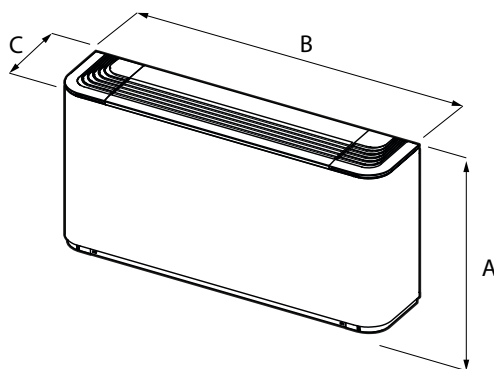
Mod		FCZ	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001	
Water heating capacity 20 C° air 45/40°C	W ( vel 3)	4980	-	-	5720	5470	-	-	6220	5970	-	-	6970	7530	-	8510	8470	8470		
	W ( vel 2)	4030	-	-	4550	4880	-	-	5620	5370	-	-	6140	6640	-	7170	7580	7580		
	W ( vel 1)	2840	-	-	3090	4030	-	-	4530	4880	-	-	5620	5360	-	5570	7580	6250		
Water flow rate	l/h (vel 3)	856	-	-	984	941	-	-	1070	1027	-	-	1199	1295	-	1463	1457	-		
	l/h (vel 2)	693	-	-	782	839	-	-	966	923	-	-	1056	1142	-	1233	1304	-		
	l/h (vel 1)	488	-	-	531	693	-	-	779	839	-	-	966	922	-	958	1075	-		
Water pressure drops	kPa ( vel 3)	25	-	-	36	32	-	-	17	35	-	-	24	21	-	32	41	-		
	kPa ( vel 2)	17	-	-	24	26	-	-	14	29	-	-	19	17	-	23	33	-		
	kPa ( vel 1)	9	-	-	12	18	-	-	10	24	-	-	16	11	-	15	24	-		
Water heating capacity 70-60	W ( vel 3)	10000	-	-	11500	11000	-	-	12500	12000	-	-	14000	15140	-	17100	17020	-		
	W ( vel 2)	8100	-	-	9150	9800	-	-	11300	10800	-	-	12350	13350	-	14420	15240	-		
	W ( vel 1)	6500	-	-	7190	8100	-	-	9100	9800	-	-	11300	10770	-	11200	12560	-		
Water flow rate 70°C main coil	l/h (vel 3)	877	-	-	1008	964	-	-	1096	1052	-	-	1228	1328	-	1500	1493	-		
	l/h (vel 2)	710	-	-	802	859	-	-	991	947	-	-	1083	1171	-	1264	1337	-		
	l/h (vel 1)	570	-	-	631	710	-	-	798	859	-	-	991	945	-	982	1101	-		
Water pressure drops	kPa ( vel 3)	26	-	-	31	29	-	-	18	32	-	-	25	22	-	33	38	-		
	kPa ( vel 2)	18	-	-	20	23	-	-	15	27	-	-	20	17	-	24	31	-		
	kPa ( vel 1)	12	-	-	13	17	-	-	10	22	-	-	17	12	-	15	23	-		
Power with secondary coil water 65-55°C air 20°C	W ( vel 3)	-	4361	7596	-	-	4951	8802	-	-	5335	9607	-	-	5728	-	-	6086		
	W ( vel 2)	-	3673	6238	-	-	4290	7480	-	-	4790	8499	-	-	5630	-	-	5567		
	W ( vel 1)	-	2529	4593	-	-	3664	6238	-	-	4209	7310	-	-	4736	-	-	4853		
Secondary coil water flow rate	l/h (vel 3)	-	375	653	-	-	426	757	-	-	459	826	-	-	493	-	-	523		
	l/h (vel 2)	-	316	536	-	-	369	643	-	-	412	731	-	-	484	-	-	479		
	l/h (vel 1)	-	217	395	-	-	315	536	-	-	362	629	-	-	407	-	-	417		
Water pressure drops	kPa ( vel 3)	-	15,6	12,2	-	-	20,4	16,3	-	-	22,9	18,8	-	-	11,8	-	-	15,0		
	kPa ( vel 2)	-	11,5	9	-	-	15,5	12,2	-	-	18,8	14,7	-	-	11,0	-	-	12,6		
	kPa ( vel 1)	-	7,4	4,9	-	-	14,7	10,6	-	-	12,3	11,4	-	-	8,7	-	-	10,3		
Total cooling capacity water 7-12	W ( vel 3)	4650	4650	4650	5670	5500	5500	5500	6140	6100	6100	6100	6910	6910	6910	8600	7620	7620		
	W ( vel 2)	3900	3900	3900	4800	4890	4890	4890	5340	5670	5670	5670	6290	5000	5000	7320	6880	6880		
	W ( vel 1)	2850	2850	2850	3460	3920	3920	3920	4270	4840	4840	4840	5260	4290	4290	5770	5690	5690		
Sensitive cooling capacity water 7-12	W ( vel 3)	3920	3920	3920	4125	4305	4305	4305	4720	4830	4830	4830	5360	5680	5680	5780	5530	5530		
	W ( vel 2)	3170	3170	3170	3435	3760	3760	3760	4055	4420	4420	4420	4835	3780	3780	4870	5350	5350		
	W ( vel 1)	2280	2280	2280	2420	2990	2990	2990	3200	3720	3720	3720	4000	2970	2970	2800	4420	4420		
Water flow rate	l/h (vel 3)	800	800	800	984	941	941	941	1056	1049	1049	1049	1189	1189	1189	1479	1311	1311		
	l/h (vel 2)	671	671	671	825	841	841	841	918	975	975	975	1082	860	860	1259	1183	1183		
	l/h (vel 1)	490	490	490	595	674	674	674	734	832	832	832	905	738	738	992	979	979		
Water pressure drops	kPa ( vel 3)	26	26	26	33	35	35	35	18	35	35	35	24	22	22	30	37	37		
	kPa ( vel 2)	19	19	19	24	28	28	28	14	31	31	31	19	12	12	22	31	31		
	kPa ( vel 1)	11	11	11	14	19	19	19	9	23	23	23	16	9	9	15	22	22		
Air flow rate	m³/h ( vel 3)	920	920	920	920	1140	1140	1140	1140	1300	1300	1300	1300	1140	1140	1140	1300	1300		
	m³/h ( vel 2)	720	720	720	720	930	930	930	930	1120	1120	1120	1120	930	930	930	1120	1120		
	m³/h ( vel 1)	400	400	400	400	700	700	700	700	900	900	900	900	700	700	700	900	900		
Number of centrifugal fans	n.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
Input power	W ( vel 3)	82	82	82	82	106	106	106	106	131	131	131	131	106	106	106	131	131		
	W ( vel 2)	61	61	61	61	80	80	80	80	100	100	100	100	80	80	80	100	100		
	W ( vel 1)	40	40	40	40	59	59	59	59	80	80	80	80	59	59	59	80	80		
Sound power level	dB(A) ( vel 3)	62	62	62	62	61	61	61	61	66	66	66	66	61	61	61	66	66		
	dB(A) ( vel 2)	57	57	57	57	57	57	57	57	61	61	61	61	57	57	57	61	61		
	dB(A) ( vel 1)	51	51	51	51	51	51	51	51	56	56	56	56	51	51	51	56	56		
Main coil connections	ø	3/4"																		
	φ Gas (Femmina)	1/2"																		
Protection rating		IP20																		
REFERENCE CONDITIONS [°C]					COOLING EUROVENT					HEATING 45°C EUROVENT					HEATING 70°C			HEATING 70°C EUROVENT SECONDARY COIL		
Inlet air temperature D.B. [°C]			[°C]		27					20					20			20		
Inlet air temperature W.B. [°C]			[°C]		19					15					15			15		
Water inlet temperature [°C]			[°C]		7					45					70			65		
Water outlet temperature [°C]			[°C]		12					40					60			55		
Water flow rate [l/h]			[l/h]		depending on the Dtw constant					same as Cooling test			Water flow rate depending on the ΔTw constant			Water flow rate depending on the ΔTw constant				

Mod	FCZPH	200	250	300	350	400	450	500	550	600	650	700	750	900	950
Performances in heating systems with 2 pipes															
Water heating capacity air (70 °C)	W ( vel 3)	3319	3601	5453	6096	6740	7404	7585	8672	10000	11509	10523	12092	14446	15995
	W ( vel 2)	2997	3239	5030	5593	6016	6619	7223	8249	8551	9718	10100	11649	13802	15070
	W ( vel 1)	2113	2294	3501	3803	4487	4789	5271	5815	6861	7625	8772	10020	11810	12434
Water flow.	l/h (vel 3)	285	310	469	524	580	637	652	746	860	990	905	1040	1242	1375
	l/h (vel 2)	258	279	433	481	517	569	621	709	735	836	868	1002	1187	1296
	l/h (vel 1)	182	197	301	327	386	412	453	500	590	656	754	862	1016	1069
Perdite di carico acqua	kPa ( vel 3)	15	19	18	21	22	15	23	21	26	31	27	16	20	29
	kPa ( vel 2)	12	16	15	18	18	12	21	19	20	23	25	15	18	26
	kPa ( vel 1)	7	9	8	9	11	7	12	10	13	15	19	12	14	19
water heating capacity. 45 °C	W ( vel 3)	1650	1790	2710	3030	3350	3680	3770	4310	4970	5720	5230	6010	7180	7950
	W ( vel 2)	1490	1610	2500	2780	2990	3290	3590	4100	4250	4830	5020	5790	6860	7490
	W ( vel 1)	1050	1140	1740	1890	2230	2380	2620	2890	3410	3790	4360	4980	5870	6180
Water flow. 45 °C	l/h (vel 3)	284	308	466	521	576	633	648	741	855	984	899	1034	1235	1367
	l/h (vel 2)	256	277	430	478	514	566	617	705	731	831	863	996	1180	1288
	l/h (vel 1)	181	196	299	325	383	409	451	497	586	652	750	856	1009	1063
Water pressure drops.	kPa ( vel 3)	14,5	18,5	17,5	20,5	21,5	15	22,5	21	25,5	31	26,5	16,3	19,8	29
	kPa ( vel 2)	12	15,5	15	17,5	17,5	12	20,5	19	19,5	22,6	24,5	15,3	18,2	26
	kPa ( vel 1)	6,5	8,5	8	9	10,5	7	12	10	13	14,5	19	12	14	18,5
Cooling performance.															
Total cooling capacity.	W ( vel 3)	1440	1740	2630	3000	3410	3790	3820	4280	4650	5670	5180	5800	5950	8070
	W ( vel 2)	1300	1590	2400	2770	3060	3370	3650	4080	4080	5020	4970	5530	5330	7620
	W ( vel 1)	930	1110	1700	1910	2290	2510	2680	2910	3370	4150	4240	4690	4380	6350
Sensible cooling capacity.	l/h (vel 3)	1180	1360	2030	2160	2520	2730	2830	3090	3920	4120	4020	4410	4730	5400
	l/h (vel 2)	1140	1230	1860	1990	2240	2420	2700	2940	3340	3600	3830	4200	4110	5080
	l/h (vel 1)	740	830	1270	1340	1660	1760	1940	2070	2700	2930	3240	3530	3110	4200
Water flow.	kPa ( vel 3)	248	299	452	516	586	652	657	736	800	975	891	997	1023	1388
	kPa ( vel 2)	224	273	413	476	526	580	628	702	702	863	855	951	917	1310
	kPa ( vel 1)	160	191	292	328	394	432	461	500	580	714	729	807	753	1092
load losses.	W ( vel 3)	15	21	18	25	22	20	24	23	26	28	28	17	17	27
	W ( vel 2)	13	17,5	16	21,5	18	16	22	21	21	22,5	26	15,5	14	24
	W ( vel 1)	8	9,5	8,5	11	11	11	13	12	15	16	19,5	11,5	10	17,5
Fan.															
Air flow.	m3/h ( vel 3)	254	254	446	446	559	559	627	627	920	920	1050	1050	1050	1050
	m3/h ( vel 2)	226	226	404	404	487	487	592	592	770	770	978	978	978	978
	m3/h ( vel 1)	148	148	263	263	346	346	400	400	567	567	785	785	785	785
static pressure.	W ( vel 3)	63.0	63.0	61.0	61.0	66.0	66.0	56.0	56.0	71.0	71.0	58.0	58.0	58.0	58.0
	W ( vel 2)	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	W ( vel 1)	21	21	21	21	25	25	22	22	27	27	32	32	32	32
sound levels.															
Sound Power Level (Inlet + radiator).	dB(A) ( vel 3)	59	59	54	54	55	55	57	57	61	61	62	62	62	62
	dB(A) ( vel 2)	56	56	51	51	54	54	55	55	56	56	60	60	60	60
	dB(A) ( vel 1)	41	41	39	39	44	44	45	45	46	46	54	54	54	54
Sound Power Level (Outlet).	dB(A) ( vel 3)	55	55	49	49	52	52	53	53	60	60	61	61	61	61
	dB(A) ( vel 2)	52	52	47	47	50	50	51	51	54	54	59	59	59	59
	dB(A) ( vel 1)	37	37	35	35	40	40	41	41	44	44	52	52	52	52
REFERENCE CONDITIONS [°C]															
COOLING EUROVENT				HEATING 45°C EUROVENT				HEATING 70°C				HEATING 70°C EUROVENT			
												SECONDARY COIL			
Inlet air temperature D.B. [°C]	[°C]	27				20				20				20	
Inlet air temperature W.B. [°C]	[°C]	19				15				15				15	
Water inlet temperature [°C]	[°C]	7				45				70				65	
Water outlet temperature [°C]	[°C]	12				40				60				55	
Water flow rate [l/h]	[l/h]	depending on the Dtw constant				same as Cooling test				Water flow rate depending on the ΔTw constant				Water flow rate depending on the ΔTw constant	

Mod	FCZPH	201	202	301	302	401	402	501	502	601	602	701	702	901
Performances in heating systems with 4 pipes														
Water heating capacity. (65-55°C)	W ( vel 3)	1480	2470	2550	4300	2990	5025	3340	5840	4350	7590	4600	8130	5770
	W ( vel 2)	1370	2270	2390	404	2750	4540	3300	5600	3850	6560	4400	7700	5710
	W ( vel 1)	1060	1645	1820	2880	2190	3480	2590	4170	3130	5370	4130	7070	5160
Water flow.	l/h (vel 3)	127	212	219	370	257	287	502	374	396	496	396	699	496
	l/h (vel 2)	118	195	206	35	236	284	482	331	378	491	378	662	491
	l/h (vel 1)	91	141	156	248	188	223	359	269	355	444	355	608	444
Water pressure drops.	kPa ( vel 3)	9	6,5	13,5	23	8	9	6,5	16	16,5	12,1	16,5	14,7	12,1
	kPa ( vel 2)	8	5,5	12	20	7	8,5	6	13	15	12,1	15	13,3	12,1
	kPa ( vel 1)	5	3,1	8	11	5	5,5	3,5	9	15,5	10	15,5	11,4	10
Cooling performance.														
total cooling capacity.	W ( vel 3)	1440	1440	2630	2630	3410	3820	3820	4650	5180	5950	5180	5180	5950
	W ( vel 2)	1310	1310	2440	2440	3060	3650	3650	4080	4970	5330	4970	4970	5330
	W ( vel 1)	930	930	1700	1700	2290	2680	2680	3370	4240	4380	4240	4240	4380
sensible cooling capacity.	l/h (vel 3)	1180	1180	2030	2030	2520	2830	2830	3920	4020	4730	4020	4020	4730
	l/h (vel 2)	1070	1070	1860	1860	2240	2700	2700	3340	3830	4110	3830	3830	4110
	l/h (vel 1)	740	740	1270	1270	1660	1940	1940	2700	3240	3110	3240	3240	3110
Water flow.	kPa ( vel 3)	248	248	452	452	586	657	657	800	891	1023	891	891	1023
	kPa ( vel 2)	225	225	420	420	526	628	628	702	855	917	855	855	917
	kPa ( vel 1)	160	160	292	292	394	461	461	580	729	753	729	729	753
Water pressure drops.	W ( vel 3)	15	15	18	18	22	24	24	26	28	17	28	28	17
	W ( vel 2)	13	13	16	16	18	22	22	21	26	14,6	26	26	14,6
	W ( vel 1)	7	7	8,5	8,5	11	13	13	15	19,5	10	19,5	19,5	10
Fan.														
Air flow.	m3/h ( vel 3)	254	254	446	446	559	627	627	920	1050	1050	1050	1050	1050
	m3/h ( vel 2)	226	226	404	404	487	592	592	770	978	978	978	978	978
	m3/h ( vel 1)	148	148	263	263	346	400	400	567	785	785	785	785	785
static pressure.	W ( vel 3)	63	63	61	61	66	56	56	71	58	58	58	58	58
	W ( vel 2)	50	50	50	50	50	50	50	50	50	50	50	50	50
	W ( vel 1)	21	21	21	21	25	22	22	27	32	32	32	32	32
sound levels.														
Sound Power Level (Inlet + radiator).	dB(A) ( vel 3)	59	59	54	54	55	57	57	61	62	62	62	62	62
	dB(A) ( vel 2)	56	56	51	51	54	55	55	56	60	60	60	60	60
	dB(A) ( vel 1)	41	41	39	39	44	45	45	46	54	54	54	54	54
Sound Power Level (Outlet).	dB(A) ( vel 3)	55		49	49	52	53	53	60	61	61	61		61
	dB(A) ( vel 2)	52		47	47	50	51	51	54	59	59	59		59
	dB(A) ( vel 1)	37		35	35	40	41	41	44	52	52	52		52

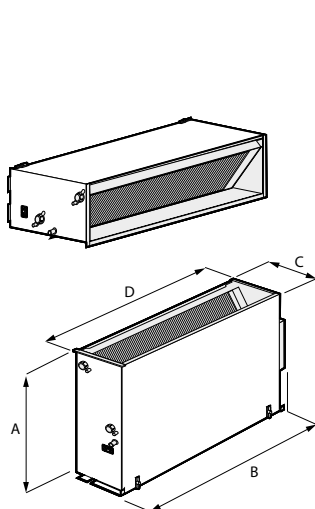
REFERENCE CONDITIONS [°C]		COOLING EUROVENT		HEATING 45°C EUROVENT		HEATING 70°C		HEATING 70°C EUROVENT SECONDARY COIL	
Inlet air temperature D.B. [°C]	[°C]	27		20		20		20	
Inlet air temperature W.B. [°C]	[°C]	19		15		15		15	
Water inlet temperature [°C]	[°C]	7		45		70		65	
Water outlet temperature [°C]	[°C]	12		40		60		55	
Water flow rate [l/h]	[l/h]	depending on the Dtw constant		same as Cooling test		Water flow rate depending on the ΔTw constant		Water flow rate depending on the ΔTw constant	

## 10. DIMENSIONS AND WEIGHTS

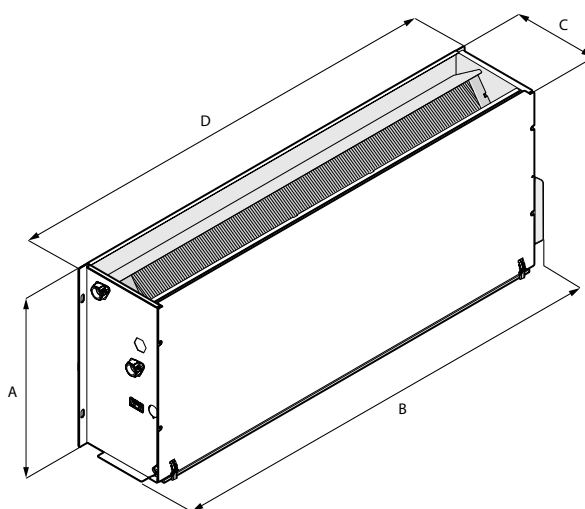


FCZ-A-AS-ACT-APC-U-UA-D			100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
Dimensions for all configurations																						
Height	A	mm	486				486				486				486				486			
Height with feet		mm	576				576				576				576				576			
Height feet		mm	90				90				90				90				90			
Width	B	mm	640				750				980				1200				1200			
Depth	C	mm	220				220				220				220				220			
Weight without feet		kg	13	14	14	14	15	15	16	16	17	18	19	19	23	23	24	24	22	23	24	24

FCZ-A-AS-ACT-APC-U-UA-D			600	601	602	650	700	701	702	750	800	801	802	850	900	901	/	950	1000	1001	/	/
Dimensions for all configurations																						
Height	A	mm	486				486				486				591				591			
Height with feet		mm	576				576				576				681				681			
Height feet		mm	90				90				90				90				90			
Width	B	mm	1320				1320				1320				1320				1320			
Depth	C	mm	220				220				220				220				220			
Weight without feet		kq	29	31	33	33	29	31	33	33	29	29	31	33	34			34				



100-200-300-400-500

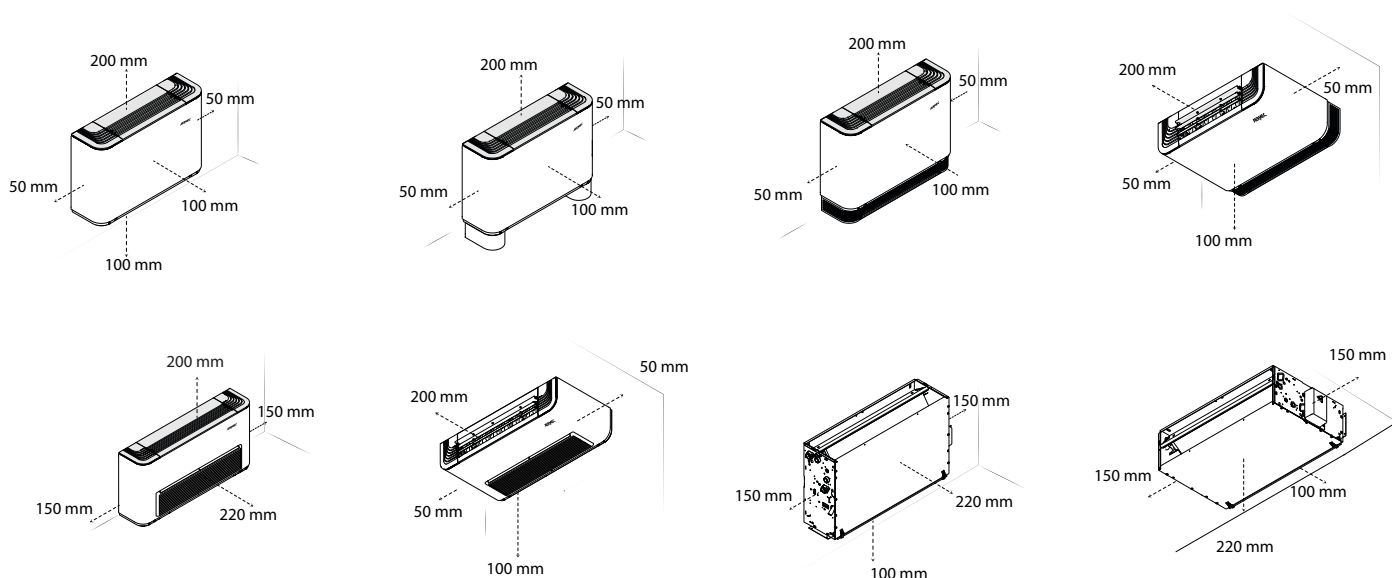


600-700-800-900-1000

FCZ_P / PO / PPC			100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
Dimensions for all configurations																						
Height	A	mm	453				453				453				453				453			
Width	B*	mm	452				562				793				1013				1013			
	D	mm	412				522				753				973				973			
Depth	C	mm	216				216				216				216				216			
Weight		kg	12	12	13	13	12	13	14	14	14	15	16	16	20	21	22	22	23	23	24	24
FCZ_P / PO / PPC			600	601	602	650	700	701	702	750	800	801	802	850	900	901	/	950	1000	1001	/	/
Dimensions for all configurations																						
Height	A	mm	453				453				453				558				558			
Width	B*	mm	1147				1147				1147				1147				1147			
	D	mm	1122				1122				1122				1122				1122			
Depth	C	mm	216				216				216				216				216			
Weight		kg	29	30	31	31	26	27	28	28	26	27	28	28	32				32			



## MINIMUM TECHNICAL SPACES



## 11. TECHNICAL DATA - ELECTRIC HEATER RX

RXZ Electrical Resistance			
	W	Voltage	A
RX17	700	230	3,0
RX22	950	230	4,1
RX32	1300	230	5,7
RX42	1650	230	7,2
RX52	1950	230	8,5
RX62	2200	230	9,6
RXZ800	2100	230	9,1

## 12. COOLING POWER YIELDED

The table shows the sensitive and total cooling capacities at maximum speed depending on the temperature of the water entering, of its heat drop and temperature of the air with dry bulb and wet bulb respectively for sensitive yield and total yield for standard coil versions. The performances at medium and minimum speed are obtained by multiplying the values in the table by the corrective factors indicated for each speed.

**NB: The yield values marked in bold indicate the nominal value.**

### Key:

**T<sub>w</sub> [°C]** = Inlet water temperature.

**T<sub>a</sub> B.U. [°C]** = Inlet air temperature with wet bulb.

**T<sub>a</sub> B.S. [°C]** = Inlet air temperature with dry bulb.

**P<sub>c</sub> [w]** = Total cooling capacity.

**P<sub>s</sub> [w]** = Sensitive cooling capacity.

**Q<sub>v</sub> [m<sup>3</sup>/h]** = Air flow rate.

**H** = maximum speed.

**M** = medium speed.

**L** = minimum speed.

**NB: The yield values marked in bold indicate the nominal value.**

To calculate the cooling capacity yielded, the values shown in the table must be multiplied by the corrective factors referred to the different speeds.

Sensitive yield values greater than the total yield indicate that cooling occurs without dehumidification.

In this case take into account the sensitive yield values only.

The cooling capacities of the table must be multiplied by the following corrective factors:																				
		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Total cooling capacity corrective values	H	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	M	0.84	0.81	0.79	0.77	0.81	0.77	0.82	0.81	0.84	0.87	0.84	0.90	0.82	0.72	0.85	0.90	0.72	0.85	0.90
	L	0.65	0.56	0.58	0.65	0.63	0.65	0.61	0.60	0.60	0.62	0.60	0.66	0.62	0.62	0.67	0.75	0.62	0.67	0.75
Sensitive cooling capacity correc- tive values	H	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	M	0.83	0.81	0.79	0.83	0.81	0.83	0.81	0.80	0.85	0.86	0.88	0.83	0.82	0.67	0.84	0.97	0.67	0.84	0.97
	L	0.61	0.54	0.55	0.58	0.59	0.58	0.60	0.59	0.60	0.61	0.61	0.61	0.61	0.52	0.66	0.80	0.52	0.48	0.80

COOLING POWER (100 - 101 - 102 STANDARD BATTERY)

FCZ100-101-102			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	788	695	629	601	455	697	339	339	264	264
		23	783	783	626	689	485	485	412	412	338	338
		25	780	780	624	777	556	556	483	483	410	410
		27	768	768	698	878	626	626	553	553	481	481
		29	838	838	766	964	694	694	623	623	551	551
		31	905	905	834	1048	762	762	691	691	620	620
	17	21	991	696	835	603	667	508	479	411	250	250
		23	997	784	842	692	674	598	488	488	338	338
		25	989	871	835	779	669	669	484	484	410	410
		27	986	958	834	866	668	668	553	553	481	481
		29	974	974	822	951	694	694	623	623	551	551
		31	968	968	834	1048	762	762	691	691	620	620
	19	21	1232	692	1078	601	912	508	731	412	530	316
		23	1226	783	1072	692	907	600	727	507	527	408
		25	1220	870	1067	779	903	688	725	595	526	500
		27	1213	957	1061	866	898	775	720	682	523	523
		29	1217	1049	1055	952	893	862	716	716	551	551
		31	1211	1133	1051	1037	890	890	714	714	620	620
	21	21	1466	686	1312	595	1148	503	969	411	775	318
		23	1484	786	1320	689	1156	598	979	504	786	411
		25	1475	876	1313	779	1150	689	974	597	782	503
		27	1466	962	1304	865	1143	776	967	685	777	594
		29	1473	1047	1312	951	1152	862	978	772	789	681
		31	1445	1131	1286	1036	1126	947	953	858	764	764
	23	23	1735	779	1572	683	1409	592	1234	502	1044	411
		25	1742	871	1581	775	1418	686	1244	593	1055	502
		27	1654	961	1494	865	1332	775	1159	686	970	595
		29	1720	1039	1571	950	1411	861	1239	772	1052	683
		31	1696	1123	1548	1035	1388	947	1217	858	1032	769
		31	1696	1123	1548	1035	1388	947	1217	858	1032	769
5	15	21	719	653	539	550	387	387	309	309	228	228
		23	715	715	537	639	462	462	386	386	308	308
		25	713	713	608	764	534	534	460	460	385	385
		27	751	751	678	853	605	605	532	532	458	458
		29	819	819	747	940	675	675	603	603	530	530
		31	887	887	815	1025	744	744	672	672	600	600
	17	21	931	659	762	561	570	457	316	316	228	228
		23	937	748	770	651	580	548	386	386	308	308
		25	931	835	764	739	575	575	460	460	385	385
		27	928	922	763	826	605	605	532	532	458	458
		29	916	916	752	911	675	675	603	603	530	530
		31	912	912	815	1025	744	744	672	672	600	600
	19	21	1178	659	1015	565	835	465	629	363	366	242
		23	1172	751	1010	656	831	559	627	458	364	335
		25	1167	838	1006	745	828	648	625	547	364	364
		27	1161	924	1000	830	823	733	622	622	458	458
		29	1154	1010	995	918	819	819	618	618	530	530
		31	1150	1095	991	1003	817	817	672	672	600	600
	21	21	1416	656	1255	562	1080	468	886	371	661	264
		23	1423	749	1264	657	1090	561	898	464	679	362
		25	1416	839	1257	747	1085	654	894	556	676	454
		27	1407	926	1249	834	1077	742	888	646	671	546
		29	1415	1012	1258	920	1088	828	900	734	685	634
		31	1387	1096	1231	1006	1062	914	875	819	660	660
	23	23	1678	744	1520	653	1349	561	1163	467	956	368
		25	1686	837	1529	746	1359	652	1175	559	970	463
		27	1598	926	1441	835	1272	743	1087	650	881	552
		29	1676	1012	1521	921	1353	831	1171	739	969	644
		31	1651	1096	1497	1007	1331	917	1149	825	948	731
		31	1651	1096	1497	1007	1331	917	1149	825	948	731
7	15	21	614	591	367	457	351	351	256	256	108	108
		23	610	610	508	634	430	430	351	351	259	259
		25	657	657	582	732	506	506	429	429	350	350
		27	728	728	654	823	580	580	505	505	429	429
		29	798	798	725	912	652	652	578	578	504	504
		31	867	867	794	999	722	722	649	649	576	576
	17	21	846	609	649	499	381	363	256	256	108	108
		23	854	698	659	590	396	396	351	351	259	259
		25	848	787	654	678	506	506	429	429	350	350
		27	846	846	654	766	580	580	505	505	429	429
		29	835	835	725	912	652	652	578	578	504	504
		31	831	831	794	999	722	722	649	649	576	576
	19	21	1106	617	926	515	715	404	432	271	108	108
		23	1101	709	922	607	713	499	431	364	259	259
		25	1097	796	918	696	711	588	431	431	350	350
		27	1091	881	913	779	707	668	505	505	429	429
		29	1085	970	909	870	703	703	578	578	504	504
		31	1082	1054	906	956	703	703	649	649	576	576
	21	21	1351	617	1178	520	984	419	757	307	443	171
		23	1360	712	1188	615	996	512	771	404	468	269
		25	1353	802	1182	706	991	606	769	496	467	364
		27	1344	889	1175	793	985	694	763	587	462	455
		29	1354	976	1186	880	997	782	778	676	486	486
		31	1327	1060	1159	965	971	867	751	751	576	576
	23	23	1619	710	1452	615	1268	519	1061	419	819	308
		25	1628	803	1462	709	1280	611	1075	511	835	402
		27	1540	891	1374	798	1190	701	983	601	734	488
		29	1620	978	1456	885	1276	791	1074	693	838	587
		31	1596	1063	1433	971	1253	876	1052	778	816	673
		31	1596	1063	1433	971	1253	876	1052	778	816	673

COOLING POWER (OVERSIZED BATTERY 150)

FCZ150			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
°C	°C	°C	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	1000	812	799	702	578	814	431	431	335	335
		23	994	915	794	805	616	616	523	523	429	429
		25	990	990	792	908	706	706	613	613	521	521
		27	975	975	886	1025	794	794	703	703	611	611
		29	1064	1064	973	1126	882	882	791	791	700	700
		31	1149	1149	1059	1225	968	968	878	878	787	787
	17	21	1259	813	1061	704	847	594	609	481	318	318
		23	1266	915	1070	808	856	698	620	586	429	429
		25	1257	1017	1061	910	850	802	615	615	521	521
		27	1252	1119	1059	1012	848	848	703	703	611	611
		29	1237	1218	1044	1112	882	882	791	791	700	700
		31	1230	1230	1059	1225	968	968	878	878	787	787
	19	21	1565	809	1370	702	1158	594	929	481	674	369
		23	1557	915	1362	808	1152	701	924	592	670	477
		25	1549	1017	1356	911	1147	804	920	696	668	584
		27	1541	1118	1348	1012	1141	906	915	797	664	664
		29	1545	1225	1340	1112	1134	1007	910	899	700	700
		31	1538	1323	1335	1211	1130	1106	907	907	787	787
	21	21	1862	802	1667	695	1458	588	1231	481	984	372
		23	1884	918	1676	804	1469	698	1244	589	999	481
		25	1874	1023	1668	910	1461	804	1237	698	994	587
		27	1862	1123	1656	1011	1451	906	1229	800	986	693
		29	1870	1223	1667	1112	1463	1007	1242	902	1002	795
		31	1835	1322	1633	1211	1430	1107	1210	1002	971	896
	23	23	2204	910	1997	797	1790	692	1567	586	1325	480
		25	2213	1017	2007	906	1801	801	1580	693	1340	587
		27	2101	1122	1897	1010	1692	906	1472	801	1232	695
		29	2185	1213	1995	1110	1792	1006	1573	902	1336	797
		31	2154	1312	1965	1209	1763	1106	1546	1003	1310	898
		31										
5	15	21	913	763	685	642	491	491	393	393	289	289
		23	908	867	681	746	586	586	490	490	392	392
		25	905	905	772	893	678	678	584	584	489	489
		27	954	954	861	996	769	769	676	676	582	582
		29	1040	1040	949	1098	858	858	766	766	673	673
		31	1127	1127	1036	1198	945	945	854	854	762	762
	17	21	1183	769	968	656	723	534	401	388	289	289
		23	1190	873	978	760	736	640	490	490	392	392
		25	1182	976	971	863	730	730	584	584	489	489
		27	1179	1077	969	965	769	769	676	676	582	582
		29	1164	1164	955	1064	858	858	766	766	673	673
		31	1158	1158	1036	1198	945	945	854	854	762	762
	19	21	1497	770	1289	660	1060	543	799	424	465	282
		23	1489	877	1282	767	1055	653	796	535	463	391
		25	1482	979	1277	870	1051	757	794	639	463	463
		27	1474	1080	1270	970	1045	856	790	735	582	582
		29	1466	1180	1263	1072	1040	960	785	785	673	673
		31	1460	1279	1259	1171	1037	1037	854	854	762	762
	21	21	1798	766	1594	657	1371	547	1125	434	839	308
		23	1807	875	1605	767	1384	655	1141	542	862	423
		25	1798	980	1597	873	1378	764	1135	649	858	530
		27	1786	1081	1586	975	1368	866	1127	755	852	637
		29	1797	1182	1598	1075	1382	967	1143	857	870	741
		31	1762	1281	1564	1175	1349	1067	1111	957	838	838
	23	23	2131	869	1930	762	1713	655	1477	545	1214	430
		25	2141	977	1942	871	1726	762	1492	653	1232	541
		27	2029	1081	1831	976	1616	868	1381	760	1119	645
		29	2128	1182	1931	1076	1719	970	1487	864	1231	752
		31	2097	1280	1902	1176	1690	1071	1459	963	1204	854
		31										
7	15	21	779	691	466	534	445	445	325	325	137	137
		23	775	775	645	741	547	547	445	445	329	329
		25	834	834	739	855	643	643	545	545	444	444
		27	924	924	831	961	737	737	641	641	544	544
		29	1013	1013	921	1065	828	828	734	734	640	640
		31	1101	1101	1009	1167	917	917	825	825	732	732
	17	21	1075	711	824	583	483	424	325	325	137	137
		23	1085	816	837	689	504	504	445	445	329	329
		25	1077	919	830	792	643	643	545	545	444	444
		27	1075	1020	830	894	737	737	641	641	544	544
		29	1060	1060	921	1065	828	828	734	734	640	640
		31	1055	1055	1009	1167	917	917	825	825	732	732
	19	21	1405	721	1176	602	909	472	549	317	137	137
		23	1398	828	1170	710	905	583	547	426	329	329
		25	1393	930	1166	813	903	687	547	533	444	444
		27	1385	1029	1159	911	898	780	641	641	544	544
		29	1378	1133	1154	1016	893	892	734	734	640	640
		31	1374	1232	1151	1116	892	892	825	825	732	732
	21	21	1715	721	1496	607	1249	489	961	359	563	200
		23	1727	831	1509	718	1265	598	980	472	595	315
		25	1718	937	1501	825	1258	708	976	580	593	426
		27	1707	1038	1492	927	1251	811	969	686	587	532
		29	1719	1140	1506	1028	1266	913	988	790	617	617
		31	1685	1238	1472	1128	1233	1012	954	889	732	732
	23	23	2057	829	1844	719	1610	606	1348	489	1040	360
		25	2068	938	1857	828	1625	714	1365	597	1061	470
		27	1956	1041	1744	932	1512	819	1249	702	932	570
		29	2057	1142	1849	1034	1620	924	1364	809	1064	686
		31	2027	1242	1820	1134	1592	1024	1336	909	1037	786
		31										

COOLING POWER (STANDARD BATTERY 200-201-202)

FCZ 200-201-202			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	1260	1114	1007	963	728	1116	542	542	422	422
		23	1252	1252	1001	1104	777	777	659	659	540	540
		25	1247	1247	998	1245	890	890	773	773	656	656
		27	1229	1229	1116	1406	1001	1001	885	885	770	770
		29	1340	1340	1226	1544	1111	1111	996	996	881	881
		31	1447	1447	1333	1680	1219	1219	1106	1106	992	992
	17	21	1586	1115	1337	966	1066	814	767	659	400	400
		23	1594	1256	1347	1108	1079	958	781	781	540	540
		25	1583	1396	1337	1248	1070	1070	774	774	656	656
		27	1578	1534	1333	1388	1068	1068	885	885	770	770
		29	1558	1558	1315	1525	1111	1111	996	996	881	881
		31	1549	1549	1333	1680	1219	1219	1106	1106	992	992
	19	21	1972	1109	1725	963	1459	814	1170	660	848	506
		23	1961	1255	1715	1108	1451	961	1164	812	844	654
		25	1952	1395	1708	1249	1445	1103	1159	954	842	801
		27	1941	1533	1698	1388	1437	1242	1152	1093	836	836
		29	1946	1681	1688	1526	1428	1381	1146	1146	881	881
		31	1938	1815	1682	1662	1424	1424	1143	1143	992	992
	21	21	2345	1100	2099	953	1836	807	1551	659	1239	510
		23	2373	1260	2112	1104	1850	958	1567	808	1258	659
		25	2360	1403	2101	1248	1840	1104	1558	957	1252	806
		27	2345	1541	2086	1387	1828	1243	1548	1098	1242	951
		29	2356	1678	2099	1525	1842	1381	1565	1237	1262	1091
		31	2311	1813	2056	1661	1801	1518	1524	1374	1223	1223
	23	23	2776	1248	2516	1094	2255	949	1974	804	1669	658
		25	2787	1396	2529	1242	2269	1099	1991	950	1688	805
		27	2646	1539	2389	1386	2131	1242	1854	1099	1552	953
		29	2752	1664	2513	1523	2258	1380	1981	1237	1683	1094
		31	2713	1799	2476	1659	2221	1517	1947	1375	1650	1232
5	15	21	1150	1047	863	881	619	619	495	495	364	364
		23	1144	1144	858	1024	738	738	617	617	493	493
		25	1140	1140	972	1225	855	855	736	736	616	616
		27	1201	1201	1085	1367	969	969	852	852	733	733
		29	1311	1311	1196	1506	1080	1080	965	965	848	848
		31	1419	1419	1304	1643	1190	1190	1076	1076	960	960
	17	21	1490	1055	1219	899	911	732	505	505	364	364
		23	1500	1198	1232	1043	927	878	617	617	493	493
		25	1489	1339	1223	1184	920	920	736	736	616	616
		27	1485	1477	1220	1323	969	969	852	852	733	733
		29	1466	1466	1203	1460	1080	1080	965	965	848	848
		31	1458	1458	1304	1643	1190	1190	1076	1076	960	960
	19	21	1885	1056	1623	905	1336	745	1007	581	585	387
		23	1875	1203	1615	1051	1329	896	1003	733	583	537
		25	1867	1343	1609	1193	1324	1039	1000	876	583	583
		27	1857	1481	1600	1330	1317	1175	995	995	733	733
		29	1847	1619	1591	1471	1310	1310	989	989	848	848
		31	1839	1755	1586	1607	1307	1307	1076	1076	960	960
	21	21	2265	1051	2008	901	1727	750	1418	595	1057	423
		23	2276	1201	2021	1052	1744	898	1437	743	1086	580
		25	2265	1344	2011	1197	1735	1048	1430	891	1081	728
		27	2250	1483	1998	1337	1724	1188	1420	1035	1073	874
		29	2263	1621	2013	1475	1741	1327	1440	1176	1096	1016
		31	2219	1757	1970	1611	1699	1464	1399	1313	1056	1056
	23	23	2684	1192	2431	1046	2158	898	1860	748	1529	590
		25	2697	1341	2446	1195	2174	1045	1879	895	1552	742
		27	2556	1483	2306	1339	2035	1191	1739	1042	1409	885
		29	2681	1621	2433	1476	2165	1331	1873	1184	1550	1032
		31	2642	1756	2395	1613	2129	1469	1838	1321	1516	1171
		21	982	947	587	732	561	561	409	409	173	173
7	15	23	976	976	812	1016	689	689	561	561	414	414
		25	1050	1050	931	1173	810	810	687	687	559	559
		27	1164	1164	1047	1318	928	928	808	808	685	685
		29	1276	1276	1160	1461	1043	1043	925	925	806	806
		31	1386	1386	1271	1601	1155	1155	1039	1039	922	922
		21	1354	975	1038	800	609	582	409	409	173	173
	17	23	1366	1119	1054	945	634	634	561	561	414	414
		25	1357	1261	1046	1086	810	810	687	687	559	559
		27	1354	1354	1046	1227	928	928	808	808	685	685
		29	1336	1336	1160	1461	1043	1043	925	925	806	806
		31	1329	1329	1271	1601	1155	1155	1039	1039	922	922
	19	21	1770	989	1481	826	1145	648	692	435	173	173
		23	1761	1135	1474	973	1140	800	689	584	414	414
		25	1754	1276	1468	1115	1137	943	689	689	559	559
		27	1745	1412	1460	1249	1131	1070	808	808	685	685
		29	1736	1554	1454	1394	1125	1125	925	925	806	806
		31	1731	1689	1450	1531	1124	1124	1039	1039	922	922
	21	21	2161	989	1884	833	1574	671	1210	492	709	274
		23	2175	1140	1900	985	1593	820	1234	648	749	432
		25	2164	1285	1891	1131	1585	971	1229	795	747	584
		27	2151	1424	1880	1271	1575	1112	1221	941	740	730
		29	2166	1563	1897	1410	1595	1253	1245	1083	777	777
		31	2122	1698	1854	1547	1553	1389	1202	1202	922	922
	23	23	2590	1137	2323	986	2028	832	1698	671	1310	493
		25	2605	1287	2340	1136	2047	979	1720	819	1337	645
		27	2463	1428	2197	1278	1904	1124	1573	963	1174	782
		29	2591	1567	2329	1419	2041	1267	1718	1110	1340	941
		31	2553	1704	2292	1556	2005	1404	1683	1247	1306	1078

COOLING POWER ( OVERSIZED BATTERY 250)

FCZ 250			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
°C	°C	°C	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	1528	1273	1221	1100	882	1276	658	658	511	511
		23	1519	1435	1214	1262	942	942	799	799	655	655
		25	1512	1512	1210	1423	1079	1079	937	937	795	795
		27	1490	1490	1354	1607	1214	1214	1073	1073	933	933
		29	1625	1625	1486	1765	1347	1347	1208	1208	1069	1069
		31	1755	1755	1617	1920	1479	1479	1341	1341	1202	1202
	17	21	1923	1274	1621	1104	1293	931	930	753	485	485
		23	1934	1435	1634	1267	1308	1095	947	919	655	655
		25	1920	1595	1621	1426	1298	1257	939	939	795	795
		27	1913	1754	1617	1586	1295	1295	1073	1073	933	933
		29	1889	1889	1595	1742	1347	1347	1208	1208	1069	1069
		31	1879	1879	1617	1920	1479	1479	1341	1341	1202	1202
	19	21	2391	1268	2092	1100	1769	931	1419	754	1029	578
		23	2378	1434	2080	1267	1760	1098	1411	929	1023	748
		25	2367	1594	2071	1427	1753	1260	1406	1090	1021	915
		27	2354	1752	2059	1586	1742	1420	1397	1249	1014	1014
		29	2360	1921	2047	1744	1732	1578	1390	1390	1069	1069
		31	2350	2074	2039	1899	1727	1727	1386	1386	1202	1202
	21	21	2844	1257	2546	1089	2227	922	1881	753	1503	583
		23	2878	1440	2561	1261	2243	1095	1900	923	1525	753
		25	2862	1604	2548	1426	2231	1261	1890	1094	1518	921
		27	2844	1761	2530	1585	2216	1421	1877	1255	1507	1087
		29	2857	1918	2546	1742	2234	1578	1897	1414	1530	1247
		31	2803	2072	2494	1898	2184	1735	1848	1571	1483	1404
	23	23	3366	1426	3051	1250	2734	1085	2394	919	2024	752
		25	3380	1595	3066	1420	2752	1256	2414	1086	2048	920
		27	3209	1759	2897	1584	2585	1420	2248	1256	1882	1089
		29	3337	1902	3048	1740	2738	1577	2403	1414	2041	1250
		31	3290	2056	3002	1896	2693	1734	2361	1572	2001	1408
5	15	21	1394	1196	1047	1007	751	751	600	600	442	442
		23	1387	1359	1041	1170	895	895	749	749	598	598
		25	1382	1382	1179	1400	1036	1036	893	893	747	747
		27	1457	1457	1316	1562	1175	1175	1033	1033	889	889
		29	1589	1589	1450	1722	1310	1310	1170	1170	1028	1028
		31	1721	1721	1582	1878	1444	1444	1304	1304	1164	1164
	17	21	1806	1206	1479	1028	1105	837	612	608	442	442
		23	1818	1369	1494	1192	1124	1003	749	749	598	598
		25	1805	1530	1483	1353	1115	1115	893	893	747	747
		27	1801	1689	1480	1512	1175	1175	1033	1033	889	889
		29	1778	1778	1458	1669	1310	1310	1170	1170	1028	1028
		31	1768	1768	1582	1878	1444	1444	1304	1304	1164	1164
	19	21	2286	1207	1969	1034	1620	851	1221	664	710	443
		23	2274	1375	1959	1202	1612	1024	1216	838	707	614
		25	2264	1535	1951	1364	1606	1187	1213	1001	707	707
		27	2252	1693	1940	1520	1597	1343	1206	1152	889	889
		29	2240	1850	1930	1681	1588	1506	1200	1200	1028	1028
		31	2230	2006	1923	1836	1585	1585	1304	1304	1164	1164
	21	21	2746	1201	2435	1030	2095	857	1719	680	1282	484
		23	2760	1372	2451	1203	2114	1027	1742	849	1317	663
		25	2746	1537	2439	1368	2104	1197	1734	1018	1311	832
		27	2729	1695	2423	1528	2090	1358	1722	1183	1302	999
		29	2744	1853	2441	1685	2111	1517	1746	1344	1330	1161
		31	2692	2008	2389	1842	2061	1673	1697	1500	1280	1280
	23	23	3255	1362	2949	1195	2617	1027	2255	855	1855	674
		25	3270	1532	2966	1366	2637	1194	2279	1023	1882	848
		27	3100	1695	2796	1530	2468	1361	2109	1191	1709	1011
		29	3251	1853	2950	1687	2626	1521	2271	1354	1880	1180
		31	3204	2007	2905	1844	2582	1679	2229	1510	1839	1338
7	15	21	1190	1083	712	837	680	680	496	496	210	210
		23	1184	1184	985	1161	835	835	680	680	502	502
		25	1274	1274	1129	1340	983	983	833	833	678	678
		27	1412	1412	1269	1507	1125	1125	980	980	831	831
		29	1548	1548	1407	1670	1265	1265	1122	1122	977	977
		31	1681	1681	1541	1830	1401	1401	1260	1260	1118	1118
	17	21	1642	1115	1259	914	739	665	496	496	210	210
		23	1657	1279	1278	1081	769	769	680	680	502	502
		25	1646	1441	1268	1241	983	983	833	833	678	678
		27	1642	1599	1268	1402	1125	1125	980	980	831	831
		29	1620	1620	1407	1670	1265	1265	1122	1122	977	977
		31	1612	1612	1541	1830	1401	1401	1260	1260	1118	1118
	19	21	2146	1130	1796	944	1388	740	839	497	210	210
		23	2136	1298	1788	1112	1382	914	836	667	502	502
		25	2127	1458	1780	1274	1379	1077	836	836	678	678
		27	2116	1614	1771	1427	1371	1223	980	980	831	831
		29	2105	1776	1763	1593	1365	1365	1122	1122	977	977
		31	2099	1931	1758	1750	1363	1363	1260	1260	1118	1118
	21	21	2620	1130	2285	952	1908	767	1468	563	860	313
		23	2638	1303	2305	1126	1932	937	1497	740	908	493
		25	2625	1468	2293	1293	1922	1109	1491	909	906	667
		27	2608	1628	2280	1453	1910	1271	1481	1075	897	834
		29	2627	1787	2300	1611	1934	1432	1510	1238	943	943
	23	31	2574	1941	2248	1768	1883	1587	1458	1393	1118	1118
		23	3141	1300	2817	1127	2460	951	2059	767	1588	564
		25	3159	1470	2837	1299	2483	1119	2086	936	1621	737
		27	2987	1632	2665	1461	2309	1284	1908	1100	1424	893
		29	3142	1791	2824	1621	2475	1448	2083	1269	1625	1075
		31	3096	1947	2780	1778	2432	1605	2041	1425	1584	1233



COOLING POWER (STANDARD BATTERY 300-301-302)

FCZ300-301-302			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	2087	1713	1668	1480	1205	1716	899	899	698	698
		23	2075	1930	1658	1698	1286	1286	1091	1091	895	895
		25	2066	2066	1653	1914	1474	1474	1280	1280	1086	1086
		27	2035	2035	1849	2162	1658	1658	1466	1466	1275	1275
		29	2220	2220	2030	2373	1840	1840	1650	1650	1460	1460
		31	2398	2398	2209	2582	2020	2020	1831	1831	1642	1642
	17	21	2627	1714	2214	1485	1767	1252	1270	1013	663	663
		23	2641	1930	2232	1704	1787	1473	1294	1236	895	895
		25	2622	2145	2214	1919	1773	1690	1283	1283	1086	1086
		27	2613	2359	2209	2133	1769	1769	1466	1466	1275	1275
		29	2580	2568	2179	2344	1840	1840	1650	1650	1460	1460
		31	2566	2566	2209	2582	2020	2020	1831	1831	1642	1642
	19	21	3266	1705	2858	1480	2417	1252	1938	1015	1405	778
		23	3248	1929	2841	1704	2404	1477	1928	1249	1398	1006
		25	3233	2144	2829	1920	2394	1695	1920	1467	1394	1231
		27	3215	2357	2812	2133	2380	1910	1909	1680	1385	1385
		29	3224	2584	2796	2345	2366	2123	1898	1896	1460	1460
		31	3210	2790	2786	2554	2359	2332	1893	1893	1642	1642
	21	21	3884	1690	3478	1465	3042	1240	2569	1013	2053	784
		23	3931	1936	3498	1696	3064	1473	2596	1242	2084	1013
		25	3910	2157	3480	1919	3048	1696	2582	1471	2073	1239
		27	3884	2369	3456	2132	3028	1911	2564	1688	2058	1462
		29	3902	2579	3478	2344	3052	2123	2592	1902	2090	1677
		31	3829	2787	3407	2553	2983	2333	2525	2113	2025	1889
	23	23	4598	1919	4167	1682	3735	1459	3270	1236	2765	1012
		25	4617	2145	4189	1910	3759	1689	3298	1461	2797	1237
		27	4384	2366	3958	2131	3531	1910	3071	1689	2571	1465
		29	4559	2559	4163	2341	3740	2122	3282	1902	2788	1682
		31	4494	2766	4101	2550	3679	2332	3225	2114	2734	1893
		21	1905	1609	1430	1354	1025	1025	820	820	603	603
5	15	23	1895	1828	1422	1573	1223	1223	1023	1023	817	817
		25	1888	1888	1611	1883	1416	1416	1219	1219	1020	1020
		27	1990	1990	1797	2101	1604	1604	1411	1411	1214	1214
		29	2171	2171	1981	2316	1789	1789	1598	1598	1404	1404
		31	2351	2351	2161	2526	1972	1972	1782	1782	1591	1591
		21	2468	1622	2020	1382	1509	1126	836	818	603	603
	17	23	2484	1842	2040	1603	1536	1350	1023	1023	817	817
		25	2466	2058	2025	1819	1523	1523	1219	1219	1020	1020
		27	2460	2271	2021	2034	1604	1604	1411	1411	1214	1214
		29	2428	2428	1992	2245	1789	1789	1598	1598	1404	1404
		31	2416	2416	2161	2526	1972	1972	1782	1782	1591	1591
		21	3123	1624	2689	1391	2213	1145	1668	893	970	596
	19	23	3106	1849	2675	1616	2201	1378	1661	1127	966	825
		25	3092	2065	2665	1834	2194	1597	1656	1347	966	966
		27	3076	2277	2650	2045	2181	1806	1648	1550	1214	1214
		29	3059	2489	2636	2261	2170	2025	1639	1639	1404	1404
		31	3047	2698	2627	2470	2165	2165	1782	1782	1591	1591
		21	3751	1615	3325	1385	2862	1153	2348	914	1751	650
	21	23	3770	1846	3348	1618	2888	1381	2380	1142	1798	892
		25	3751	2067	3332	1840	2874	1610	2369	1369	1791	1119
		27	3727	2280	3310	2055	2855	1827	2352	1591	1778	1344
		29	3749	2492	3334	2267	2883	2040	2385	1808	1816	1562
		31	3677	2701	3263	2477	2815	2251	2318	2018	1749	1749
		23	4446	1833	4028	1608	3575	1381	3081	1150	2533	907
	23	25	4467	2061	4052	1837	3602	1606	3113	1376	2570	1141
		27	4234	2280	3820	2058	3371	1831	2881	1602	2334	1360
		29	4441	2492	4030	2270	3587	2046	3102	1821	2568	1587
		31	4376	2699	3968	2480	3527	2258	3045	2031	2512	1800
		21	1626	1456	972	1126	929	929	678	678	286	286
		23	1617	1617	1346	1562	1141	1141	929	929	686	686
7	15	25	1740	1740	1542	1803	1342	1342	1138	1138	926	926
		27	1929	1929	1734	2027	1537	1537	1338	1338	1136	1136
		29	2114	2114	1921	2246	1727	1727	1532	1532	1335	1335
		31	2296	2296	2105	2461	1914	1914	1721	1721	1527	1527
		21	2243	1499	1720	1230	1009	895	678	678	286	286
		23	2263	1720	1746	1453	1051	1051	929	929	686	686
	17	25	2248	1938	1732	1670	1342	1342	1138	1138	926	926
		27	2243	2151	1732	1886	1537	1537	1338	1338	1136	1136
		29	2213	2213	1921	2246	1727	1727	1532	1532	1335	1335
		31	2201	2201	2105	2461	1914	1914	1721	1721	1527	1527
		21	2931	1520	2454	1270	1896	996	1146	668	286	286
		23	2917	1745	2442	1496	1888	1230	1142	898	686	686
	19	25	2906	1962	2432	1714	1883	1449	1142	1125	926	926
		27	2891	2171	2419	1920	1873	1645	1338	1338	1136	1136
		29	2876	2388	2408	2142	1864	1864	1532	1532	1335	1335
		31	2867	2597	2402	2354	1862	1862	1721	1721	1527	1527
		21	3579	1520	3121	1280	2607	1031	2005	757	1175	421
		23	3603	1753	3148	1514	2639	1261	2044	996	1241	664
	21	25	3585	1975	3133	1739	2626	1492	2037	1222	1237	898
		27	3562	2190	3114	1954	2609	1710	2023	1446	1226	1122
		29	3588	2403	3142	2168	2642	1926	2062	1665	1288	1288
		31	3516	2611	3071	2378	2573	2135	1991	1874	1527	1527
		23	4291	1748	3848	1516	3360	1279	2812	1031	2170	759
		25	4315	1978	3876	1747	3391	1505	2849	1259	2214	991
	23	27	4081	2196	3640	1965	3154	1728	2606	1480	1945	1202
		29	4292	2409	3858	2181	3381	1948	2845	1707	2220	1446
		31	4229	2619	3797	2391	3322	2159	2788	1917	2163	1658

COOLING POWER (OVERSIZED BATTERY 350)

FCZ 350			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	2383	1826	1904	1578	1376	1830	1026	1026	797	797
		23	2368	2058	1892	1810	1468	1468	1246	1246	1021	1021
		25	2358	2287	1886	2041	1682	1682	1461	1461	1240	1240
		27	2323	2323	2111	2305	1892	1892	1674	1674	1455	1455
		29	2535	2535	2318	2531	2101	2101	1884	1884	1667	1667
		31	2737	2737	2522	2753	2306	2306	2090	2090	1875	1875
	17	21	2999	1828	2527	1583	2017	1335	1450	1081	757	757
		23	3015	2058	2548	1817	2040	1570	1477	1317	1021	1021
		25	2993	2287	2527	2046	2024	1802	1464	1464	1240	1240
		27	2983	2515	2522	2275	2020	2020	1674	1674	1455	1455
		29	2945	2738	2487	2499	2101	2101	1884	1884	1667	1667
		31	2930	2930	2522	2753	2306	2306	2090	2090	1875	1875
	19	21	3728	1818	3262	1578	2759	1335	2212	1082	1604	829
		23	3708	2057	3243	1817	2744	1575	2200	1332	1596	1073
		25	3690	2286	3229	2047	2733	1807	2192	1564	1591	1313
		27	3670	2513	3210	2275	2717	2036	2179	1791	1581	1581
		29	3680	2755	3191	2501	2701	2264	2167	2022	1667	1667
		31	3664	2975	3180	2723	2692	2486	2161	2161	1875	1875
	21	21	4434	1802	3970	1562	3472	1322	2932	1081	2344	836
		23	4488	2065	3993	1809	3498	1570	2963	1324	2378	1081
		25	4463	2300	3973	2046	3479	1809	2947	1569	2367	1321
		27	4434	2526	3945	2273	3456	2038	2927	1799	2349	1559
		29	4454	2750	3970	2499	3484	2264	2958	2028	2386	1788
		31	4370	2971	3889	2722	3405	2488	2882	2253	2312	2014
	23	23	5249	2046	4757	1793	4263	1556	3732	1317	3157	1079
		25	5270	2287	4781	2036	4291	1801	3764	1558	3193	1319
		27	5004	2523	4518	2272	4030	2036	3505	1801	2935	1562
		29	5204	2728	4752	2496	4269	2262	3747	2028	3183	1793
		31	5130	2949	4681	2719	4200	2486	3682	2254	3120	2019
5	15	21	2174	1716	1632	1444	1170	1170	936	936	689	689
		23	2163	1949	1623	1678	1396	1396	1167	1167	933	933
		25	2156	2156	1839	2008	1616	1616	1392	1392	1165	1165
		27	2271	2271	2051	2240	1831	1831	1610	1610	1386	1386
		29	2478	2478	2261	2469	2043	2043	1824	1824	1603	1603
		31	2684	2684	2467	2693	2251	2251	2034	2034	1816	1816
	17	21	2817	1730	2306	1474	1723	1201	955	872	689	689
		23	2835	1964	2329	1709	1753	1439	1167	1167	933	933
		25	2815	2194	2312	1940	1739	1671	1392	1392	1165	1165
		27	2808	2422	2307	2169	1831	1831	1610	1610	1386	1386
		29	2772	2646	2274	2393	2043	2043	1824	1824	1603	1603
		31	2757	2757	2467	2693	2251	2251	2034	2034	1816	1816
	19	21	3565	1731	3070	1483	2526	1221	1904	953	1107	635
		23	3546	1971	3054	1723	2513	1469	1897	1202	1102	880
		25	3530	2202	3042	1956	2504	1703	1891	1436	1102	1102
		27	3511	2428	3025	2180	2490	1926	1881	1652	1386	1386
		29	3492	2654	3009	2411	2477	2159	1871	1871	1603	1603
		31	3478	2877	2999	2633	2471	2385	2034	2034	1816	1816
	21	21	4282	1722	3796	1477	3267	1229	2681	975	1999	693
		23	4304	1968	3822	1725	3297	1472	2717	1218	2053	951
		25	4282	2204	3803	1962	3281	1717	2704	1460	2044	1193
		27	4255	2431	3779	2191	3259	1948	2685	1697	2030	1433
		29	4279	2657	3806	2417	3291	2175	2723	1927	2073	1665
		31	4197	2880	3725	2641	3213	2400	2646	2152	1996	1889
	23	23	5075	1954	4598	1714	4081	1472	3517	1226	2892	967
		25	5100	2197	4625	1959	4111	1712	3553	1468	2934	1216
		27	4833	2431	4360	2194	3848	1953	3288	1708	2665	1450
		29	5069	2657	4600	2420	4094	2182	3541	1941	2931	1692
		31	4995	2878	4530	2644	4026	2407	3476	2166	2867	1919
		31	1856	1553	1110	1201	1060	1060	774	774	327	327
7	15	23	1846	1787	1536	1665	1302	1302	1060	1060	783	783
		25	1986	1986	1761	1923	1532	1532	1299	1299	1058	1058
		27	2202	2202	1979	2161	1755	1755	1528	1528	1296	1296
		29	2413	2413	2193	2395	1972	1972	1749	1749	1523	1523
		31	2621	2621	2403	2624	2184	2184	1965	1965	1743	1743
		31	2561	1599	1963	1311	1152	954	774	774	327	327
	17	23	2584	1834	1994	1550	1199	1199	1060	1060	783	783
		25	2566	2066	1978	1780	1532	1532	1299	1299	1058	1058
		27	2561	2294	1978	2011	1755	1755	1528	1528	1296	1296
		29	2526	2520	2193	2395	1972	1972	1749	1749	1523	1523
		31	2513	2513	2403	2624	2184	2184	1965	1965	1743	1743
		31	3346	1621	2801	1354	2164	1062	1308	712	327	327
	19	23	3330	1861	2788	1596	2156	1311	1303	957	783	766
		25	3317	2092	2776	1828	2150	1545	1303	1199	1058	1058
		27	3300	2314	2762	2047	2138	1753	1528	1528	1296	1296
		29	3283	2546	2749	2284	2128	2005	1749	1749	1523	1523
		31	3272	2769	2741	2510	2125	2125	1965	1965	1743	1743
		31	4085	1621	3563	1365	2976	1099	2289	807	1341	449
	21	23	4113	1869	3594	1614	3012	1344	2333	1062	1416	708
		25	4093	2106	3576	1855	2998	1591	2325	1303	1412	957
		27	4067	2335	3554	2084	2979	1823	2309	1542	1399	1196
		29	4096	2562	3586	2311	3016	2054	2354	1776	1470	1439
		31	4013	2783	3505	2535	2937	2276	2273	1998	1743	1743
		31	4898	1864	4392	1616	3835	1363	3210	1099	2477	809
	23	25	4926	2109	4424	1862	3871	1605	3252	1343	2527	1057
		27	4658	2341	4155	2095	3601	1842	2974	1578	2221	1281
		29	4900	2569	4404	2325	3860	2077	3248	1820	2535	1542
		31	4828	2793	4334	2550	3792	2302	3183	2044	2469	1768

COOLING POWER (STANDARD BATTERY 400-401-402)

FCZ 400-401-402			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
°C	°C	°C	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	2836	2237	2266	1933	1637	2241	1221	1221	949	949
		23	2818	2521	2252	2217	1747	1747	1482	1482	1215	1215
		25	2806	2802	2245	2500	2002	2002	1739	1739	1475	1475
		27	2765	2765	2512	2823	2252	2252	1992	1992	1732	1732
		29	3016	3016	2758	3100	2500	2500	2242	2242	1983	1983
		31	3257	3257	3001	3372	2744	2744	2488	2488	2231	2231
	17	21	3569	2239	3008	1939	2400	1635	1725	1323	900	900
		23	3588	2521	3032	2225	2428	1923	1758	1614	1215	1215
		25	3562	2802	3008	2506	2409	2208	1742	1742	1475	1475
		27	3550	3080	3001	2786	2403	2403	1992	1992	1732	1732
		29	3505	3353	2960	3061	2500	2500	2242	2242	1983	1983
		31	3486	3486	3001	3372	2744	2744	2488	2488	2231	2231
	19	21	4437	2227	3882	1933	3283	1635	2632	1325	1909	1016
		23	4413	2519	3860	2225	3266	1929	2619	1631	1899	1314
		25	4392	2800	3843	2507	3252	2213	2608	1915	1894	1608
		27	4368	3078	3820	2786	3233	2494	2593	2194	1882	1882
		29	4380	3374	3798	3063	3214	2773	2579	2477	1983	1983
		31	4361	3643	3784	3336	3204	3045	2572	2572	2231	2231
	21	21	5277	2208	4724	1914	4132	1619	3490	1323	2789	1024
		23	5341	2529	4752	2215	4163	1923	3526	1621	2830	1323
		25	5311	2817	4728	2506	4141	2215	3507	1921	2817	1617
		27	5277	3094	4695	2784	4113	2496	3483	2204	2796	1910
		29	5301	3368	4724	3061	4146	2773	3521	2484	2839	2190
		31	5201	3639	4628	3334	4053	3047	3430	2759	2751	2467
	23	23	6246	2506	5661	2196	5074	1906	4442	1614	3757	1321
		25	6272	2802	5690	2494	5106	2206	4480	1908	3800	1616
		27	5955	3090	5377	2782	4797	2494	4172	2206	3493	1914
		29	6193	3341	5656	3057	5081	2771	4459	2484	3788	2196
		31	6105	3612	5571	3330	4998	3045	4382	2761	3714	2473
5	15	21	2588	2101	1942	1768	1393	1393	1114	1114	820	820
		23	2574	2388	1932	2055	1661	1661	1389	1389	1110	1110
		25	2565	2565	2188	2459	1923	1923	1656	1656	1386	1386
		27	2703	2703	2441	2744	2180	2180	1916	1916	1649	1649
		29	2949	2949	2691	3024	2431	2431	2171	2171	1908	1908
		31	3194	3194	2935	3299	2679	2679	2421	2421	2161	2161
	17	21	3352	2119	2744	1805	2051	1470	1136	1068	820	820
		23	3374	2405	2772	2093	2087	1763	1389	1389	1110	1110
		25	3350	2687	2751	2376	2069	2047	1656	1656	1386	1386
		27	3342	2966	2746	2656	2180	2180	1916	1916	1649	1649
		29	3299	3241	2706	2931	2431	2431	2171	2171	1908	1908
		31	3281	3281	2935	3299	2679	2679	2421	2421	2161	2161
	19	21	4242	2121	3653	1817	3006	1496	2266	1167	1317	778
		23	4220	2415	3634	2111	2991	1799	2257	1472	1312	1078
		25	4201	2697	3621	2395	2980	2086	2250	1759	1312	1312
		27	4178	2974	3600	2670	2963	2359	2238	2024	1649	1649
		29	4156	3250	3581	2952	2947	2645	2226	2226	1908	1908
		31	4139	3523	3569	3225	2941	2922	2421	2421	2161	2161
	21	21	5096	2109	4518	1809	3888	1505	3190	1194	2379	849
		23	5122	2411	4549	2113	3924	1803	3233	1492	2443	1165
		25	5096	2699	4526	2403	3905	2103	3218	1788	2433	1461
		27	5063	2978	4497	2684	3879	2386	3195	2078	2415	1755
		29	5093	3254	4530	2960	3917	2664	3240	2360	2467	2039
		31	4995	3527	4433	3235	3824	2939	3149	2635	2376	2314
	23	23	6040	2393	5471	2099	4857	1803	4185	1501	3442	1184
		25	6069	2691	5504	2399	4893	2097	4228	1797	3492	1490
		27	5752	2978	5189	2687	4580	2391	3913	2092	3171	1776
		29	6033	3254	5475	2964	4872	2672	4215	2378	3488	2072
		31	5945	3525	5391	3239	4791	2949	4137	2653	3412	2351
		21	2209	1902	1321	1470	1262	1262	921	921	389	389
7	15	23	2197	2188	1828	2039	1549	1549	1262	1262	931	931
		25	2364	2364	2095	2355	1823	1823	1546	1546	1259	1259
		27	2620	2620	2355	2647	2088	2088	1818	1818	1543	1543
		29	2872	2872	2610	2933	2347	2347	2081	2081	1813	1813
		31	3120	3120	2860	3214	2600	2600	2338	2338	2075	2075
	17	21	3047	1958	2336	1606	1370	1169	921	921	389	389
		23	3075	2246	2372	1898	1427	1427	1262	1262	931	931
		25	3054	2531	2354	2181	1823	1823	1546	1546	1259	1259
		27	3047	2809	2354	2463	2088	2088	1818	1818	1543	1543
		29	3006	3006	2610	2933	2347	2347	2081	2081	1813	1813
		31	2991	2991	2860	3214	2600	2600	2338	2338	2075	2075
	19	21	3982	1985	3333	1658	2576	1300	1556	873	389	389
		23	3963	2279	3318	1954	2565	1606	1551	1172	931	931
		25	3948	2562	3304	2239	2558	1892	1551	1469	1259	1259
		27	3927	2834	3287	2507	2545	2148	1818	1818	1543	1543
		29	3906	3119	3271	2798	2533	2455	2081	2081	1813	1813
		31	3894	3392	3263	3074	2529	2529	2338	2338	2075	2075
	21	21	4862	1985	4240	1672	3541	1347	2724	989	1596	549
		23	4895	2289	4277	1977	3585	1647	2777	1300	1686	867
		25	4871	2579	4256	2271	3567	1948	2767	1596	1680	1172
		27	4840	2860	4230	2552	3545	2233	2748	1888	1665	1465
		29	4874	3138	4268	2831	3590	2515	2801	2175	1749	1749
		31	4776	3409	4172	3105	3495	2788	2705	2448	2075	2075
	23	23	5830	2283	5227	1979	4564	1670	3820	1347	2947	991
		25	5862	2583	5265	2281	4607	1966	3870	1645	3008	1294
		27	5544	2867	4945	2566	4285	2256	3540	1933	2643	1569
		29	5831	3146	5241	2848	4593	2544	3865	2229	3016	1888
		31	5745	3421	5158	3123	4512	2819	3788	2504	2939	2165



COOLING POWER (OVERSIZED BATTERY 450)

FCZ450			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
°C	°C	°C	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	3178	2436	2539	2105	1835	2440	1368	1368	1063	1063
		23	3159	2745	2524	2415	1959	1959	1661	1661	1362	1362
		25	3145	3051	2516	2722	2244	2244	1949	1949	1654	1654
		27	3099	3099	2815	3074	2524	2524	2233	2233	1941	1941
		29	3381	3381	3091	3375	2802	2802	2512	2512	2223	2223
		31	3651	3651	3363	3673	3076	3076	2788	2788	2501	2501
		21	4000	2438	3371	2111	2690	1780	1934	1441	1009	1009
		23	4021	2745	3398	2423	2721	2094	1970	1757	1362	1362
		25	3993	3051	3371	2729	2700	2404	1953	1953	1654	1654
		27	3979	3354	3363	3034	2694	2694	2233	2233	1941	1941
		29	3929	3651	3317	3333	2802	2802	2512	2512	2223	2223
		31	3908	3908	3363	3673	3076	3076	2788	2788	2501	2501
	17	21	4973	2425	4351	2105	3680	1780	2951	1443	2140	1106
		23	4946	2743	4326	2423	3661	2101	2935	1776	2128	1431
		25	4923	3049	4307	2731	3645	2410	2923	2086	2123	1751
		27	4896	3352	4282	3034	3624	2716	2906	2389	2109	2109
		29	4909	3675	4257	3335	3603	3019	2891	2697	2223	2223
		31	4888	3968	4241	3633	3591	3316	2883	2883	2501	2501
	19	21	5915	2404	5295	2084	4631	1764	3911	1441	3126	1115
		23	5986	2754	5326	2413	4666	2094	3952	1766	3172	1441
		25	5953	3068	5299	2729	4641	2413	3931	2092	3157	1761
		27	5915	3369	5262	3032	4610	2718	3904	2400	3134	2080
		29	5942	3668	5295	3333	4647	3019	3946	2705	3182	2385
		31	5830	3963	5187	3630	4543	3319	3844	3005	3084	2686
		23	7001	2729	6345	2391	5687	2075	4979	1757	4211	1439
		25	7030	3051	6378	2716	5723	2402	5021	2078	4259	1759
	21	27	6675	3365	6026	3030	5376	2716	4676	2402	3915	2084
		29	6941	3639	6339	3329	5695	3017	4998	2705	4245	2391
		31	6843	3934	6245	3626	5602	3316	4911	3007	4162	2693
		21	2900	2288	2177	1926	1561	1561	1249	1249	919	919
5	15	23	2885	2600	2165	2238	1862	1862	1557	1557	1245	1245
		25	2875	2875	2453	2678	2155	2155	1856	1856	1553	1553
		27	3030	3030	2736	2988	2443	2443	2148	2148	1849	1849
		29	3306	3306	3016	3293	2725	2725	2433	2433	2138	2138
		31	3580	3580	3290	3592	3003	3003	2713	2713	2422	2422
		21	3757	2307	3076	1966	2298	1601	1274	1163	919	919
	17	23	3782	2619	3107	2280	2339	1919	1557	1557	1245	1245
		25	3755	2927	3084	2587	2319	2229	1856	1856	1553	1553
		27	3746	3230	3078	2893	2443	2443	2148	2148	1849	1849
		29	3697	3529	3033	3192	2725	2725	2433	2433	2138	2138
		31	3678	3678	3290	3592	3003	3003	2713	2713	2422	2422
		21	4755	2309	4095	1978	3369	1629	2539	1271	1476	847
	19	23	4730	2630	4074	2299	3352	1960	2530	1603	1470	1174
		25	4708	2937	4058	2608	3340	2271	2522	1915	1470	1470
		27	4683	3238	4035	2908	3321	2568	2509	2204	1849	1849
		29	4658	3540	4014	3215	3304	2880	2495	2495	2138	2138
		31	4639	3837	4000	3512	3296	3182	2713	2713	2422	2422
		21	5712	2297	5064	1970	4357	1639	3576	1300	2667	925
	21	23	5741	2625	5098	2301	4398	1964	3624	1625	2738	1268
		25	5712	2939	5073	2617	4377	2290	3607	1947	2727	1591
		27	5675	3243	5040	2922	4348	2598	3582	2263	2707	1911
		29	5708	3544	5077	3224	4390	2901	3632	2571	2765	2221
		31	5598	3841	4969	3523	4286	3201	3529	2870	2663	2520
		23	6769	2606	6133	2286	5444	1964	4691	1635	3857	1289
	23	25	6802	2931	6169	2613	5484	2284	4739	1957	3913	1622
		27	6447	3243	5816	2927	5133	2604	4386	2278	3555	1934
		29	6762	3544	6136	3228	5461	2910	4724	2590	3910	2257
		31	6663	3839	6042	3527	5370	3211	4637	2889	3825	2560
7	15	21	2476	2071	1480	1601	1414	1414	1032	1032	436	436
		23	2462	2383	2049	2221	1737	1737	1414	1414	1044	1044
		25	2649	2649	2348	2564	2044	2044	1733	1733	1411	1411
		27	2937	2937	2640	2882	2341	2341	2038	2038	1729	1729
		29	3219	3219	2925	3194	2630	2630	2333	2333	2032	2032
		31	3497	3497	3205	3500	2914	2914	2621	2621	2325	2325
	17	21	3416	2132	2619	1749	1536	1273	1032	1032	436	436
		23	3446	2446	2659	2067	1600	1599	1414	1414	1044	1044
		25	3423	2756	2638	2375	2044	2044	1733	1733	1411	1411
		27	3416	3059	2638	2682	2341	2341	2038	2038	1729	1729
		29	3369	3361	2925	3194	2630	2630	2333	2333	2032	2032
		31	3352	3352	3205	3500	2914	2914	2621	2621	2325	2325
	19	21	4463	2162	3736	1806	2887	1416	1744	950	436	436
		23	4442	2482	3719	2128	2875	1749	1739	1277	1044	1022
		25	4425	2790	3703	2438	2868	2061	1739	1599	1411	1411
		27	4402	3087	3684	2731	2852	2339	2038	2038	1729	1729
		29	4378	3397	3666	3047	2839	2674	2333	2333	2032	2032
		31	4365	3694	3657	3348	2835	2835	2621	2621	2325	2325
	21	21	5449	2162	4753	1820	3969	1466	3053	1077	1789	598
		23	5486	2493	4793	2153	4018	1793	3113	1416	1889	944
		25	5459	2809	4770	2474	3998	2122	3101	1738	1883	1277
		27	5424	3114	4741	2779	3973	2432	3080	2056	1866	1595
		29	5463	3418	4784	3083	4023	2739	3140	2368	1961	1919
		31	5353	3713	4676	3382	3917	3036	3032	2665	2325	2325
	23	23	6534	2486	5859	2155	5116	1818	4282	1466	3304	1079
		25	6571	2813	5901	2484	5164	2141	4338	1791	3371	1410
		27	6214	3123	5542	2794	4803	2457	3967	2105	2962	1709
		29	6536	3426	5874	3102	5148	2771	4332	2427	3381	2056
		31	6439	3725	5781	3401	5058	3070	4245	2726	3294	2358

# COOLING POWER (STANDARD BATTERY 500-501-502)

FCZ 500-501-502			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	3348	2664	2675	2302	1933	2669	1441	1441	1120	1120
		23	3327	3003	2659	2641	2063	2063	1750	1750	1435	1435
		25	3313	3313	2650	2978	2364	2364	2053	2053	1742	1742
		27	3264	3264	2965	3362	2659	2659	2352	2352	2045	2045
		29	3561	3561	3256	3692	2951	2951	2646	2646	2341	2341
		31	3846	3846	3543	4017	3240	3240	2937	2937	2634	2634
	17	21	4213	2666	3551	2309	2833	1947	2037	1576	1063	1063
		23	4236	3003	3579	2650	2866	2291	2075	1922	1435	1435
		25	4205	3337	3551	2985	2843	2630	2057	2057	1742	1742
		27	4191	3669	3543	3319	2837	2837	2352	2352	2045	2045
		29	4138	3994	3494	3646	2951	2951	2646	2646	2341	2341
		31	4116	4116	3543	4017	3240	3240	2937	2937	2634	2634
	19	21	5238	2653	4583	2302	3876	1947	3108	1579	2254	1210
		23	5209	3001	4557	2650	3856	2298	3091	1943	2242	1565
		25	5185	3335	4537	2987	3839	2637	3079	2282	2236	1915
		27	5157	3667	4510	3319	3817	2971	3061	2613	2222	2222
		29	5171	4019	4484	3648	3795	3303	3045	2950	2341	2341
		31	5148	4340	4467	3973	3783	3628	3037	3037	2634	2634
	21	21	6230	2630	5577	2279	4878	1929	4120	1576	3293	1219
		23	6305	3012	5610	2639	4915	2291	4163	1931	3341	1576
		25	6270	3356	5581	2985	4888	2639	4140	2289	3325	1927
		27	6230	3685	5543	3316	4856	2973	4112	2625	3301	2275
		29	6258	4012	5577	3646	4894	3303	4157	2959	3352	2609
		31	6140	4335	5463	3971	4785	3630	4049	3286	3248	2938
	23	23	7374	2985	6683	2616	5990	2270	5244	1922	4435	1574
		25	7404	3337	6717	2971	6028	2627	5289	2272	4486	1924
		27	7030	3681	6348	3314	5663	2971	4925	2627	4124	2279
		29	7311	3980	6677	3641	5998	3300	5264	2959	4472	2616
		31	7207	4303	6577	3966	5900	3628	5173	3289	4384	2945
		31										
5	15	21	3055	2503	2293	2106	1644	1644	1315	1315	967	967
		23	3039	2844	2280	2448	1961	1961	1640	1640	1311	1311
		25	3028	3028	2583	2929	2270	2270	1955	1955	1636	1636
		27	3191	3191	2882	3268	2573	2573	2262	2262	1947	1947
		29	3482	3482	3177	3602	2870	2870	2563	2563	2252	2252
		31	3770	3770	3465	3929	3163	3163	2858	2858	2551	2551
	17	21	3957	2524	3240	2150	2421	1752	1341	1272	967	967
		23	3984	2865	3272	2494	2463	2100	1640	1640	1311	1311
		25	3955	3201	3248	2830	2443	2438	1955	1955	1636	1636
		27	3945	3533	3242	3164	2573	2573	2262	2262	1947	1947
		29	3894	3860	3195	3492	2870	2870	2563	2563	2252	2252
		31	3874	3874	3465	3929	3163	3163	2858	2858	2551	2551
	19	21	5008	2526	4313	2164	3549	1781	2675	1390	1555	926
		23	4982	2876	4291	2514	3530	2143	2665	1754	1549	1284
		25	4959	3213	4274	2853	3518	2484	2657	2095	1549	1549
		27	4933	3542	4250	3180	3498	2809	2642	2411	1947	1947
		29	4907	3872	4228	3517	3480	3150	2628	2628	2252	2252
		31	4886	4197	4213	3842	3472	3472	2858	2858	2551	2551
	21	21	6016	2512	5333	2155	4589	1793	3766	1422	2809	1012
		23	6047	2872	5370	2517	4632	2148	3817	1777	2884	1387
		25	6016	3215	5343	2862	4610	2505	3799	2129	2872	1740
		27	5978	3547	5309	3197	4579	2842	3772	2475	2852	2090
		29	6012	3876	5348	3526	4624	3173	3825	2812	2913	2429
		31	5896	4201	5234	3853	4514	3501	3717	3139	2805	2756
	23	23	7130	2851	6459	2501	5734	2148	4941	1788	4063	1410
		25	7165	3206	6498	2858	5776	2498	4992	2141	4122	1775
		27	6791	3547	6126	3201	5407	2849	4620	2491	3744	2116
		29	7122	3876	6463	3531	5752	3183	4976	2832	4118	2468
		31	7018	4199	6364	3858	5657	3512	4884	3160	4028	2800
		31										
7	15	21	2608	2265	1559	1752	1490	1490	1087	1087	459	459
		23	2593	2593	2159	2429	1829	1829	1490	1490	1100	1100
		25	2791	2791	2474	2805	2152	2152	1825	1825	1486	1486
		27	3093	3093	2780	3153	2465	2465	2146	2146	1821	1821
		29	3390	3390	3081	3494	2770	2770	2457	2457	2140	2140
		31	3683	3683	3376	3828	3069	3069	2760	2760	2449	2449
	17	21	3598	2332	2758	1913	1618	1392	1087	1087	459	459
		23	3630	2676	2801	2261	1685	1685	1490	1490	1100	1100
		25	3606	3014	2778	2597	2152	2152	1825	1825	1486	1486
		27	3598	3346	2778	2934	2465	2465	2146	2146	1821	1821
		29	3549	3549	3081	3494	2770	2770	2457	2457	2140	2140
		31	3530	3530	3376	3828	3069	3069	2760	2760	2449	2449
	19	21	4701	2365	3935	1975	3041	1549	1837	1039	459	459
		23	4679	2715	3917	2328	3028	1913	1831	1397	1100	1100
		25	4661	3051	3900	2666	3020	2254	1831	1749	1486	1486
		27	4636	3376	3880	2987	3004	2558	2146	2146	1821	1821
		29	4612	3715	3862	3333	2990	2925	2457	2457	2140	2140
		31	4598	4040	3852	3662	2986	2986	2760	2760	2449	2449
	21	21	5740	2365	5006	1991	4181	1604	3215	1178	1884	655
		23	5778	2726	5049	2355	4232	1961	3278	1549	1990	1032
		25	5750	3072	5024	2706	4211	2321	3266	1901	1984	1397
		27	5713	3406	4994	3040	4185	2660	3244	2249	1965	1745
		29	5754	3738	5039	3372	4238	2996	3307	2590	2065	2065
		31	5638	4061	4925	3699	4126	3321	3193	2915	2449	2449
	23	23	6882	2719	6171	2358	5388	1989	4510	1604	3480	1180
		25	6921	3077	6215	2717	5439	2342	4569	1959	3551	1542
		27	6545	3415	5837	3056	5059	2687	4179	2302	3120	1869
		29	6884	3747	6187	3392	5423	3031	4563	2655	3561	2249
		31	6783	4075	6089	3720	5327	3358	4472	2982	3470	2579
		31										

COOLING POWER (OVERSIZED BATTERY 550)

FCZ 550			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
°C	°C	°C	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	3777	2924	3018	2526	2181	2929	1626	1626	1264	1264
		23	3754	3295	2999	2898	2328	2328	1974	1974	1619	1619
		25	3738	3662	2990	3267	2667	2667	2316	2316	1965	1965
		27	3683	3683	3346	3690	2999	2999	2653	2653	2307	2307
		29	4018	4018	3674	4051	3330	3330	2986	2986	2642	2642
		31	4339	4339	3997	4408	3655	3655	3314	3314	2972	2972
	17	21	4754	2926	4006	2534	3197	2137	2298	1730	1199	1199
		23	4779	3295	4038	2908	3233	2514	2341	2109	1619	1619
		25	4745	3662	4006	3275	3208	2886	2321	2321	1965	1965
		27	4728	4026	3997	3642	3201	3201	2653	2653	2307	2307
		29	4669	4383	3942	4001	3330	3330	2986	2986	2642	2642
		31	4644	4644	3997	4408	3655	3655	3314	3314	2972	2972
	19	21	5909	2911	5171	2526	4373	2137	3506	1732	2543	1328
		23	5877	3293	5141	2908	4350	2521	3488	2132	2529	1717
		25	5850	3659	5118	3278	4332	2893	3474	2504	2522	2102
		27	5818	4024	5089	3642	4307	3260	3454	2868	2506	2506
		29	5834	4411	5059	4003	4281	3624	3435	3237	2642	2642
		31	5809	4762	5040	4360	4268	3981	3426	3426	2972	2972
	21	21	7029	2886	6292	2501	5504	2117	4648	1730	3715	1338
		23	7113	3305	6329	2896	5545	2514	4696	2119	3770	1730
		25	7074	3682	6297	3275	5515	2896	4671	2511	3752	2114
		27	7029	4044	6253	3639	5478	3262	4639	2881	3724	2496
		29	7061	4403	6292	4001	5522	3624	4690	3247	3781	2863
		31	6928	4757	6164	4357	5398	3983	4568	3606	3664	3224
	23	23	8320	3275	7540	2870	6758	2491	5916	2109	5004	1727
		25	8354	3662	7579	3260	6802	2883	5967	2494	5061	2112
		27	7932	4039	7162	3637	6389	3260	5556	2883	4653	2501
		29	8249	4368	7533	3996	6767	3622	5939	3247	5045	2870
		31	8132	4722	7421	4352	6657	3981	5836	3609	4946	3232
		31										
5	15	21	3447	2746	2587	2311	1855	1855	1484	1484	1092	1092
		23	3428	3121	2573	2686	2213	2213	1851	1851	1479	1479
		25	3417	3417	2915	3214	2561	2561	2206	2206	1846	1846
		27	3600	3600	3252	3586	2903	2903	2552	2552	2197	2197
		29	3928	3928	3584	3953	3238	3238	2892	2892	2541	2541
		31	4254	4254	3910	4312	3568	3568	3224	3224	2878	2878
	17	21	4465	2769	3655	2360	2731	1922	1513	1396	1092	1092
		23	4495	3144	3692	2736	2779	2304	1851	1851	1479	1479
		25	4462	3513	3664	3106	2756	2676	2206	2206	1846	1846
		27	4451	3877	3658	3472	2903	2903	2552	2552	2197	2197
		29	4394	4236	3605	3831	3238	3238	2892	2892	2541	2541
		31	4371	4371	3910	4312	3568	3568	3224	3224	2878	2878
	19	21	5650	2772	4866	2375	4004	1955	3018	1525	1754	1017
		23	5621	3156	4841	2759	3983	2352	3006	1925	1747	1409
		25	5595	3525	4823	3131	3969	2726	2997	2299	1747	1747
		27	5566	3887	<b>4795</b>	<b>3490</b>	3947	3083	2981	2645	2197	2197
		29	5536	4249	4770	3859	3926	3457	2965	2965	2541	2541
		31	5513	4605	4754	4216	3917	3819	3224	3224	2878	2878
	21	21	6788	2757	6017	2365	5178	1968	4249	1560	3169	1110
		23	6822	3151	6059	2762	5226	2357	4307	1950	3254	1522
		25	6788	3528	6029	3141	5201	2749	4286	2337	3240	1909
		27	6744	3892	5990	3508	5166	3118	4256	2716	3217	2294
		29	6783	4254	6033	3869	5217	3482	4316	3085	3286	2666
		31	6652	4610	5905	4228	5093	3842	4194	3444	3165	3025
	23	23	8044	3128	7288	2744	6469	2357	5575	1962	4584	1548
		25	8083	3518	7331	3136	6517	2741	5632	2349	4651	1947
		27	7661	3892	6912	3513	6100	3126	5212	2734	4224	2322
		29	8035	4254	7292	3874	6490	3493	5614	3108	4646	2709
		31	7918	4608	7180	4234	6382	3854	5510	3467	4545	3073
		31										
7	15	21	2942	2486	1759	1922	1681	1681	1227	1227	518	518
		23	2926	2860	2435	2666	2064	2064	1681	1681	1241	1241
		25	3149	3149	2791	3078	2428	2428	2059	2059	1676	1676
		27	3490	3490	3137	3460	2782	2782	2422	2422	2055	2055
		29	3825	3825	3476	3834	3126	3126	2772	2772	2415	2415
		31	4155	4155	3809	4201	3463	3463	3114	3114	2763	2763
	17	21	4059	2559	3112	2099	1825	1528	1227	1227	518	518
		23	4096	2936	3160	2481	1901	1901	1681	1681	1241	1241
		25	4068	3308	3135	2850	2428	2428	2059	2059	1676	1676
		27	4059	3672	3135	3219	2782	2782	2422	2422	2055	2055
		29	4004	4004	3476	3834	3126	3126	2772	2772	2415	2415
		31	3983	3983	3809	4201	3463	3463	3114	3114	2763	2763
	19	21	5304	2595	4440	2167	3431	1699	2073	1141	518	518
		23	5279	2979	4419	2554	3417	2099	2066	1533	1241	1227
		25	5258	3348	4401	2926	3408	2473	2066	1920	1676	1676
		27	5231	3705	4378	3278	3389	2807	2422	2422	2055	2055
		29	5203	4077	4357	3657	3373	3209	2772	2772	2415	2415
		31	5187	4433	4346	4019	3369	3369	3114	3114	2763	2763
	21	21	6476	2595	5648	2185	4717	1760	3628	1292	2126	718
		23	6519	2992	5696	2585	4774	2152	3699	1699	2245	1133
		25	6487	3371	5669	2969	4751	2547	3685	2086	2238	1533
		27	6446	3738	5634	3336	4722	2918	3660	2468	2217	1914
		29	6492	4102	5685	3700	4781	3288	3731	2843	2330	2304
		31	6361	4456	5556	4059	4655	3644	3603	3199	2763	2763
	23	23	7765	2984	6962	2587	6079	2183	5089	1760	3926	1295
		25	7808	3376	7012	2982	6136	2569	5155	2150	4006	1692
		27	7384	3748	6586	3353	5708	2949	4715	2526	3520	2051
		29	7767	4112	6980	3723	6118	3326	5148	2913	4018	2468
		31	7652	4471	6870	4082	6010	3685	5045	3273	3914	2830
		31										

COOLING POWER (STANDARD BATTERY 600-601-602)

FCZ 600-601-602			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	3663	3284	2927	2838	2115	3290	1577	1577	1225	1225
		23	3640	3640	2909	3255	2257	2257	1915	1915	1570	1570
		25	3625	3625	2900	3670	2586	2586	2246	2246	1906	1906
		27	3571	3571	3245	4144	2909	2909	2573	2573	2237	2237
		29	3896	3896	3563	4551	3229	3229	2895	2895	2562	2562
		31	4207	4207	3876	4951	3545	3545	3213	3213	2882	2882
	17	21	4610	3287	3885	2846	3100	2400	2228	1943	1163	1163
		23	4634	3701	3916	3267	3136	2824	2271	2271	1570	1570
		25	4601	4113	3885	3679	3111	3111	2251	2251	1906	1906
		27	4586	4522	3876	4090	3104	3104	2573	2573	2237	2237
		29	4528	4528	3823	4494	3229	3229	2895	2895	2562	2562
		31	4503	4503	3876	4951	3545	3545	3213	3213	2882	2882
	19	21	5731	3270	5015	2838	4241	2400	3400	1946	2466	1491
		23	5700	3698	4986	3267	4219	2832	3382	2395	2453	1929
		25	5673	4110	4964	3681	4201	3250	3369	2812	2446	2361
		27	5642	4519	4935	4090	4176	3662	3349	3221	2431	2431
		29	5657	4954	4906	4497	4152	4071	3331	3331	2562	2562
		31	5633	5349	4888	4897	4139	4139	3322	3322	2882	2882
	21	21	6816	3241	6102	2809	5337	2378	4508	1943	3603	1503
		23	6898	3713	6138	3252	5377	2824	4554	2380	3656	1943
		25	6860	4136	6107	3679	5348	3252	4530	2821	3638	2375
		27	6816	4542	6064	4088	5313	3664	4499	3235	3611	2804
		29	6847	4945	6102	4494	5355	4071	4548	3647	3667	3216
		31	6718	5343	5978	4894	5235	4474	4430	4051	3554	3554
	23	23	8068	3679	7312	3224	6554	2798	5737	2369	4852	1940
		25	8101	4113	7350	3662	6596	3238	5786	2801	4908	2372
		27	7692	4536	6945	4085	6196	3662	5388	3238	4512	2809
		29	7999	4906	7305	4488	6562	4068	5760	3647	4892	3224
5	15	31	7886	5303	7196	4889	6456	4471	5660	4054	4797	3630
		21	3342	3085	2508	2596	1799	1799	1439	1439	1059	1059
		23	3325	3325	2495	3017	2146	2146	1795	1795	1434	1434
		25	3313	3313	2826	3610	2484	2484	2139	2139	1790	1790
		27	3491	3491	3153	4028	2815	2815	2475	2475	2130	2130
		29	3809	3809	3476	4440	3140	3140	2804	2804	2464	2464
	17	31	4125	4125	3792	4843	3460	3460	3127	3127	2791	2791
		21	4330	3110	3545	2650	2649	2159	1468	1468	1059	1059
		23	4359	3531	3580	3074	2695	2588	1795	1795	1434	1434
		25	4328	3946	3554	3488	2673	2673	2139	2139	1790	1790
		27	4316	4316	3547	3900	2815	2815	2475	2475	2130	2130
		29	4261	4261	3496	4303	3140	3140	2804	2804	2464	2464
	19	31	4239	4239	3792	4843	3460	3460	3127	3127	2791	2791
		21	5479	3113	4719	2667	3883	2196	2927	1713	1701	1142
		23	5451	3545	4694	3099	3863	2642	2915	2162	1695	1582
		25	5426	3960	4677	3517	3849	3062	2907	2582	1695	1695
		27	5397	4366	4650	3920	3827	3463	2891	2891	2130	2130
		29	5368	4772	4626	4335	3807	3807	2875	2875	2464	2464
	21	31	5346	5173	4610	4735	3798	3798	3127	3127	2791	2791
		21	6582	3096	5835	2656	5021	2210	4121	1753	3073	1247
		23	6616	3539	5875	3102	5068	2647	4176	2190	3156	1710
		25	6582	3963	5846	3528	5044	3088	4156	2625	3142	2145
		27	6540	4372	5809	3940	5010	3502	4127	3051	3120	2576
		29	6578	4778	5851	4346	5059	3911	4185	3466	3187	2994
	23	31	6451	5178	5726	4749	4939	4315	4067	3869	3069	3069
		23	7801	3514	7067	3082	6273	2647	5406	2204	4445	1738
		25	7839	3951	7110	3522	6320	3079	5462	2639	4510	2187
		27	7430	4372	6703	3946	5915	3511	5055	3071	4096	2608
		29	7792	4778	7072	4352	6293	3923	5444	3491	4505	3042
		31	7679	5176	6963	4755	6189	4329	5344	3894	4408	3451
7	15	21	2853	2792	1706	2159	1630	1630	1190	1190	503	503
		23	2838	2838	2362	2994	2001	2001	1630	1630	1203	1203
		25	3053	3053	2706	3457	2355	2355	1997	1997	1626	1626
		27	3385	3385	3042	3886	2697	2697	2348	2348	1993	1993
		29	3709	3709	3371	4306	3031	3031	2689	2689	2342	2342
		31	4030	4030	3694	4718	3358	3358	3020	3020	2680	2680
	17	21	3936	2875	3018	2358	1770	1716	1190	1190	503	503
		23	3972	3298	3064	2787	1844	1844	1630	1630	1203	1203
		25	3945	3715	3040	3201	2355	2355	1997	1997	1626	1626
		27	3936	3936	3040	3616	2697	2697	2348	2348	1993	1993
		29	3883	3883	3371	4306	3031	3031	2689	2689	2342	2342
		31	3863	3863	3694	4718	3358	3358	3020	3020	2680	2680
	19	21	5144	2914	4305	2434	3327	1909	2010	1281	503	503
		23	5119	3346	4285	2869	3313	2358	2004	1721	1203	1203
		25	5099	3761	4268	3287	3305	2778	2004	2004	1626	1626
		27	5073	4161	4245	3681	3287	3153	2348	2348	1993	1993
		29	5046	4579	4225	4107	3271	3271	2689	2689	2342	2342
		31	5030	4980	4214	4514	3267	3267	3020	3020	2680	2680
	21	21	6280	2914	5477	2454	4574	1977	3518	1452	2061	807
		23	6322	3360	5524	2903	4630	2417	3587	1909	2177	1273
		25	6291	3786	5497	3335	4608	2860	3574	2343	2170	1721
		27	6251	4198	5464	3747	4579	3278	3549	2772	2150	2150
		29	6296	4607	5513	4156	4637	3693	3618	3193	2259	2259
		31	6169	5005	5388	4559	4514	4093	3494	3494	2680	2680
	23	23	7530	3352	6752	2906	5895	2451	4935	1977	3807	1454
		25	7572	3792	6800	3349	5951	2886	4999	2414	3885	1900
		27	7161	4210	6387	3767	5535	3312	4572	2838	3414	2304
		29	7532	4619	6769	4181	5933	3735	4992	3272	3896	2772
		31	7421	5022	6663	4585	5829	4139	4892	3676	3796	3179



COOLING POWER (OVERSIZED BATTERY 650)

FCZ 650			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
°C	°C	°C	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	4466	3456	3568	2986	2579	3462	1923	1923	1494	1494
		23	4439	3895	3547	3426	2752	2752	2335	2335	1914	1914
		25	4420	4329	3536	3862	3154	3154	2739	2739	2324	2324
		27	4355	4355	3956	4361	3547	3547	3137	3137	2728	2728
		29	4751	4751	4344	4789	3937	3937	3531	3531	3124	3124
		31	5130	5130	4726	5210	4322	4322	3918	3918	3514	3514
	17	21	5621	3459	4737	2995	3780	2526	2717	2045	1418	1418
		23	5651	3895	4775	3438	3823	2971	2769	2493	1914	1914
		25	5610	4329	4737	3871	3794	3411	2744	2744	2324	2324
		27	5591	4759	4726	4305	3785	3785	3137	3137	2728	2728
		29	5521	5180	4661	4729	3937	3937	3531	3531	3124	3124
		31	5491	5491	4726	5210	4322	4322	3918	3918	3514	3514
	19	21	6988	3441	6115	2986	5171	2526	4146	2048	3007	1569
		23	6950	3892	6079	3438	5144	2980	4124	2520	2991	2030
		25	6917	4326	6052	3874	5122	3420	4108	2959	2983	2484
		27	6879	4756	6017	4305	5092	3853	4084	3390	2964	2964
		29	6898	5213	5982	4732	5063	4284	4062	3826	3124	3124
		31	6869	5629	5960	5154	5046	4705	4051	4051	3514	3514
	21	21	8311	3411	7441	2956	6508	2502	5496	2045	4393	1581
		23	8411	3907	7484	3423	6557	2971	5553	2505	4458	2045
		25	8365	4352	7446	3871	6521	3423	5524	2968	4436	2499
		27	8311	4780	7395	4302	6478	3856	5486	3405	4404	2950
		29	8349	5204	7441	4729	6530	4284	5545	3838	4471	3384
		31	8192	5623	7289	5151	6383	4708	5402	4263	4333	3811
	23	23	9838	3871	8916	3393	7991	2944	6996	2493	5917	2042
		25	9878	4329	8962	3853	8043	3408	7056	2947	5985	2496
		27	9379	4774	8468	4299	7555	3853	6570	3408	5502	2956
		29	9754	5163	8908	4723	8002	4281	7023	3838	5966	3393
		31	9615	5581	8775	5145	7872	4705	6901	4266	5849	3820
		31	9615	5581	8775	5145	7872	4705	6901	4266	5849	3820
5	15	21	4076	3246	3059	2732	2194	2194	1754	1754	1291	1291
		23	4054	3689	3042	3175	2617	2617	2188	2188	1749	1749
		25	4040	4040	3446	3799	3029	3029	2609	2609	2183	2183
		27	4257	4257	3845	4239	3433	3433	3018	3018	2598	2598
		29	4645	4645	4238	4672	3829	3829	3419	3419	3004	3004
		31	5030	5030	4623	5097	4219	4219	3813	3813	3403	3403
	17	21	5280	3273	4322	2789	3230	2272	1790	1650	1291	1291
		23	5315	3716	4366	3234	3286	2723	2188	2188	1749	1749
		25	5277	4152	4333	3671	3259	3163	2609	2609	2183	2183
		27	5263	4583	4325	4104	3433	3433	3018	3018	2598	2598
		29	5195	5007	4263	4529	3829	3829	3419	3419	3004	3004
		31	5168	5168	4623	5097	4219	4219	3813	3813	3403	3403
	19	21	6681	3276	5754	2807	4734	2311	3568	1803	2074	1202
		23	6646	3731	5724	3261	4710	2780	3555	2275	2066	1665
		25	6616	4167	5703	3701	4694	3222	3544	2717	2066	2066
		27	6581	4595	5670	4125	4667	3644	3525	3127	2598	2598
		29	6546	5022	5640	4562	4642	4086	3506	3506	3004	3004
		31	6519	5444	5621	4983	4631	4514	3813	3813	3403	3403
	21	21	8026	3258	7115	2795	6123	2326	5025	1844	3747	1312
		23	8067	3725	7164	3264	6180	2786	5092	2305	3848	1800
		25	8026	4170	7129	3713	6150	3249	5068	2762	3832	2257
		27	7975	4601	7083	4146	6109	3686	5033	3211	3804	2711
		29	8021	5028	7134	4574	6169	4116	5103	3647	3886	3151
		31	7866	5449	6982	4998	6023	4541	4960	4071	3742	3575
	23	23	9512	3698	8618	3243	7649	2786	6592	2320	5421	1829
		25	9558	4158	8669	3707	7706	3240	6660	2777	5499	2302
		27	9060	4601	8173	4152	7213	3695	6164	3231	4995	2744
		29	9502	5028	8623	4580	7674	4128	6638	3674	5494	3202
		31	9363	5447	8490	5004	7546	4556	6516	4098	5374	3632
		31	9363	5447	8490	5004	7546	4556	6516	4098	5374	3632
7	15	21	3479	2938	2080	2272	1988	1988	1451	1451	613	613
		23	3460	3381	2880	3151	2440	2440	1988	1988	1467	1467
		25	3723	3723	3300	3638	2872	2872	2435	2435	1982	1982
		27	4127	4127	3709	4089	3289	3289	2863	2863	2430	2430
		29	4523	4523	4111	4532	3696	3696	3278	3278	2855	2855
		31	4913	4913	4504	4965	4095	4095	3682	3682	3268	3268
	17	21	4800	3025	3680	2481	2158	1806	1451	1451	613	613
		23	4843	3471	3737	2933	2248	2248	1988	1988	1467	1467
		25	4810	3910	3707	3369	2872	2872	2435	2435	1982	1982
		27	4800	4340	3707	3805	3289	3289	2863	2863	2430	2430
		29	4734	4734	4111	4532	3696	3696	3278	3278	2855	2855
		31	4710	4710	4504	4965	4095	4095	3682	3682	3268	3268
	19	21	6272	3067	5250	2562	4057	2009	2451	1348	613	613
		23	6242	3521	5225	3019	4040	2481	2443	1812	1467	1450
		25	6218	3958	5204	3459	4029	2924	2443	2269	1982	1982
		27	6185	4379	5176	3874	4008	3318	2863	2863	2430	2430
		29	6153	4819	5152	4323	3989	3793	3278	3278	2855	2855
		31	6134	5240	5139	4750	3983	3983	3682	3682	3268	3268
	21	21	7658	3067	6679	2583	5578	2081	4290	1528	2514	849
		23	7709	3536	6736	3055	5646	2544	4374	2009	2655	1339
		25	7671	3985	6703	3509	5618	3010	4358	2466	2647	1812
		27	7622	4418	6662	3943	5583	3450	4328	2918	2622	2263
		29	7677	4849	6722	4373	5654	3886	4412	3360	2755	2723
		31	7522	5267	6570	4798	5505	4308	4260	3781	3268	3268
	23	23	9182	3527	8232	3058	7189	2580	6017	2081	4642	1531
		25	9233	3991	8292	3524	7256	3037	6096	2541	4737	2000
		27	8731	4430	7788	3964	6749	3486	5575	2986	4162	2424
		29	9184	4861	8254	4400	7235	3931	6088	3444	4751	2918
		31	9049	5285	8124	4825	7107	4355	5966	3868	4629	3345

COOLING POWER (STANDARD BATTERY 700-701-702)

FCZ 700-701-702			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	4332	3606	3462	3116	2501	3613	1865	1865	1449	1449
		23	4306	4065	3440	3575	2670	2670	2265	2265	1857	1857
		25	4287	4287	3430	4030	3059	3059	2657	2657	2254	2254
		27	4224	4224	3838	4551	3440	3440	3043	3043	2646	2646
		29	4608	4608	4214	4998	3819	3819	3425	3425	3030	3030
		31	4977	4977	4585	5437	4193	4193	3801	3801	3409	3409
	17	21	5453	3609	4595	3126	3667	2636	2636	2134	1376	1376
		23	5482	4065	4632	3588	3709	3101	2686	2602	1857	1857
		25	5442	4517	4595	4040	3680	3559	2662	2662	2254	2254
		27	5424	4966	4585	4492	3672	3672	3043	3043	2646	2646
		29	5355	5355	4522	4935	3819	3819	3425	3425	3030	3030
		31	5326	5326	4585	5437	4193	4193	3801	3801	3409	3409
	19	21	6778	3591	5931	3116	5016	2636	4022	2137	2917	1638
		23	6742	4062	5897	3588	4990	3110	4001	2630	2901	2118
		25	6710	4514	5871	4043	4969	3569	3985	3088	2893	2592
		27	6673	4963	5837	4492	4940	4021	3961	3538	2875	2875
		29	6692	5441	5802	4938	4911	4470	3940	3940	3030	3030
		31	6663	5874	5781	5378	4895	4895	3930	3930	3409	3409
	21	21	8062	3559	7218	3085	6313	2611	5332	2134	4261	1650
		23	8159	4077	7260	3572	6360	3101	5387	2614	4324	2134
		25	8115	4542	7223	4040	6326	3572	5358	3098	4303	2608
		27	8062	4988	7173	4489	6284	4024	5321	3553	4272	3079
		29	8099	5431	7218	4935	6334	4470	5379	4006	4337	3531
		31	7946	5868	7070	5375	6192	4913	5240	4449	4203	3977
	23	23	9543	4040	8648	3541	7752	3073	6786	2602	5739	2131
		25	9582	4517	8693	4021	7802	3556	6844	3076	5805	2605
		27	9098	4982	8214	4486	7328	4021	6373	3556	5337	3085
		29	9461	5387	8641	4929	7762	4467	6813	4006	5787	3541
		31	9327	5824	8512	5369	7636	4910	6694	4452	5674	3987
5	15	21	3953	3388	2967	2851	2128	2128	1702	1702	1252	1252
		23	3932	3850	2951	3313	2538	2538	2123	2123	1697	1697
		25	3919	3919	3343	3965	2938	2938	2530	2530	2117	2117
		27	4130	4130	3730	4424	3330	3330	2928	2928	2520	2520
		29	4506	4506	4111	4876	3714	3714	3317	3317	2914	2914
		31	4879	4879	4485	5319	4093	4093	3698	3698	3301	3301
	17	21	5121	3416	4193	2911	3133	2371	1736	1722	1252	1252
		23	5155	3878	4235	3375	3188	2842	2123	2123	1697	1697
		25	5119	4333	4203	3831	3162	3162	2530	2530	2117	2117
		27	5105	4782	4195	4283	3330	3330	2928	2928	2520	2520
		29	5040	5040	4135	4726	3714	3714	3317	3317	2914	2914
		31	5013	5013	4485	5319	4093	4093	3698	3698	3301	3301
	19	21	6481	3419	5582	2929	4593	2411	3462	1881	2012	1254
		23	6447	3893	5553	3403	4569	2901	3448	2374	2004	1738
		25	6418	4349	5532	3862	4553	3363	3438	2836	2004	2004
		27	6384	4795	5500	4305	4527	3803	3419	3263	2520	2520
		29	6350	5241	5471	4760	4503	4264	3401	3401	2914	2914
		31	6323	5681	5453	5200	4493	4493	3698	3698	3301	3301
	21	21	7786	3400	6902	2917	5939	2427	4874	1925	3635	1369
		23	7825	3887	6949	3407	5995	2907	4940	2405	3732	1878
		25	7786	4352	6915	3875	5966	3391	4916	2882	3717	2355
		27	7736	4801	6870	4327	5926	3846	4882	3350	3690	2829
		29	7780	5247	6920	4773	5984	4296	4950	3806	3769	3288
		31	7631	5687	6773	5216	5842	4739	4811	4249	3630	3630
	23	23	9227	3859	8359	3385	7420	2907	6394	2421	5258	1909
		25	9272	4339	8409	3868	7475	3382	6460	2898	5334	2402
		27	8788	4801	7928	4333	6997	3856	5979	3372	4845	2864
		29	9217	5247	8364	4779	7444	4308	6439	3834	5329	3341
		31	9082	5684	8236	5222	7320	4754	6321	4277	5213	3790
7	15	21	3375	3067	2017	2371	1928	1928	1407	1407	594	594
		23	3356	3356	2793	3288	2367	2367	1928	1928	1423	1423
		25	3611	3611	3201	3797	2786	2786	2362	2362	1923	1923
		27	4003	4003	3598	4268	3191	3191	2778	2778	2357	2357
		29	4387	4387	3988	4729	3585	3585	3180	3180	2770	2770
		31	4766	4766	4369	5182	3972	3972	3572	3572	3170	3170
	17	21	4656	3157	3569	2589	2094	1884	1407	1407	594	594
		23	4698	3622	3625	3060	2181	2181	1928	1928	1423	1423
		25	4666	4080	3596	3516	2786	2786	2362	2362	1923	1923
		27	4656	4530	3596	3971	3191	3191	2778	2778	2357	2357
		29	4593	4593	3988	4729	3585	3585	3180	3180	2770	2770
		31	4569	4569	4369	5182	3972	3972	3572	3572	3170	3170
	19	21	6084	3201	5092	2673	3935	2096	2378	1407	594	594
		23	6055	3675	5069	3151	3919	2589	2370	1890	1423	1423
		25	6031	4130	5048	3609	3909	3051	2370	2368	1923	1923
		27	6000	4570	5021	4043	3888	3463	2778	2778	2357	2357
		29	5968	5029	4998	4511	3869	3869	3180	3180	2770	2770
		31	5950	5469	4984	4957	3864	3864	3572	3572	3170	3170
	21	21	7428	3201	6478	2695	5411	2171	4161	1594	2438	886
		23	7478	3690	6534	3188	5476	2655	4243	2096	2575	1398
		25	7441	4158	6502	3662	5450	3141	4227	2574	2567	1890
		27	7394	4611	6463	4115	5416	3600	4198	3045	2544	2362
		29	7446	5060	6521	4564	5484	4055	4280	3506	2672	2672
		31	7297	5497	6373	5007	5340	4495	4132	3946	3170	3170
	23	23	8906	3681	7986	3191	6973	2692	5837	2171	4503	1597
		25	8956	4165	8044	3678	7039	3169	5913	2652	4595	2087
		27	8470	4623	7554	4137	6547	3637	5408	3116	4038	2530
		29	8909	5072	8007	4592	7018	4102	5905	3594	4608	3045
		31	8777	5515	7880	5035	6894	4545	5787	4037	4490	3491

COOLING POWER (OVERSIZED BATTERY 750)

FCZ 750			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	4837	3954	3865	3417	2793	3962	2082	2082	1618	1618
		23	4807	4457	3841	3920	2981	2981	2528	2528	2073	2073
		25	4787	4787	3829	4419	3415	3415	2966	2966	2517	2517
		27	4716	4716	4285	4990	3841	3841	3398	3398	2954	2954
		29	5145	5145	4704	5479	4264	4264	3823	3823	3383	3383
		31	5556	5556	5119	5962	4681	4681	4243	4243	3806	3806
	17	21	6088	3957	5130	3427	4094	2890	2942	2340	1536	1536
		23	6120	4457	5171	3933	4141	3400	2998	2853	2073	2073
		25	6076	4953	5130	4429	4108	3903	2972	2972	2517	2517
		27	6055	5445	5119	4925	4100	4100	3398	3398	2954	2954
		29	5979	5928	5048	5411	4264	4264	3823	3823	3383	3383
		31	5947	5947	5119	5962	4681	4681	4243	4243	3806	3806
	19	21	7568	3937	6622	3417	5600	2890	4490	2343	3257	1796
		23	7527	4453	6584	3933	5571	3410	4467	2883	3239	2322
		25	7491	4949	6555	4433	5547	3913	4449	3386	3230	2842
		27	7450	5442	6516	4925	5515	4409	4423	3879	3210	3210
		29	7471	5965	6478	5415	5483	4901	4399	4378	3383	3383
		31	7438	6441	6455	5897	5465	5384	4387	4387	3806	3806
	21	21	9001	3903	8058	3383	7048	2863	5953	2340	4757	1809
		23	9109	4470	8105	3916	7101	3400	6014	2866	4828	2340
		25	9059	4980	8064	4429	7063	3916	5982	3396	4804	2859
		27	9001	5469	8008	4922	7016	4412	5941	3896	4769	3376
		29	9042	5955	8058	5411	7071	4901	6005	4392	4842	3872
		31	8872	6434	7894	5893	6913	5387	5850	4877	4693	4361
	23	23	10654	4429	9656	3882	8654	3369	7576	2853	6408	2336
		25	10698	4953	9706	4409	8710	3899	7641	3373	6481	2856
		27	10158	5462	9171	4919	8181	4409	7115	3899	5958	3383
		29	10563	5907	9647	5404	8666	4898	7606	4392	6461	3882
		31	10413	6386	9503	5887	8525	5384	7474	4881	6334	4371
		31	10413	6386	9503	5887	8525	5384	7474	4881	6334	4371
5	15	21	4414	3715	3313	3126	2376	2376	1900	1900	1398	1398
		23	4390	4221	3295	3632	2834	2834	2370	2370	1894	1894
		25	4376	4376	3732	4347	3280	3280	2825	2825	2364	2364
		27	4610	4610	4164	4850	3718	3718	3268	3268	2813	2813
		29	5030	5030	4590	5346	4147	4147	3703	3703	3254	3254
		31	5447	5447	5007	5832	4569	4569	4129	4129	3685	3685
	17	21	5718	3745	4681	3191	3498	2600	1938	1888	1398	1398
		23	5756	4252	4728	3701	3559	3116	2370	2370	1894	1894
		25	5715	4751	4693	4200	3530	3530	2825	2825	2364	2364
		27	5700	5243	4684	4696	3718	3718	3268	3268	2813	2813
		29	5627	5627	4616	5182	4147	4147	3703	3703	3254	3254
		31	5597	5597	5007	5832	4569	4569	4129	4129	3685	3685
	19	21	7236	3749	6232	3212	5127	2644	3865	2063	2247	1375
		23	7198	4269	6199	3732	5101	3181	3850	2603	2238	1905
		25	7165	4768	6176	4234	5083	3687	3838	3109	2238	2238
		27	7127	5257	6140	4720	5054	4169	3818	3578	2813	2813
		29	7089	5746	6108	5220	5028	4676	3797	3797	3254	3254
		31	7060	6229	6088	5702	5016	5016	4129	4129	3685	3685
	21	21	8692	3728	7706	3198	6631	2661	5442	2110	4058	1502
		23	8736	4262	7759	3735	6693	3188	5515	2637	4167	2059
		25	8692	4771	7720	4248	6660	3718	5489	3160	4149	2582
		27	8637	5264	7670	4744	6616	4217	5450	3674	4120	3102
		29	8687	5753	7726	5233	6681	4710	5527	4173	4208	3605
		31	8519	6235	7562	5719	6522	5196	5371	4659	4053	4053
	23	23	10302	4231	9333	3711	8284	3188	7139	2654	5870	2093
		25	10352	4758	9388	4241	8346	3708	7212	3178	5955	2634
		27	9811	5264	8851	4751	7811	4228	6675	3697	5409	3140
		29	10290	5753	9338	5240	8311	4724	7189	4204	5950	3663
		31	10140	6232	9195	5726	8173	5213	7057	4689	5820	4156
		31	10140	6232	9195	5726	8173	5213	7057	4689	5820	4156
7	15	21	3768	3362	2252	2600	2153	2153	1571	1571	664	664
		23	3747	3747	3119	3605	2643	2643	2153	2153	1589	1589
		25	4032	4032	3574	4163	3110	3110	2637	2637	2147	2147
		27	4470	4470	4017	4679	3562	3562	3101	3101	2631	2631
		29	4898	4898	4452	5185	4003	4003	3550	3550	3092	3092
		31	5321	5321	4878	5681	4434	4434	3988	3988	3539	3539
	17	21	5198	3461	3985	2839	2338	2066	1571	1571	664	664
		23	5245	3971	4047	3355	2434	2434	2153	2153	1589	1589
		25	5210	4474	4014	3855	3110	3110	2637	2637	2147	2147
		27	5198	4966	4014	4354	3562	3562	3101	3101	2631	2631
		29	5127	5127	4452	5185	4003	4003	3550	3550	3092	3092
		31	5101	5101	4878	5681	4434	4434	3988	3988	3539	3539
	19	21	6792	3509	5685	2931	4393	2299	2655	1543	664	664
		23	6760	4029	5659	3455	4376	2839	2646	2073	1589	1589
		25	6734	4529	5635	3957	4364	3345	2646	2596	2147	2147
		27	6698	5011	5606	4433	4340	3797	3101	3101	2631	2631
		29	6663	5514	5580	4946	4320	4320	3550	3550	3092	3092
		31	6643	5996	5565	5435	4314	4314	3988	3988	3539	3539
	21	21	8293	3509	7233	2955	6041	2381	4646	1748	2722	971
		23	8349	4046	7295	3496	6114	2911	4737	2299	2875	1532
		25	8308	4559	7259	4016	6085	3444	4719	2822	2866	2073
		27	8255	5055	7215	4512	6047	3947	4687	3338	2840	2589
		29	8314	5548	7280	5004	6123	4447	4778	3845	2984	2984
		31	8146	6027	7115	5490	5961	4929	4613	4327	3539	3539
	23	23	9943	4036	8916	3499	7785	2952	6516	2381	5028	1751
		25	9999	4566	8980	4033	7858	3475	6602	2907	5130	2288
		27	9456	5069	8434	4535	7309	3988	6038	3417	4508	2774
		29	9946	5562	8939	5035	7835	4498	6593	3940	5145	3338
		31	9800	6047	8798	5521	7697	4984	6461	4426	5013	3827
		31	9800	6047	8798	5521	7697	4984	6461	4426	5013	3827

COOLING POWER (STANDARD BATTERY 800-801-802)

FCZ 800-801-802			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	4805	4046	3839	3497	2774	4054	2068	2068	1607	1607
		23	4776	4561	3816	4011	2961	2961	2512	2512	2060	2060
		25	4755	4755	3804	4522	3393	3393	2946	2946	2500	2500
		27	4685	4685	4256	5107	3816	3816	3375	3375	2935	2935
		29	5111	5111	4673	5607	4236	4236	3798	3798	3361	3361
		31	5519	5519	5085	6101	4650	4650	4215	4215	3781	3781
	17	21	6047	4050	5096	3507	4067	2958	2923	2394	1526	1526
		23	6080	4561	5137	4025	4113	3479	2979	2919	2060	2060
		25	6036	5068	5096	4533	4081	3994	2952	2952	2500	2500
		27	6015	5572	5085	5040	4073	4073	3375	3375	2935	2935
		29	5940	5940	5015	5537	4236	4236	3798	3798	3361	3361
		31	5907	5907	5085	6101	4650	4650	4215	4215	3781	3781
	19	21	7518	4029	6578	3497	5563	2958	4460	2398	3235	1838
		23	7477	4557	6541	4025	5534	3490	4437	2951	3218	2377
		25	7442	5065	6511	4536	5511	4004	4420	3465	3209	2909
		27	7401	5569	6473	5040	5479	4512	4393	3969	3189	3189
		29	7422	6104	6435	5541	5447	5016	4370	4370	3361	3361
		31	7389	6591	6412	6034	5429	5429	4358	4358	3781	3781
	21	21	8941	3994	8005	3462	7001	2930	5913	2394	4726	1852
		23	9049	4575	8052	4008	7054	3479	5975	2933	4796	2394
		25	9000	5096	8011	4533	7016	4008	5942	3476	4773	2926
		27	8941	5597	7955	5037	6969	4515	5902	3987	4738	3455
		29	8982	6094	8005	5537	7025	5016	5966	4494	4811	3962
		31	8813	6584	7842	6031	6867	5513	5811	4991	4662	4463
	23	23	10584	4533	9592	3973	8597	3448	7527	2919	6365	2391
		25	10628	5068	9642	4512	8653	3990	7591	3451	6438	2923
		27	10091	5590	9111	5033	8127	4512	7069	3990	5919	3462
		29	10493	6045	9583	5530	8609	5012	7556	4494	6418	3973
		31	10345	6535	9440	6024	8469	5509	7424	4995	6293	4473
5	15	21	4385	3801	3291	3199	2360	2360	1887	1887	1389	1389
		23	4361	4319	3273	3717	2815	2815	2354	2354	1882	1882
		25	4347	4347	3708	4449	3259	3259	2806	2806	2348	2348
		27	4580	4580	4137	4963	3693	3693	3247	3247	2795	2795
		29	4997	4997	4560	5471	4119	4119	3679	3679	3232	3232
		31	5412	5412	4974	5968	4539	4539	4102	4102	3661	3661
	17	21	5680	3833	4650	3266	3474	2660	1925	1925	1389	1389
		23	5718	4351	4697	3787	3536	3189	2354	2354	1882	1882
		25	5677	4862	4662	4298	3507	3507	2806	2806	2348	2348
		27	5662	5366	4653	4806	3693	3693	3247	3247	2795	2795
		29	5589	5589	4586	5303	4119	4119	3679	3679	3232	3232
		31	5560	5560	4974	5968	4539	4539	4102	4102	3661	3661
	19	21	7188	3836	6190	3287	5094	2706	3839	2111	2232	1407
		23	7150	4368	6158	3819	5067	3255	3825	2664	2223	1950
		25	7118	4879	6135	4333	5050	3773	3813	3182	2223	2223
		27	7080	5380	6100	4830	5021	4267	3792	3661	2795	2795
		29	7042	5880	6068	5341	4994	4785	3772	3772	3232	3232
		31	7013	6374	6047	5835	4983	4983	4102	4102	3661	3661
	21	21	8635	3815	7655	3273	6587	2723	5406	2160	4032	1537
		23	8679	4361	7707	3822	6648	3262	5479	2699	4140	2107
		25	8635	4883	7669	4347	6616	3805	5452	3234	4122	2643
		27	8580	5387	7620	4855	6573	4316	5414	3759	4093	3175
		29	8629	5887	7675	5355	6637	4820	5490	4270	4180	3689
		31	8463	6381	7512	5852	6479	5317	5336	4767	4026	4026
	23	23	10234	4330	9271	3798	8230	3262	7092	2716	5832	2142
		25	10283	4869	9326	4340	8291	3794	7165	3252	5916	2695
		27	9747	5387	8793	4862	7760	4326	6631	3784	5374	3213
		29	10222	5887	9277	5362	8256	4834	7141	4302	5910	3749
		31	10073	6377	9134	5859	8119	5334	7010	4799	5782	4253
7	15	21	3743	3441	2238	2660	2138	2138	1561	1561	659	659
		23	3722	3722	3098	3689	2626	2626	2138	2138	1578	1578
		25	4005	4005	3550	4260	3089	3089	2620	2620	2133	2133
		27	4440	4440	3991	4788	3539	3539	3081	3081	2614	2614
		29	4866	4866	4423	5306	3976	3976	3527	3527	3072	3072
		31	5286	5286	4846	5814	4405	4405	3962	3962	3515	3515
	17	21	5164	3542	3959	2905	2322	2114	1561	1561	659	659
		23	5210	4064	4020	3434	2418	2418	2138	2138	1578	1578
		25	5175	4578	3988	3945	3089	3089	2620	2620	2133	2133
		27	5164	5082	3988	4456	3539	3539	3081	3081	2614	2614
		29	5094	5094	4423	5306	3976	3976	3527	3527	3072	3072
		31	5067	5067	4846	5814	4405	4405	3962	3962	3515	3515
	19	21	6748	3591	5648	3000	4364	2352	2637	1579	659	659
		23	6716	4123	5622	3535	4347	2905	2628	2121	1578	1578
		25	6689	4634	5598	4050	4335	3423	2628	2628	2133	2133
		27	6654	5128	5569	4536	4312	3885	3081	3081	2614	2614
		29	6619	5642	5543	5061	4291	4291	3527	3527	3072	3072
		31	6599	6136	5528	5562	4285	4285	3962	3962	3515	3515
	21	21	8238	3591	7185	3024	6001	2436	4615	1789	2704	994
		23	8294	4141	7246	3577	6074	2979	4706	2352	2856	1568
		25	8253	4666	7211	4109	6045	3525	4688	2888	2847	2121
		27	8200	5173	7168	4617	6007	4039	4656	3416	2821	2650
		29	8259	5677	7232	5121	6082	4550	4746	3934	2964	2964
		31	8092	6167	7069	5618	5922	5044	4583	4428	3515	3515
	23	23	9878	4130	8857	3581	7734	3021	6473	2436	4994	1792
		25	9933	4673	8921	4127	7807	3556	6558	2975	5096	2342
		27	9394	5187	8378	4641	7261	4081	5998	3497	4478	2839
		29	9881	5691	8880	5152	7783	4603	6549	4032	5111	3416
		31	9735	6188	8740	5649	7646	5100	6418	4529	4980	3917



COOLING POWER (OVERSIZED BATTERY 850)

FCZ850			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
°C	°C	°C	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	5443	4490	4349	3880	3143	4499	2343	2343	1821	1821
		23	5410	5061	4322	4451	3354	3354	2845	2845	2333	2333
		25	5387	5387	4309	5018	3843	3843	3338	3338	2832	2832
		27	5307	5307	4821	5667	4322	4322	3823	3823	3324	3324
		29	5790	5790	5294	6222	4798	4798	4303	4303	3807	3807
		31	6252	6252	5760	6770	5268	5268	4775	4775	4283	4283
	17	21	6851	4494	5773	3892	4607	3282	3311	2657	1728	1728
		23	6887	5061	5819	4467	4660	3861	3374	3239	2333	2333
		25	6837	5624	5773	5030	4623	4432	3344	3344	2832	2832
		27	6814	6183	5760	5593	4613	4613	3823	3823	3324	3324
		29	6728	6728	5681	6145	4798	4798	4303	4303	3807	3807
		31	6692	6692	5760	6770	5268	5268	4775	4775	4283	4283
	19	21	8516	4471	7452	3880	6302	3282	5053	2661	3665	2039
		23	8470	5057	7409	4467	6269	3872	5026	3274	3645	2637
		25	8430	5620	7376	5034	6242	4443	5007	3845	3635	3228
		27	8384	6180	7333	5593	6206	5007	4977	4405	3612	3612
		29	8407	6774	7290	6148	6170	5566	4950	4950	3807	3807
		31	8371	7314	7264	6696	6150	6114	4937	4937	4283	4283
	21	21	10129	4432	9068	3841	7931	3251	6699	2657	5354	2055
		23	10251	5076	9121	4447	7991	3861	6768	3255	5433	2657
		25	10195	5655	9075	5030	7948	4447	6732	3857	5406	3247
		27	10129	6211	9012	5589	7895	5010	6685	4424	5367	3834
		29	10175	6762	9068	6145	7958	5566	6758	4987	5449	4397
		31	9983	7306	8883	6692	7779	6117	6583	5539	5281	4952
	23	23	11989	5030	10866	4408	9739	3826	8526	3239	7211	2653
		25	12039	5624	10922	5007	9802	4428	8599	3830	7293	3243
		27	11431	6203	10320	5585	9207	5007	8007	4428	6705	3841
		29	11887	6708	10856	6137	9752	5562	8559	4987	7270	4408
		31	11718	7252	10694	6684	9593	6114	8410	5543	7128	4964
		31	11718	7252	10694	6684	9593	6114	8410	5543	7128	4964
5	15	21	4967	4218	3728	3550	2673	2673	2138	2138	1573	1573
		23	4940	4793	3708	4125	3189	3189	2667	2667	2131	2131
		25	4924	4924	4200	4937	3691	3691	3179	3179	2660	2660
		27	5188	5188	4686	5508	4184	4184	3678	3678	3166	3166
		29	5661	5661	5165	6071	4666	4666	4167	4167	3662	3662
		31	6130	6130	5634	6622	5142	5142	4646	4646	4147	4147
	17	21	6434	4253	5268	3624	3936	2952	2181	2144	1573	1573
		23	6477	4828	5320	4203	4005	3538	2667	2667	2131	2131
		25	6431	5395	5281	4770	3972	3972	3179	3179	2660	2660
		27	6414	5954	5271	5333	4184	4184	3678	3678	3166	3166
		29	6332	6332	5195	5884	4666	4666	4167	4167	3662	3662
		31	6299	6299	5634	6622	5142	5142	4646	4646	4147	4147
	19	21	8143	4257	7012	3647	5770	3002	4349	2342	2528	1561
		23	8100	4847	6976	4238	5740	3612	4332	2956	2518	2163
		25	8063	5414	6950	4808	5720	4187	4319	3531	2518	2518
		27	8020	5970	6910	5360	5687	4735	4296	4063	3166	3166
		29	7977	6525	6874	5927	5658	5310	4273	4273	3662	3662
		31	7944	7073	6851	6475	5644	5644	4646	4646	4147	4147
	21	21	9782	4234	8671	3632	7462	3022	6123	2396	4567	1705
		23	9831	4840	8731	4241	7531	3620	6206	2995	4689	2338
		25	9782	5418	8688	4824	7495	4222	6176	3589	4669	2932
		27	9719	5978	8632	5387	7445	4789	6133	4171	4636	3523
		29	9775	6533	8695	5943	7518	5348	6219	4739	4736	4094
		31	9587	7081	8509	6494	7340	5900	6044	5290	4560	4560
	23	23	11593	4805	10502	4214	9322	3620	8034	3014	6606	2377
		25	11649	5403	10565	4816	9392	4210	8116	3608	6702	2991
		27	11041	5978	9960	5395	8790	4801	7511	4199	6087	3566
		29	11579	6533	10509	5950	9352	5364	8090	4774	6695	4160
		31	11411	7077	10347	6502	9197	5919	7941	5325	6550	4719
		31	11411	7077	10347	6502	9197	5919	7941	5325	6550	4719
7	15	21	4240	3818	2535	2952	2422	2422	1768	1768	747	747
		23	4217	4217	3510	4094	2974	2974	2422	2422	1788	1788
		25	4537	4537	4022	4727	3500	3500	2968	2968	2416	2416
		27	5030	5030	4521	5313	4009	4009	3490	3490	2961	2961
		29	5512	5512	5010	5888	4504	4504	3995	3995	3480	3480
		31	5988	5988	5489	6451	4990	4990	4488	4488	3982	3982
	17	21	5849	3931	4484	3224	2630	2346	1768	1768	747	747
		23	5902	4509	4554	3810	2740	2740	2422	2422	1788	1788
		25	5862	5080	4517	4377	3500	3500	2968	2968	2416	2416
		27	5849	5640	4517	4944	4009	4009	3490	3490	2961	2961
		29	5770	5770	5010	5888	4504	4504	3995	3995	3480	3480
		31	5740	5740	5489	6451	4990	4990	4488	4488	3982	3982
	19	21	7644	3985	6398	3329	4944	2610	2987	1752	747	747
		23	7607	4575	6368	3923	4924	3224	2977	2354	1788	1788
		25	7578	5142	6342	4494	4911	3799	2977	2948	2416	2416
		27	7538	5690	6309	5034	4884	4311	3490	3490	2961	2961
		29	7498	6261	6279	5616	4861	4861	3995	3995	3480	3480
		31	7475	6809	6262	6172	4855	4855	4488	4488	3982	3982
	21	21	9332	3985	8139	3356	6798	2703	5228	1985	3063	1103
		23	9395	4595	8209	3970	6880	3305	5330	2610	3235	1740
		25	9349	5177	8169	4560	6847	3911	5311	3204	3225	2354
		27	9289	5741	8119	5123	6804	4482	5274	3791	3196	2940
		29	9355	6300	8192	5682	6890	5049	5377	4366	3358	3358
		31	9167	6844	8007	6234	6708	5597	5192	4913	3982	3982
	23	23	11190	4583	10033	3973	8761	3352	7333	2703	5658	1989
		25	11252	5185	10106	4579	8843	3946	7429	3301	5773	2598
		27	10641	5756	9491	5150	8225	4529	6794	3880	5073	3150
		29	11193	6315	10059	5717	8817	5108	7419	4474	5790	3791
		31	11028	6867	9901	6269	8661	5659	7270	5026	5641	4346
		31	11028	6867	9901	6269	8661	5659	7270	5026	5641	4346

COOLING POWER (STANDARD BATTERY 900-901)

FCZ 900-901			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	5443	4758	4349	4112	3143	4767	2343	2343	1821	1821
		23	5410	5363	4322	4717	3354	3354	2845	2845	2333	2333
		25	5387	5387	4309	5318	3843	3843	3338	3338	2832	2832
		27	5307	5307	4821	6005	4322	4322	3823	3823	3324	3324
		29	5790	5790	5294	6594	4798	4798	4303	4303	3807	3807
		31	6252	6252	5760	7174	5268	5268	4775	4775	4283	4283
	17	21	6851	4762	5773	4124	4607	3478	3311	2815	1728	1728
		23	6887	5363	5819	4733	4660	4091	3374	3374	2333	2333
		25	6837	5960	5773	5330	4623	4623	3344	3344	2832	2832
		27	6814	6553	5760	5927	4613	4613	3823	3823	3324	3324
		29	6728	6728	5681	6511	4798	4798	4303	4303	3807	3807
		31	6692	6692	5760	7174	5268	5268	4775	4775	4283	4283
	19	21	8516	4737	7452	4112	6302	3478	5053	2819	3665	2161
		23	8470	5359	7409	4733	6269	4104	5026	3470	3645	2795
		25	8430	5956	7376	5334	6242	4709	5007	4075	3635	3420
		27	8384	6548	7333	5927	6206	5305	4977	4667	3612	3612
		29	8407	7178	7290	6516	6170	5898	4950	4950	3807	3807
		31	8371	7750	7264	7096	6150	6150	4937	4937	4283	4283
	21	21	10129	4696	9068	4071	7931	3445	6699	2815	5354	2177
		23	10251	5380	9121	4713	7991	4091	6768	3449	5433	2815
		25	10195	5993	9075	5330	7948	4713	6732	4087	5406	3441
		27	10129	6581	9012	5923	7895	5310	6685	4688	5367	4062
		29	10175	7166	9068	6511	7958	5898	6758	5285	5449	4659
		31	9983	7742	8883	7092	7779	6483	6583	5869	5281	5248
	23	23	11989	5330	10866	4672	9739	4054	8526	3433	7211	2811
		25	12039	5960	10922	5305	9802	4692	8599	4058	7293	3437
		27	11431	6573	10320	5919	9207	5305	8007	4692	6705	4071
		29	11887	7108	10856	6503	9752	5894	8559	5285	7270	4672
5	15	31	11718	7684	10694	7084	9593	6478	8410	5873	7128	5260
		21	4967	4470	3728	3762	2673	2673	2138	2138	1573	1573
		23	4940	4940	3708	4371	3189	3189	2667	2667	2131	2131
		25	4924	4924	4200	5231	3691	3691	3179	3179	2660	2660
		27	5188	5188	4686	5836	4184	4184	3678	3678	3166	3166
		29	5661	5661	5165	6433	4666	4666	4167	4167	3662	3662
	17	31	6130	6130	5634	7018	5142	5142	4646	4646	4147	4147
		21	6434	4507	5268	3840	3936	3128	2181	2181	1573	1573
		23	6477	5116	5320	4453	4005	3750	2667	2667	2131	2131
		25	6431	5717	5281	5054	3972	3972	3179	3179	2660	2660
		27	6414	6310	5271	5651	4184	4184	3678	3678	3166	3166
		29	6332	6332	5195	6236	4666	4666	4167	4167	3662	3662
	19	31	6299	6299	5634	7018	5142	5142	4646	4646	4147	4147
		21	8143	4511	7012	3865	5770	3182	4349	2482	2528	1655
		23	8100	5137	6976	4490	5740	3828	4332	3132	2518	2293
		25	8063	5738	6950	5096	5720	4437	4319	3741	2518	2518
		27	8020	6326	6910	5680	5687	5017	4296	4296	3166	3166
		29	7977	6915	6874	6281	5658	5626	4273	4273	3662	3662
	21	31	7944	7495	6851	6861	5644	5644	4646	4646	4147	4147
		21	9782	4486	8671	3848	7462	3202	6123	2540	4567	1807
		23	9831	5128	8731	4495	7531	3836	6206	3173	4689	2478
		25	9782	5742	8688	5112	7495	4474	6176	3803	4669	3108
		27	9719	6334	8632	5709	7445	5075	6133	4421	4636	3733
		29	9775	6923	8695	6297	7518	5668	6219	5021	4736	4338
	23	31	9587	7503	8509	6882	7340	6252	6044	5606	4560	4560
		23	11593	5091	10502	4466	9322	3836	8034	3194	6606	2519
		25	11649	5725	10565	5104	9392	4462	8116	3824	6702	3169
		27	11041	6334	9960	5717	8790	5087	7511	4449	6087	3778
		29	11579	6923	10509	6306	9352	5684	8090	5058	6695	4408
		31	11411	7499	10347	6890	9197	6273	7941	5643	6550	5001
7	15	21	4240	4046	2535	3128	2422	2422	1768	1768	747	747
		23	4217	4217	3510	4338	2974	2974	2422	2422	1788	1788
		25	4537	4537	4022	5009	3500	3500	2968	2968	2416	2416
		27	5030	5030	4521	5631	4009	4009	3490	3490	2961	2961
		29	5512	5512	5010	6240	4504	4504	3995	3995	3480	3480
		31	5988	5988	5489	6837	4990	4990	4488	4488	3982	3982
	17	21	5849	4165	4484	3416	2630	2486	1768	1768	747	747
		23	5902	4779	4554	4038	2740	2740	2422	2422	1788	1788
		25	5862	5384	4517	4639	3500	3500	2968	2968	2416	2416
		27	5849	5849	4517	5240	4009	4009	3490	3490	2961	2961
		29	5770	5770	5010	6240	4504	4504	3995	3995	3480	3480
		31	5740	5740	5489	6837	4990	4990	4488	4488	3982	3982
	19	21	7644	4223	6398	3527	4944	2766	2987	1856	747	747
		23	7607	4849	6368	4157	4924	3416	2977	2494	1788	1788
		25	7578	5450	6342	4762	4911	4025	2977	2977	2416	2416
		27	7538	6030	6309	5334	4884	4569	3490	3490	2961	2961
		29	7498	6635	6279	5952	4861	4861	3995	3995	3480	3480
		31	7475	7215	6262	6540	4855	4855	4488	4488	3982	3982
	21	21	9332	4223	8139	3556	6798	2865	5228	2103	3063	1169
		23	9395	4869	8209	4206	6880	3503	5330	2766	3235	1844
		25	9349	5487	8169	4832	6847	4145	5311	3396	3225	2494
		27	9289	6083	8119	5429	6804	4750	5274	4017	3196	3116
		29	9355	6676	8192	6022	6890	5351	5377	4626	3358	3358
		31	9167	7252	8007	6606	6708	5931	5192	5192	3982	3982
	23	23	11190	4857	10033	4211	8761	3552	7333	2865	5658	2107
		25	11252	5495	10106	4853	8843	4182	7429	3499	5773	2754
		27	10641	6100	9491	5458	8225	4799	6794	4112	5073	3338
		29	11193	6693	10059	6059	8817	5412	7419	4742	5790	4017
		31	11028	7277	9901	6643	8661	5997	7270	5326	5641	4606

COOLING POWER (OVERSIZED BATTERY 950)

FCZ 950			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	6774	4842	5413	4184	3911	4851	2916	2916	2266	2266
		23	6733	5457	5380	4800	4175	4175	3541	3541	2904	2904
		25	6704	6065	5363	5411	4783	4783	4154	4154	3525	3525
		27	6605	6605	6001	6111	5380	5380	4759	4759	4138	4138
		29	7206	7206	6589	6710	5972	5972	5355	5355	4738	4738
		31	7782	7782	7169	7300	6556	6556	5943	5943	5330	5330
	17	21	8526	4846	7185	4197	5733	3539	4121	2865	2151	2086
		23	8571	5457	7243	4817	5799	4163	4199	3493	2904	2904
		25	8510	6065	7185	5424	5754	4779	4162	4109	3525	3525
		27	8481	6668	7169	6031	5742	5386	4759	4759	4138	4138
		29	8374	7259	7070	6626	5972	5972	5355	5355	4738	4738
		31	8329	7845	7169	7300	6556	6556	5943	5943	5330	5330
	19	21	10599	4821	9275	4184	7843	3539	6289	2869	4561	2199
		23	10541	5453	9221	4817	7802	4176	6256	3531	4536	2844
		25	10492	6061	9180	5428	7769	4792	6231	4147	4524	3481
		27	10434	6664	9126	6031	7724	5399	6194	4750	4495	4214
		29	10463	7305	9073	6630	7679	6002	6161	5361	4738	4738
		31	10418	7887	9040	7221	7654	6593	6145	5960	5330	5330
	21	21	12606	4779	11286	4142	9871	3506	8337	2865	6663	2216
		23	12758	5474	11352	4796	9945	4163	8423	3510	6762	2865
		25	12688	6098	11294	5424	9891	4796	8378	4159	6729	3502
		27	12606	6697	11216	6027	9826	5403	8320	4771	6679	4134
		29	12664	7292	11286	6626	9904	6002	8411	5378	6782	4741
		31	12425	7878	11055	7217	9682	6597	8193	5973	6572	5340
	23	23	14921	5424	13523	4754	12121	4126	10611	3493	8974	2861
		25	14983	6065	13593	5399	12199	4775	10702	4130	9077	3497
		27	14226	6689	12844	6023	11458	5399	9965	4775	8345	4142
		29	14794	7233	13511	6618	12137	5998	10652	5378	9048	4754
		31	14584	7820	13309	7208	11940	6593	10467	5977	8871	5353
		31	14584	7820	13309	7208	11940	6593	10467	5977	8871	5353
5	15	21	6182	4549	4639	3828	3327	3309	2661	2661	1958	1958
		23	6149	5168	4615	4448	3969	3969	3319	3319	2653	2653
		25	6128	5776	5227	5323	4594	4594	3957	3957	3311	3311
		27	6457	6457	5832	5939	5207	5207	4578	4578	3940	3940
		29	7045	7045	6428	6546	5807	5807	5186	5186	4557	4557
		31	7629	7629	7012	7141	6400	6400	5783	5783	5162	5162
	17	21	8008	4586	6556	3908	4898	3183	2714	2312	1958	1958
		23	8061	5206	6622	4532	4985	3816	3319	3179	2653	2653
		25	8004	5818	6572	5143	4944	4431	3957	3957	3311	3311
		27	7983	6421	6560	5751	5207	5207	4578	4578	3940	3940
		29	7880	7016	6465	6345	5807	5807	5186	5186	4557	4557
		31	7839	7602	7012	7141	6400	6400	5783	5783	5162	5162
	19	21	10134	4590	8727	3933	7181	3238	5413	2526	3146	1684
		23	10081	5227	8682	4570	7144	3895	5392	3187	3134	2333
		25	10035	5839	8649	5185	7119	4515	5376	3807	3134	2974
		27	9982	6438	8600	5780	7078	5106	5347	4381	3940	3940
		29	9928	7037	8555	6392	7041	5726	5318	5026	4557	4557
		31	9887	7627	8526	6982	7025	6324	5783	5783	5162	5162
	21	21	12174	4565	10792	3916	9287	3259	7621	2584	5684	1839
		23	12236	5219	10866	4574	9373	3904	7724	3229	5836	2521
		25	12174	5843	10813	5202	9328	4553	7687	3870	5811	3162
		27	12096	6446	10743	5809	9266	5164	7633	4498	5770	3799
		29	12166	7045	10821	6408	9357	5767	7740	5110	5894	4415
		31	11931	7635	10591	7003	9135	6362	7522	5705	5676	5009
	23	23	14428	5181	13071	4544	11602	3904	9998	3250	8222	2563
		25	14498	5826	13149	5194	11689	4540	10101	3891	8341	3225
		27	13741	6446	12396	5818	10940	5177	9349	4528	7576	3845
		29	14411	7045	13079	6417	11639	5784	10068	5148	8333	4486
		31	14202	7631	12877	7011	11446	6383	9883	5742	8152	5089
		31	14202	7631	12877	7011	11446	6383	9883	5742	8152	5089
7	15	21	5277	4117	3155	3183	3015	3015	2200	2200	930	930
		23	5248	4737	4368	4415	3702	3702	3015	3015	2225	2225
		25	5647	5647	5005	5097	4356	4356	3693	3693	3007	3007
		27	6260	6260	5626	5730	4989	4989	4343	4343	3685	3685
		29	6860	6860	6235	6350	5606	5606	4972	4972	4331	4331
		31	7453	7453	6831	6957	6210	6210	5585	5585	4956	4956
	17	21	7280	4239	5581	3476	3274	2530	2200	2124	930	930
		23	7346	4863	5668	4109	3410	3179	3015	3015	2225	2225
		25	7296	5478	5622	4720	4356	4255	3693	3693	3007	3007
		27	7280	6082	5622	5332	4989	4989	4343	4343	3685	3685
		29	7181	6681	6235	6350	5606	5606	4972	4972	4331	4331
		31	7144	7144	6831	6957	6210	6210	5585	5585	4956	4956
	19	21	9513	4297	7963	3589	6153	2815	3718	1889	930	930
		23	9468	4934	7925	4230	6128	3476	3706	2538	2225	2031
		25	9431	5545	7893	4846	6112	4096	3706	3179	3007	2965
		27	9381	6136	7851	5428	6079	4649	4343	4339	3685	3685
		29	9332	6752	7814	6056	6050	5315	4972	4972	4331	4331
		31	9303	7342	7794	6655	6042	5918	5585	5585	4956	4956
	21	21	11615	4297	10130	3619	8460	2915	6507	2140	3813	1190
		23	11693	4955	10216	4281	8563	3564	6634	2815	4026	1876
		25	11635	5583	10167	4917	8522	4218	6609	3455	4014	2538
		27	11561	6190	10105	5525	8468	4833	6564	4088	3977	3171
		29	11644	6794	10196	6128	8575	5445	6692	4708	4179	3816
		31	11409	7380	9965	6722	8349	6035	6461	5298	4956	4838
	23	23	13926	4942	12487	4285	10903	3615	9126	2915	7041	2144
		25	14004	5592	12577	4938	11006	4255	9246	3560	7185	2802
		27	13243	6207	11812	5554	10237	4884	8456	4184	6313	3397
		29	13930	6810	12520	6165	10973	5508	9233	4825	7206	4088
		31	13725	7405	12322	6760	10780	6103	9048	5420	7021	4687
		31	13725	7405	12322	6760	10780	6103	9048	5420	7021	4687

COOLING POWER (STANDARD BATTERY 1000-1001)

FCZ 1000-1001			Tw(in) = 5°C		Tw(in) = 7°C		Tw(in) = 9°C		Tw(in) = 11°C		Tw(in) = 13°C	
Dt w	Tbu	Tbs	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
[°C]	[°C]	[°C]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
3	15	21	6002	4632	4796	4003	3466	4641	2584	2584	2008	2008
		23	5966	5221	4767	4592	3699	3699	3138	3138	2573	2573
		25	5940	5802	4752	5177	4238	4238	3681	3681	3123	3123
		27	5853	5853	4757	5847	4767	4767	4216	4216	3666	3666
		29	6385	6385	5838	6420	5291	5291	4745	4745	4198	4198
		31	6895	6895	6352	6985	5809	5809	5266	5266	4723	4723
	17	21	7554	4636	6366	4015	5080	3386	3651	2741	1906	1906
		23	7594	5221	6417	4608	5138	3983	3721	3342	2573	2573
		25	7540	5802	6366	5189	5098	4572	3688	3688	3123	3123
		27	7514	6380	6352	5770	5087	5087	4216	4216	3666	3666
		29	7420	6945	6264	6339	5291	5291	4745	4745	4198	4198
		31	7379	7379	6352	6985	5809	5809	5266	5266	4723	4723
	19	21	9391	4612	8218	4003	6949	3386	5572	2745	4041	2104
		23	9340	5217	8170	4608	6913	3995	5543	3378	4020	2721
		25	9296	5798	8134	5193	6884	4584	5521	3967	4009	3330
		27	9245	6376	8086	5770	6844	5165	5488	4544	3983	3983
		29	9271	6989	8039	6343	6804	5742	5459	5129	4198	4198
		31	9231	7546	8010	6908	6782	6307	5444	5444	4723	4723
	21	21	11169	4572	10000	3963	8746	3354	7387	2741	5904	2120
		23	11304	5237	10058	4588	8812	3983	7463	3358	5991	2741
		25	11242	5835	10007	5189	8764	4588	7423	3979	5962	3350
		27	11169	6408	9938	5766	8706	5169	7372	4564	5918	3955
		29	11220	6977	10000	6339	8775	5742	7452	5145	6009	4536
		31	11009	7538	9796	6904	8578	6311	7259	5714	5823	5109
	23	23	13221	5189	11982	4548	10739	3947	9402	3342	7952	2737
		25	13276	5802	12044	5165	10809	4568	9482	3951	8043	3346
		27	12605	6400	11381	5762	10153	5165	8830	4568	7394	3963
		29	13108	6921	11971	6331	10754	5738	9438	5145	8017	4548
		31	12922	7482	11793	6896	10579	6307	9274	5718	7861	5121
5	15	21	5477	4352	4111	3663	2948	2948	2358	2358	1735	1735
		23	5448	4945	4089	4256	3517	3517	2941	2941	2351	2351
		25	5430	5430	4632	5093	4071	4071	3506	3506	2934	2934
		27	5721	5721	5167	5682	4614	4614	4056	4056	3491	3491
		29	6242	6242	5696	6263	5146	5146	4595	4595	4038	4038
		31	6760	6760	6213	6832	5670	5670	5124	5124	4573	4573
	17	21	7095	4388	5809	3739	4340	3046	2405	2212	1735	1735
		23	7143	4981	5867	4336	4417	3651	2941	2941	2351	2351
		25	7092	5566	5823	4921	4380	4240	3506	3506	2934	2934
		27	7073	6143	5812	5502	4614	4614	4056	4056	3491	3491
		29	6982	6712	5729	6071	5146	5146	4595	4595	4038	4038
		31	6946	6946	6213	6832	5670	5670	5124	5124	4573	4573
	19	21	8979	4392	7733	3763	6363	3098	4796	2416	2788	1611
		23	8932	5001	7693	4372	6330	3727	4778	3050	2777	2232
		25	8892	5586	7664	4961	6308	4320	4763	3643	2777	2777
		27	8844	6159	7620	5530	6272	4885	4737	4192	3491	3491
		29	8797	6732	7580	6115	6239	5478	4712	4712	4038	4038
		31	8761	7297	7554	6680	6224	6051	5124	5124	4573	4573
	21	21	10787	4368	9562	3747	8229	3118	6753	2472	5036	1759
		23	10841	4993	9628	4376	8305	3735	6844	3090	5171	2412
		25	10787	5590	9581	4977	8265	4356	6811	3703	5149	3025
		27	10718	6167	9519	5558	8210	4941	6764	4304	5113	3635
		29	10780	6740	9588	6131	8291	5518	6858	4889	5222	4224
		31	10572	7305	9384	6700	8094	6087	6665	5458	5029	4793
	23	23	12784	4957	11581	4348	10280	3735	8859	3110	7285	2452
		25	12846	5574	11650	4969	10357	4344	8950	3723	7390	3086
		27	12175	6167	10984	5566	9694	4953	8283	4332	6713	3679
		29	12769	6740	11589	6139	10313	5534	8921	4925	7383	4292
		31	12583	7301	11410	6708	10142	6107	8757	5494	7223	4869
7	15	21	4675	3939	2795	3046	2671	2671	1950	1950	824	824
		23	4650	4532	3870	4224	3280	3280	2671	2671	1972	1972
		25	5003	5003	4435	4877	3859	3859	3272	3272	2664	2664
		27	5546	5546	4985	5482	4420	4420	3848	3848	3265	3265
		29	6079	6079	5525	6075	4967	4967	4406	4406	3837	3837
		31	6603	6603	6053	6656	5503	5503	4949	4949	4391	4391
	17	21	6450	4055	4945	3326	2901	2420	1950	1950	824	824
		23	6509	4652	5022	3931	3021	3021	2671	2671	1972	1972
		25	6465	5241	4982	4516	3859	3859	3272	3272	2664	2664
		27	6450	5819	4982	5101	4420	4420	3848	3848	3265	3265
		29	6363	6363	5525	6075	4967	4967	4406	4406	3837	3837
		31	6330	6330	6053	6656	5503	5503	4949	4949	4391	4391
	19	21	8429	4111	7055	3434	5452	2693	3294	1807	824	824
		23	8389	4721	7022	4047	5430	3326	3283	2428	1972	1944
		25	8356	5306	6993	4636	5415	3919	3283	3042	2664	2664
		27	8312	5871	6957	5193	5386	4448	3848	3848	3265	3265
		29	8269	6460	6924	5794	5361	5085	4406	4406	3837	3837
		31	8243	7025	6906	6368	5353	5353	4949	4949	4391	4391
	21	21	10291	4111	8976	3462	7496	2789	5765	2048	3378	1138
		23	10360	4741	9052	4095	7587	3410	5878	2693	3568	1795
		25	10309	5342	9008	4705	7551	4035	5856	3306	3557	2428
		27	10244	5923	8954	5286	7503	4624	5816	3911	3524	3033
		29	10317	6500	9034	5863	7598	5209	5929	4504	3702	3651
		31	10109	7061	8830	6432	7398	5774	5725	5069	4391	4391
	23	23	12339	4729	11064	4099	9661	3458	8086	2789	6239	2052
		25	12408	5350	11144	4725	9752	4071	8192	3406	6366	2681
		27	11734	5939	10466	5314	9070	4672	7492	4003	5594	3250
		29	12343	6516	11093	5899	9723	5270	8181	4616	6385	3911
		31	12161	7085	10918	6468	9551	5839	8017	5185	6221	4484

## HEATING POWER (MODELS WITH STANDARD BATTERY OR OVERSIZED)

The heating power yielded by the coils (standard or larger) are stated in table format and are referred to the maximum speed, based on the water flow and on the difference of temperature between water entering and air entering. The performances at medium and minimum speed may be displayed through the selection software.

NB: The yield values marked in bold indicate the nominal value.

### Key:

**Tw [°C]** = Inlet water temperature.

**Ta B.S. [°C]** = Inlet air temperature with dry bulb.

**Ph [w]** = Heating power yielded.

**H** = maximum speed.

**M** = medium speed.

**L** = minimum speed.

The cooling capacities of the table must be multiplied by the following corrective factors:

		100	150	200	250	300	350	400	450	500	550	650	700	750	800	850	900	950	1000
Thermal power corrective factors	<b>H</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	<b>M</b>	0,83	0,83	0,80	0,78	0,81	0,80	0,80	0,80	0,86	0,85	0,80	0,89	0,90	0,90	0,88	0,88	0,84	0,90
	<b>L</b>	0,61	0,58	0,55	0,54	0,63	0,61	0,60	0,58	0,62	0,60	0,54	0,74	0,73	0,82	0,81	0,71	0,65	0,74

<b>FCZ100</b>		<b>Ta B.S. [°C]</b>				
		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Tw [°C]</b>		<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	2692	2575	2460	2347	2236
	10	2630	3048	<b>2400</b>	2287	2174
	15	2558	2441	2327	2212	2100
60	5	2260	2145	2029	1915	1802
	10	2112	1999	1888	1777	1667
	15	2029	1915	1802	1689	1578
50	5	1669	1557	1448	1340	1234
	10	1592	1480	1369	1259	1150
	15	1491	1376	1261	1146	1031
45	5	1412	1302	1194	1086	980
	10	1326	1216	1105	995	884
	15	1211	1095	977	855	732
40	5	1153	1045	939	831	726
	10	1059	946	834	721	605
		918	793	642	418	240

<b>FCZ150</b>		<b>Ta B.S. [°C]</b>				
		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Tw [°C]</b>		<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	2972	2843	2716	2591	2469
	10	2904	3365	<b>2650</b>	2525	2400
	15	2824	2696	2569	2442	2319
60	5	2495	2368	2240	2115	1990
	10	2332	2207	2085	1962	1841
	15	2240	2115	1990	1865	1742
50	5	1842	1719	1598	1479	1362
	10	1757	1634	1511	1390	1269
	15	1646	1519	1392	1265	1139
45	5	1559	1438	1318	1199	1082
	10	1464	1343	1220	1099	976
	15	1337	1209	1078	944	808
40	5	1273	1154	1037	917	802
	10	1169	1044	921	796	668
		1014	876	709	462	265

<b>FCZ200</b>		<b>Ta B.S. [°C]</b>				
		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Tw [°C]</b>		<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	4149	3970	3793	3619	3447
	10	4054	4699	<b>3700</b>	3526	3352
	15	3943	3764	3587	3410	3238
60	5	3484	3307	3127	2953	2779
	10	3257	3082	2911	2739	2570
	15	3127	2953	2779	2604	2433
50	5	2573	2401	2232	2065	1902
	10	2454	2282	2110	1941	1772
	15	2298	2121	1944	1767	1590
45	5	2176	2007	1841	1675	1511
	10	2044	1875	1704	1535	1363
	15	1867	1688	1506	1318	1128
40	5	1778	1611	1447	1281	1120
	10	1632	1458	1286	1112	932
		1416	1223	990	644	370

<b>FCZ250</b>		<b>Ta B.S. [°C]</b>				
		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Tw [°C]</b>		<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	4541	4345	4151	3960	3772
	10	4437	5142	<b>4050</b>	3859	3668
	15	4316	4119	3925	3732	3544
60	5	3813	3619	3422	3232	3041
	10	3564	3373	3185	2998	2813
	15	3422	3232	3041	2850	2662
50	5	2815	2628	2443	2260	2081
	10	2685	2497	2310	2125	1940
	15	2515	2321	2127	1934	1740
45	5	2382	2197	2015	1833	1653
	10	2237	2052	1864	1679	1492
	15	2044	1847	1648	1442	1234
40	5	1945	1763	1584	1402	1226
	10	1786	1596	1408	1217	1020
		1549	1338	1084	705	405



FCZ 300		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	6167	5900	5637	5378	5123
	10	6026	6984	<b>5500</b>	5241	4982
	15	5861	5594	5331	5068	4813
60	5	5178	4915	4648	4389	4130
	10	4840	4581	4326	4071	3820
	15	4648	4389	4130	3871	3616
50	5	3824	3569	3317	3070	2827
	10	3647	3392	3137	2885	2634
	15	3415	3152	2889	2626	2363
45	5	3235	2984	2736	2489	2246
	10	3039	2787	2532	2281	2026
	15	2776	2509	2238	1959	1676
40	5	2642	2395	2151	1904	1665
	10	2426	2167	1912	1653	1386
		2104	1818	1472	958	550

FCZ350		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	6896	6598	6304	6014	5729
	10	6738	7809	<b>6150</b>	5860	5571
	15	6554	6255	5961	5667	5382
60	5	5790	5496	5197	4908	4618
	10	5413	5123	4837	4552	4271
	15	5197	4908	4618	4328	4043
50	5	4276	3990	3709	3433	3161
	10	4078	3793	3507	3226	2946
	15	3819	3525	3231	2937	2643
45	5	3617	3336	3060	2783	2511
	10	3398	3117	2831	2550	2265
	15	3104	2805	2502	2190	1874
40	5	2954	2678	2406	2129	1861
	10	2713	2423	2138	1848	1550
		2353	2032	1646	1071	615

FCZ400		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	8018	7671	7329	6992	6660
	10	7834	9079	<b>7150</b>	6813	6476
	15	7620	7273	6931	6589	6257
60	5	6732	6390	6043	5706	5369
	10	6293	5956	5624	5292	4966
	15	6043	5706	5369	5032	4700
50	5	4971	4639	4313	3991	3675
	10	4741	4410	4078	3751	3425
	15	4440	4098	3756	3414	3072
40	5	4205	3879	3557	3236	2919
	10	3950	3624	3292	2965	2633
	15	3608	3261	2909	2547	2179
45	5	3435	3113	2797	2475	2164
	10	3154	2817	2485	2149	1802
	15	2736	2363	1914	1245	715

FCZ450		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	8763	8384	8010	7642	7279
	10	8562	9924	<b>7815</b>	7447	7079
	15	8328	7949	7575	7201	6839
60	5	7358	6984	6605	6236	5868
	10	6878	6510	6147	5785	5428
	15	6605	6236	5868	5500	5137
50	5	5433	5071	4714	4362	4016
	10	5182	4820	4457	4100	3743
	15	4853	4479	4106	3732	3358
45	5	4596	4239	3888	3537	3191
	10	4317	3960	3598	3241	2878
	15	3944	3564	3180	2784	2382
40	5	3754	3403	3057	2705	2365
	10	3447	3079	2717	2348	1969
		2990	2583	2092	1361	781

FCZ500		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	9531	9119	8712	8312	7918
	10	9313	10793	<b>8500</b>	8100	7699
	15	9058	8646	8239	7833	7438
60	5	8002	7596	7183	6783	6383
	10	7481	7080	6686	6292	5903
	15	7183	6783	6383	5982	5588
50	5	5909	5515	5127	4744	4368
	10	5636	5242	4848	4459	4071
	15	5278	4872	4465	4059	3652
45	5	4999	4611	4229	3847	3470
	10	4696	4308	3913	3525	3131
	15	4289	3877	3458	3027	2591
40	5	4083	3701	3325	2943	2572
	10	3749	3349	2955	2554	2142
		3252	2809	2275	1480	849

FCZ550		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	10933	10460	9994	9534	9082
	10	10683	12381	<b>9750</b>	9291	8831
	15	10390	9917	9451	8984	8532
60	5	9179	8713	8240	7781	7321
	10	8581	8122	7669	7217	6771
	15	8240	7781	7321	6862	6410
50	5	6778	6326	5881	5442	5011
	10	6465	6013	5560	5115	4670
	15	6055	5588	5122	4656	4190
45	5	5734	5289	4851	4412	3981
	10	5387	4941	4489	4043	3591
	15	4920	4447	3967	3473	2972
40	5	4684	4245	3814	3375	2951
	10	4301	3842	3389	2930	2457
		3730	3222	2610	1698	974



FCZ600		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	11213	10728	10250	9779	9315
	10	10956	12698	10000	9529	9058
	15	10657	10171	9693	9215	8751
60	5	9415	8936	8451	7980	7509
	10	8801	8330	7866	7402	6945
	15	8451	7980	7509	7038	6574
50	5	6952	6488	6031	5582	5139
	10	6631	6167	5703	5246	4789
	15	6210	5732	5253	4775	4297
45	5	5882	5425	4975	4525	4083
	10	5525	5068	4604	4147	3683
	15	5046	4561	4069	3562	3048
40	5	4804	4354	3911	3462	3026
	10	4411	3940	3476	3005	2520
		3826	3305	2677	1742	999

FCZ650		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	12895	12337	11787	11246	10712
	10	12600	14603	11500	10958	10416
	15	12255	11697	11147	10597	10064
60	5	10827	10277	9719	9177	8635
	10	10121	9579	9046	8512	7987
	15	9719	9177	8635	8094	7560
50	5	7995	7461	6936	6419	5910
	10	7626	7092	6559	6033	5508
	15	7141	6591	6041	5491	4941
45	5	6764	6238	5721	5204	4695
	10	6353	5828	5294	4769	4236
	15	5803	5245	4679	4096	3505
40	5	5524	5007	4498	3981	3480
	10	5073	4531	3998	3456	2898
		4400	3800	3078	2003	1149

FCZ700		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	12335	11801	11275	10757	10246
	10	12052	13968	11000	10482	9964
	15	11722	11188	10662	10136	9626
60	5	10356	9830	9296	8778	8260
	10	9681	9163	8652	8142	7640
	15	9296	8778	8260	7742	7231
50	5	7647	7137	6635	6140	5653
	10	7294	6784	6273	5771	5268
	15	6831	6305	5779	5253	4727
45	5	6470	5967	5473	4978	4491
	10	6077	5575	5064	4562	4051
	15	5551	5017	4475	3918	3353
40	5	5284	4789	4303	3808	3329
	10	4852	4334	3824	3305	2772
		4208	3635	2944	1916	1099

FCZ750		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	14017	13410	12812	12223	11643
	10	13696	15873	12500	11911	11322
	15	13321	12714	12116	11519	10939
60	5	11768	11171	10564	9975	9386
	10	11001	10412	9832	9252	8681
	15	10564	9975	9386	8797	8217
50	5	8690	8110	7539	6977	6424
	10	8289	7709	7129	6558	5987
	15	7762	7165	6567	5969	5371
45	5	7352	6781	6219	5657	5103
	10	6906	6335	5755	5184	4604
	15	6308	5701	5086	4452	3810
40	5	6005	5443	4889	4327	3783
	10	5514	4925	4345	3756	3150
	15	4782	4131	3346	2177	1249

FCZ800		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	13456	12874	12300	11734	11178
	10	13148	15238	12000	11435	10869
	15	12788	12206	11632	11058	10501
60	5	11298	10724	10141	9576	9011
	10	10561	9996	9439	8882	8334
	15	10141	9576	9011	8445	7889
50	5	8343	7786	7238	6698	6167
	10	7957	7400	6844	6296	5747
	15	7452	6878	6304	5730	5156
45	5	7058	6510	5970	5430	4899
	10	6630	6081	5525	4976	4420
	15	6056	5473	4882	4274	3657
40	5	5764	5225	4694	4154	3632
	10	5293	4728	4171	3606	3024
	15	4591	3966	3212	2090	1199

FCZ850		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	15699	15019	14350	13690	13041
	10	15339	17777	14000	13340	12681
	15	14919	14240	13570	12901	12251
60	5	13181	12511	11832	11172	10512
	10	12321	11662	11012	10363	9723
	15	11832	11172	10512	9853	9203
50	5	9733	9084	8444	7814	7195
	10	9283	8634	7984	7345	6705
	15	8694	8024	7355	6685	6016
45	5	8234	7595	6965	6335	5716
	10	7734	7095	6445	5806	5156
	15	7065	6385	5696	4986	4267
40	5	6725	6096	5476	4847	4237
	10	6176	5516	4867	4207	3527
	15	5356	4627	3747	2438	1399

FCZ900		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	16977	16242	15518	14805	14103
	10	16588	19225	15140	14427	13714
	15	16134	15399	14675	13951	13249
60	5	14254	13530	12795	12082	11369
	10	13324	12611	11909	11206	10515
	15	12795	12082	11369	10655	9953
50	5	10526	9823	9132	8451	7781
	10	10039	9337	8634	7943	7251
	15	9402	8678	7954	7230	6506
45	5	8905	8213	7532	6851	6181
	10	8364	7673	6970	6279	5576
	15	7640	6905	6160	5392	4614
40	5	7273	6592	5922	5241	4582
	10	6678	5965	5263	4550	3815
	15	5792	5003	4052	2637	1513

FCZ950		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	19175	18345	17527	16722	15928
	10	18736	21714	17100	16294	15489
	15	18223	17393	16575	15757	14964
60	5	16099	15281	14451	13646	12840
	10	15049	14244	13451	12657	11876
	15	14451	13646	12840	12035	11241
50	5	11888	11095	10314	9545	8788
	10	11339	10546	9752	8971	8190
	15	10619	9801	8983	8166	7348
45	5	10057	9276	8507	7738	6982
	10	9447	8666	7873	7091	6298
	15	8629	7799	6957	6091	5212
40	5	8214	7445	6689	5920	5175
	10	7543	6737	5944	5139	4309
	15	6542	5651	4577	2978	1709

FCZ1000		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	19085	18259	17445	16643	15854
	10	18648	21612	17020	16218	15416
	15	18138	17312	16498	15684	14894
60	5	16024	15210	14384	13582	12780
	10	14979	14177	13388	12598	11820
	15	14384	13582	12780	11978	11189
50	5	11833	11043	10265	9500	8747
	10	11286	10496	9707	8929	8152
	15	10569	9755	8941	8127	7313
45	5	10010	9233	8467	7702	6949
	10	9403	8625	7836	7058	6269
	15	8589	7763	6925	6062	5187
40	5	8176	7411	6657	5892	5151
	10	7508	6706	5916	5115	4288
	15	6512	5625	4556	2964	1701

## IN HEATING POWER (MODELS WITH SECONDARY BATTERY 65-55 °C)

The heating power yielded by the coils (secondary) are stated in table format and are referred to the maximum speed, based on the water flow and on the difference of temperature between water entering and air entering. The performances at medium and minimum speed may be displayed through the selection software.

NB: The yield values marked in bold indicate the nominal value.



### Key:

**Tw** [°C] = Inlet water temperature.

**Ta B.S.** [°C] = Inlet air temperature with dry bulb.

**Ph** [w] = Heating power yielded.

**H** = maximum speed.

**M** = medium speed.

**L** = minimum speed.

Le potenze rese in riscaldamento, indicate nelle tabelle devono essere moltiplicate per i seguenti fattori correttivi:

		100	150	200	250	300	350	400	450	500	550	650	700	750	800	850	900	950	1000
Thermal power corrective factors	<b>H</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	<b>M</b>	0,83	0,83	0,80	0,78	0,81	0,80	0,80	0,80	0,86	0,85	0,80	0,89	0,90	0,90	0,88	0,88	0,84	0,90
	<b>L</b>	0,61	0,58	0,55	0,54	0,63	0,61	0,60	0,58	0,62	0,60	0,54	0,74	0,73	0,82	0,81	0,71	0,65	0,74

<b>FCZ101</b>		<b>Ta B.S. [°C]</b>				
		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Tw [°C]</b>		<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	1469	1406	1343	1281	1221
	10	1436	1664	1310	1249	1187
	15	1396	1333	1270	1207	1147
65	5	1330	1267	1206	1144	1084
	10	1294	1233	<b>1171</b>	1109	1048
	15	1252	1190	1127	1065	1005
60	5	1234	1171	1107	1046	984
	10	1153	1091	1031	970	910
	15	1107	1046	984	922	861
50	5	911	850	790	731	673
	10	869	808	747	687	628
	15	814	751	688	626	563
45	5	771	711	652	593	535
	10	724	664	603	543	483
	15	661	598	533	467	399
40	20	629	571	513	454	397
	25	578	516	455	394	330
	30	501	433	351	228	131

<b>FCZ102</b>		<b>Ta B.S. [°C]</b>				
		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Tw [°C]</b>		<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	2467	2360	2255	2151	2049
	10	2410	2794	2200	2096	1993
	15	2344	2238	2132	2027	1925
65	5	2233	2128	2024	1920	1820
	10	2173	2070	<b>1966</b>	1862	1760
	15	2103	1997	1892	1789	1686
60	5	2071	1966	1859	1756	1652
	10	1936	1833	1730	1628	1528
	15	1859	1756	1652	1548	1446
50	5	1529	1427	1327	1228	1131
	10	1459	1357	1255	1154	1054
	15	1366	1261	1156	1051	945
45	5	1294	1193	1094	996	898
	10	1215	1115	1013	912	810
	15	1110	1003	895	784	671
40	20	1057	958	861	762	666
	25	970	867	765	661	554
	30	842	727	589	383	220

<b>FCZ201</b>		<b>Ta B.S. [°C]</b>				
		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Tw [°C]</b>		<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	2019	1932	1845	1761	1677
	10	1973	2286	1800	1716	1631
	15	1919	1831	1745	1659	1576
65	5	1827	1741	1657	1572	1489
	10	1779	1694	<b>1609</b>	1524	1441
	15	1721	1635	1549	1464	1380
60	5	1695	1609	1522	1437	1352
	10	1585	1500	1416	1333	1250
	15	1522	1437	1352	1267	1184
50	5	1252	1168	1086	1005	925
	10	1194	1110	1027	945	862
	15	1118	1032	946	860	774
45	5	1059	977	896	815	735
	10	995	912	829	747	663
	15	909	821	733	641	549
40	20	865	784	704	623	545
	25	794	709	626	541	454
	30	689	595	482	314	180

<b>FCZ202</b>		<b>Ta B.S. [°C]</b>				
		<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
<b>Tw [°C]</b>		<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>	<b>Ph</b>
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	3421	3273	3127	2983	2841
	10	3342	3873	3050	2907	2763
	15	3251	3103	2957	2811	2669
65	5	3096	2950	2807	2663	2524
	10	3013	2870	<b>2726</b>	2582	2441
	15	2915	2770	2624	2480	2338
60	5	2872	2726	2578	2434	2291
	10	2685	2541	2399	2258	2119
	15	2578	2434	2291	2147	2005
50	5	2121	1979	1840	1703	1568
	10	2023	1881	1740	1600	1461
	15	1894	1748	1603	1457	1311
45	5	1794	1655	1518	1380	1245
	10	1685	1546	1404	1265	1123
	15	1539	1391	1241	1086	930
40	20	1465	1328	1193	1056	923
	25	1346	1202	1060	917	769
	30	1167	1008	816	531	305

FCZ301		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	3219	3079	2942	2807	2674
	10	3145	3645	2870	2735	2600
	15	3059	2919	2782	2645	2512
65	5	2913	2776	2641	2506	2374
	10	2835	2700	<b>2565</b>	2430	2297
	15	2743	2606	2469	2333	2200
60	5	2702	2565	2426	2290	2155
	10	2526	2391	2258	2125	1993
	15	2426	2290	2155	2020	1887
50	5	1995	1862	1731	1602	1475
	10	1903	1770	1637	1506	1375
	15	1782	1645	1508	1371	1233
45	5	1688	1557	1428	1299	1172
	10	1586	1455	1321	1190	1057
	15	1448	1309	1168	1022	875
40	20	1379	1250	1123	994	869
	25	1266	1131	998	863	723
	30	1098	949	768	500	287

FCZ302		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	5427	5192	4961	4733	4508
	10	5303	6146	4840	4612	4384
	15	5158	4923	4691	4460	4235
65	5	4912	4681	4453	4225	4004
	10	4781	4553	<b>4325</b>	4097	3872
	15	4626	4394	4163	3935	3710
60	5	4556	4325	4090	3862	3634
	10	4259	4031	3807	3582	3361
	15	4090	3862	3634	3406	3182
50	5	3365	3140	2919	2701	2487
	10	3209	2985	2760	2539	2318
	15	3005	2774	2542	2311	2080
45	5	2846	2625	2408	2190	1976
	10	2674	2453	2228	2007	1783
	15	2442	2207	1969	1724	1475
40	20	2325	2107	1893	1675	1465
	25	2135	1907	1682	1454	1219
	30	1852	1599	1295	843	484

FCZ401		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	3925	3755	3588	3423	3260
	10	3835	4445	3500	3335	3170
	15	3730	3560	3393	3225	3063
65	5	3553	3385	3220	3056	2896
	10	3458	3293	<b>3128</b>	2963	2801
	15	3345	3178	3011	2846	2683
60	5	3295	3128	2958	2793	2628
	10	3081	2916	2753	2591	2431
	15	2958	2793	2628	2463	2301
50	5	2433	2271	2111	1954	1799
	10	2321	2159	1996	1836	1676
	15	2174	2006	1839	1671	1504
45	5	2059	1899	1741	1584	1429
	10	1934	1774	1611	1452	1289
	15	1766	1596	1424	1247	1067
40	20	1681	1524	1369	1212	1059
	25	1544	1379	1217	1052	882
	30	1339	1157	937	610	350

FCZ401		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	6638	6351	6067	5789	5514
	10	6486	7517	5920	5641	5362
	15	6308	6021	5738	5455	5180
65	5	6008	5725	5446	5167	4897
	10	5848	5569	<b>5290</b>	5011	4736
	15	5658	5375	5091	4813	4538
60	5	5573	5290	5003	4724	4445
	10	5210	4931	4656	4382	4111
	15	5003	4724	4445	4166	3891
50	5	4115	3841	3570	3304	3042
	10	3925	3651	3376	3106	2835
	15	3676	3393	3110	2827	2544
45	5	3482	3211	2945	2679	2417
	10	3270	3000	2725	2455	2180
	15	2987	2700	2408	2108	1804
40	20	2844	2577	2315	2049	1792
	25	2611	2332	2058	1779	1492
	30	2265	1956	1584	1031	592

FCZ501		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	4687	4484	4284	4087	3893
	10	4579	5307	4180	3983	3786
	15	4454	4251	4051	3851	3657
65	5	4242	4042	3845	3648	3458
	10	4129	3932	<b>3735</b>	3538	3344
	15	3995	3795	3595	3398	3204
60	5	3935	3735	3532	3335	3138
	10	3678	3481	3288	3094	2903
	15	3532	3335	3138	2941	2748
50	5	2906	2712	2521	2333	2148
	10	2771	2578	2384	2193	2002
	15	2595	2396	2196	1996	1796
45	5	2458	2267	2079	1891	1706
	10	2309	2118	1924	1733	1539
	15	2109	1906	1700	1489	1274
40	20	2008	1820	1635	1447	1265
	25	1844	1647	1453	1256	1053
	30	1599	1381	1119	728	418

FCZ501		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	8085	7735	7390	7050	6716
	10	7899	9155	7210	6870	6530
	15	7683	7333	6988	6644	6309
65	5	7318	6973	6633	6294	5964
	10	7122	6783	<b>6443</b>	6103	5769
	15	6891	6546	6201	5861	5527
60	5	6788	6443	6093	5753	5414
	10	6345	6006	5671	5337	5007
	15	6093	5753	5414	5074	4740
50	5	5012	4678	4349	4024	3705
	10	4781	4446	4112	3782	3453
	15	4477	4132	3788	3443	3098
45	5	4240	3911	3587	3263	2944
	10	3983	3654	3319	2990	2655
	15	3638	3288	2933	2568	2197
40	20	3463	3139	2820	2496	2182
	25	3180	2841	2506	2167	1817
	30	2758	2383	1930	1256	720

FCZ601		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	5472	5235	5002	4772	4546
	10	5347	6197	4880	4650	4420
	15	5200	4964	4730	4497	4270
65	5	4953	4720	4490	4260	4037
	10	4821	4591	4361	4131	3905
	15	4664	4431	4197	3967	3741
60	5	4594	4361	4124	3894	3664
	10	4295	4065	3839	3612	3389
	15	4124	3894	3664	3434	3208
50	5	3393	3166	2943	2724	2508
	10	3236	3010	2783	2560	2337
	15	3030	2797	2564	2330	2097
45	5	2870	2647	2428	2208	1992
	10	2696	2473	2247	2024	1797
	15	2463	2226	1985	1738	1487
40	20	2344	2125	1909	1689	1477
	25	2153	1923	1696	1466	1230
	30	1867	1613	1306	850	488

FCZ602		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	9531	9119	8712	8312	7918
	10	9313	10793	8500	8100	7699
	15	9058	8646	8239	7833	7438
65	5	8627	8221	7820	7420	7032
	10	8397	7996	7596	7196	6801
	15	8124	7717	7311	6910	6516
60	5	8002	7596	7183	6783	6383
	10	7481	7080	6686	6292	5903
	15	7183	6783	6383	5982	5588
50	5	5909	5515	5127	4744	4368
	10	5636	5242	4848	4459	4071
	15	5278	4872	4465	4059	3652
45	5	4999	4611	4229	3847	3470
	10	4696	4308	3913	3525	3131
	15	4289	3877	3458	3027	2591
40	20	4083	3701	3325	2943	2572
	25	3749	3349	2955	2554	2142
	30	3252	2809	2275	1480	849

FCZ701		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	6212	5944	5679	5418	5161
	10	6070	7035	5540	5279	5018
	15	5904	5635	5370	5105	4848
65	5	5623	5358	5097	4836	4583
	10	5473	5212	4951	4690	4433
	15	5295	5030	4765	4504	4247
60	5	5216	4951	4682	4421	4160
	10	4876	4615	4358	4101	3848
	15	4682	4421	4160	3899	3642
50	5	3852	3595	3342	3092	2847
	10	3674	3417	3160	2907	2653
	15	3440	3175	2910	2646	2381
45	5	3258	3005	2756	2507	2262
	10	3061	2808	2551	2298	2041
	15	2796	2527	2254	1973	1689
40	20	2661	2412	2167	1918	1677
	25	2444	2183	1926	1665	1396
	30	2120	1831	1483	965	554

FCZ702		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	11052	10574	10102	9638	9181
	10	10799	12516	9856	9392	8928
	15	10503	10025	9554	9082	8625
65	5	10004	9533	9068	8604	8154
	10	9737	9272	8808	8344	7886
	15	9420	8949	8477	8013	7556
60	5	9279	8808	8330	7865	7401
	10	8674	8210	7753	7295	6845
	15	8330	7865	7401	6937	6479
50	5	6852	6395	5945	5501	5065
	10	6536	6078	5621	5171	4721
	15	6121	5649	5178	4707	4235
45	5	5797	5347	4903	4460	4024
	10	5445	4995	4538	4087	3630
	15	4974	4495	4010	3511	3004
40	20	4735	4291	3855	3412	2983
	25	4348	3883	3426	2962	2483
	30	3771	3257	2638	1717	985

FCZ802		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	11052	10574	10102	9638	9181
	10	10799	12516	9856	9392	8928
	15	10503	10025	9554	9082	8625
65	5	10004	9533	9068	8604	8154
	10	9737	9272	8808	8344	7886
	15	9420	8949	8477	8013	7556
60	5	9279	8808	8330	7865	7401
	10	8674	8210	7753	7295	6845
	15	8330	7865	7401	6937	6479
50	5	6852	6395	5945	5501	5065
	10	6536	6078	5621	5171	4721
	15	6121	5649	5178	4707	4235
45	5	5797	5347	4903	4460	4024
	10	5445	4995	4538	4087	3630
	15	4974	4495	4010	3511	3004
40	20	4735	4291	3855	3412	2983
	25	4348	3883	3426	2962	2483
	30	3771	3257	2638	1717	985

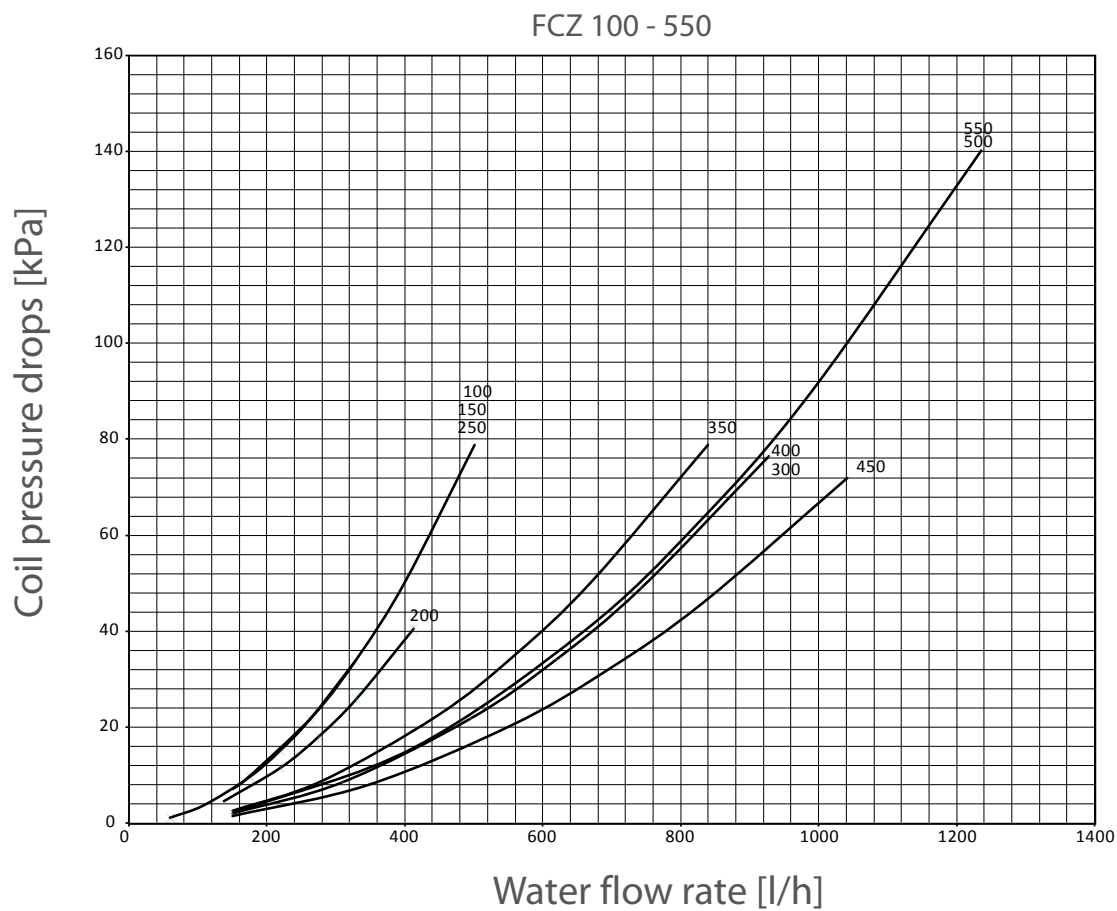
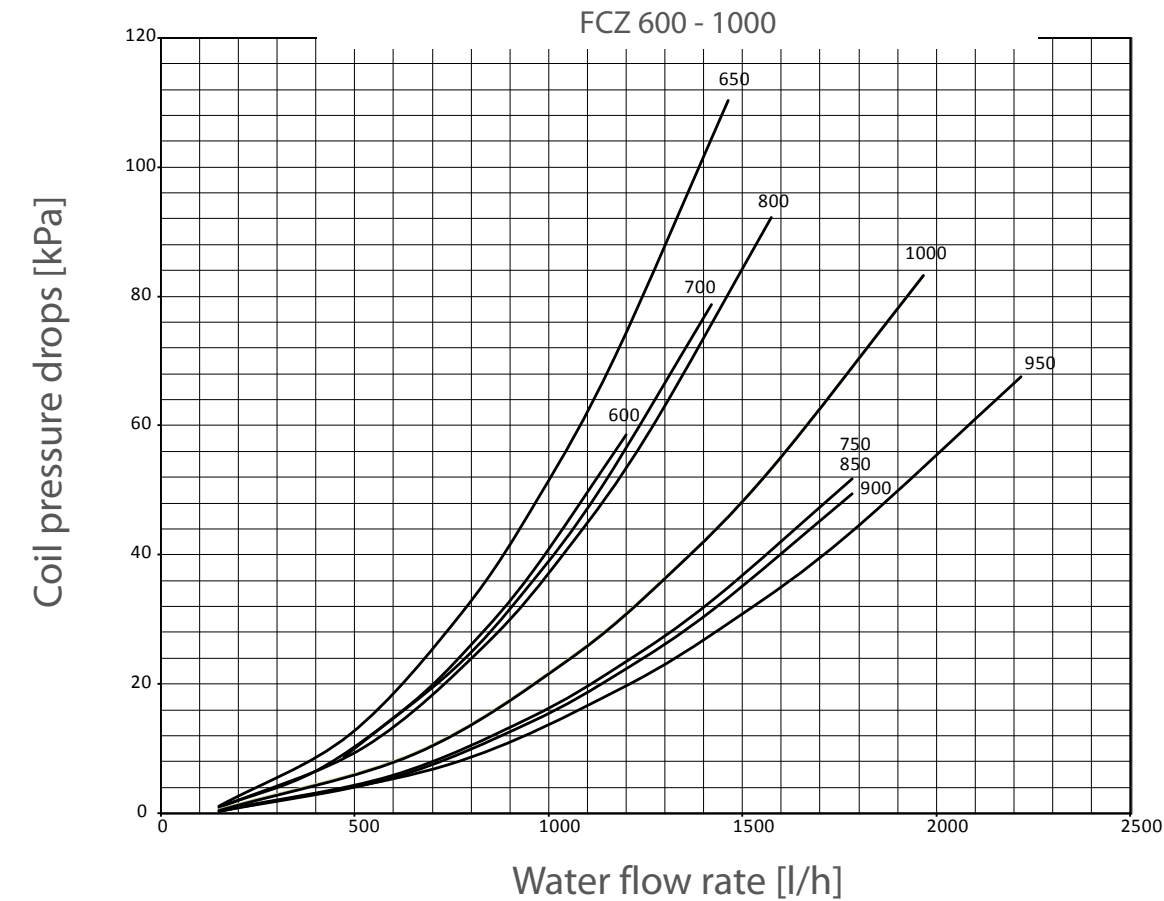
FCZ802		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	6694	6405	6119	5838	5561
	10	6541	7581	5970	5689	5407
	15	6362	6072	5787	5501	5224
65	5	6059	5774	5493	5211	4939
	10	5897	5616	5335	5054	4777
	15	5706	5420	5135	4853	4577
60	5	5620	5335	5045	4764	4483
	10	5254	4973	4696	4419	4146
	15	5045	4764	4483	4202	3925
50	5	4150	3873	3601	3332	3068
	10	3959	3682	3405	3132	2859
	15	3707	3422	3136	2851	2565
45	5	3511	3238	2970	2702	2437
	10	3298	3025	2748	2476	2199
	15	3013	2723	2429	2126	1820
40	20	2868	2599	2335	2067	1807
	25	2633	2352	2075	1794	1504
	30	2284	1973	1598	1040	597

FCZ901		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	7187	6876	6570	6268	5970
	10	7023	8139	6410	6108	5806
	15	6831	6519	6213	5906	5609
65	5	6506	6199	5897	5595	5303
	10	6332	6030	5728	5426	5129
	15	6126	5820	5513	5211	4914
60	5	6035	5728	5417	5115	4813
	10	5641	5339	5042	4744	4452
	15	5417	5115	4813	4511	4214
50	5	4456	4159	3866	3578	3294
	10	4250	3953	3655	3363	3070
	15	3980	3674	3367	3061	2754
45	5	3770	3477	3189	2901	2617
	10	3541	3248	2951	2658	2361
	15	3235	2923	2608	2283	1954
40	20	3079	2791	2507	2219	1940
	25	2827	2525	2228	1926	1615
	30	2452	2118	1716	1116	641

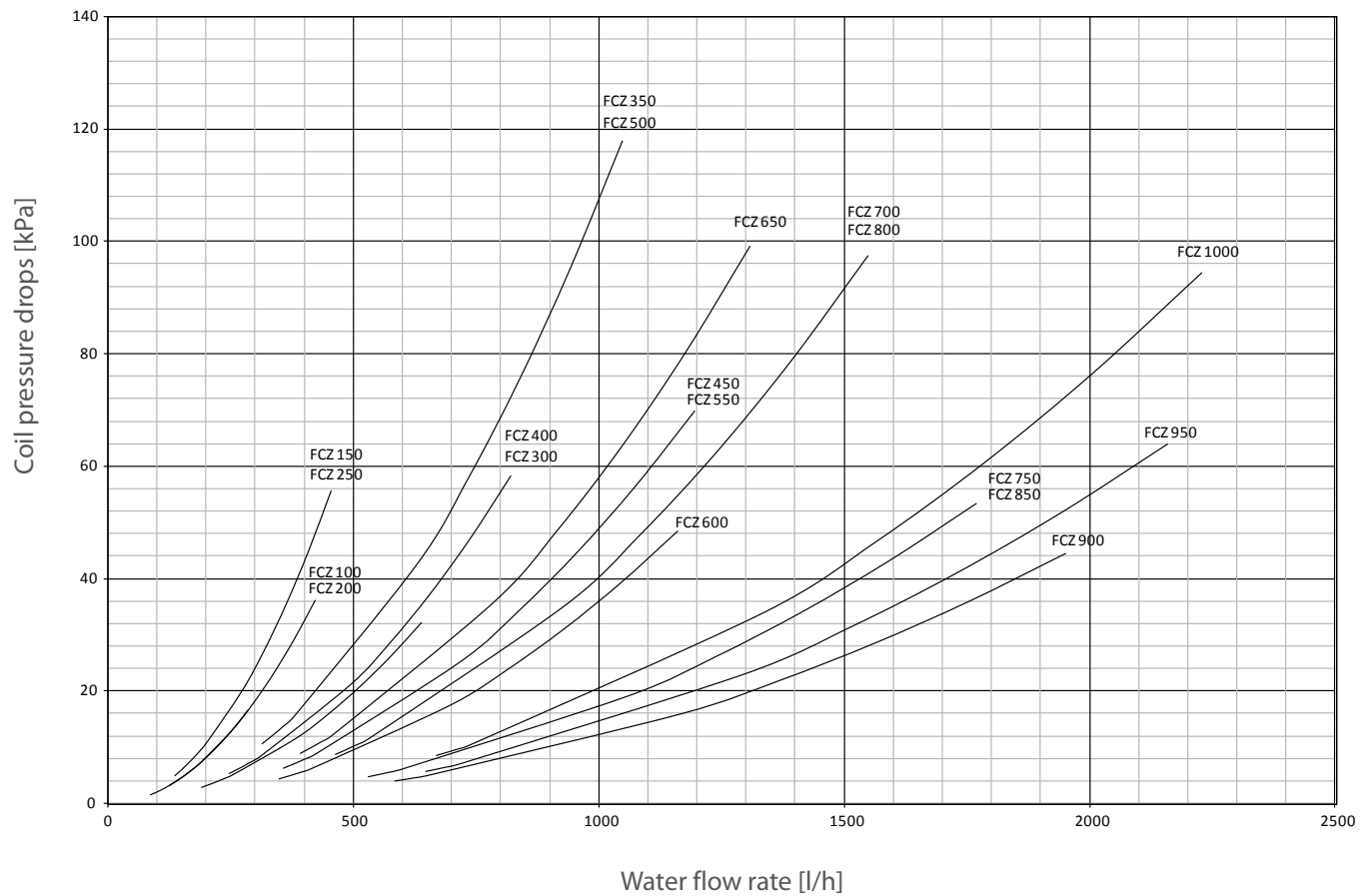
FCZ1001		Ta B.S. [°C]				
		16	18	20	22	24
Tw [°C]		Ph	Ph	Ph	Ph	Ph
in	dt	[W]	[W]	[W]	[W]	[W]
70	5	7637	7306	6980	6660	6344
	10	7462	8648	6810	6489	6169
	15	7258	6927	6601	6276	5960
65	5	6912	6587	6266	5945	5634
	10	6728	6407	6086	5765	5449
	15	6509	6183	5858	5537	5221
60	5	6412	6086	5755	5435	5114
	10	5994	5673	5357	5041	4730
	15	5755	5435	5114	4793	4477
50	5	4735	4419	4108	3801	3500
	10	4516	4200	3884	3573	3262
	15	4229	3903	3578	3252	2926
45	5	4005	3694	3388	3082	2781
	10	3762	3451	3135	2824	2508
	15	3437	3106	2771	2426	2076
40	20	3271	2965	2664	2358	2061
	25	3004	2683	2367	2046	1716
	30	2606	2251	1823	1186	681



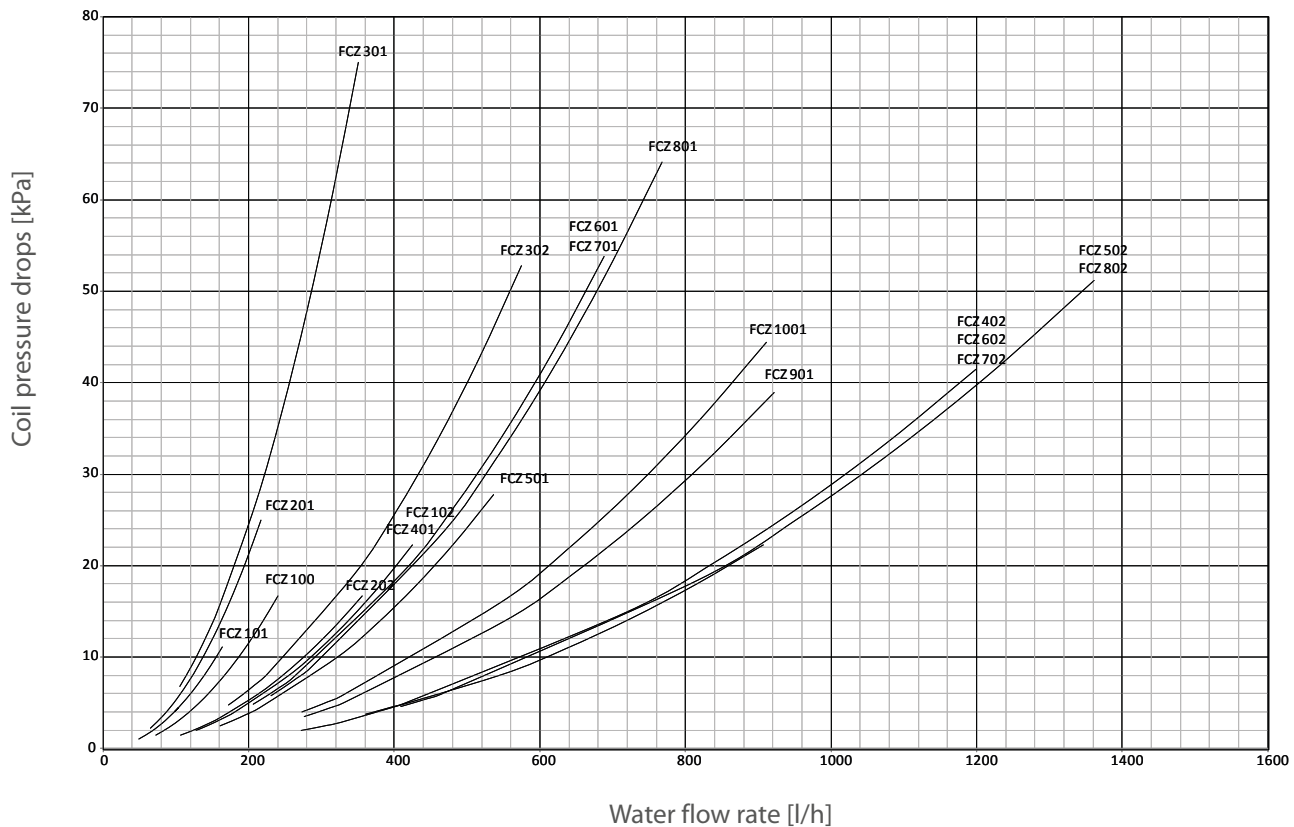
13. PRESSURE DROPS WITH STANDARD COIL IN COOLING



#### 14. PRESSURE DROP MAIN BATTERY IN HEATING



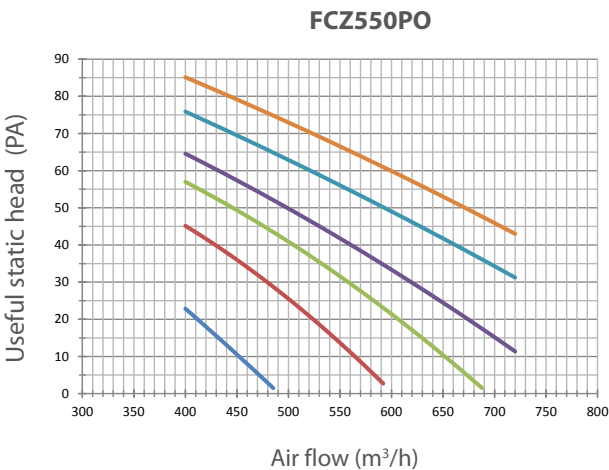
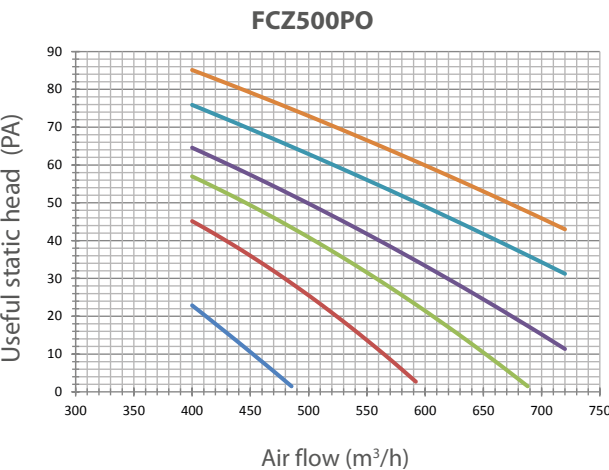
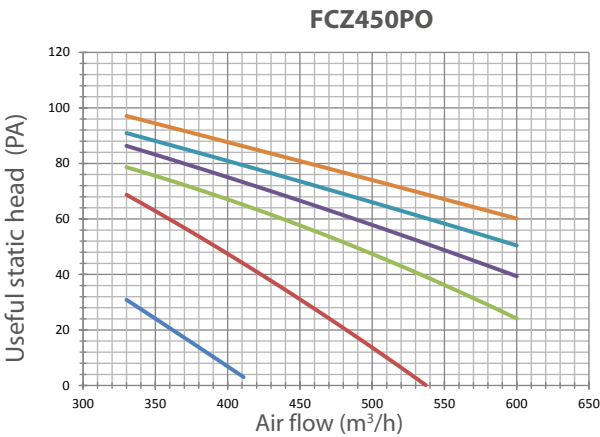
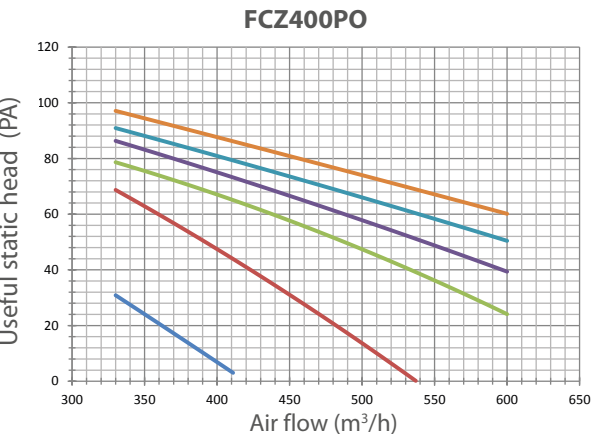
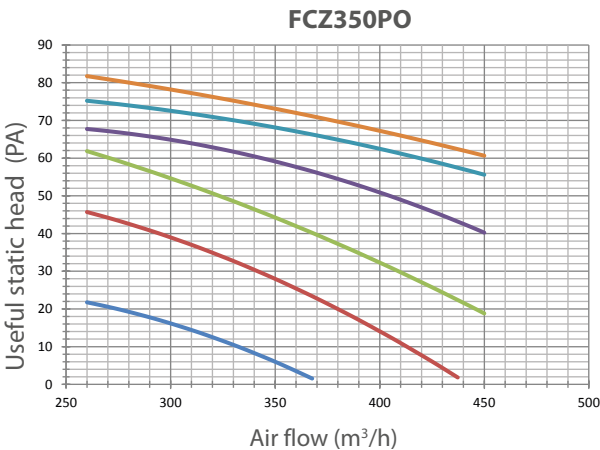
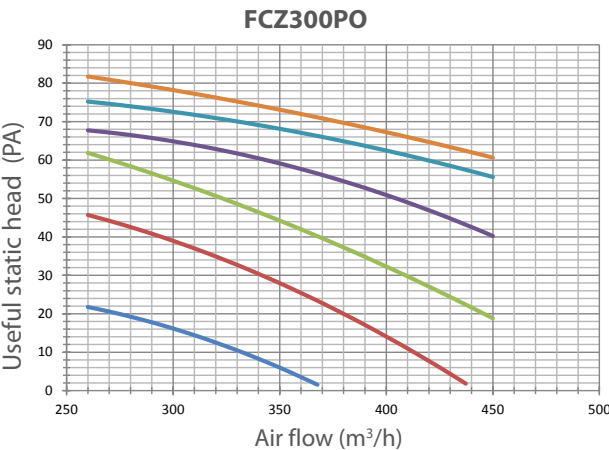
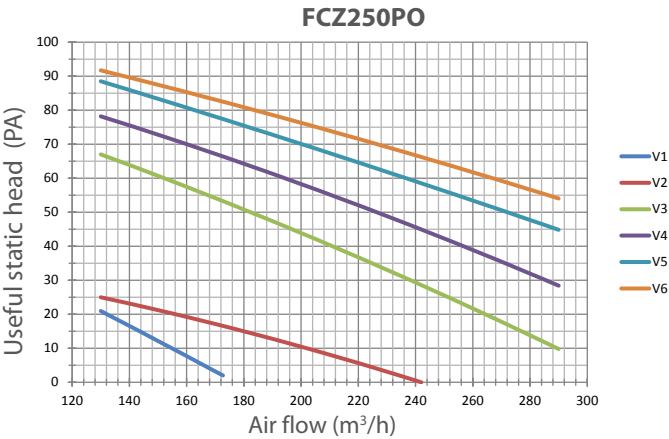
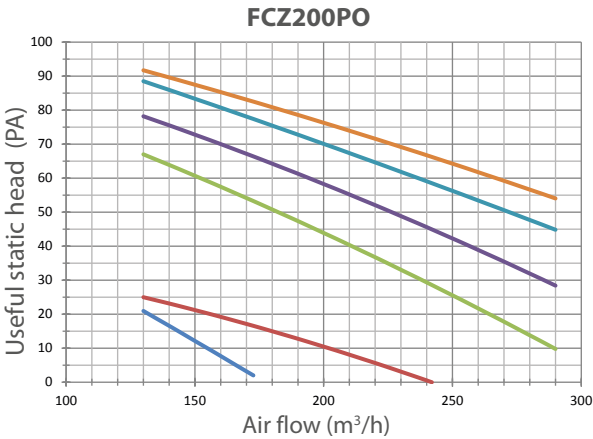
## 15. PRESSURE DROP SECONDARY COIL IN HEATING

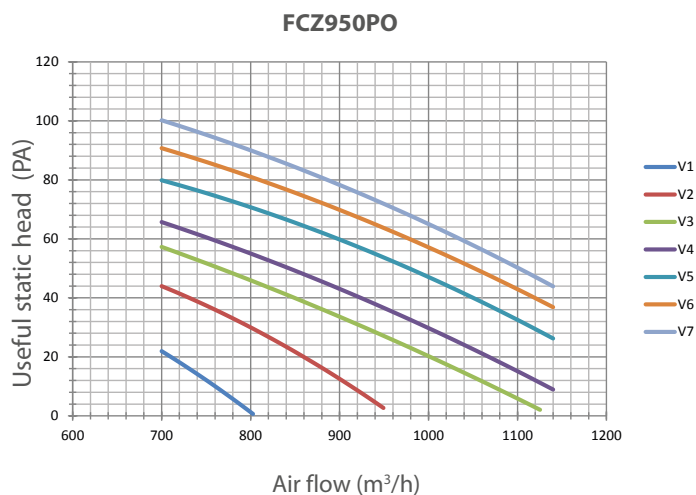
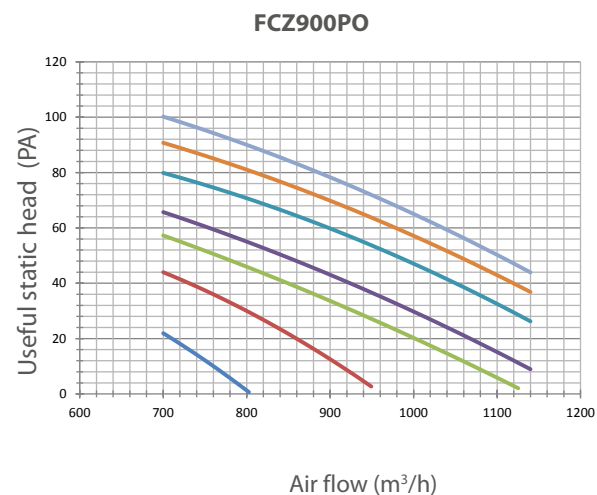
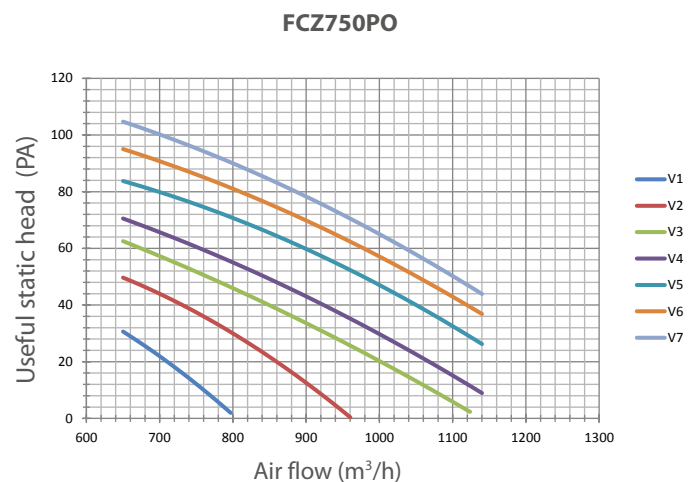
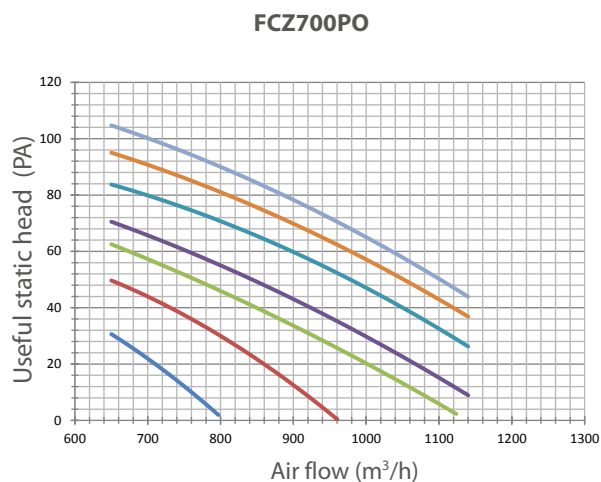
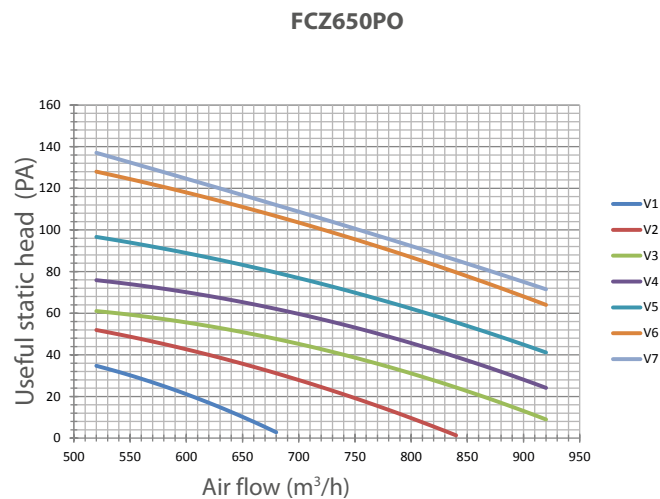
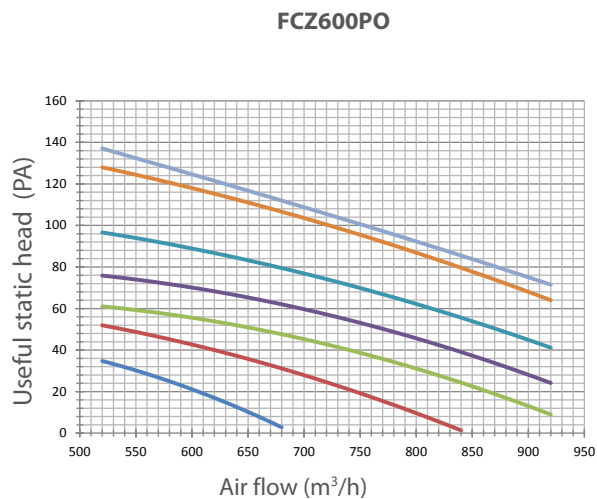


The pressure drops in the previous diagram relate to an average water temperature of 10 °C. The table below states the correction to apply to the pressure drops on variation of the average water temperature.

Average water temperature	°C	5	10	15	20	50	60	70
Multiplicative coefficients		1.03	1	0.96	0.91	0.78	0.75	0.72

16. CURVES OF VENTILATION FCZ PO





The FCZ\_PO series fan coils have been conceived to allow the fans to adjust their prevalence to the pressure drop of the channel, by choosing an appropriate speed triangle. The graphs show the prevalence of machines with a multi-engine boosted motor depending on the air flow rate and fan speed (V1 ÷ V7).

## DECREASE IN AVAILABLE HEAD BETWEEN THE BATTERY AND THE BATTERY 3 5 RANKS RANKS FOR DUCTED UNITS

FCZ202		FCZ302		FCZ402		FCZ502		FCZ602		FCZ702	
Q	Δ	Q	Δ	Q	Δ	Q	Δ	Q	Δ	Q	Δ
m³/h	Pa	m³/h	Pa	m³/h	Pa	m³/h	Pa	m³/h	Pa	m³/h	Pa
254	5	450	6	600	6	720	8	920	10	1140	15
226	4	350	4	460	4	600	6	720	7	930	10
148	1	260	1	330	2	400	3	520	4	700	6

17. CORRECTIVE FACTORS ETHYLENE GLYCOL

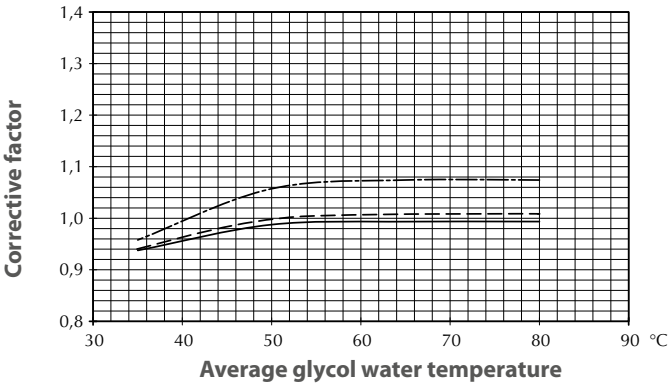
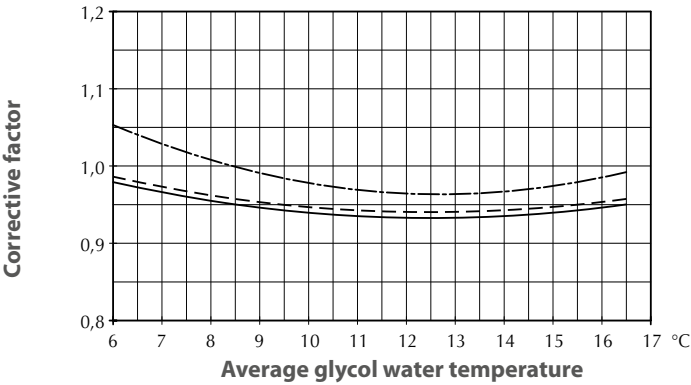
Key:

- Pressure drops
- - - Flow rate
- Yield

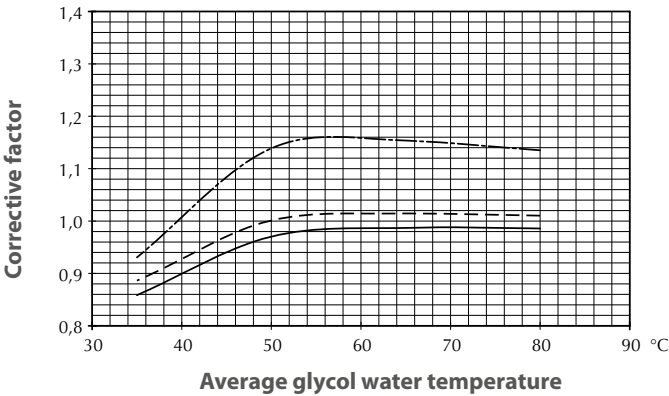
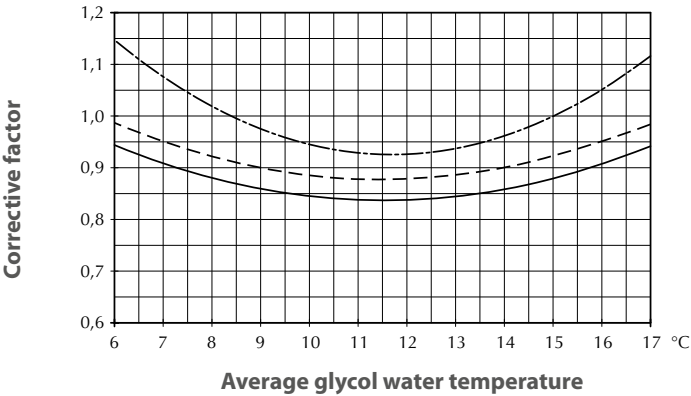
IN COOLING MODE

IN HEATING MODE

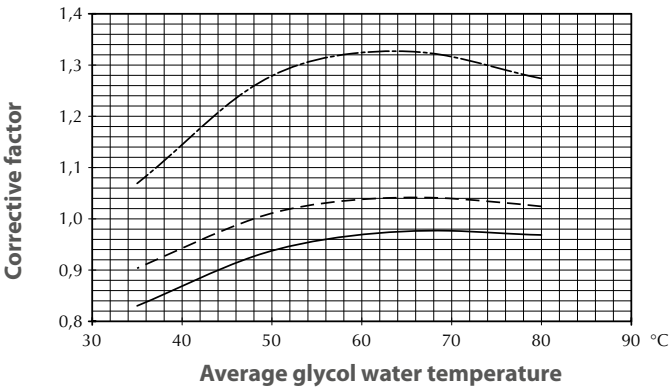
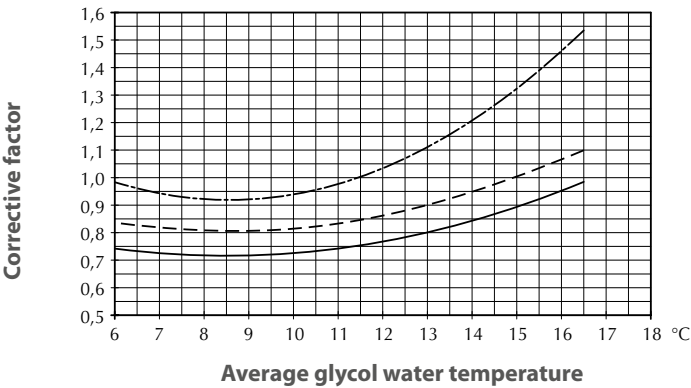
GLYCOL WATER AT 10%



GLYCOL WATER AT 20%



GLYCOL WATER AT 35%



## 18. SOUND PRESSURE AND POWER LEVEL

SOUND POWER LEVEL EXPRESSED IN DB									GLOBAL		SOUND PRESSURE
		CENTRAL BAND FREQUENCY [HZ]									
FCZ	Velocità	125	250	500	1000	2000	4000	8000	dB	dB (A)	
100	Max .	40,4	45,8	43,4	39,7	36,2	28,3	14,8	49,3	45	36,5
	Med.	34,1	40,2	36,7	32,6	26,9	21,1	4	43	38	29,5
	Min.	26,1	33	29,2	26,1	19,7	16,2	4,1	35,8	31	22,5
150	Max .	40,4	45,8	43,4	39,7	36,2	28,3	14,8	49,3	45	36,5
	Med.	34,1	40,2	36,7	32,6	26,9	21,1	4	43	38	29,5
	Min.	26,1	33	29,2	26,1	19,7	16,2	4,1	35,8	31	22,5
200	Max .	45,6	50,6	48,4	44,7	41,3	33,3	19,7	54,2	50	41,5
	Med.	39,2	44,9	41,7	37,6	31,9	25,8	7,5	47,9	43	34,5
	Min.	25,8	33	29,1	26,2	19,9	16,2	2,6	35,7	31	22,5
250	Max .	45,6	50,6	48,4	44,7	41,3	33,3	19,7	54,2	50	41,5
	Med.	39,2	44,9	41,7	37,6	31,9	25,8	7,5	47,9	43	34,5
	Min.	25,8	33	29,1	26,2	19,9	16,2	2,6	35,7	31	22,5
300	Max .	43,6	48,8	46,4	42,7	39	31,3	17,7	52,3	48	39,5
	Med.	37	43	39,7	35,7	29,9	24	5,4	45,9	41	32,5
	Min.	28,9	36,1	32,2	29	22,9	19,2	3,1	38,8	34	25,5
350	Max .	43,7	48,8	46,5	42,7	39,1	31,3	17,6	52,4	48	39,5
	Med.	37,2	42,5	40	35,7	29,9	24,2	6,1	45,8	41	32,5
	Min.	30,8	38	34,2	31,1	24,9	21,2	5,7	40,7	36	27,5
400	Max .	46,6	51,8	49,4	45,7	42	34,3	20,7	55,3	51	42,5
	Med.	39,6	44,8	42,4	38,7	35	27,3	13,7	48,3	44	35,5
	Min.	31,9	39,1	35,2	32	25,9	22,2	6,1	41,8	37	28,5
450	Max .	46,6	51,8	49,4	45,7	42	34,3	20,7	55,3	51	42,5
	Med.	39,6	44,8	42,4	38,7	35	27,3	13,7	48,3	44	35,5
	Min.	31,9	39,1	35,2	32	25,9	22,2	6,1	41,8	37	28,5
500	Max .	51,6	56,8	54,4	50,7	47	39,3	25,7	60,3	56	47,5
	Med.	46,6	51,8	49,4	45,7	42	34,3	20,7	55,3	51	42,5
	Min.	37,6	42,8	40,4	36,7	33	25,3	11,7	46,3	42	33,5
550	Max .	51,8	56,8	54,2	50,7	47,3	39,2	25,5	60,3	56	47,5
	Med.	48,5	53,8	51,2	47,7	44,3	36,4	22,8	57,3	53	44,5
	Min.	40	44,8	42,3	38,7	35,2	27,3	13,9	48,4	44	35,5
600	Max .	52,6	57,5	55,4	51,7	48,3	40,3	26,7	61,2	57	48,5
	Med.	46,4	51,8	49,6	45,7	41,9	34,3	20,8	55,3	51	42,5
	Min.	37,7	42,6	40,4	36,8	33	25,3	11,7	46,3	42	33,5
650	Max .	52,3	57,6	55,4	51,7	48,3	41,1	26,5	61,2	57	48,5
	Med.	46,5	52	49,6	45,7	41,7	34,3	20,6	55,4	51	42,5
	Min.	39,6	44,5	42,4	39,1	34,8	27,9	13,7	48,2	44	35,5
700	Max .	57,6	62,8	60,5	56,7	53,2	45	31,8	66,3	62	53,5
	Med.	52,4	57,8	55,5	51,7	48,2	40,1	26,7	61,3	57	48,5
	Min.	45,6	51	48,4	44,6	41,1	33,2	19,8	54,4	50	41,5
750	Max .	57,6	62,8	60,5	56,7	53,2	45	31,8	66,3	62	53,5
	Med.	52,4	57,8	55,5	51,7	48,2	40,1	26,7	61,3	57	48,5
	Min.	45,6	51	48,4	44,6	41,1	33,2	19,8	54,4	50	41,5
800	Max .	61,5	66,7	64,4	60,7	57,1	49,3	35,8	70,3	66	57,5
	Med.	56,6	61,8	59,4	55,7	52	44,3	30,7	65,3	61	52,5
	Min.	51,7	56,8	54,4	50,7	46,9	39,3	25,7	60,3	56	47,5
850	Max .	61,5	66,7	64,4	60,7	57,1	49,3	35,8	70,3	66	57,5
	Med.	56,6	61,8	59,4	55,7	52	44,3	30,7	65,3	61	52,5
	Min.	51,7	56,8	54,4	50,7	46,9	39,3	25,7	60,3	56	47,5
900	Max .	57,6	62,8	60,5	56,7	53,2	45	31,8	66,3	62	53,5
	Med.	52,4	57,8	55,5	51,7	48,2	40,1	26,7	61,3	57	48,5
	Min.	45,6	51	48,4	44,6	41,1	33,2	19,8	54,4	50	41,5
901	Max .	57,6	62,8	60,5	56,7	53,2	45	31,8	66,3	62	53,5
	Med.	52,4	57,8	55,5	51,7	48,2	40,1	26,7	61,3	57	48,5
	Min.	45,6	51	48,4	44,6	41,1	33,2	19,8	54,4	50	41,5
950	Max .	57,6	62,8	60,5	56,7	53,2	45	31,8	66,3	62	53,5
	Med.	52,4	57,8	55,5	51,7	48,2	40,1	26,7	61,3	57	48,5
	Min.	45,6	51	48,4	44,6	41,1	33,2	19,8	54,4	50	41,5
1000	Max .	61,5	66,7	64,4	60,7	57,1	49,3	35,8	70,3	66	57,5
	Med.	56,6	61,8	59,4	55,7	52	44,3	30,7	65,3	61	52,5
	Min.	51,7	56,8	54,4	50,7	46,9	39,3	25,7	60,3	56	47,5
1001	Max .	61,5	66,7	64,4	60,7	57,1	49,3	35,8	70,3	66	57,5
	Med.	56,6	61,8	59,4	55,7	52	44,3	30,7	65,3	61	52,5
	Min.	51,7	56,8	54,4	50,7	46,9	39,3	25,7	60,3	56	47,5

(E) = Prestazioni certificate Eurovent

Livello di pressione sonora (ponderato A) misurato in ambiente con volume V= 85 m³ , tempo di riverbero t= 0,5s , fattore di direzionalità Q= 2 , distanza r= 2,5m .



## 19. COMPATIBILITY ACCESSORIES FCZ (MANTLED)

### Control panel

**T-TOUCH:** Touch controller mounted on-board. allows remote control with (Android) smart devices using the ThermApp application.

**A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.**

### Probes and accessories for control panels

**SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over

**SIT 3 - 5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).

**SIT3:** commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.

**SIT5:** commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

### VMF system

**VMF-E0X:** thermostat accessory to be mounted on the side of the fan-coil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe, 2 pipe + Cold Plasma, 2 pipe + UV lamps, 2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-IO:** Expansion board that expands the availability of Digital Inputs and Outputs

**VMF-LON:** Expansion that allows interfacing with a thermostat with BMS systems using the LON protocol.

**VMF-E2Z:** User interface for mounting on the unit with two selectors: one to control the temperature and one for the speed.

**VMF-E4X:** Wall mounted user interface allowing control via a capacitive touch keyboard.

**VMF-SW:** Water sensor replacing that supplied with VMF-E19 thermostats for installation upstream of the valve.

**VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

### Hot water coil

**BV:** Single row hot water heat exchanger. Not available for versions with Cold Plasma.

### Electrical heater

**RX:** Armoured electrical coil with safety thermostat (requires a thermostat with heater management). Not available for 4-row or Cold Plasma versions

### Valve kit

**VCZ\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. Version\_X4L valve kit allows left side connection. Version\_X4R valve kit allows right side connection. Power supply 230V ~ 50Hz

**VCZ or VCF:** kit containing a motorised 3-way valve with insulating shell plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.

**VCZD or VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.

**VJP/VJP\_M:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.

**The VJP is controlled by on-off logic** with compatible control panels (accessories)

**The VJP\_M is controlled by modulating logic** with panels not supplied by Aermec

**The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.**

### Installation accessoires

**AMP - AMPZ:** Wall mounting kit.

**BCZ:** Drip tray

**PCZ:** Sheet metal panel to close rear of unit

**GA:** Grille to hide hydraulics and electrics on ceiling mounted units; also applicable for floor installation.

**ZXZ:** Mounting feet (set of 2).

■ Refer to dedicated product Leaflet for further details concerning control panel and VMF System.

## COMPATIBILITY OF ACCESSORIES

		Single coil model																		
FCZ		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Probes and accessories for control panels																				
AER503	AS-AF-U-UA-UF-DS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SW5	AS-AF-U-UA-UF-DS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SA5	AS-AF-U-UA-UF-DS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TXB	AS-AF-U-UA-UF-DS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
T-TOUCH	AS-AF-U-UA-UF-DS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
KTLM	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PTINZ	AS-AF-U-UA-DS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PX	AS-AF-U-UA-UF	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PX2Z	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PXAE-PXAR	AS-AF-U-UA-UF	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TPF	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
WMT05-06-10	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TPFW	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SWA	AS-AF-U-UA-UF	In combination with TPFW																		
SW3	AS-AF-U-UA-UF	In combination with PXAE or PXAR																		
SIT3	AS-AF-U-UA-UF	In combination with TPFW or PXAE or PXAR or PX2 or PX or PX2C6 WMT05-06-10																		
SIT5	AS-AF-U-UA-UF	In combination with TPFW or PXAE or PXAR																		

		Single coil model																		
FCZ		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
VMF System																				
VMF-E0X	AS-AF-U-UA-UF-DS*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E19	AS-AF-U-UA-UF-DS*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-I0	AS-AF-U-UA-UF-DS*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-L0N	AS-AF-U-UA-UF-DS*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E2Z	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E4X	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SW	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SW1	AS-AF-U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Additional coil (heating only)																				
BV117	A-AS-AF-U-UA-UF	*																		
BV122	A-AS-AF-U-UA-UF			*																
BV132	A-AS-AF-U-UA-UF					*														
BV142	A-AS-AF-U-UA-UF							*		*										
BVZ800	A-AS-AF-U-UA-UF											*		*		*				
BV162	A-AS-AF-U-UA-UF																	*		*
Electrical Heat Exchanger																				
RX17	AS-AF-U-UA-UF	*																		
RX22	AS-AF-U-UA-UF			*																
RX32	AS-AF-U-UA-UF					*														
RX42	AS-AF-U-UA-UF							*												
RX52	AS-AF-U-UA-UF									*										
RXZ800	AS-AF-U-UA-UF											*		*		*				
RX62	AS-AF-U-UA-UF																	*		*
Water valves **																				
Valve Kit for 4 pipe systems with main coil																				
VCZ1X4L-R	AS-AF-U-UA-UF (DS+sist. VMF /T-TOUCH)	*	*	*	*															
VCZ2X4L-R	AS-AF-U-UA-UF (DS+sist. VMF /T-TOUCH)					*	*	*	*	*	*	*	*	*	*	*	*			
VCZ3X4L-R	AS-AF-U-UA-UF (DS+sist. VMF /T-TOUCH)																	*	*	*
3 way valve kit																				
VCZ41/4124	AS-AF-ACT-APC-U-UA-UF-D-DS (2)	*	*	*	*															
VCZ42/4224	AS-AF-ACT-APC-U-UA-UF-D-DS (2)					*	*	*	*	*	*	*	*	*	*	*	*			
VCZ43/4324	AS-AF-ACT-APC-U-UA-UF-D-DS (2)																	*	*	*
2 way valve kit																				
VCZD1/124	AS-AF-ACT-APC-U-UA-UF-D-DS (2)	*	*	*	*															
VCZD2/224	AS-AF-ACT-APC-U-UA-UF-D-DS (2)					*	*	*	*	*	*	*	*	*	*	*	*			
VCZD3/324	AS-AF-ACT-APC-U-UA-UF-D-DS (2)																	*	*	*
Combined adjustment and balancing valve independent of pressure																				
VJP060	AS-AF-ACT-APC-U-UA-UF-D-DS	*	*	*	*	*	*													
VJP090	AS-AF-ACT-APC-U-UA-UF-D-DS							*	*	*	*	*	*							
VJP150	AS-AF-ACT-APC-U-UA-UF-D-DS											*	*	*	*	*	*	*	*	*
VJP060M	AS-AF-ACT-APC-U-UA-UF-D-DS (2)	*	*	*	*	*	*													
VJP090M	AS-AF-ACT-APC-U-UA-UF-D-DS (2)							*	*	*	*	*	*							
VJP150M	AS-AF-ACT-APC-U-UA-UF-D-DS (2)											*	*	*	*	*	*	*	*	*
Installation accessories																				
AMP20	U-UA-UF	*	*	*	*	*	*	*	*	*	*									
AMPZ	U-UA-UF	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BCZ4	(Inst. vertical)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BCZ5	(Inst. horizontal)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
BCZ6	(Inst. horizontal)																	*	*	*
Panel to close rear of unit																				
PCZ100	All	*	*																	
PCZ200	All			*	*															
PCZ300	All					*	*													
PCZ500	All							*	*	*	*									
PCZ800	All											*	*	*	*	*	*			
PCZ1000	All																	*	*	*
Grille for ceiling mounted units																				
GA100	U-UA-UF	*	*																	
GA200	U-UA-UF			*	*															
GA300	U-UA-UF					*	*													
GA500	U-UA-UF							*	*	*	*									
GA800	U-UA-UF											*	*	*	*	*	*	*	*	*
Mounting feet																				
ZXZ	All	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

For further details concerning control panels and VMF system refer to the dedicated sheets.

\* Contact Aermec

\*\* The water valves can be combined with the unit if it is also provided a control panel that controls

PTINZ e PXZ2 Installation on the machine

(1) Only for wall installation; PXZC6 panel PX2 in multiples of 6

(2) VCZ124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP60M-VJP090M-VJP150M are 24V

		Twin coil models																	
FCZ		101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
Probes and accessories for control panels																			
AER503	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SW5	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SA5	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TXB	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
T-TOUCH	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PTI4Z	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
KTLM	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TPF	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
WMT06-10	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TPFW	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PXAE	AS-U-UA	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SWA	AS-U-UA									In combination with TPFW									
SIT3	AS-U-UA									In combination with TPFW									
SIT5	AS-U-UA									In combination with TPFW									
VMF System																			
VMF-E0X	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E19	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-I0	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-L0N	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E2Z	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E4X	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SW	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SW1	AS-U-UA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Water valves **																			
3 way valve kit																			
VCZ41/4124	AS-U-UA	(2)	*	*	*	*													
VCZ42/4224	AS-U-UA	(2)				*	*	*	*	*	*	*	*	*	*	*	*	*	*
VCZ43/4324	AS-U-UA	(2)																*	*
2 way valve kit																			
VCZD1/124	AS-U-UA	(2)	*	*	*	*													
VCZD2/224	AS-U-UA	(2)				*	*	*	*	*	*	*	*	*	*	*	*	*	*
VCZD3/324	AS-U-UA	(2)																*	*
2 way valve kit for heating coil only																			
VCFD4/424	AS-U-UA		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Combined adjustment and balancing valve independent of pressure																			
VJP060	AS-U-UA		*	*	*	*	*												
VJP090	AS-U-UA							*	*	*	*	*	*						
VJP150	AS-U-UA											*	*	*	*	*	*	*	*
VJP060M	AS-U-UA	(2)	*	*	*	*	*												
VJP090M	AS-U-UA	(2)						*	*	*	*	*	*						
VJP150M	AS-U-UA	(2)										*	*	*	*	*	*	*	*
Installation accessories																			
AMP20	U-UA		*	*	*	*	*	*	*	*	*								
AMPZ	U-UA		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BCZ4	(Inst. vertical)		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BCZ5	(Inst. horizontal)		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BCZ6	(Inst. horizontal)																	*	*
Panel to close rear of unit																			
PCZ100	All		*	*															
PCZ200	All				*	*													
PCZ300	All					*	*												
PCZ500	All							*	*	*	*								
PCZ800	All											*	*	*	*	*	*	*	*
PCZ1000	All																	*	*
Grille for ceiling mounted units																			
GA100	U-UA		*	*															
GA200	U-UA				*	*													
GA300	U-UA					*	*												
GA500	U-UA							*	*	*	*								
GA800	U-UA											*	*	*	*	*	*	*	*
Mounting feet																			
ZXZ	All		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

For further details concerning control panels and VMF system refer to the dedicated sheets.

\* Contact Aermec

**VJP / VJP\_M** The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow

**\*\***The water valves can be combined with the unit if it is also provided a control panel that controls

(1) Only for wall installation

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP60M-VJP090M-VJP150M are 24V

## 20. COMPATIBILITY ACCESSORIES FCZ P DUCTED

### Control panel

**A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.**

### Probes and accessory for control panels

**SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over

**SIT 3 - 5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).

**SIT3:** commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.

**SIT5:** commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

### Sistema VMF

**VMF-E0X:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe, 2 pipe + Cold Plasma, 2 pipe + UV lamps, 2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-IO:** Expansion board that expands the availability of Digital Inputs and Outputs.

**VMF-LON:** Expansion that allows interfacing with a thermostat with BMS systems using the LON protocol.

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-SIT3:** Interface boards that allow connecting thermostats VMF-E0X to a fan coil with a high-power motor (for selection, see all the thermostat and fan coil documentation); if a VMF-E19 thermostat is used, this accessory will be replaced by the normal SIT3s

**VMF-SW:** Water sensor replacing that supplied with VMF-E19 thermostats for installation upstream of the valve.

**VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

### Hot water coil

**BV:** Single row hot water heat exchanger. Not available for versions with Cold Plasma and for sizes with oversized main coil.

### Electrical heater

**RX:** Armoured electrical coil with safety thermostat (requires a thermostat with heater management). Not available for 4-row or Cold Plasma versions or with oversized main coil.

### Valve kit

**VZC\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. Version\_X4L valve kit allows left side connection. Version\_X4R valve kit allows right side connection. Power supply 230V ~ 50Hz

**VZC or VCF:** kit containing a motorised 3-way valve with insulating shell plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.

**VZCD or VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.

**VJP/VJP\_M:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.

**The VJP is controlled by on-off logic** with compatible control panels (accessories)

**The VJP\_M is controlled by modulating logic** with panels not supplied by Aermec

**The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.**

### Accessory for Installation

**AMP:** Kit for the wall mounting installation.

**BC - BCZ:** Auxiliary condensate drip tray.

**CHF:** The VentilCassaforma is a galvanised sheet steel template, for P versions, which allows you to obtain a space for housing the fan coil, directly in the wall.

**DSC4:** Condensate drainage device for use when natural run-off is not possible.

**PA:** Galvanised sheet steel intake plenum equipped with intake fittings for circular section ducts.

**PA-F:** Intake plenum, which allows recovery and flow on the same side. It is suitable for all those installations outside air-conditioned rooms, in order to minimise noise and facilitate maintenance operations.

**PM:** Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.

**RD:** Straight flow fitting for ducting.

**RDA:** Straight intake fitting for ducting.

**RP:** 90° flow fitting for ducting

**RPA:** 90° intake fitting for ducting.

#### Ducting accessories

**MZC:** Plenum with motor-driven dampers

**RDA\_V:** Straight intake connection with rectangular flange.

**RDAC\_V:** Straight intake connection with circular flanges.

**RPA\_V:** Intake plenum with rectangular flange.

**RDM\_V:** Straight connection outlet made of galvanized plate.

**RDMC\_V:** Straight discharge with circular flanges. Internally insulated.

**PA\_V:** Intake plenum with circular flanges. Flanges in plastic material.

**RPM\_V:** Discharge plenum with rectangular flange. Internally insulated.

**PM\_V:** Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.

**KFV10:** Circular flanges kit for intake/discharge plenum.

#### Grid

**GA:** Intake grid with fixed louvers.

**GAF:** Intake grid with fixed louvers with filter.

**GM:** Flow grid with adjustable louvers.

■ For more details on the control panels and VMF system refer to the dedicated sheet

## ACCESSORIES COMPATIBILITY

		Size with single Heat Exchanger																		
FCZ_P		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Probes and accessories for control panels																				
AER503	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW5	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SA5	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTLP	P-PO	•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	•	•	•
PX-PX2-PX2C6	P-PO	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAE	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAR	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05-06-10	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPFW	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW3	P-PO	In combination with PXAE or PXAR																		
SIT3	P-PO	In combination with TPF/W or PXAE or PXAR or PX2 or PX or PX2C6 WMT05-06-10																		
SIT5	P-PPC-PO	In combination with PXAE or PXAR																		
VMF System																				
VMF-E0X	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E19	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-I0	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-LON	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4X	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4DX	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SIT3	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)																				
BV117	P-PO	•																		
BV122	P-PO			•																
BV132	P-PO					•														
BV142	P-PO							•		•										
BVZ800	P-PO											•		•		•				
BV162	P-PO																	•		•
Electrical Heat Exchanger																				
RX17	P-PO	•																		
RX22	P-PO			•																
RX32	P-PO					•														
RX42	P-PO							•												
RX52	P-PO									•										
RXZ800	P-PO											•		•		•				
RX62	P-PO																	•		•
Water valves **																				
Valve Kit for 4 pipe systems with Main coil																				
VCZ1X4L-R	P-PO	•	•	•	•															
VCZ2X4L-R	P-PO					•	•	•	•	•	•	•	•	•	•	•	•			
VCZ3X4L-R	P-PO																	•	•	

**PO version only available for size from 2 to 9**

For more details on the control panels and VMF system refer to the dedicated sheet.

\* Contact Aermec

\*\* The water valves can be combined with the unit if it is also provided a control panel that controls

			Size with single Heat Exchanger																		
FCZ_P			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
3 way valve kit																					
VCZ41/4124	P-PPC-P0	(2)	•	•	•	•															
VCZ42/4224	P-PPC-P0	(2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZ43/4324	P-PPC-P0	(2)																	•	•	•
2 way valve kit																					
VCZD1/124	P-PPC-P0	(2)	•	•	•	•															
VCZD2/224	P-PPC-P0	(2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZD3/324	P-PPC-P0	(2)																	•	•	•
Combined adjustment and balancing valve independent of pressure																					
VJP060	P-PPC-P0		•	•	•	•	•	•													
VJP090	P-PPC-P0								•	•	•	•	•	•							
VJP150	P-PPC-P0												•	•	•	•	•	•	•	•	•
VJP060M	P-PPC-P0	(2)	•	•	•	•	•	•													
VJP090M	P-PPC-P0	(2)							•	•	•	•	•	•							
VJP150M	P-PPC-P0	(2)											•	•	•	•	•	•	•	•	•
Installation accessories																					
AMP20	P-PPC-P0		•	•	•	•	•	•	•	•	•	•									
AMPZ	P-PPC-P0		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	P-PPC-P0	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Auxiliary condensate drip tray																					
BCZ4	P-PPC-P0	(4)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BCZ5	P-PPC-P0	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BCZ6	P-PPC-P0	(5)																	•	•	•
BC8	P-PPC-P0	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BC9	P-PPC-P0	(5)																	•	•	•
Ventilcassaforma																					
CHF17	P-PPC		•	•																	
CHF22	P-PPC-P0				•	•															
CHF32	P-PPC-P0						•	•													
CHF42	P-PPC-P0								•	•	•	•									
CHF62	P-PPC-P0												•	•	•	•	•	•	•	•	•
Grid																					
GA17	P-PPC		•	•																	
GA22	P-PPC-P0				•	•															
GA32	P-PPC-P0						•	•													
GA42	P-PPC-P0								•	•	•	•									
GA62	P-PPC-P0												•	•	•	•	•	•	•	•	•
GAF17	P-PPC		•	•																	
GAF22	P-PPC-P0				•	•															
GAF32	P-PPC-P0						•	•													
GAF42	P-PPC-P0								•	•	•	•									
GAF62	P-PPC-P0												•	•	•	•	•	•	•	•	•
GM17	P-PPC		•	•																	
GM22	P-PPC-P0				•	•															
GM32	P-PPC-P0						•	•													
GM42	P-PPC-P0								•	•	•	•									
GM62	P-PPC-P0												•	•	•	•	•	•	•	•	•
Accessories for installation																					
PA17	P-PPC		•	•																	
PA22	P-PPC-P0				•	•															
PA32	P-PPC-P0						•	•													
PA42	P-PPC-P0								•	•	•	•									
PA62	P-PPC												•	•	•	•	•	•	•	•	•
PA17F	P-PPC		•	•																	
PA22F	P-PPC-P0				•	•															
PA32F	P-PPC-P0						•	•													
PA42F	P-PPC-P0								•	•	•	•									
PA62F	P-PPC												•	•	•	•	•	•	•	•	•
PM17	P-PPC		•	•																	
PM22	P-PPC-P0				•	•															
PM32	P-PPC-P0						•	•													
PM42	P-PPC-P0								•	•	•	•									
PM62	P-PPC												•	•	•	•	•	•	•	•	•
RD17	P-PPC		•	•																	
RD22	P-PPC-P0				•	•															

**P0 version only available for size from 2 to 9**

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M are 24V

(3) DSC4 It's not available with AMPZ and with valve VCZ 1-2-3-4 X4L-R

(4) For vertical installation. BC4 is not available with valve VCZ-VCZD / VCF-VCFD

(5) For horizontal installation



		Size with single Heat Exchanger																		
FCZ_P		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
RD32	P-PPC-PO					.	.													
RD42	P-PPC-PO							.	.	.	.									
RD62	P-PPC											.	.	.	.	.	.	.	.	.
RDA17	P-PPC	.	.																	
RDA22	P-PPC-PO				.	.												.	.	.
RDA32	P-PPC-PO					.	.													
RDA42	P-PPC-PO							.	.	.	.									
RDA62	P-PPC											.	.	.	.	.	.	.	.	.
RP17	P	.	.																	
RP22	P-PO				.	.														
RP32	P-PO					.	.													
RP42	P-PO							.	.	.	.									
RP62	P-PO											.	.	.	.	.	.	.	.	.
RPA17	P-PPC	.	.																	
RPA22	P-PPC-PO				.	.														
RPA32	P-PPC-PO					.	.													
RPA42	P-PPC-PO							.	.	.	.									
RPA62	P-PPC											.	.	.	.	.	.	.	.	.
Plenum for duct installation																				
MZC220	PO				.	.														
MZC320	PO					.	.													
MZC530	PO							.	.	.	.									
MZC830	PO											.	.	.	.	.	.	.	.	.
RDA000V	PO				.	.														
RDA100V	PO					.	.													
RDA200V	PO							.	.	.	.									
RDA300V	PO											.	.	.	.			.	.	.
RPA000V	PO	(6)			.	.														
RPA100V	PO	(6)				.	.													
RPA200V	PO	(6)						.	.	.	.									
RPA300V	PO	(6)										.	.	.	.			.	.	.
RDAC000V	PO				.	.						.	.	.	.			.	.	.
RDAC100V	PO					.	.													
RDAC200V	PO							.	.	.	.									
RDAC300V	PO											.	.	.	.			.	.	.
PA000V	PO	(6)			.	.														
PA100V	PO	(6)				.	.													
PA200V	PO	(6)						.	.	.	.									
PA300V	PO	(6)										.	.	.	.			.	.	.
PM000V	PO	(6)			.	.														
PM100V	PO	(6)				.	.													
PM200V	PO	(6)						.	.	.	.									
PM300V	PO	(6)										.	.	.	.			.	.	.
RPM000V	PO	(6)			.	.														
RPM100V	PO	(6)				.	.													
RPM200V	PO	(6)						.	.	.	.									
RPM300V	PO	(6)										.	.	.	.			.	.	.
RDM000V	PO				.	.														
RDM100V	PO					.	.													
RDM200V	PO							.	.	.	.									
RDM300V	PO											.	.	.	.			.	.	.
RDMC000V	PO				.	.														
RDMC100V	PO					.	.													
RDMC200V	PO							.	.	.	.									
RDMC300V	PO											.	.	.	.			.	.	.

**P0 version only available for size from 2 to 9**

(6) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs ( $\varnothing=150\text{mm}$  ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

		Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P		101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
Probes and accessories for control panels																			
AERS03	P-PPC-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SW5	P-PPC-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SAS5	P-PPC-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TX	P-PPC-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
KTLP	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PXAE	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TPF	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
WMT06-10	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TPFW	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SW3	P-PO	In combination with PXAE																	
SIT3	P-PO	In combination with TPF/W or PXAE or WMT06-10																	
SIT5	P-PO	In combination with PXAE																	
VMF System																			
VMF-E0X	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E19	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-I0	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-L0N	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E4X	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E4DX	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SW	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SW1	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SIT3	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Water valve**																			
3 way valve kit																			
VCZ41/4124	P-PO	(2)	*	*	*	*													
VCZ42/4224	P-PO	(2)				*	*	*	*	*	*	*	*	*	*	*	*	*	*
VCZ43/4324	P-PO	(2)																*	*
2 way valve kit																			
VCZD1/124	P-PO	(2)	*	*	*	*													
VCZD2/224	P-PO	(2)				*	*	*	*	*	*	*	*	*	*	*	*	*	*
VCZD3/324	P-PO	(2)																*	*
3 way valve kit for heating coil only																			
VCF44/4424	P-PO	(2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VCF45/4524	P-PO	(2)																*	*
2 way valve kit for heating coil only																			
VCFD4/424	P-PO	(2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Combined adjustment and balancing valve independent of pressure *																			
VJP060	P-PO	*	*	*	*	*	*												
VJP090	P-PO							*	*	*	*	*	*						
VJP150	P-PO											*	*	*	*	*	*	*	*
VJP060M	P-PO	(2)	*	*	*	*	*									*	*	*	*
VJP090M	P-PO	(2)						*	*	*	*	*	*						
VJP150M	P-PO	(2)										*	*	*	*	*	*	*	*
Accessories for installation																			
AMP20	P-PO	*	*	*	*	*	*	*	*	*	*	*	*						
AMPZ	P-PO	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
DSC4	P-PO	(3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Auxiliary condensate drip tray																			
BCZ4	P	(4)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BCZ5	P	(5)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BCZ6	P	(5)										*	*	*	*	*	*	*	*
BC8	P-PO	(5)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BC9	P-PO	(5)																*	*
Ventilcassaforma																			
CHF17	P	*	*																
CHF22	P			*	*														
CHF32	P					*	*												
CHF42	P							*	*	*	*								
CHF62	P											*	*	*	*	*	*	*	*
Grids																			
GA17	P	*	*																
GA22	P-PO			*	*														
GA32	P-PO					*	*												

P0 version only available for size from 2 to 9

\* VJP / VJP\_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

\*\* The water valves can be combined with the unit if it is also provided a control panel that controls

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M are 24V

(3) JDS4 It's not available with AMPZ

(4) For vertical installation. Condensate drip tray is not compatible with valve VCZ-VCZD / VCF-VCFD

(5) For horizontal installation

		Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P		101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
GA42	P-PO							*	*	*	*								
GA62	P-PO											*	*	*	*	*	*	*	*
GAF17	P	*	*																
GAF22	P-PO			*	*														
GAF32	P-PO					*	*												
GAF42	P-PO							*	*	*	*								
GAF62	P-PO											*	*	*	*	*	*	*	*
GM17	P	*	*																
GM22	P-PO			*	*														
GM32	P-PO					*	*												
GM42	P-PO							*	*	*	*								
GM62	P-PO											*	*	*	*	*	*	*	*
<b>Accessories for installation wall and ducted</b>																			
PA17	P	*	*																
PA22	P-PO			*	*														
PA32	P-PO					*	*												
PA42	P-PO							*	*	*	*								
PA62	P-PO											*	*	*	*	*	*	*	*
PA17F	P	*	*																
PA22F	P-PO			*	*														
PA32F	P-PO					*	*												
PA42F	P-PO							*	*	*	*								
PA62F	P-PO											*	*	*	*	*	*	*	*
PM17	P	*	*																
PM22	P-PO			*	*														
PM32	P-PO					*	*												
PM42	P-PO							*	*	*	*								
PM62	P-PO											*	*	*	*	*	*	*	*
RD17	P	*	*																
RD22	P-PO			*	*														
RD32	P-PO					*	*												
RD42	P-PO							*	*	*	*								
RD62	P-PO											*	*	*	*	*	*	*	*
RDA17	P	*	*																
RDA22	P-PO			*	*														
RDA32	P-PO					*	*												
RDA42	P-PO							*	*	*	*								
RDA62	P-PO											*	*	*	*	*	*	*	*
RP17	P	*	*																
RP22	P-PO			*	*														
RP32	P-PO					*	*												
RP42	P-PO							*	*	*	*								
RP62	P-PO											*	*	*	*	*	*	*	*
RPA17	P	*	*																
RPA22	P-PO			*	*														
RPA32	P-PO					*	*												
RPA42	P-PO							*	*	*	*								
RPA62	P-PO											*	*	*	*	*	*	*	*
<b>Plenum for duct installation</b>																			
MZC220	PO			*	*														
MZC320	PO					*	*												
MZC530	PO							*	*	*	*								
MZC830	PO											*	*	*	*	*	*	*	*
RDA000V	PO			*	*														
RDA100V	PO					*	*												
RDA200V	PO							*	*	*	*								
RDA300V	PO											*	*	*	*			*	
RPA000V	PO	(6)		*	*														
RPA100V	PO	(6)				*	*												
RPA200V	PO	(6)						*	*	*	*								
RPA300V	PO	(6)										*	*	*	*			*	
RDAC000V	PO			*	*														
RDAC100V	PO					*	*												
RDAC200V	PO							*	*	*	*								
RDAC300V	PO											*	*	*	*			*	
PA000V	PO	(6)		*	*														
PA100V	PO	(6)				*	*												

**PO version only available for size from 2 to 9**

(6) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs (Ø=150mm ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

		Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P		101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
PA200V	P0	(6)						.	.	.	.								
PA300V	P0	(6)										.	.	.	.				.
PM000V	P0	(6)		.	.														.
PM100V	P0	(6)				.	.												
PM200V	P0	(6)						.	.	.	.								
PM300V	P0	(6)										.	.	.	.				.
RPM000V	P0	(6)		.	.														
RPM100V	P0	(6)				.	.												
RPM200V	P0	(6)						.	.	.	.								
RPM300V	P0	(6)										.	.	.	.				.
RDM000V	P0			.	.														
RDM100V	P0					.	.												
RDM200V	P0							.	.	.	.								
RDM300V	P0											.	.	.	.				.
RDMC000V	P0			.	.														
RDMC100V	P0					.	.												
RDMC200V	P0							.	.	.	.								
RDMC300V	P0											.	.	.	.				.

**P0 version only available for size from 2 to 9**

(6) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs ( $\varnothing=150\text{mm}$  ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

## 21. COMPATIBILITY ACCESSORIES FCZ D

### Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils. In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

SA5: air probe kit (L = 15 m) with probe-locking cable grommet.

SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

T-TOUCH: Touch control on board the machine, for controlling fan coils with asynchronous motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils. The ThermApp application is also available for remote control with smart devices with the Android operating system.

TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils.

### VMF system

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

VMF-E2Z: User interface on the machine, to be combined with the VMF-E0X, VMF-E19 or VMF-E19I accessory.

VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF\_N/M and

GLL\_N, can be controlled with VMF-IR control.

VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

VMF-IO: Expansion board that extends the availability of digital inputs and outputs (configured via the dip switches).

### Water valves

VCZ\_X: 3-way valve kit for single-coil fan coil, RH connections, for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.

VCZ: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

VDP: Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 230 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

### Installation accessories

PCZ: Sheet metal panel closing the rear of the unit.

GA: Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FKIT accessory is needed only in the case of floor installation.

FIKIT: Metal supports for vertical installation of the GA grille.

DSCZ4: Condensate drainage device.

BCZ: Condensate drip.

## ACCESSORIES COMPATIBILITY

### Control panels

Model	Ver	200	300	400	500
AER503IR (1)	DS	•	•	•	•
SA5 (2)	DS	•	•	•	•
SW3 (3)	DS	•	•	•	•
SW5 (3)	DS	•	•	•	•
T-TOUCH	DS	•	•	•	•
TX (4)	DS	•	•	•	•

(1) Wall installation

(2) Probe for AER503-TX thermostats, if fitted.

(3) Probe for AER503IR-TX thermostats, if fitted.

(4) Wall-mount installation.

### VMF system

For more information about VMF system, refer to the dedicated

documentation.

Model	Ver	200	300	400	500
VMF-E0X (1)	DS	•	•	•	•
VMF-E19 (2)	DS	•	•	•	•
VMF-E2Z	DS	•	•	•	•

Model	Ver	200	300	400	500
VMF-E3	DS	•	•	•	•
VMF-E4DX	DS	•	•	•	•
VMF-E4X	DS	•	•	•	•
VMF-I0	DS	•	•	•	•

(1) Also the accessory VMF-SIT3 is mandatory if the unit exceeds 0.7 Amperes.

(2) Also the accessory SIT3Z is mandatory if the unit exceeds 0.7 Amperes.

### Water valves

#### 3 way valve kit

Model	Ver	200	300	400	500
VCZ41 (1)	D,DS	•			
VCZ4124 (2)	D,DS	•			
VCZ42 (1)	D,DS		•	•	•
VCZ4224 (2)	D,DS		•	•	•

(1) 230V~50Hz

(2) 24V

#### 2 way valve kit

Model	Ver	200	300	400	500
VCZD1 (1)	DS	•			
VCZD124 (2)	DS	•			
VCZD2 (1)	DS		•	•	•
VCZD224 (2)	DS		•	•	•

(1) 230V~50Hz

(2) 24V

#### Valve Kit for 4 pipe systems - Requires a thermostat with valve management

Model	Ver	200	300	400	500
VCZ1X4L (1)	D,DS	•			
VCZ1X4R (1)	D,DS	•			
VCZ2X4L (1)	D,DS		•	•	•
VCZ2X4R (1)	D,DS		•	•	•

(1) The valves can be combined with the units if there is a control panel for managing them.

### Installation accessories

#### Condensate recirculation device

Model	Ver	200	300	400	500
DSCZ4 (1)	D,DS	•	•	•	•

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

#### Condensate drip

Model	Ver	200	300	400	500
BCZ4 (1)	D,DS	•	•	•	•

(1) For vertical installation.

#### Panel closing the rear of the unit

Model	Ver	200	300	400	500
PCZ200	D,DS	•			
PCZ300	D,DS		•		
PCZ500	D,DS			•	•

#### Ornamental grille

Model	Ver	200	300	400	500
GA200	D,DS	•			
GA300	D,DS		•		
GA500	D,DS			•	•

#### Supports to be combined with the ornamental grille (GA) for floor installation of the fan coil

Model	Ver	200	300	400	500
FIKIT200	D,DS	•			
FIKIT300	D,DS		•		
FIKIT500	D,DS			•	•

#### Pair of stylish structural feet

Model	Ver	200	300	400	500
ZKZ	D,DS	•	•	•	•

## 22. COMPATIBILITY ACCESSORIES FCZ H

### ACCESSORIES

#### Control panels and dedicated accessories - FCZ-H

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils. In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**T-TOUCH:** Touch control on board the machine, for controlling fan coils with asynchronous motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils. The ThermApp application is also available for remote control with smart devices with the Android operating system.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils.

**TXB:** Thermostat on board the machine, for FCZ fan coils with asynchronous motor, complete with water probe and air probe to be positioned in the relative housings. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils.

**VMF-E0X:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E2Z:** User interface on the machine, to be combined with the VMF-E0X, VMF-E19 or VMF-E19I accessory.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Expansion board that extends the availability of digital inputs and outputs (configured via the dip switches).

**VMF-LON:** Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.

**VMF-SIT3:** Interface card that permits connecting the VMF-E19 thermostats to a fan coil with a high power motor.

**VMF-SW:** Water temperature probe.

#### Common accessories

**VCZ:** 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VCFD:** Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.

**VCF41 - 42 - 43 - for main coil:** 3-way motorised valve kit for the main coil. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit.

**AMP:** Wall mounting kit

**DSC:** Condensate drainage device.

**BCZ:** Condensate drip.

**PCZ:** Sheet metal panel closing the rear of the unit.

**GA:** Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FKIT accessory is needed only in the case of floor installation.

**FIKIT:** Metal supports for vertical installation of the GA grille.

**ZXZ:** Pair of stylish and structural feet

**BC:** Condensate drip.



**Ventilcassaforma:** Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories - FCZ-H

Model	Ver	200	300	400	500	600	900	950
AER503IR (1)	H,HP,HT	•	•	•	•	•	•	•
SA5 (2)	H,HP,HT	•	•	•	•	•	•	•
SIT3 (3)	H,HP,HT	•	•	•	•	•	•	•
SIT5 (4)	H,HP,HT	•	•	•	•	•	•	•
SW3 (5)	H,HP,HT	•	•	•	•	•	•	•
SW5 (5)	H,HP,HT	•	•	•	•	•	•	•
T-TOUCH	H	•	•	•	•	•	•	•
TX (6)	H,HP	•	•	•	•	•	•	•
TXB (7)	H	•	•	•	•	•	•	•

- (1) Wall installation  
(2) Probe for AER503-TX thermostats, if fitted.  
(3) Cards for AER503-TX thermostats, if present, to be installed if the unit absorption exceeds 0.7 Ampere.  
(4) Datasheets for AER503-TX thermostats, if fitted.  
(5) Probe for AER503IR-TX thermostats, if fitted.  
(6) Wall-mount installation.  
(7) Installation on the fan coil.

Model	Ver	200	300	400	500	600	900	950
VMF-E0X (1)	H,HP	•	•	•	•	•	•	•
VMF-E19 (2)	H,HP	•	•	•	•	•	•	•
VMF-E2Z	H	•	•	•	•	•	•	•
VMF-E3	H,HP	•	•	•	•	•	•	•
VMF-E4DX	H,HP	•	•	•	•	•	•	•
VMF-E4X	H,HP	•	•	•	•	•	•	•
VMF-IO	H,HP	•	•	•	•	•	•	•
VMF-LON	H,HP	•	•	•	•	•	•	•
VMF-SIT3 (3)	H,HP	•	•	•	•	•	•	•
VMF-SW	H,HP	•	•	•	•	•	•	•

- (1) Also the accessory VMF-SIT3 is mandatory if the unit exceeds 0.7 Amperes.  
(2) Also the accessory SIT3Z is mandatory if the unit exceeds 0.7 Amperes.  
(3) For the selection, consult the documentation for the thermostat and the fan coil.

### Common accessories

#### 3 way valve kit

Model	Ver	200	300	400	500	600	900	950
VCZ41 (1)	H,HP,HT	•						
VCZ4124 (2)	H,HP,HT	•						
VCZ42 (1)	H,HP,HT		•	•	•	•		
VCZ4224 (2)	H,HP,HT		•	•	•	•		
VCZ43 (1)	H,HP,HT						•	•
VCZ4324 (2)	H,HP,HT						•	•

- (1) 230V~50Hz  
(2) 24V

#### 2 way valve kit

Model	Ver	200	300	400	500	600	900	950
VCZD1 (1)	H,HP,HT	•						
VCZD124 (2)	H,HP,HT	•						
VCZD2 (1)	H,HP,HT		•	•	•	•		
VCZD224 (2)	H,HP,HT		•	•	•	•		
VCZD3 (1)	H,HP,HT						•	•
VCZD324 (2)	H,HP,HT						•	•

- (1) 230V~50Hz  
(2) 24V

#### Combined Adjustment and Balancing Valve Kit

Model	Ver	200	300	400	500	600	900	950
VJP060 (1)	H,HP,HT	•	•					
VJP060M (2)	H,HP,HT	•	•					
VJP090 (1)	H,HP,HT			•	•	•		
VJP090M (2)	H,HP,HT			•	•	•		
VJP150 (1)	H,HP,HT						•	•
VJP150M (2)	H,HP,HT						•	•

- (1) 230V~50Hz  
(2) 24V

**Wall mounting kit**

Ver	200	300	400	500	600	900	950
HP	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20

**Condensate drainage**

Model	Ver	200	300	400	500	600	900	950
DSC4 (1)	HP	.	.	.	.	.	.	.

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

**Condensate drip**

Ver	200	300	400	500	600	900	950
HP	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ6 (2)	BCZ6 (2)

(1) For vertical installation.

(2) For horizontal installation.

Ver	200	300	400	500	600	900	950
HP	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC9 (1)	BC9 (1)

(1) For horizontal installation.

**Panel closing the rear of the unit**

Ver	200	300	400	500	600	900	950
H,HP,HT	PCZ200	PCZ300	PCZ500	PCZ500	PCZ800	PCZ1000	PCZ1000

**Grille also applicable for floor installation**

Ver	200	300	400	500	600	900	950
H,HP,HT	GA200	GA300	GA500	GA500	GA800	GA800	GA800

**Metal supports for GA grille**

Ver	200	300	400	500	600	900	950
H,HP,HT	FIKIT200	FIKIT300	FIKIT500	FIKIT500	FIKIT800	FIKIT800	FIKIT800



**Ventilcassaforma**

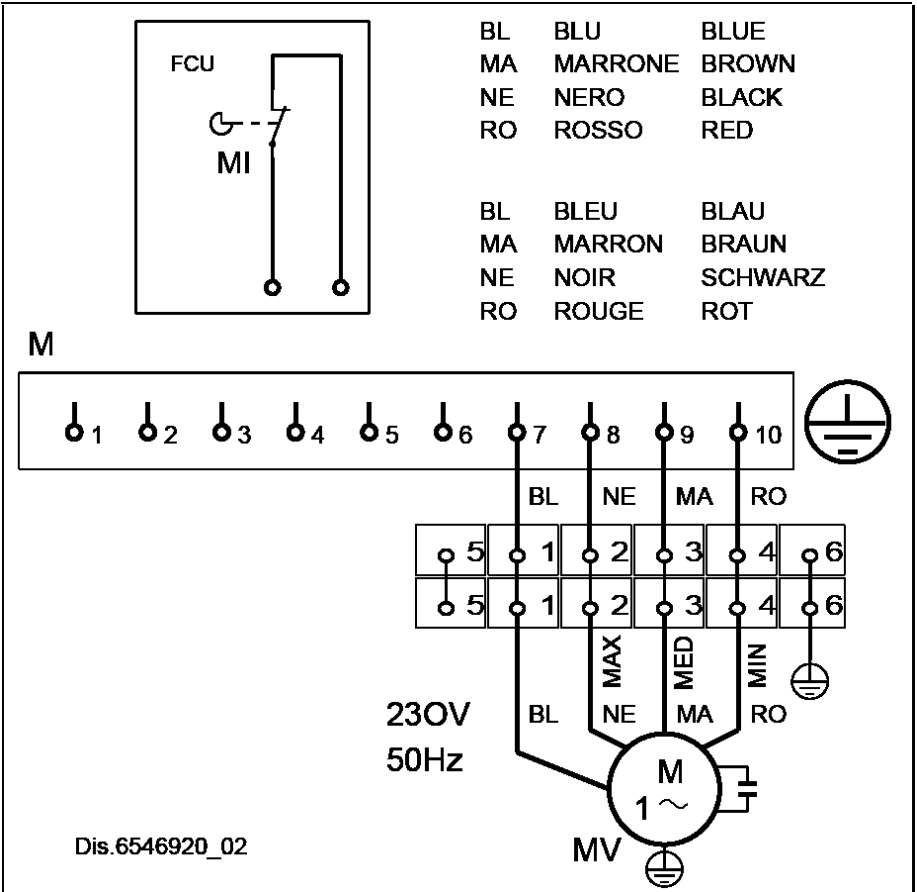
Ver	200	300	400	500	600	900	950
HP	CHF22	CHF32	CHF42	CHF42	CHF62	CHF62	CHF62

**Pair of stylish structural feet**

Ver	200	300	400	500	600	900	950
H,HP,HT	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ

## 23.SCHEMI ELETTRICI • WIRING DIAGRAMS • SCHEMAS ELECTRIQUES • SCHALTPLÄNE • ESQUEMAS ELÉCTRICOS

	LEGENDA	READING KEY	LEGENDE	LEGENDE	LEYENDA
AL	Alimentatore 12V	Power supply 12V	Alimentation électrique 12V	Spannung 12V	Alimentador 12V
CE EX	Contatto esterno	External contact	Contact extérieur	Externer Kontakt	Contacto externo
CN	Connettore	Connector	Connecteur	Schütz	Conector
CRE	Contattore resistenza elettrica	Electric heater contactor	Contacteur résistance électrique	El. Heizregister-Schutz	Contactador de la resistencia eléctrica
F	Fusibile	Fuse	Fusible	Sicherung	Fusible
IG	Interruttore generale	Main switch	Interupteur général	Hauptschalter	Interruptor general
M	Morsettiera	Terminal board	Boitier	Klemmleiste	Placa de bornes
ML	Motore aletta	Louvre motor	Moteur deflecteur	Motor- Umlenkklappe	Lamas motorizadas
MS	Microinterruttore griglia (Solo per i modelli che ne sono provvisti)	Louvre microswitch (Only for the appropriate models)	Micro-interrupteur grille (Uniquement pour les modèles qui en sont fournis)	Mikroschalter Gitter (Nur bei Modellen, die damit ausgestattet sind)	Microinterruptor de la rejilla de impulsión (Sólo para los modelos que lo incluyen)
MV	Motore ventilatore	Fan motor	Moteur ventilateur	Ventilatormotor	Motor del ventilador
PE GND	Collegamento a terra	Earth connection	Mise à terre	Erdanschluss	Toma de tierra
RE RX	Resistenza elettrica	Electric heater	Résistance électrique	Elt. Heizregister	Resistencia eléctrica
SA	Sonda ambiente	Room sensor	Sonde ambiante	Raumtemperaturfühler	Sonda ambiente
SC	Scheda di controllo	Electronic control board	Platine de contrôle	Steuerschaltkreis	Tarjeta electrónica de control
SW	Sonda minima temperatura acqua	Sonde minimum temp. eau	Water low temperature sensor	Wasserfühler	Sonda temperatura mínima del agua
TR	Trasformatore	Transformer	Transformateur	Transformator	Transformador
TSR	Termostato a riarmo automatico	Automatic resetting thermostat	Thermostat à réarmement automatique	Thermostat automatischer Entriegelung	Termostato de rearme automático
TSRM	Termostato a riarmo manuale	Manual resetting thermostat	Thermostat à réarmement manuel	Thermostat manueller Entriegelung	Termostato de rearme manual
VCF	Valvola solenoide	Solenoid valve	Vanne solenoide	Magnetventil	Válvula solenoide
VC	Valvola solenoide caldo	Solenoid valve hot	Vanne magnétique chaud	Magnetventil Heizbetrieb	Válvula solenoide para calor
VF	Valvola solenoide freddo	Solenoid valve cold	Vanne magnétique froid	Magnetventil Kühlbetrieb	Válvula solenoide para frío
	Componenti non forniti	Components not supplied	Composants non fournis	Nicht lieferbare Teile	Componentes no suministrados
	Componenti forniti optional	Optional components	Composants en option	Optionsteile	Componentes opcionales
-----	Collegamenti da eseguire in loco	On-site wiring	Raccordements à effectuer in situ	Vor Ort auszuführende Anschlüsse	Cableado in situ
AR	Arancio	Orange	Orange	Orange	Naranja
BI	Bianco	White	Blanc	Weiss	Blanco
BL	Blu	Blue	Bleu	Blau	Azul
GR	Grigio	Grey	Gris	Gray	Gris
MA	Marrone	Brown	Marron	Braun	Marrón
NE	Nero	Black	Noir	Schwarz	Negro
RO	Rosso	Red	Rouge	Rot	Rojo
VE	Verde	Green	Vert	Grün	Verde
VI	Viola	Violet	Violet	Violet	Violeta



M

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6

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1

2

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4

6

230V

50Hz

BL

NE

MA

RO

MAX

MED

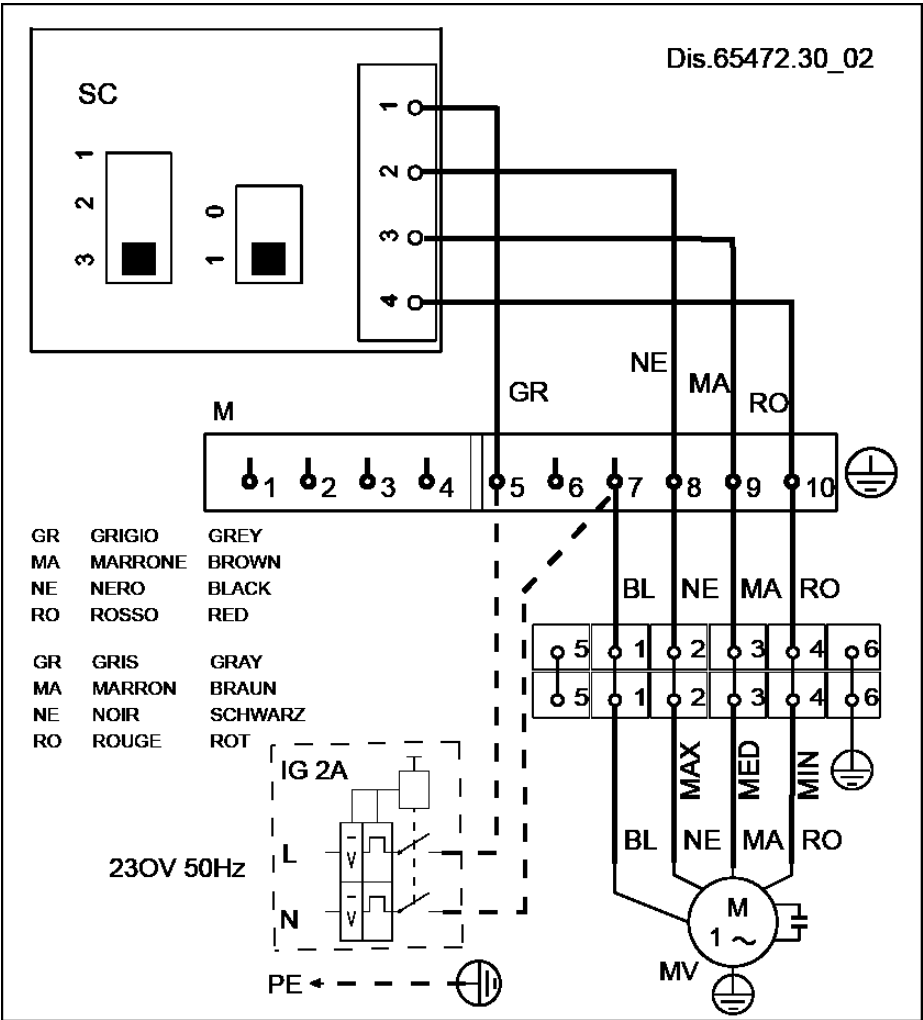
MIN

M

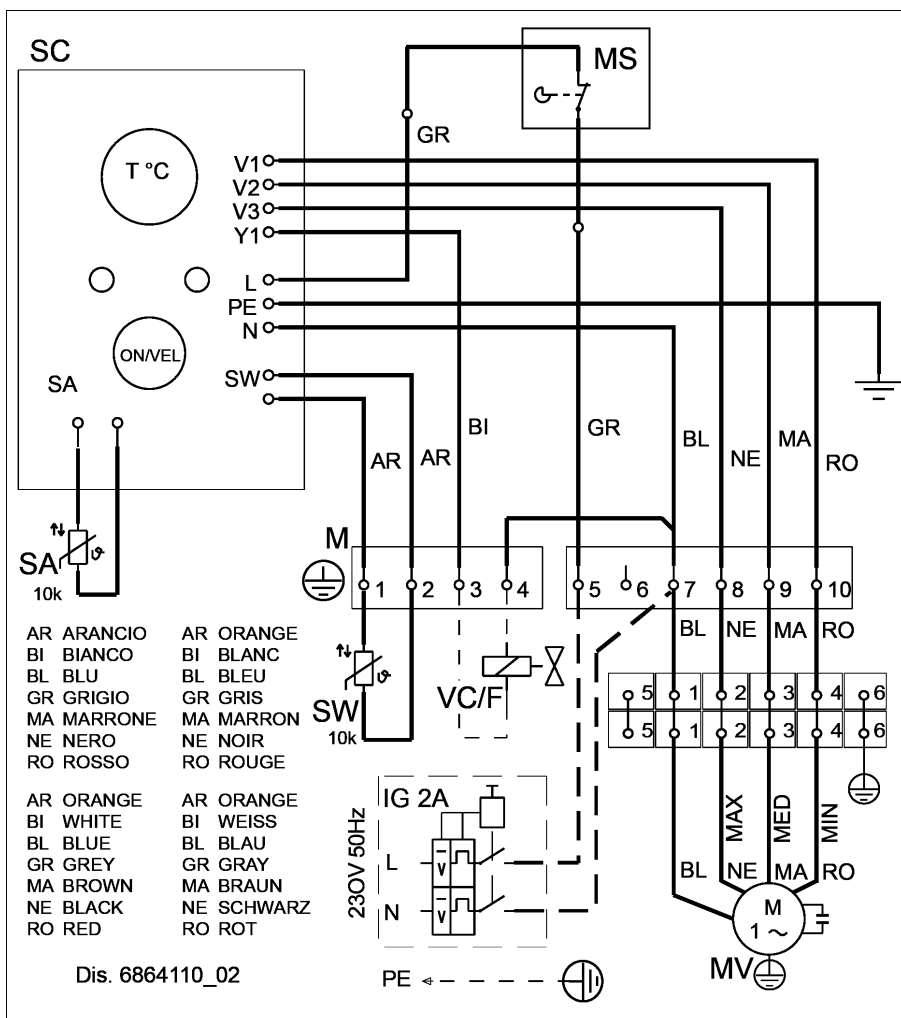
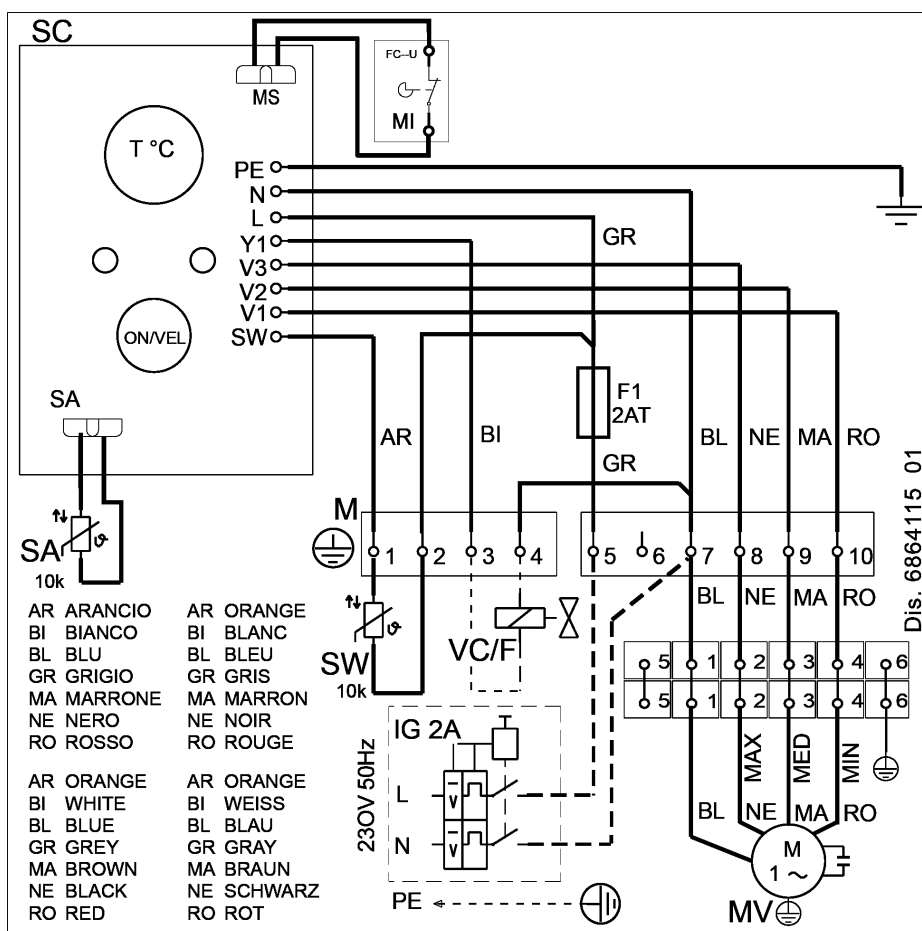
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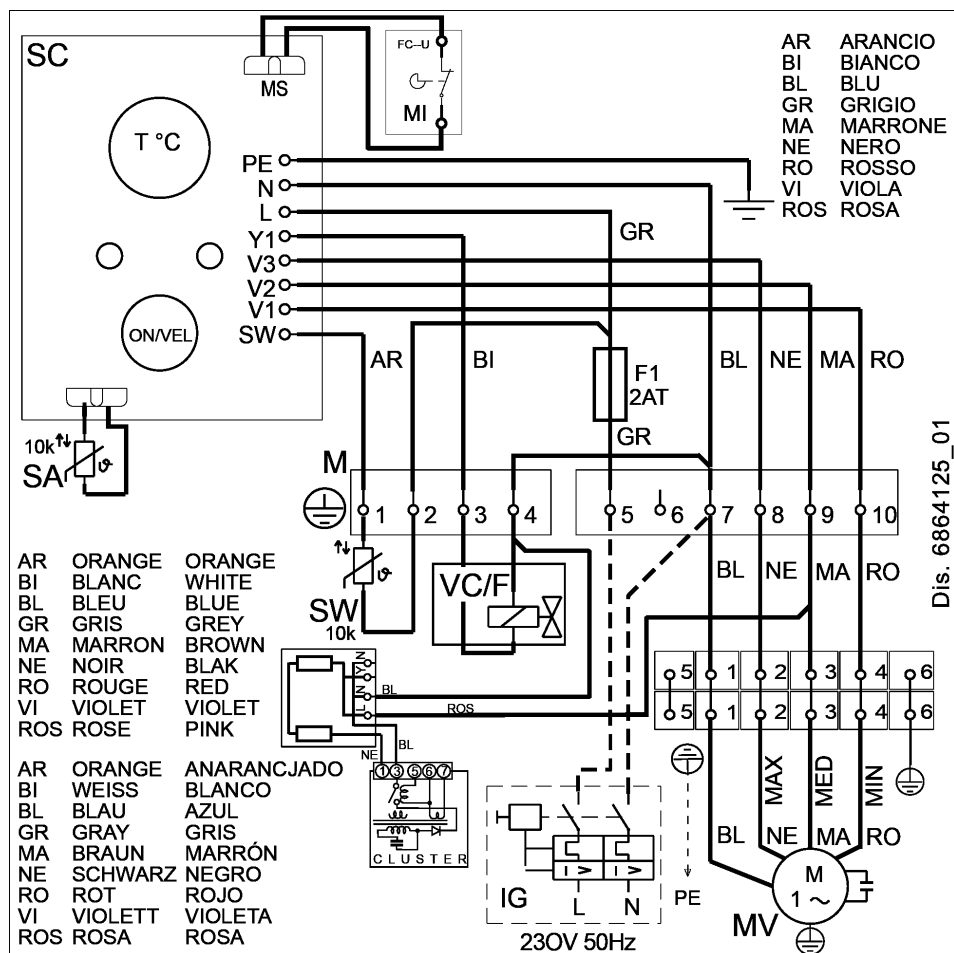
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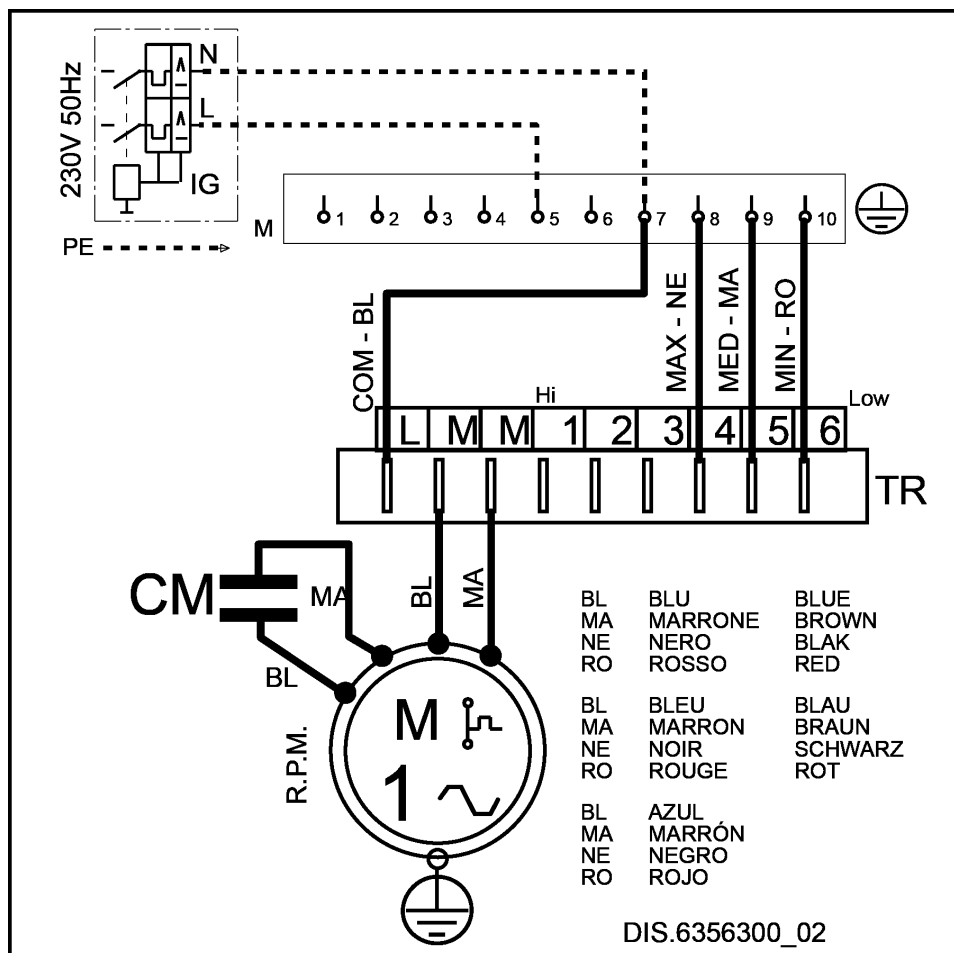


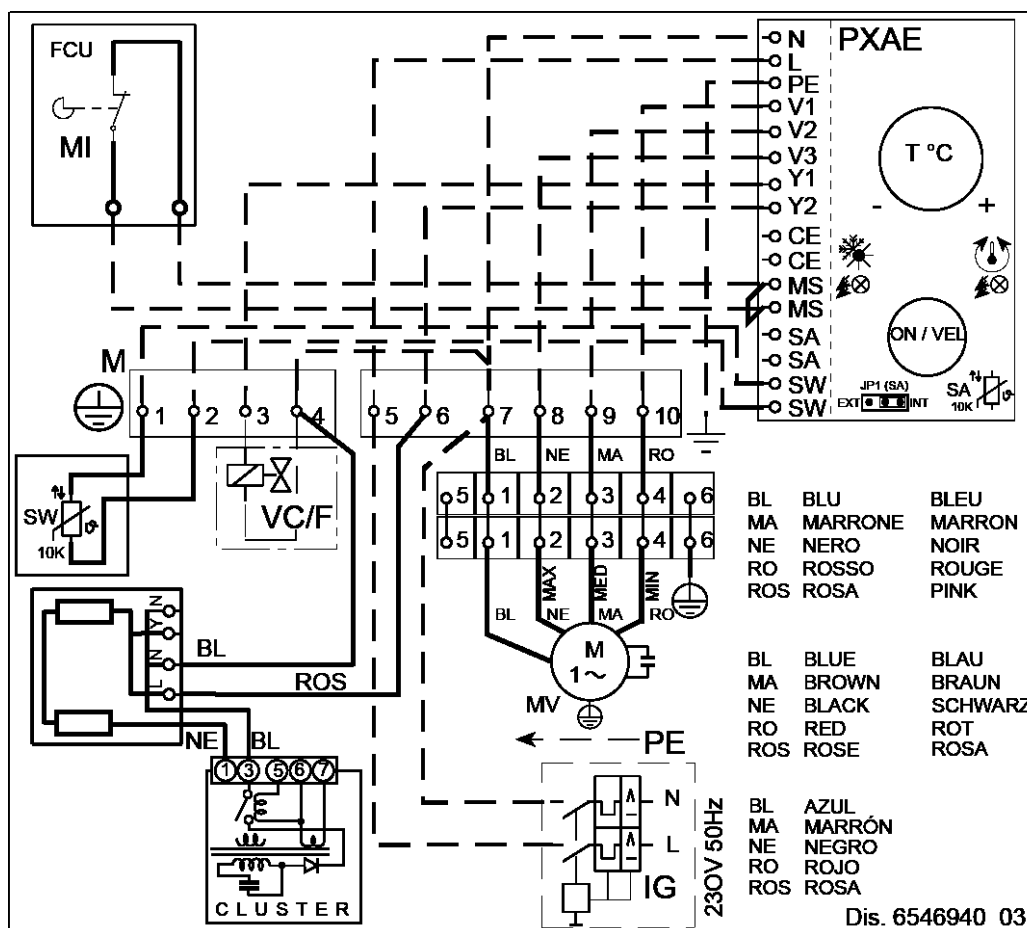
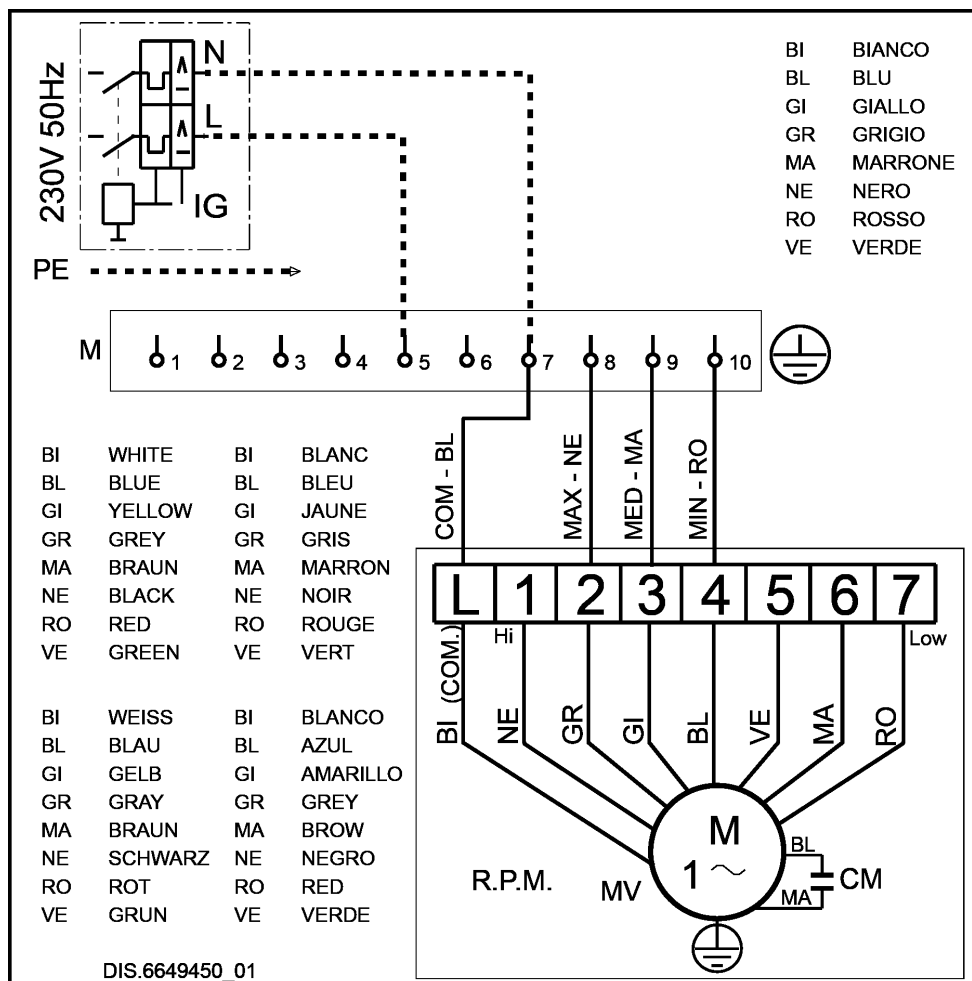
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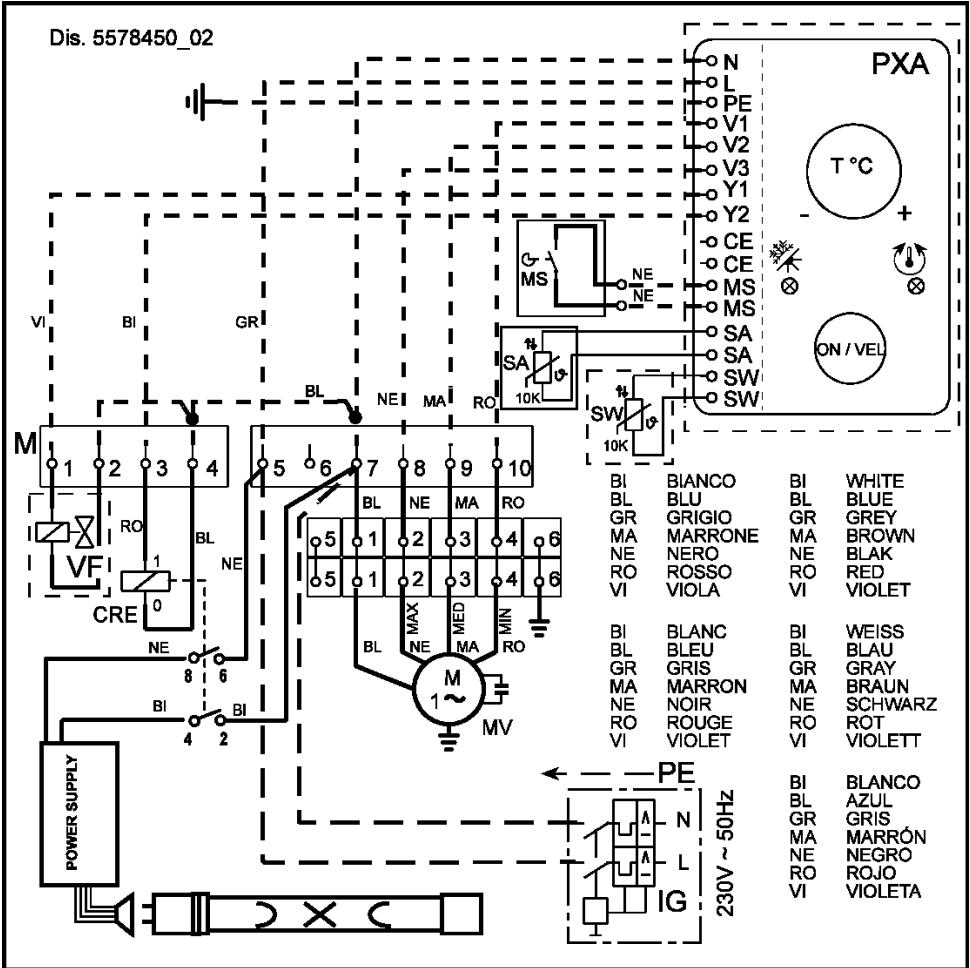
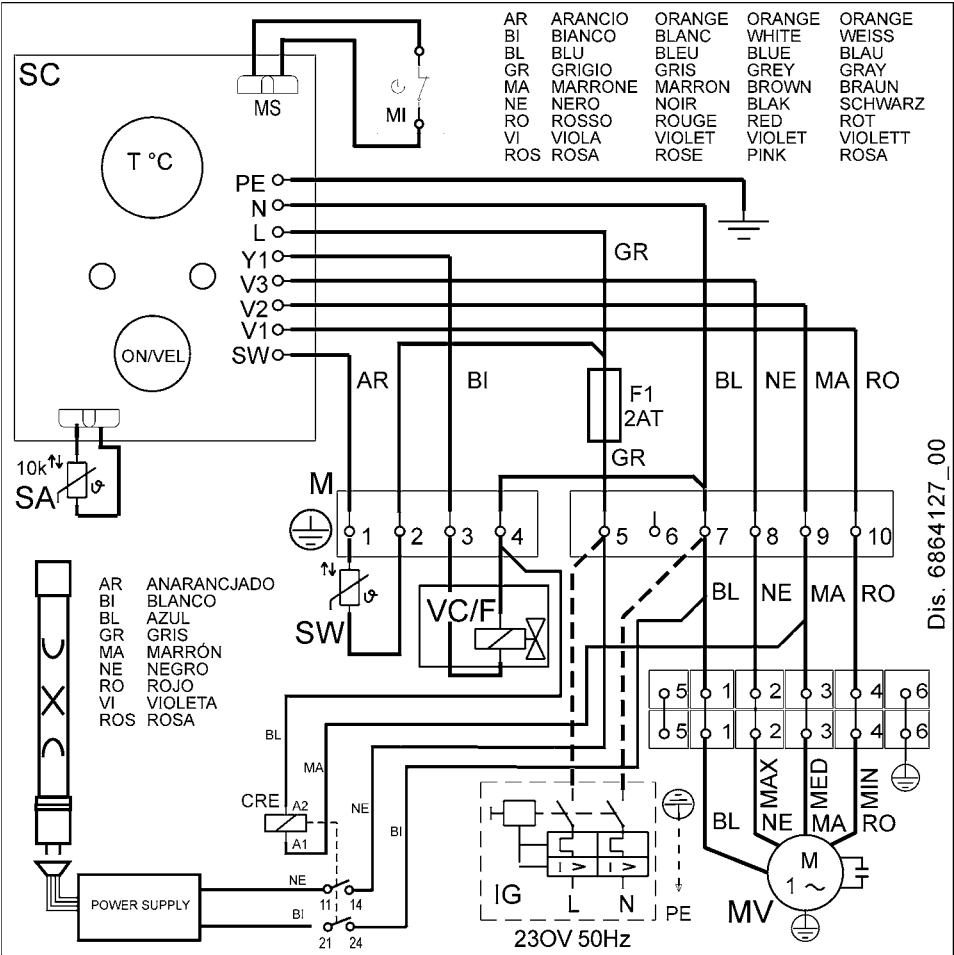


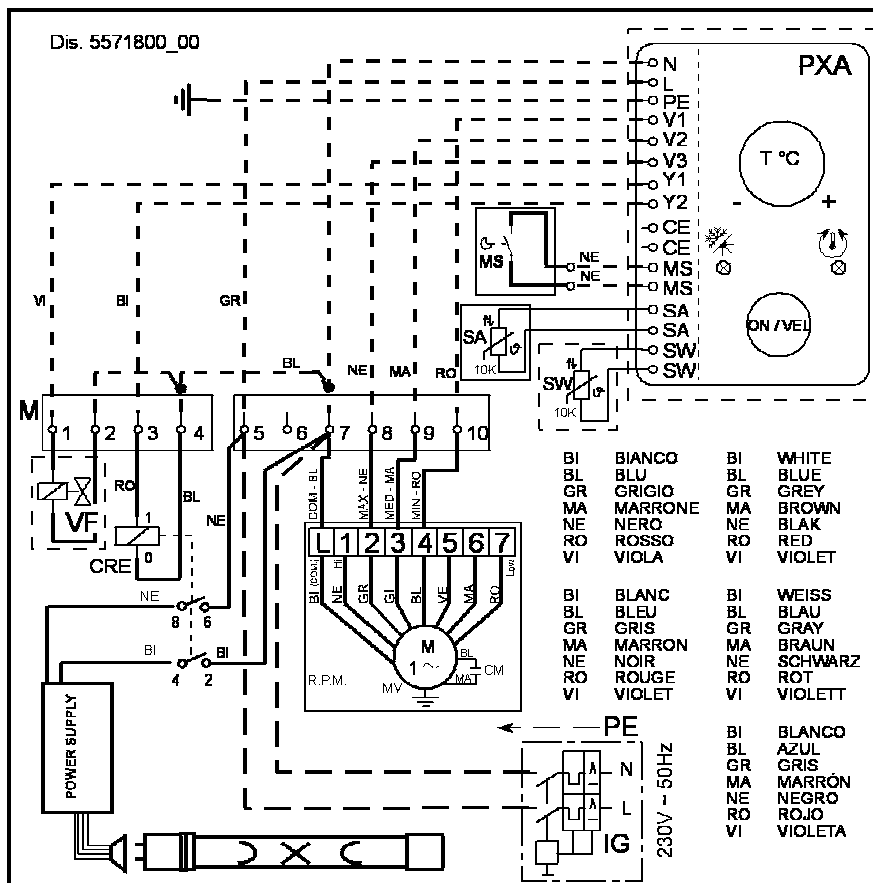
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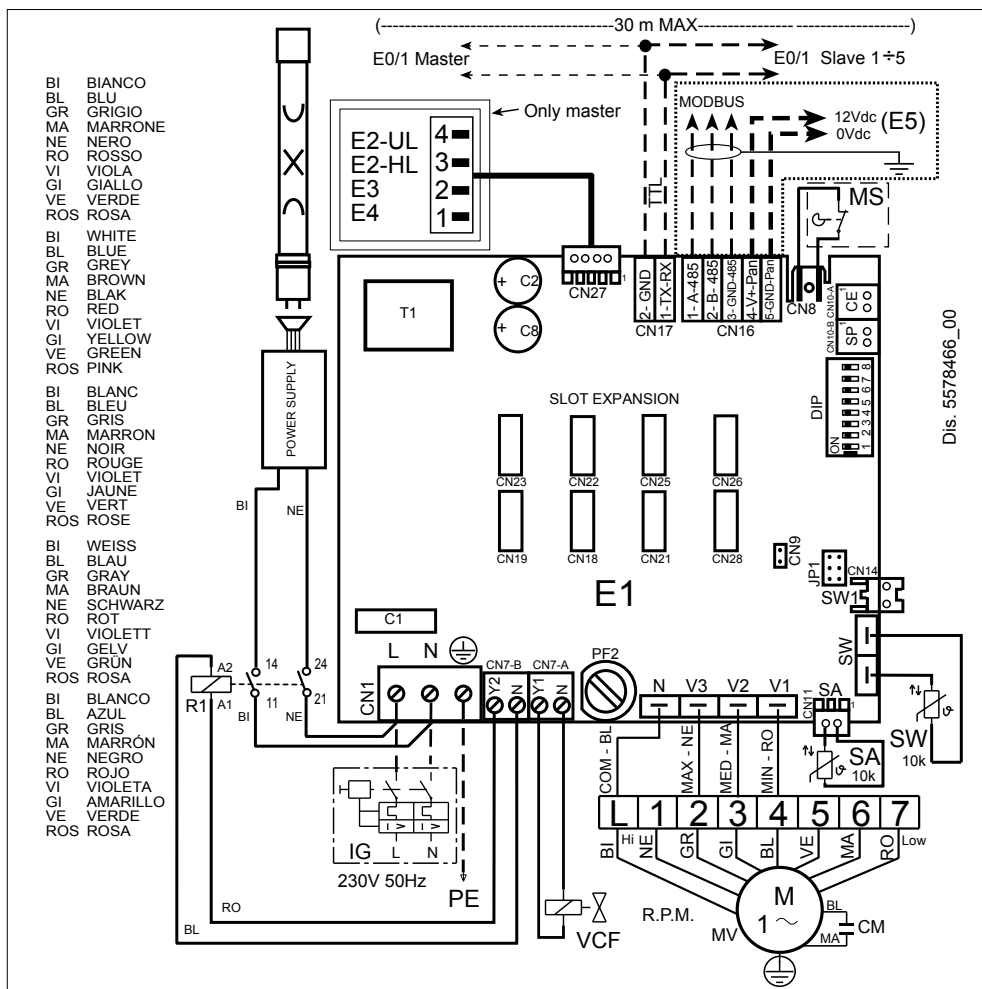








## FCZ\_HPO 600-1000





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Aermec si riserva la facoltà di apportare in qualsiasi momento tutte le modifiche ritenute necessarie per il miglioramento del prodotto.

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