



◆ Solution

B - Base

◆ Versions

ST - Standard

LN - Low noise

◆ Equipments

AS - Standard equipments

DS - Desuperheater

BT - Fluid low temperature

Cooling Capacity 383,2 - 703,6 kW



Main features

● Housing

Base made of painted galvanised steel; panels made of galvanised steel externally coated with plastic (PVC) film and mounted on aluminium profiles to ensure total weathering resistance. Panels are internally lined to reduce the noise level (LN Accessories only).

● Compressor

SCREW SEMI-HERMETIC type, complete with motor thermal protection, Part-Winding or Star Delta start, crankcase electrical heater and discharge intercepting valve.

● Fan

Low speed, axial-flow fans fitted with accident-prevention protective grille; directly coupled motor with built-in thermal cutout and IP 54 protection degree; aerodynamic housing and wing profile blades increase efficiency and decrease noise level.

● Air heat exchanger

Finned coil made with copper pipes and aluminium fins offering a high exchange surface area.

● Water heat exchanger

Shell and tube type, thermally insulated by vapour-proof closed cell.

● Electrical board

Switchboard to standards IEC 204-1/EN60204-1, complete with contactor and protection for compressor and fans, phases sequence relay. Main isolator and door interlock safety device.

● Control

The microprocessor controls the unit capacity by timing the compressors and checks the operating alarms with the option of BMS and remote supervision. The high pressure is controlled by transducer.

● Refrigerant circuit

Filter dryer, moisture-liquid sight glass, intercepting valve on the liquid line, electronic expansion valve, HP and LP pressure switches, high pressure transducer.

Accessories

- Spring vibration isolation.
- Modulating fan speed condensing control
- ON/OFF Fan condensing control (5°C)
- Compressor suction intercepting valve.(standard)
- Wall mounted remote control panel
- Max and min voltage relay.
- Sequence phases relay.(standard)
- Evaporator electrical heater
- Upgrading electronic control(standard)
- Clock board.

- MODBUS interface electronic board
- LONWORKS interface electronic board
- Refrigerant gas HP and LP pressure gauges
- Electromechanical flow switch
- External water fittings
- Air flow separate compressor room
- Coil protection grille.
- Graphic and touch screen display "pGD Touch"
- Telemangement and supervisor system "tERA"
- Axial fans with EC motor

Technical data

Screw
Compressor

Axial
Fan

Evaporator
S&T

Refrigerant
R134a

RAK.E		1802 V	2002 V	2202 V	2502 V	2802 V	3002 V	3202 V
ST VERSION								
Cooling capacity(1)	kW	383,2	403,2	481,9	539,3	635,5	668,6	703,6
Total compressors power input(1)	kW	126,8	143,8	147,4	169,9	194,9	212,6	230,4
Water flow(1)	m3/h	65,9	69,4	82,9	92,8	109,3	115,0	121,0
Evaporator pressure drop @ Pn(1)	kPa	59	59	57	56	55	60	44
Total air flow	m3/h	132.000	132.000	144.000	176.000	192.000	220.000	220.000
Sound pressure(2)	dB(A)	83	83	83	84	84	87	87
LN VERSION								
Cooling capacity(1)	kW	371,7	391,1	467,4	523,1	616,4	648,6	682,5
Total compressors power input(1)	kW	132,5	150,3	154,0	177,5	203,7	222,2	240,8
Water flow(1)	m3/h	65,9	69,4	82,9	92,8	109,3	115,0	121,0
Evaporator pressure drop @ Pn(1)	kPa	53	53	51	50	50	54	40
Total air flow	m3/h	113.520	113.520	123.840	151.360	165.120	189.200	189.200
Sound pressure(2)	dB(A)	80	80	80	81	81	84	84
Compressors type	-	Semihermetic screw						
Compressors quantity	n°	2	2	2	2	2	2	2
Indipendent gas circuit	n°	2	2	2	2	2	2	2
Capacity steps	n°	6	6	6	6	6	6	6
Fans type	-	Axial						
Fans quantity	n°	6	6	6	8	8	10	10
Fans power input	kW	12,0	12,0	18,0	16,0	24,0	20,0	20,0
Power supply	V/ph/Hz + T	400/3/50						
Maximum absorbed current	A	336	366	384	420	474	540	558
Starting current	A	599	592	661	784	832	880	901
DESUPERHEATER (DS Equipment)								
Heat capacity (3)	kW	69,0	72,6	86,7	97,1	114,4	120,4	126,7
Water flow	m3/h	11,9	12,5	14,9	16,7	19,7	20,7	21,8
Pressure drop	kPa	45	31	37	35	39	36	42
DIMENSIONS AND WEIGHT - BASE Solution								
Lenght (L)	mm	4000	4000	4000	5100	5100	6250	6250
Depth (P)	mm	2280	2280	2280	2280	2280	2280	2280
Height (H)	mm	2550	2550	2550	2550	2550	2550	2550
Shipping weight	Kg	2900	2980	3200	4100	4320	4940	5250
Dimension drawing		E_4000x2280	E_4000x2280	E_4000x2280	E_5100x2280	E_5100x2280	E_6250x2280	E_6250x2280

Note:

- (1) Condenser air 35°C - Evaporator water IN/OUT 12/ 7°C
- (2) Sound pressure measured at 1 m in open field conditions
- (3) Water IN/OUT 40/45°C - Evaporator water IN/OUT 12/ 7°C



pGD Touch - much more than a simple terminal

On this series of units is now available the new graphic display "touch screen" that makes it simple and intuitive interaction between the operator and the machine. In addition to the vast amounts of available data, the user can easily customize the graphical interface and adapt it to their plant requirements. The connectivity system developed in the device is reliable and flexible ensuring communication with most of the international languages used as well as enables the migration of data in a fast, complete and safe.

tERA - telemanagement and supervisor system

To manage the system, you can use the innovative Tera. Access is remote and the functions are numerous: from the simple control of the operation to the setting or modification of operating parameters. All this happens in real time with the advantage of having important information in advance and, if necessary, to intervene on the unit already prepared. The connection modes are multiple and the measured data are available from a PC or tablet or smartphone. An eye-catching graphics makes the system flexible and easy to use.





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Cooling Capacity 840,5 - 1232,0 kW



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● Air heat exchanger

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● Refrigerant circuit

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Accessories

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- ON/OFF Fan condensing control (5°C)
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Technical data



RAK.E		3602 V	3802 V	4202 V	4402 V	4802 V	6002 V
ST VERSION							
Cooling capacity(1)	kW	840,5	894,8	949,0	995,3	1040,9	1232,0
Total compressors power input(1)	kW	265,6	282,2	298,8	313,2	327,5	400,3
Water flow(1)	m3/h	144,6	153,9	163,2	171,2	179,0	211,9
Evaporator pressure drop @ Pn(1)	kPa	52	58	61	39	43	42
Total air flow	m3/h	240.000	264.000	288.000	308.000	336.000	384000
Sound pressure(2)	dB(A)	87	89	89	90	90	92
LN VERSION							
Cooling capacity(1)	kW	815,3	867,9	920,5	965,5	1009,7	1195,0
Total compressors power input(1)	kW	277,6	294,9	312,2	327,3	342,2	418,0
Water flow(1)	m3/h	144,6	153,9	163,2	171,2	179,0	205,5
Evaporator pressure drop @ Pn(1)	kPa	47	52	55	35	39	37
Total air flow	m3/h	206.400	227.040	247.680	264.880	288.960	330240
Sound pressure(2)	dB(A)	84	86	86	87	87	89
Compressors type	-	Semihhermetic screw					
Compressors quantity	n°	2	2	2	2	2	2
Indipendent gas circuit	n°	2	2	2	2	2	2
Capacity steps	n°	6	6	6	6	6	6
Fans type	-	Axial					
Fans quantity	n°	10	12	12	14	14	16
Fans power input	kW	30,0	24,0	36,0	28,0	42,0	48
Power supply	V/ph/Hz + T	400/3/50					
Maximum absorbed current	A	648	698	710	731	752	765
Starting current	A	914	945	955	970	995	1010
DESUPERHEATER (DS Equipment)							
Heat capacity (3)	kW	151,3	161,1	170,8	179,2	187,4	221,7
Water flow	m3/h	26,0	27,7	29,4	30,8	32,2	38,1
Pressure drop	kPa	45	31	37	35	39	44
DIMENSIONS AND WEIGHT - BASE Solution							
Lenght (L)	mm	6250	7400	7400	8600	8600	9700
Depth (P)	mm	2280	2280	2280	2280	2280	2280
Height (H)	mm	2550	2550	2550	2550	2550	2550
Shipping weight	Kg	5400	6280	6490	7320	7540	8700
Dimension drawing		E_6250x2280	E_7400x2280	E_7400x2280	E_8600x2280	E_8600x2280	E_9700x2280

Note:

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