



EGEA - RWV

Water cooled chillers and motoevaporating units
with screw compressors
Capacities from 111 kW to 441 kW



**USE, INSTALLATION AND
MAINTENANCE MANUAL**



Summary

GENERALITIES	pg. 4
STANDARD VERSIONS AND ACCESSORIES	pg. 4
COMPONENTS DESCRIPTION	pg. 5
NOMINAL TECHNICAL DATA	pg. 6
PERFORMANCE TABLES	pg. 8
APPLICATION LIMITS	pg. 9
DIMENSIONS	pg. 10
SAFETY	pg. 12
ACCESS TO THE UNIT	pg. 12
RESIDUAL RISKS	pg. 12
RECEIPT AND STORAGE	pg. 13
HANDLING	pg. 13
POSITIONING	pg. 14
INSTALLATION	pg. 14
START-UP	pg. 15
WINTER STOP	pg. 16
UNIT DISMANTLING	pg. 17
REFRIGERATION CIRCUIT DIAGRAMS	pg. 18
ELECTRICAL DATA	pg. 19
ELECTRICAL WIRINGS	pg. 20

EGEA-RWV SF-SM GENERALITIES

The EGEA-RWV series is made of 9 sizes of water cooled chillers and motoevaporating units with screw compressors covering a range of capacities from 111 to 411 kW.

They have been designed to operate with extremely low noise level, high reliability, efficiency and easy maintenance. All the units undergo a very strict and detailed factory test before delivery. The structure of the units allows for both an outdoor and indoor installation.

The refrigeration circuit is charged with R407C refrigerant.

The high reliability of the components employed, as well as the strict tests which all units must undergo, grant a very high quality standard.

AVAILABLE VERSIONS

SF: water cooled chillers.

SM: motoevaporating units.

STANDARD VERSIONS AND ACCESSORIES

EGEA RWV (SF-SM)	111 - 161	191 - 281	331 - 441
Microprocessor	S	S	S
Electronic expansion valve	S	S	S
Main switch	S	S	S
Stepless capacity control 25-100%	S	S	S
Flow switch	S	S	S
On/off free contact	S	S	S
General alarm free contact	S	S	S
Pressure gauges	S	S	S
Antivibration dampers	O	O	O
Evaporator electric heater	O	O	O
Oil level control	O	O	O
Compressor discharge temp. sensor	O	O	O
RS 485 / 232 card	O	O	O
MODBUS gateway	O	O	O
Desuperheater	O	O	O
Dual high pressure switch	O	O	O

S: standard - O: optional

COMPONENTS DESCRIPTION EGEA RWV (SF-SM) 111-441

COMPRESSORI

Semihermetic twin screw compressors provided with internal thermal protection and crankcase heater. Y/ Δ motors are provided to reduce the starting currents. The unit cooling capacity is controlled by means of a slide valve, thus a stepless capacity control from 25% to 100% is possible.

EVAPORATORS

Stainless steel plate heat exchanger with closed cells polyurethane thermal insulation. In order to protect the exchanger a flow switch is provided as a standard on all the units.

DESUPERHEATERS (optionals)

Stainless steel plate heat exchanger. brasate.

CONDENSERS

Stainless steel plate heat exchanger.

CONTROL AND SAFETY DEVICES

Microprocessor with the following main functions: stepless cooling capacity control from 25% to 100% based on the inlet water temperature; setting of all the operating parameters; display of chilled water inlet and outlet temperature; display of the alarms; compressors timer setting; alarms reset; automatic starting after power failure.

ELECTRICAL PANEL

Double door casing including: main switch, thermal protection on auxiliary circuits, compressors contactors.

REFRIGERATION CIRCUIT

The refrigeration circuit includes: electronic expansion valve, drier-filter, high and low pressures transducers, high pressure switch with manual reset, low pressure switch with automatic reset, high and low pressure valves.

FRAME

Robust galvanized steel base and frame, epoxy painted. Stainless steel screws.

EGEA RWV SF-SM 111 - 191

Size		111	141	161	191
Cooling capacity (1)	[kW]	113,1	140,2	155	181,4
Input power (1)	[kW]	31,9	39,8	42,0	42,4
Compressors type		Semihermetic twin screws			
Compressors/circuits		1/1	1/1	1/1	1/1
Input power (each)	[kW]	31,9	39,8	42	42,4
Max. input power (each)	[kW]	38	48	57	73
Input current (each)	[A]	51,8	66,1	69,0	70,4
Max. input current (each)	[A]	65	82	96	124
Starting current	[A]	139	172	195	159
Capacity control		Stepless control from 25% to 100%			
Evaporator / number		Plate heat exchanger/1			
Liquid flow	[m ³ /h]	19,5	24,1	26,7	31,2
Pressure drop	[kPa]	24	29	49	38
Condenser / number		Plate heat exchanger/1			
Liquid flow	[m ³ /h]	24,9	31,0	33,9	38,5
Pressure drop	[kPa]	33	34	34	33
Sound pressure level [dB(A)]					
At 1 m in free field	[dB(A)]	66	66	67	67
Dimensions and weights					
Length	[mm]	1600	1600	1600	1600
Width	[mm]	721	721	721	721
Height	[mm]	1845	1845	1845	1845
Weight	[kg]	727	768	782	846
Refrigerant charge	[kg]	10	14	14	20

(1) Cond. in/out temp. 30/35°C, evap. in/out temp. 12/7°C

Size		111	141	161	191
TOTAL ELECTRICAL DATA		(400 V - 3 ph - 50 Hz)			
Nominal input power	(kW)	31,9	39,8	42,0	42,4
Max. input power	(kW)	38,0	48,0	57,0	73,0
Nominal input current	(A)	51,8	66,1	69,0	70,4
Max. input current	(A)	65,0	82,0	96,0	124,0
Max. starting current	(A)	139,0	172,0	195,0	159,0

EGEA RWV SF-SM 221 - 441

Size		221	281	331	401	441
Cooling capacity (1)	[kW]	211,1	256,5	301,6	366,5	409,3
Input power (1)	[kW]	54,8	66,3	81,2	95	104,8
Compressors type		Semihermetic twin screws				
Compressors/circuits		1/1	1/1	1/1	1/1	1/1
Input power (each)	[kW]	54,8	66,3	81,2	95	104,8
Max. Power ass. (each)	[kW]	82	99	115	133	144
Input current (each)	[A]	89,0	110,1	136,4	149,2	164,6
Max. corrente ass. (each)	[A]	140	168	196	225	245
Starting current	[A]	193	254	276	354	374
Capacity control		Stepless control from 25% to 100%				
Evaporator / number		Plate heat exchanger/1				
Liquid flow	[m ³ /h]	36,3	44,1	51,9	63,0	70,4
Pressure drop	[kPa]	40	42	46	47	47
Condenser / number		Plate heat exchanger/1				
Liquid flow	[m ³ /h]	45,7	55,5	65,8	79,4	88,4
Pressure drop	[kPa]	35	35	36	38	38
Sound pressure level [dB(A)]						
At 1 m in free field	[dB(A)]	67	68	68	69	69
Dimensions and weights						
Length	[mm]	1600	1600	1600	1800	1800
Width	[mm]	721	721	721	1000	1000
Height	[mm]	1845	1845	1845	1915	1915
Weight	[kg]	873	1002	1036	1580	1675
Refrigerant charge	[kg]	24	28	29	39	47

(1) Cond. in/out temp. 30/35°C, evap. in/out temp. 12/7°C

Size		221	281	331	401	441
TOTAL ELECTRICAL DATA		(400 V - 3 ph -50 Hz)				
Nominal input power	[kW]	54,8	66,3	81,2	95,0	104,8
Max. input power	[kW]	82,0	99,0	115,0	133,0	144,0
Nominal input current	[A]	89,0	110,1	136,4	149,2	164,6
Max. input current	[A]	140,0	168,0	196,0	225,0	245,0
Max. starting current	[A]	193,0	254,0	276,0	354,0	374,0

EGEA RWV SF-SM 111 - 331

twc: cond. in/out temp. [°C]

tve: evap. in/out temp. [°C]

*: condensing temp. [°C]

Pf: Cooling capacity [kW]

Pa: Input power [kW]

Size	twc	15/30	(35*)	30/35	(40*)	35/40	(45*)	40/45	(50*)	45/50	(55*)
	tve	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
111	5	114,4	27,7	105,3	31,3	96,2	34,9	87,2	38,4	78,1	42,0
	6	118,5	28,0	109,2	31,6	100,0	35,2	90,7	38,8	81,5	42,4
	7	122,6	28,2	113,1	31,9	103,7	35,5	94,3	39,2	84,8	42,8
	8	126,6	28,5	117,0	32,2	107,4	35,9	97,8	39,5	88,2	43,2
	9	130,7	28,7	120,9	32,5	111,2	36,2	101,4	39,9	91,6	43,6
	10	134,8	29,0	124,8	32,8	114,9	36,5	104,9	40,3	95,0	44,0
141	5	141,6	34,5	130,4	39,0	119,3	43,4	108,1	47,9	97,0	52,3
	6	146,7	34,9	135,3	39,4	123,9	43,9	112,5	48,4	101,1	52,9
	7	151,9	35,2	140,2	39,8	128,6	44,3	117,0	48,8	105,3	53,4
	8	157,0	35,6	145,1	40,2	133,3	44,7	121,4	49,3	109,5	53,9
	9	162,2	35,9	150,0	40,6	137,9	45,2	125,8	49,8	113,7	54,4
	10	167,3	36,3	154,9	41,0	142,6	45,6	130,2	50,3	117,9	54,9
161	5	155,3	36,5	144,5	41,2	133,6	46,0	122,8	50,7	111,9	55,5
	6	160,8	36,9	149,7	41,6	138,6	46,4	127,5	51,1	116,4	55,9
	7	166,3	37,3	155,0	42,0	143,6	46,8	132,2	51,5	120,9	56,3
	8	171,9	37,6	160,2	42,4	148,6	47,2	137,0	51,9	125,3	56,7
	9	177,4	38,0	165,5	42,8	153,6	47,6	141,7	52,3	129,8	57,1
	10	182,9	38,4	170,7	43,2	158,6	48,0	146,4	52,7	134,3	57,5
191	5	182,0	41,5	169,4	47,0	156,8	52,4	144,3	57,9	131,7	63,3
	6	188,2	41,9	175,4	47,4	162,6	52,9	149,7	58,4	136,9	63,8
	7	194,5	42,4	181,4	47,9	168,3	53,3	155,2	58,8	142,0	64,3
	8	200,7	42,8	187,3	48,3	174,0	53,8	160,6	59,3	147,2	64,8
	9	207,0	43,3	193,3	48,8	179,7	54,3	166,1	59,8	152,4	65,3
	10	213,2	43,7	199,3	49,2	185,4	54,7	171,5	60,3	157,6	65,8
221	5	211,7	47,5	197,1	53,7	182,4	60,0	167,8	66,2	153,1	72,5
	6	219,1	48,0	204,1	54,3	189,2	60,5	174,2	66,8	159,3	73,0
	7	226,5	48,5	211,2	54,8	195,9	61,0	180,7	67,3	165,4	73,6
	8	233,9	49,0	218,3	55,3	202,7	61,6	187,1	67,8	171,5	74,1
	9	241,3	49,5	225,4	55,8	209,5	62,1	193,5	68,4	177,6	74,7
	10	248,7	50,0	232,5	56,3	216,2	62,6	200,0	68,9	183,7	75,2
281	5	257,0	57,6	239,3	65,1	221,5	72,6	203,8	80,2	186,0	87,7
	6	266,0	58,2	247,9	65,7	229,8	73,3	211,6	80,8	193,5	88,3
	7	275,0	58,8	256,5	66,3	238,0	73,9	219,5	81,4	201,0	89,0
	8	284,0	59,3	265,1	66,9	246,2	74,5	227,4	82,1	208,5	89,7
	9	293,0	59,9	273,7	67,5	254,5	75,1	235,2	82,7	216,0	90,3
	10	302,0	60,5	282,4	68,1	262,7	75,7	243,1	83,4	223,4	91,0
331	5	302,4	70,6	281,6	79,6	260,7	88,7	239,9	97,7	219,0	106,8
	6	312,9	71,3	291,6	80,4	270,3	89,5	249,0	98,5	227,7	107,6
	7	323,3	72,1	301,6	81,2	279,8	90,2	258,1	99,3	236,3	108,4
	8	333,8	72,8	311,6	81,9	289,4	91,0	267,2	100,1	244,9	109,2
	9	344,2	73,6	321,6	82,7	298,9	91,8	276,2	100,9	253,6	110,0
	10	354,7	74,3	331,6	83,4	308,5	92,6	285,3	101,7	262,2	110,9

EGEA RWV SF-SM 401 - 441

twc: cond. in/out temp. [°C]

Pf: Cooling capacity [kW]

twe: evap. in/out temp. [°C]

Pa: Input power [kW]

*: condensing temp. [°C]

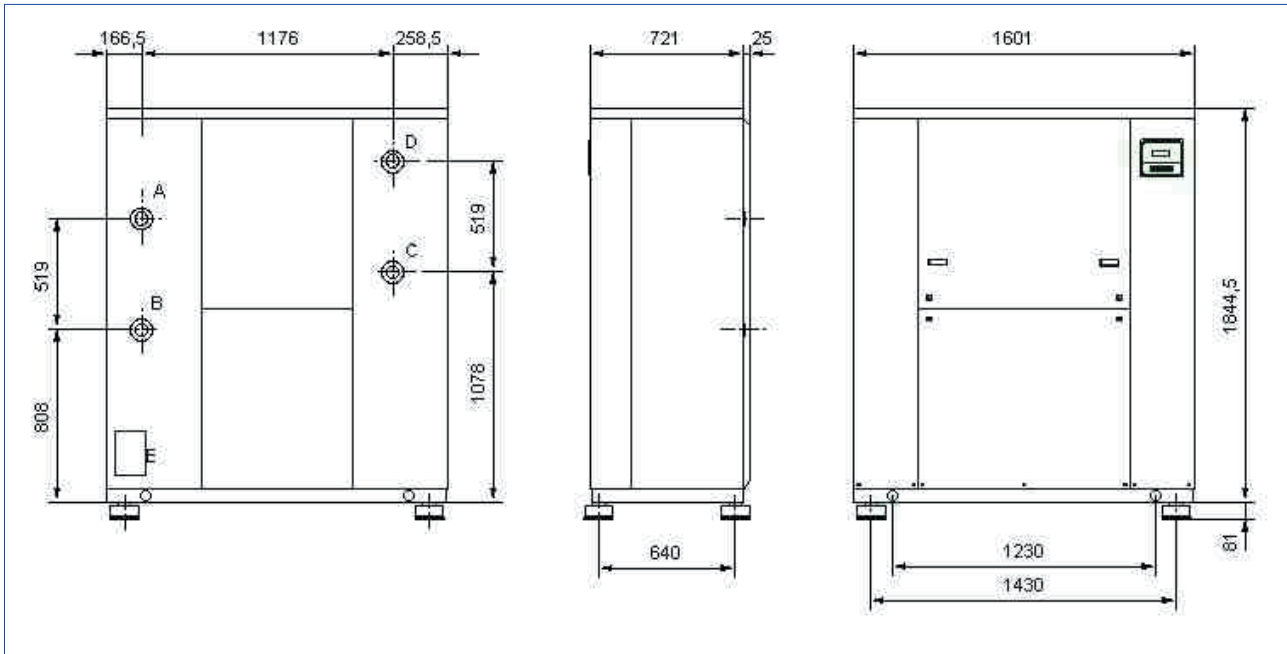
Size	twc	15/30	(35*)	30/35	(40*)	35/40	(45*)	40/45	(50*)	45/50	(55*)
	twe	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
401	5	368,0	82,7	342,3	93,3	316,6	103,9	290,9	114,5	265,2	125,1
	6	380,6	83,5	354,4	94,2	328,2	104,8	301,9	115,4	275,7	126,1
	7	393,2	84,4	366,5	95,0	339,7	105,7	313,0	116,4	286,2	127,0
	8	405,9	85,2	378,6	95,9	351,3	106,6	324,0	117,3	296,8	128,0
	9	418,5	86,1	390,7	96,8	362,9	107,5	335,1	118,2	307,3	129,0
	10	431,1	86,9	402,8	97,7	374,5	108,4	346,1	119,2	317,8	129,9
441	5	410,5	91,1	382,0	102,8	353,5	114,6	325,0	126,3	296,5	138,1
	6	424,7	92,1	395,6	103,8	366,5	115,6	337,4	127,4	308,3	139,1
	7	439,0	93,0	409,3	104,8	379,6	116,6	349,9	128,4	320,2	140,2
	8	453,2	94,0	422,9	105,8	392,6	117,6	362,3	129,4	332,0	141,2
	9	467,5	94,9	436,6	106,8	405,7	118,6	374,8	130,4	343,9	142,3
	10	481,7	95,9	450,2	107,8	418,7	119,6	387,2	131,5	355,7	143,3

APPLICATION LIMITS EGEA RWV SF-SM

Max./min cond. inlet temp. (1)	[°C]	50/15
Max./min cond. outlet temp.	[°C]	55/25
Cond. max/min ΔT	[°C]	18/4
Max./min evap. inlet temp. (1)	[°C]	18/8
Max./min evap. outlet temp.	[°C]	15/4
Evap. max/min ΔT	[°C]	4/8

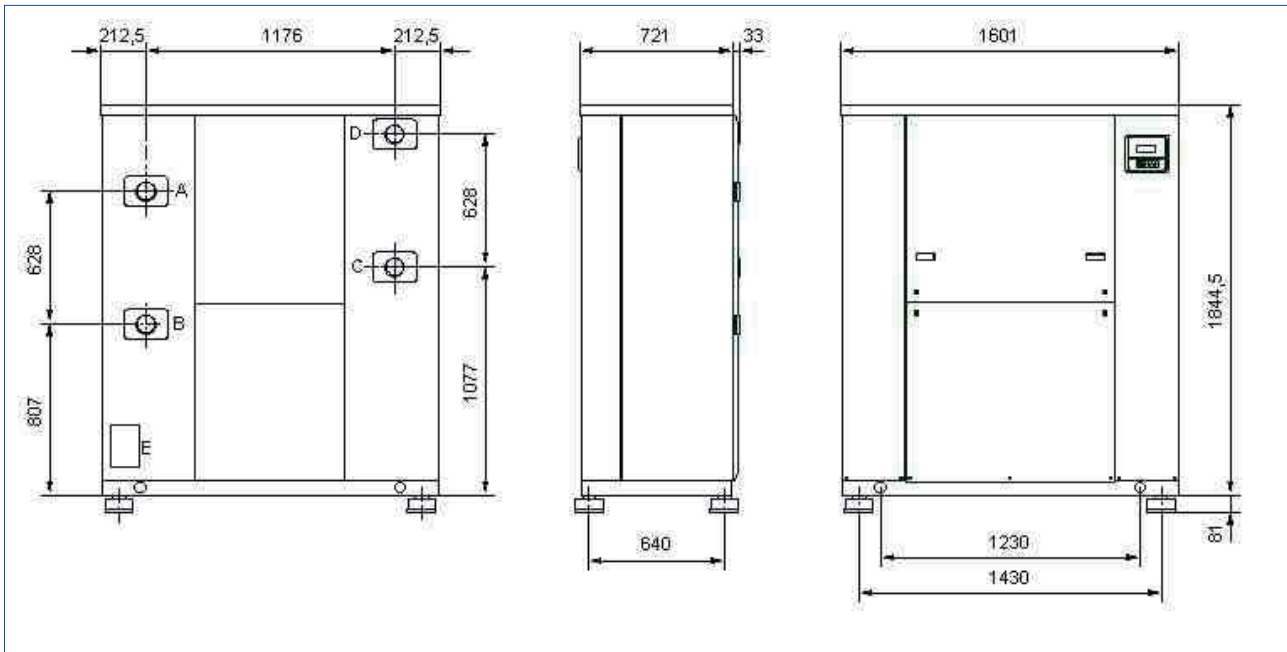
(1) chilled water temp. 12/7°C

EGEA RWV SF-SM 111-161



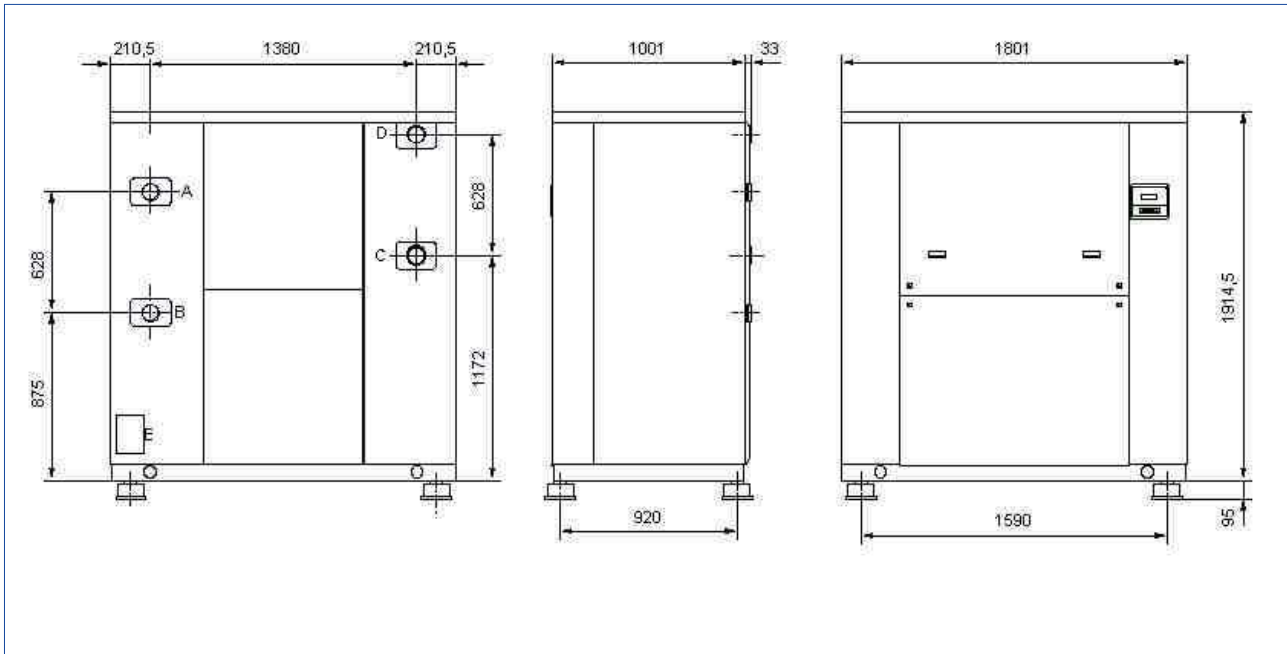
- A: evap. water inlet 2" GAS
- B: evap. water outlet 2" GAS
- C: cond. water inlet 2" GAS
- D: cond. water outlet 2" GAS
- E: electrical cables inlet

EGEA RWV SF-SM 191-331



- A: evap. water inlet DN 80
- B: evap. water outlet DN 80
- C: cond. water inlet DN 80
- D: cond. water outlet DN 80
- E: electrical cables inlet

EGEA RWV SF-SM 401-441



- A: evap. water inlet DN 80
- B: evap. water outlet DN 80
- C: cond. water inlet DN 80
- D: cond. water outlet DN 80
- E: electrical cables inlet

SAFETY

The FAST chiller IDRA-RWS series have been designed in order to minimize all the possible risks for the operators safety. Please, read carefully the following instruction in order to be aware of the possible dangerous situations while operating with the unit.

ACCESS TO THE UNIT

Only authorized personnel are entitled to access to unit. The operators must operate with the unit using adequate safety devices and gear.

RESIDUAL RISKS

The unit installation, start-up, switch-off, maintenance must respect the indications given in the product technical documentation and, in any case, preventing any possible dangerous situation. Please, consider the following possibly hazardous situations.

Component	Residual risk	possible cause	precautions
heat exchange coil	small cuts	touch	avoid touch, use protective gloves
fan grille and fan	injuries	insertion of objects through the grille while the fan is operating	do not insert any object through the fan grille or lay anything upon it
inside the unit: compressor and supply pipe	burns	touch	avoid touch, use protective gloves
inside the unit: metal components and electrical cables	intoxications, electrocutions, serious burns	defect of insulation of supply cables upstream the electrical panel; metal components under tension	adequate insulation for the for the supply cables; pay extreme attention when putting all the metal components to earth
around the unit	intoxications, serious burns	fire caused by short circuit or overheating of the supply cables upstream the electrical panel	cables section and protection devices of the supply cables as per law in force

RECEIPT AND STORAGE

On receipt of the goods, verify they have not been damaged and they conform to what indicated in the transport documents. Damages or incomplete supplies must be immediately notified.

Store the units in suitable warehouses (temperatures from -20°C to max. +55°C).

HANDLING

The units can be handled both with fork lifters or cranes. When handling the unit, pay special attention not to damage the condensing coil. Before moving the units, check their dimensions reported in the present manual. It is recommended to handle the units still packaged.

Lifting with fork lifter

Lift the unit with a fork lifter of adequate loading capacity, verify that the forks length is at least 1200 mm.

Place the forks following the instructions shown in the figure below. **Be sure the unit is in perfect stable balance.**

Lifting with crane

When lifting the unit, follow the instructions shown in the figure below. Make sure the cables can bear the full weight of the unit and ensure they are firmly fixed, preventing any possible interference; the forks, to be threaded into the holes in the basement, must have a 42 mm diameter (1" 1/4). Block the ends of the forks with safety pins to prevent the cables sliding off. **Be sure the unit is in perfect stable balance.**

POSITIONING

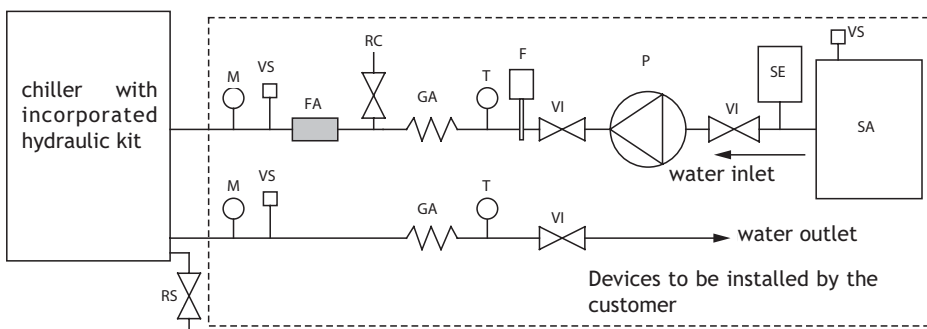
Install the unit respecting the clearances indicated in the dimensional drawings. Lay the unit on an even surface, robust enough to bear its weight.

Antivibrations dampers

Rubber antivibration dampers are supplied as an option. Fitted to the holes in the basement, they prevent vibrations transmission.

Hydraulic connections: unit without hydraulic kit

In addition to what mentioned above, install a pump, a storage tank and an expansion vessel as shown in the figure below.



M = pressure gauge	RC = charge shut-off valve	RS = discharge shut-off valve
VS = air relief valve	FA = water filter	GA = antivibration pipe
T = thermometer	VI = shut-off valve	F = flow switch
P = pump	SE = expansion vessel	SA = storage tank

WIRING CONNECTIONS

The inlet for the electrical feeding cables is shown in the dimensional drawings. Remove the front panel in the upper part of the unit to access the electric board; refer to the power and current values indicated in the present manual to size the electrical feeding cables. The electrical wiring drawings, with all the remaining documentation present in the compressor cabinet, are supplied with the unit.

Pay special attention to the following:

- only qualified personnel are entitled to access and operate with the wiring connections;
- protect the electrical feeding cables against short-circuit and overload with protection devices as per law in force;
- choose a cable section conforming the protection device and considering all the possible influencing factors (temperature, insulation, length ect.);
- Perform all the operations to put the unit to earth with the utmost care;
- check if the electrical feeding system is **3-phases** or **3-phases with neutral wire**.

A couple of terminals (free-contacts), one for the remote general alarm and one for the remote ON-OFF, are present in the terminal plate of the electric board.

Pay particular attention to the electrical wirings drawings, supplied with the units, when connecting a condensing unit to the internal unit and to the room thermostat

START UP

Before starting the unit check the electric, hydraulic and cooling circuits.

Preliminary checks - electric circuit

Before proceeding with the checklist reported below, be sure that the electric feeding line is disconnected and the disconnection switch is locked. Proceed as follows:

- remove the front panel in the upper part of the unit;
- turn the main switch to "0" (OFF);
- open the door of the electrical board;
- verify that the feeding cables have been correctly sized;
- verify that the unit has been correctly put to earth;
- verify the tightening of the bolts that fix the wires to the electrical components present in the electric board.
- close the door of the electric board.

It is possible now to feed the unit connecting the feeding line through the disconnection switch and turning the main switch to "1" (ON). Using a voltmeter check the values of the phase tension; the value must be $400\text{ V} \pm 10\%$.

Calculate the mean value of the phase tension $(RS+ST+RT)/3$ and the proportional difference between each of the phase tensions and the calculated mean value. The maximum difference must not exceed 3%. **The warranty will no longer be valid with higher values.**

EXAMPLE:

R-S = 397 V ; S-T = 406 V ; R-T = 395 V

mean value: $(397+406+395)/3 = 399,3\text{ V}$

proportional difference: $(406 - 397) / 399,3 \times 100 = 2,25\%$
 $(406 - 395) / 399,3 \times 100 = 2,75\%$
 $(397 - 395) / 399,3 \times 100 = 0,5\%$

Preliminary checks - hydraulic circuit

- verify the correct connection between the unit and the plant pipes;
- verify that the hydraulic shut-off valves are open;
- verify that the plant is charged;
- release all the air from the plant;
- verify that the circulation pump is working and the rotation direction is clockwise;
- verify that the water flow conform to the design one; **be sure the water flow is always steady.**

Preliminary checks - cooling circuit

Check the components of the cooling circuit. Verify that the compressors lubricant is at the correct level at the half of the sight glass.

Start-up

Turn the main switch on the electric board to “ON” and proceed as follows:

- push the “on/off” button on the keyboard (downwards arrow for 2÷3 sec.) and select the operating mode (chiller or heat pump) through the “MODE” button (in heat pump units verify the remote on/off contacts are bridged); verify there are no alarms on the display.

The units start to operate 3 minutes after the signal given on the inlet water temperature.

WARNING! The rotation direction of the screw compressors is very important; if the phase sequence is uncorrect they rotate on the wrong side becoming loud and risking serious damages. In this case change immediately the phase sequence. To verify the correct rotation direction, connect the pressure switches to the pressure gauges, correct evaporation and condensing pressure values should be read.

Running condition

The microprocessor controls the cooling capacity depending on the plant thermal load. Verify the water inlet and outlet temperatures: the difference between those two values should not exceed 7°C. Low water flow or air through the plant may cause a higher temperature difference.

Unit switch on and switch off

Push “on/off” button on the microprocessor board (downwards arrow for 2-3 sec.) or open the remote on/off contacts. During long stop periods disconnect the unit through the main switch on the electric board.

WINTER STOP

If the hydraulic circuit has been charged with water, it is mandatory to blow it out at the end of summer to prevent it from freezing during winter. If the circuit has been charged with glycol-water mixture, the operation is not necessary.

Before winter begins, verify the glycol concentration with a densimeter; if necessary, refill the circuit.

Maintenance

We suggest a monthly maintenance procedure to be carried out as follows:

- verify the tightening of the bolts fixing the fans to the grilles and the grilles to the unit structure;
- verify the condensing coils are clean to guarantee an efficient heat exchange. Remove all the dirt on their surface with a jet of air. The aluminium fins are 0,12 mm thin, throw the jet of air perpendicular to the coils surface to prevent damages to them and, in any case, pay particular attention to all the cleaning procedure.

If the fins are damaged, line them up with a suitable tool (metal comb).

Before operating on the coils, wear protective gloves; the accidental contact with the fins may cause small cuts.

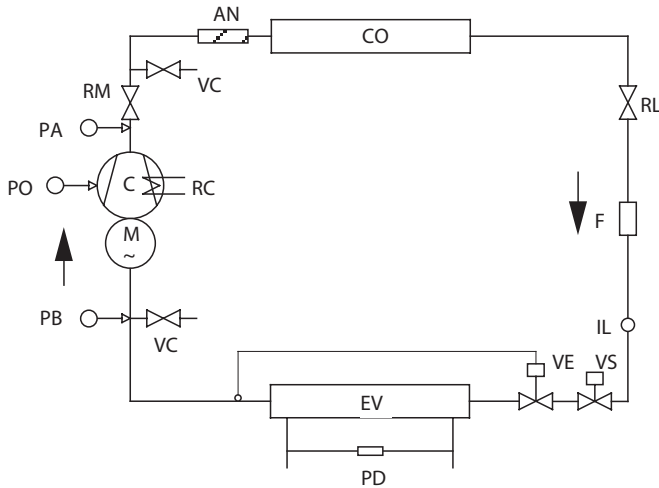
- verify the insulation of the electrical feeding cables is not damaged;
- verify the tightening of the bolts that fix the wires to the electrical components present in the electrical board.
- verify the hydraulic circuit has no leakages;
- check, while the compressors are operating, the supply and suction pressures. Remove the panels of the compressors cabinet and connect the pressure switches to the pressure gauges in the cooling circuit. Only qualified operators are entitled to operate with the cooling circuit.
- check the oil level of the compressors through the sight glass.

UNIT DISMANTLING

Only qualified operators are entitled to dismantle the unit; recover the refrigerant and the compressors lubricant as per law in force.

REFRIGERATION CIRCUIT DIAGRAMS

EGEA RWV REFRIGERATION CIRCUIT



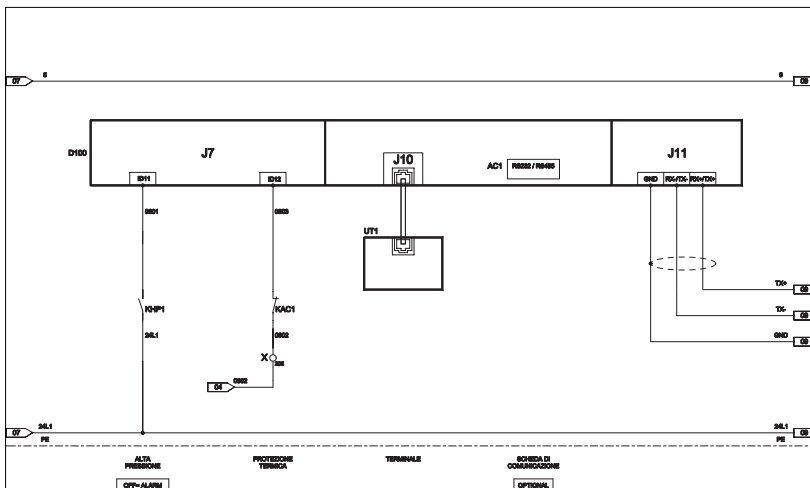
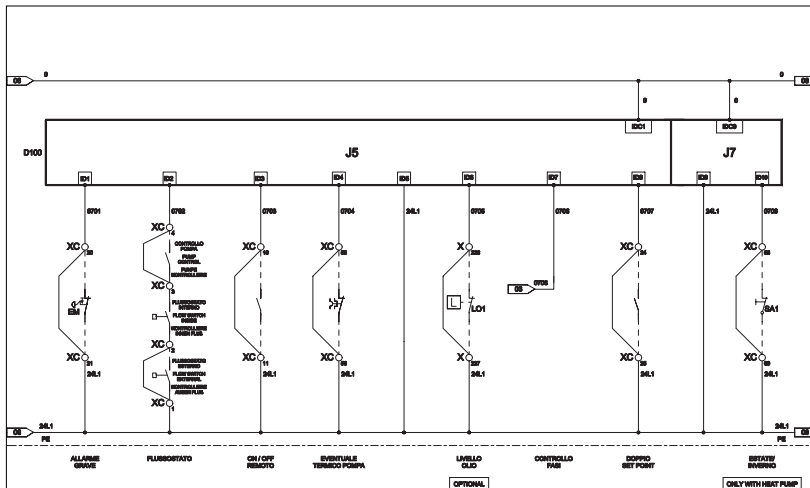
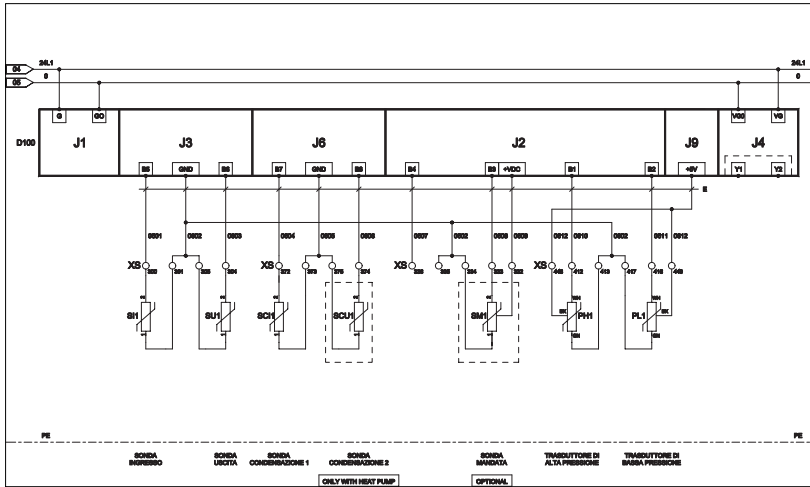
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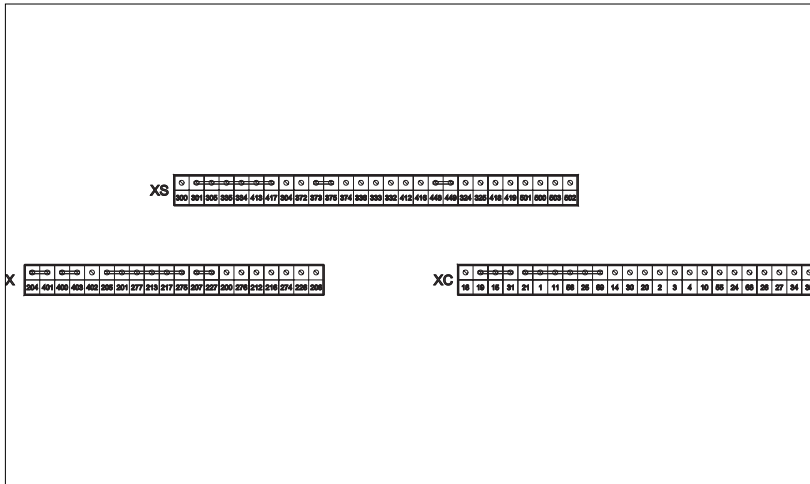
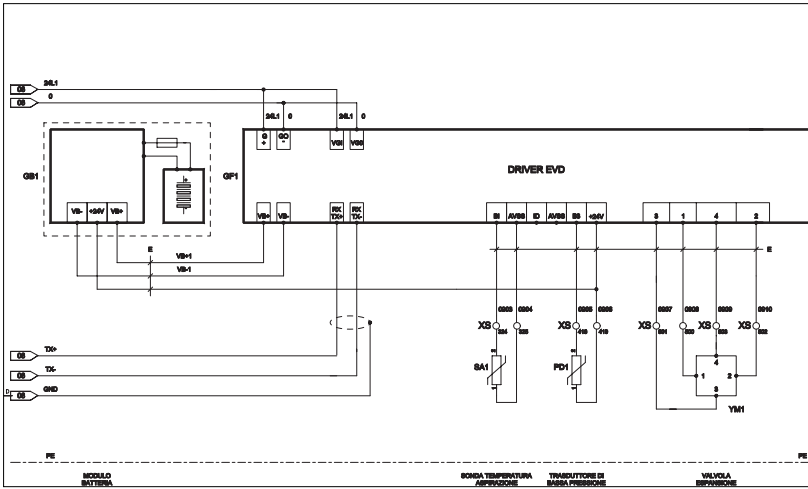
C = compressor	F = drier-filter	VS = solenoid valve
PA = high pressure switch	IL = sight glass	AN = antivibration pipe
PB = low pressure switch	PD = flow switch	RC = crankcase heater
VC = refrigerant service connections	PO = oil flow switch	VE = expansion valve
CO = condenser	RM = compr. discharge shut-off valve	RL = liquid line shut-off valve
EV = evaporator		

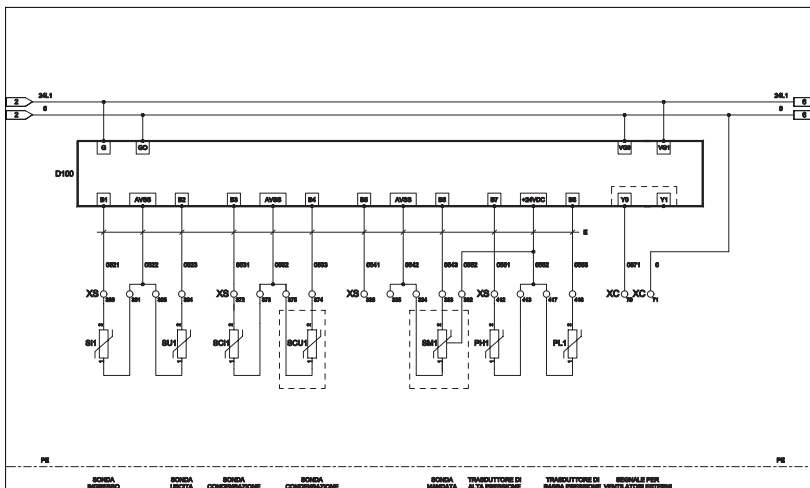
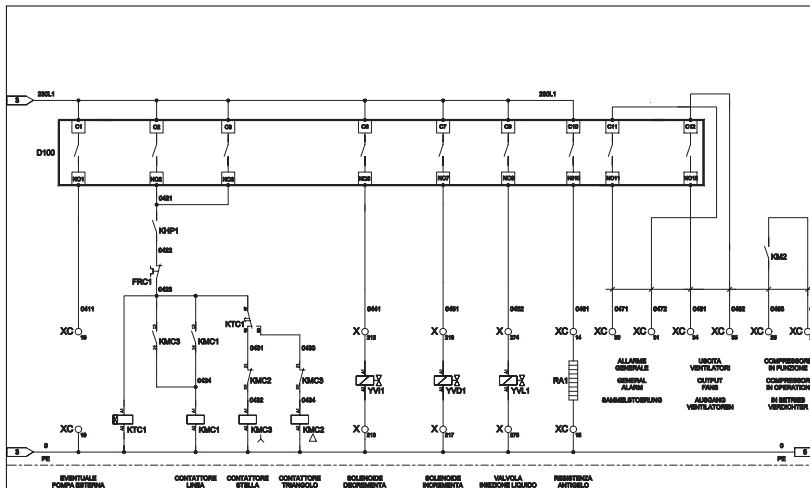
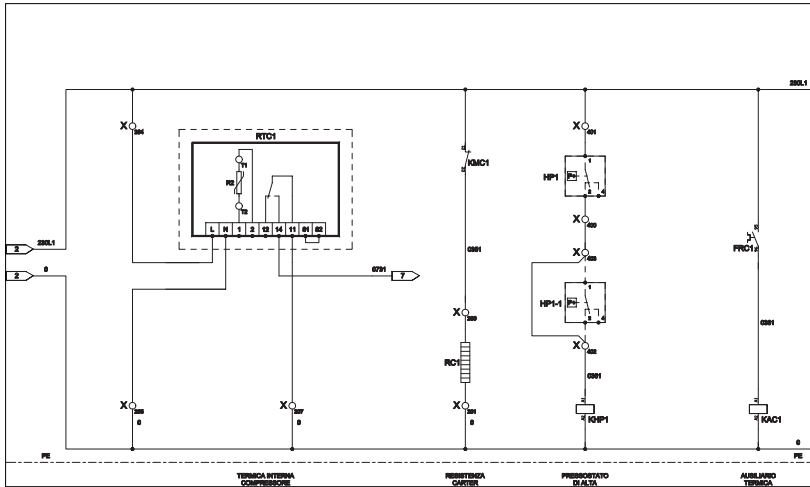
ELECTRICAL DATA EGEA RWV SF-SM

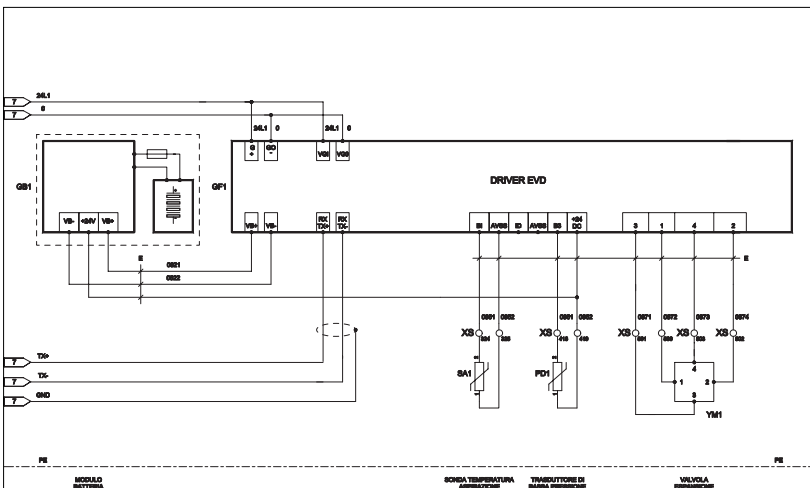
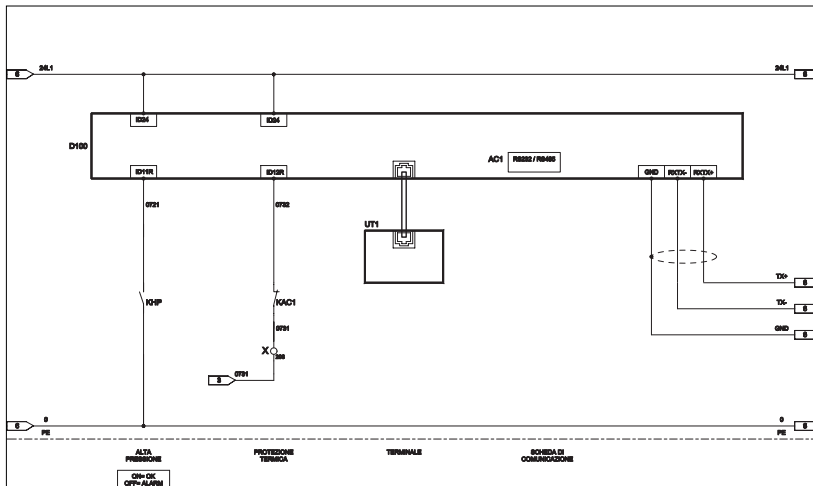
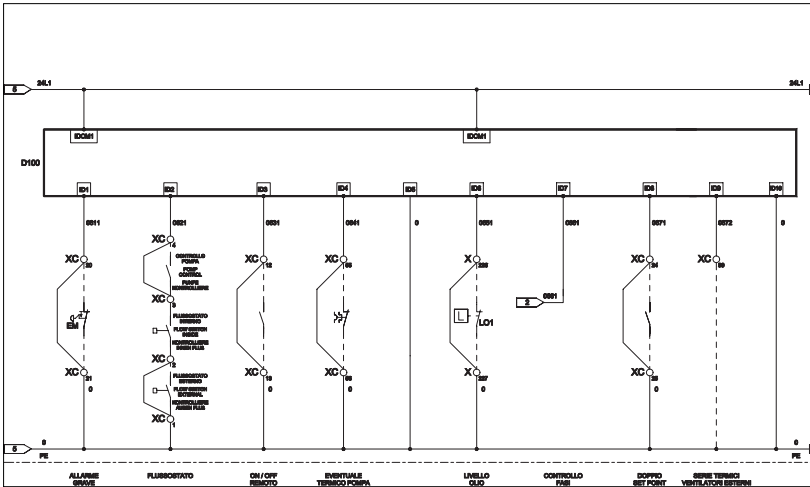
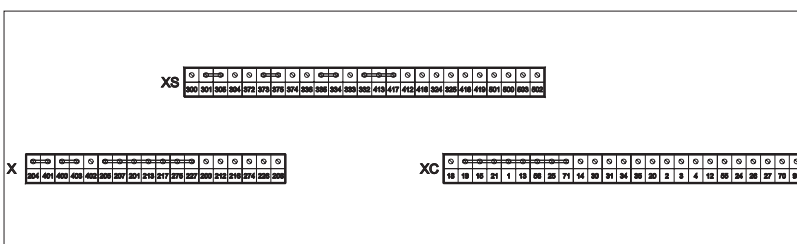
The electrical cables and the protections of the units must conform with the electrical data reported in the table below.

model	Max input current Power	compressor	total
SF-SM 111	I_{MAX} [A]	65	65
	Power [kW]	30	38
SF-SM 141	I_{MAX} [A]	82	82
	Power [kW]	37	48
SF-SM 161	I_{MAX} [A]	96	96
	Power [kW]	45	57
SF-SM 191	I_{MAX} [A]	124	124
	Power [kW]	52	73
SF-SM 221	I_{MAX} [A]	140	140
	Power [kW]	60	82
SF-SM 281	I_{MAX} [A]	168	168
	Power [kW]	75	99
SF-SM 331	I_{MAX} [A]	196	196
	Power [kW]	90	115
SF-SM 401	I_{MAX} [A]	225	225
	Power [kW]	105	133
SF-SM 441	I_{MAX} [A]	245	245
	Power [kW]	120	144

ELECTRICAL WIRINGS EGEA RWV SF 111-141-161-191-221-281-331-401-441


ELECTRICAL WIRINGS EGEA RWV SF 111-141-161-191-221-281-331-401-441


ELECTRICAL WIRINGS EGEA RWV SM 111-141-161-191-221-281-331-401-441


ELECTRICAL WIRINGS EGEA RWV SM 111-141-161-191-221-281-331-401-441

TERMINAL BOARD


KEY

LABEL	DESCRIPTION	LABEL	DESCRIPTION
CF1	PHASE CONTROL	QF1	AUTOMATIC SWITCH
D100	MICROPROCESSOR	QFA1	AUTOMATIC SWITCH
D110	TERMINAL PANEL	QFC1	AUTOMATIC SWITCH
D130	REMOTE TERMINAL PANEL	QFC2	AUTOMATIC SWITCH
D200	EXPANSION	QFC3	AUTOMATIC SWITCH
FL1	FLOW SWITCH	QFC4	AUTOMATIC SWITCH
FU1	FUSE	QFV1	AUTOMATIC SWITCH
FU2	FUSE	QMP1	MAGNETOTHERMIC SWITCH
FUF1	FUSE	QS1	MAIN SWITCH
HP1	HIGH PRESSURE SWITCH	RA1	ANTIFREEZE HEATER
HP1-2	HIGH PRESSURE SWITCH	RC1	CRANKCASE HEATER
HP2	HIGH PRESSURE SWITCH	RC2	CRANKCASE HEATER
HP2-2	HIGH PRESSURE SWITCH	RGF1	SPEED CONTROL
KAC2	RELAY	RTC1	COMPRESSOR THERMAL PROTECTION
KHP1	RELAY / CONTACTOR	RTC2	COMPRESSOR THERMAL PROTECTION
KHP2	CONTACTOR	RTC3	COMPRESSOR THERMAL PROTECTION
KMC1	CONTACTOR	RTC4	COMPRESSOR THERMAL PROTECTION
KMC10	CONTACTOR	RTV1	FAN THERMAL PROTECTION
KMC4	CONTACTOR	RTV2	FAN THERMAL PROTECTION
KMC7	CONTACTOR	RTV3	FAN THERMAL PROTECTION
KMP1	CONTACTOR	SAP1	SELECTOR
KMP2	CONTACTOR	SI1	WATER INLET PROBE
KMV1	CONTACTOR	SU1	WATER OULET PROBE
KMV1	CONTACTOR	TC1	TRANSFORMER
LP1	LOW PRESSURE SWITCH	YV1	4-WAY VALVE
LP2	LOW PRESSURE SWITCH	YV2	4-WAY VALVE
MC1	COMPRESSOR		
MC2	COMPRESSOR		
MC3	COMPRESSOR		
MC4	COMPRESSOR		
MP1	PUMP		
MP2	PUMP		
MV1	FAN		
MV2	FAN		
MV3	FAN		
MV4	FAN		
PH1	PRESSURE TRANSDUCER		
PH1	HIGH PRESSURE TRANSDUCER		
PH2	HIGH PRESSURE TRANSDUCER		



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