1 INTRODUCTION

The Aggreko -Heat Pump - range air-cooled fluid chillers are designed for water or water-Glycol cooling or heating. All units are designed for outside located. The units are completely assembled with all interconnection refrigerant piping and internal wiring, ready for installation. The advanced Aggreko control system includes all special features to make this unit the perfect unit for a large number of applications. Items like Night Noise Set back, selection between high efficiency / low noise level operation, Aggreko energy saving operating mode, etc makes this fluid chiller the most flexible and versatile unit available for rental.

2 KEY-DATA

Cooling / Heating Capacity		218 kW / 255 kW @ Eurovent conditions*
Total Absorbed Power		85 kW / 79 kW
Temperature Range Cooling		+15 ºC to -12 ºC
Temperature Range Heating		+30 ºC to +50 ºC
Maximum ambient temp		49 ºC
Dimensions	length	4.70 metres
	width	1.20 metres
	height	2.52 metres
Weight		3210 kg

* Eurovent conditions Cooling: 7 ºC leaving chilled water and 35 ºC entering condenser air
Heating: 45 ºC leaving hot water and 7 C ºC 88% rh. entering condenser air.

3 IDENTIFICATION



4 TECHNICAL SPECIFICATIONS

ITEM	UNITS	VALUE
Performance Data Cooling		
Design Cooling Capacity	kW	218
EER total unit		2.56
ESEER total unit		4.34
Design Operation Fluid Temperature IN / OUT	°C / °C	12 / 7
Minimum / Maximum Outlet Fluid Temperature	°C / °C	-12 / 15
Minimum / Maximum Chilled Liquid Temperature Difference	°C / °C	3 / 8
Design Ambient Temperature	°C	35
Minimum / Maximum Ambient Temperature	°C / °C	-18 / 49
Performance Data heating		
Design heating Capacity	kW	255
COP		3.22
Design Operation Fluid Temperature IN / OUT	°C / °C	39 / 45
Minimum / Maximum Outlet Fluid Temperature	°C / °C	30 / 50
Minimum / Maximum Chilled Liquid Temperature Difference	°C / °C	3 / 10
Design Ambient Temperature	°C / rh%	7 / 88
Minimum / Maximum Ambient Temperature	°C / °C	-10 / 20
Compressor		
Compressor Type		Scroll
Number of Compressors		4
Loading Steps	%	28-50-78-100
Evaporator Data		
Evaporator Type		Brazed SS plate
Evaporator Material		SS318 copper brazing
Fouling Factor	m^2.°C/kW	0.044
Design Flow	l/s	10.8
Minimum / Maximum Flow	l/s / l/s	6.8 / 18.2
Evaporator Liquid Volume	Litres	45
Evaporator Maximum Working Pressure PS	kPA	1000
Evaporator test pressure PT	kPA	1450
Design Pressure Drop	kPA	40
Evaporator Pressure Drop Factor	p.u.	34
Recommended Min System Water Volume	Litres	700
Strainer mesh size	mm	1.5
Condenser Data		
Material	Tubes / Fin	Copper / Alu
Fouling Factor	m^2.°C/kW	0.044
Number of Condenser Fans		4
Installed kW per Fan	kW	2.6
Total Air Volume maximum Fan Speed	m^3/s	23.6
Maximum External Static Pressure	Pa	120
Refrigerant Data		
Refrigerant Type		R410
Number of Circuits		2
Refrigerant Charge Circuit 1 / 2	kg / kg	23.5 / 23.5
Type of Compressor Oil		POE
Oil Charge Circuit 1 / 2	Litre/Litre	11.5 / 11.5

ITEM	UNITS	VALUE	
Electrical Data			
Design Electrical Supply Voltage	Volts / Hz	400 3ph ±5% 50Hz	
Alternative voltage *)	Volts / Hz	460 3ph ±5% 60 Hz	
Design Power Input	kVA / kW	98 / 87	
Maximum Power Input	kVA / kW	133 / 108	
Nominal Current at Design Conditions	Ampere	142	
Maximum Operating / Starting Current	Amp / Amp	193 / 378	
Recommended Generator Set	kVA	160	
Required Cable Size per Phase	mm²	120	
Electrical Connection		M12 Bus bar	
Pre-Heating Supply Voltage/Ampere	Volts / Amp	230 / 3	
Pre-heating E -connection	Cee form	16A Blue	
Pump Supply Connection	Cee form	32 A 3ph +E red	
Maximum Amperage Pump Circuit	Amp	25	
Noise Data **		STD	ELN
Sound Power Level	dB(A)	94	84
Sound Pressure Level @ 10 meter according DN ISO 3744	dB(A)	62	52
Reduction Night Noise Set back mode	dB(A)		-2
Physical Data			
Overall Length	Metres	4.700	
Overall Width	Metres	1.200	
Overall Height	Metres	2.519	
Weight	kg	3,210	
Cam lock Fluid Coupling Size	mm / Inch	100 / 4	
Movex code		CH0250REVAIC	
Plant Number		YAXK	

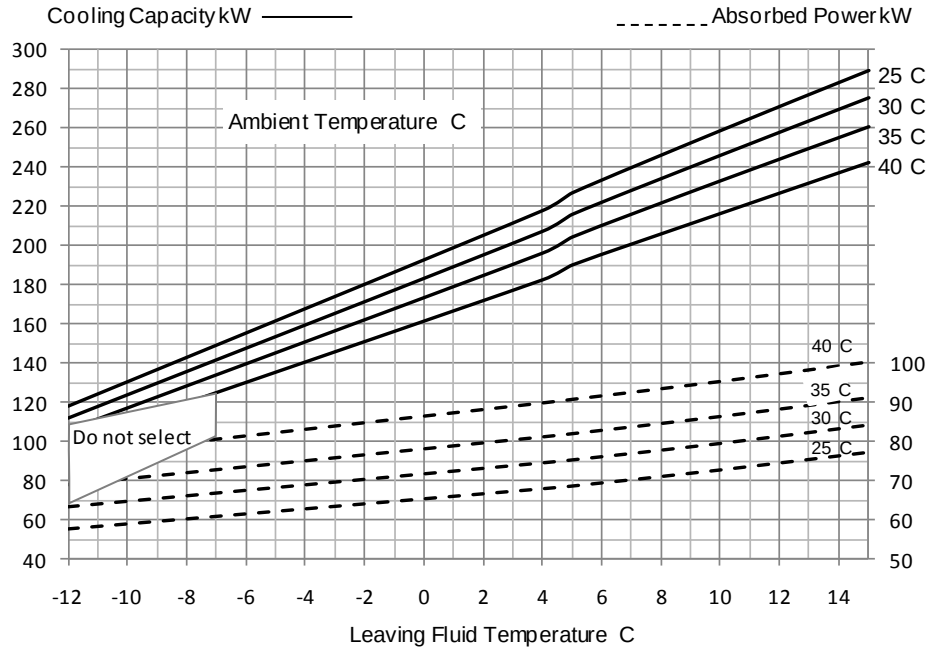
Notes:

*) See performance correction factor for alternative voltage / frequency

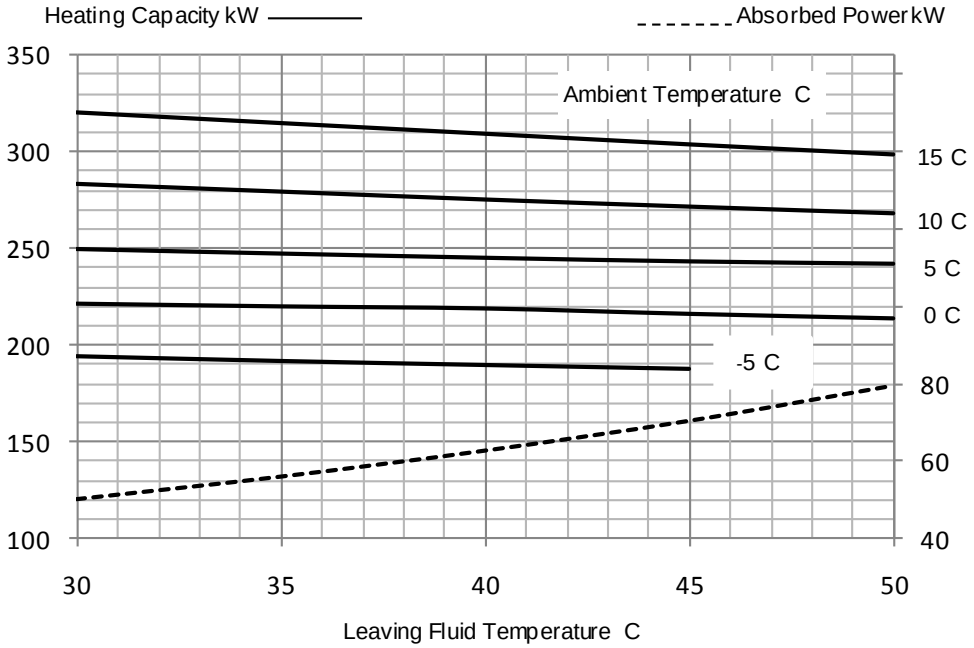
**) The unit can be set for various noise levels, the ELN is minimum noise level, all other data is based on STD (standard) configuration.; see performance correction factor for ELN configuration.

5 UNIT PERFORMANCE

5.1 Cooling



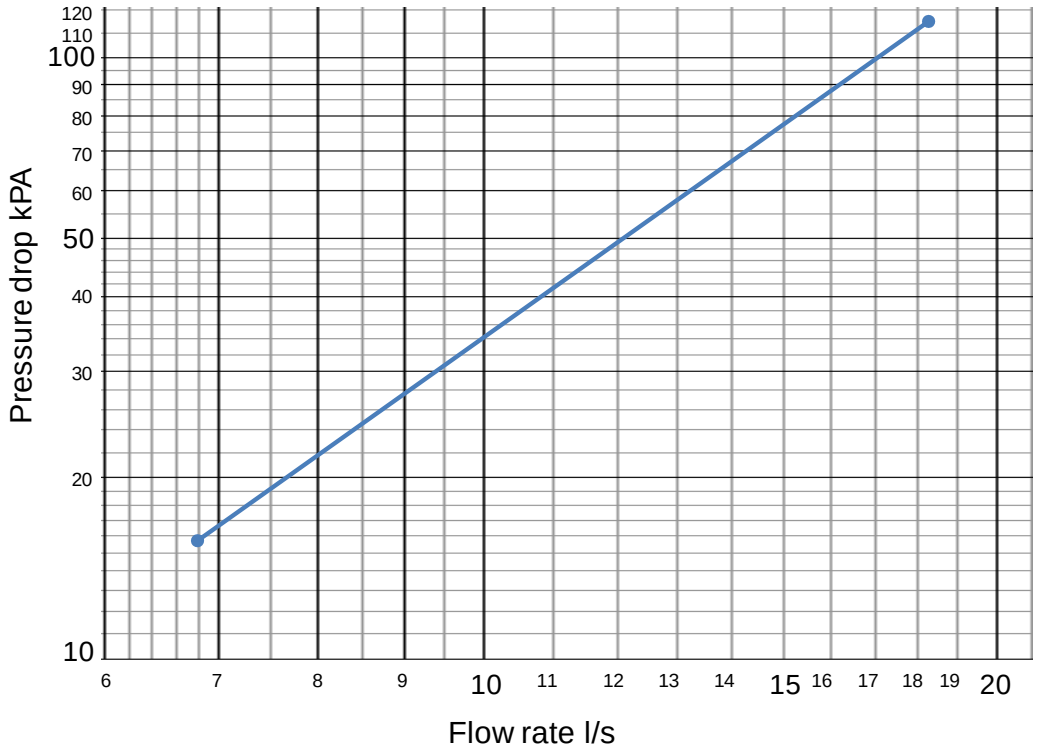
5.2 Heating



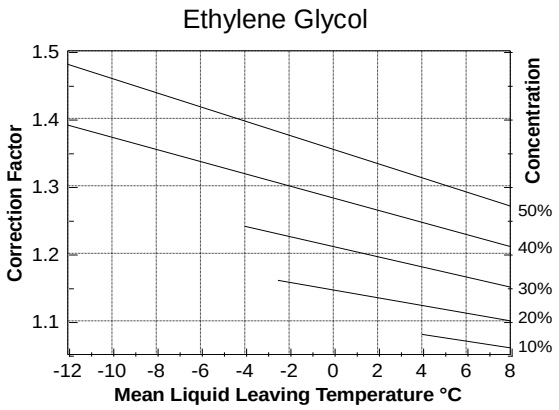
5.3 Performance Correction Factors

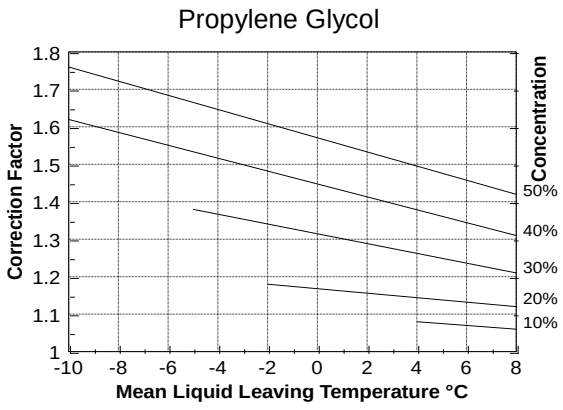
	Cooling				Heating			
Power supply	STD		ELN		STD		ELN	
	Pc	Pe	Pc	Pe	Pc	Pe	Pc	Pe
400 V / 50 Hz	1	1	0.94	1.08	1	1	0.97	1
460 V / 60 Hz	1.12	1.11	1.05	1.12	1.2	1.11	1.16	1.11

6 Fluid Pressure Drop



6.1 Pressure drop correction factor





7 DIMENSIONS

Minimum clearance for air inlet = 1500 mm, between two machines = 1500 mm.

