


Performance Data Sheet according to EU regulation 2015/1095

Model:	CPCU1SE-009-MT-S	Refrigerant:	R407A
Item	Symbol*	Value	Unit
Evaporating temperature	t	-10	°C
Annual electricity consumption	Q	10304	kWh/a
Seasonal energy performance ratio	SEPR	3.75	-
Point A: Parameters at full load and ambient temperature 32 °C			
Rated cooling capacity	P _A	5.19	kW
Rated power input	D _A	2.29	kW
Rated COP	COP _A	2.26	-
Point B: Parameters at part load and ambient temperature 25 °C			
Declared cooling capacity	P _B	5.64	kW
Declared power input	D _B	1.98	kW
Declared COP	COP _B	2.85	-
Point C: Parameters at part load and ambient temperature 15 °C			
Declared cooling capacity	P _C	6.19	kW
Declared power input	D _C	1.62	kW
Declared COP	COP _C	3.83	-
Point D: Parameters at part load and ambient temperature 5 °C			
Declared cooling capacity	P _D	6.62	kW
Declared power input	D _D	1.33	kW
Declared COP	COP _D	4.98	-
Other Items			
Capacity control	Fixed		
Degradation coefficient**	Cdc	0.25	-
 arctic circle	Arctic Circle Limited Coldnose Court Rotherwas Industrial Estate Hereford HR2 6JL Tel: 01432 273333 - Internet: www.acl-online.com		

*Units taken from english version of COMMISSION REGULATION (EU) 2015/1095

**Cdc value applied as EN 13215:2016 ANNEX A

Unit Name	CPCU1SE-009-MT-S	
Refrigerant	R407A	
Section 1		
Variable capacity compressor	ZBD29KCE-TFD	Qty 0
Fixed capacity compressor 1	ZB21KCE-TFD	1
Fixed capacity compressor 2	ZB45KCE-TFD	0
Design Ambient	32°C	
SST	-10°C	
Suction Return	20°C	
Useful Superheat	30K	
Subcooling	0K	
% load at 5C	80%	
Section 2		
Variable capacity compressor	ZFD41K5E-TFD	Qty 0
Fixed capacity compressor 1	ZF15K4E-TFD	0
Fixed capacity compressor 2	ZFD41K5E-TFD	0
Design Ambient	32°C	
SST	-35°C	
Suction Return	20°C	
Useful Superheat	55K	
Subcooling	0K	
% load at 5C	80%	
Condenser		
TD to mid point for given rejection (K)	10	BR
Rated heat rejection (kW)	7.5	0.75
Fan input (const)	0.32	
Design Calculations		
Section	1	2
Design Ambient	32°C	32°C
SST	-10°C	0°C
Suction Return	10°C	0°C
Useful Superheat	10K	0K
Subcooling	0K	0K
Condensing	38.56	38.56
Duty	4.86	
Compressor power input	1.97	
Total power input	2.29	
Compressor Current	3.92	

SEPR	3.75	Section 1 -10°C				SEPR	#DIV/0!	Section 2 -35°C			
Ambient	A	B	C	D	Ambient	A	B	C	D		
Refrigeration Load	5.19	4.92	4.53	4.15	Refrigeration Load						
Condense (Dew) °C	38.6	31.8	22.0	12.2	Condense (Dew) °C						
ZB21KCE-TFD	1	1	1	1							
	0	0	0	0							
Duty kW	5.19	5.64	6.19	6.62	Duty kW						
Input kW	1.97	1.66	1.30	1.01	Input kW						
Fan power (allocation)	0.32	0.32	0.32	0.32	Fan power (allocation)						
Combined Input kW	2.29	1.98	1.62	1.33	Combined Input kW						
% Time operating	100%	87%	73%	63%	% Time operating						
COP	2.26	2.85	3.83	4.98	COP						
Condense (SDT) °C	-	-	-	-	Condense (SDT) °C						
ZB21KCE-TFD		0	0	0							
		0	0	0							
Duty kW		0.00	0.00	0.00	Duty kW						
Input kW		0.00	0.00	0.00	Input kW						
Fan input		0.00	0.00	0.00	Fan input						
Combined Input kW		0.00	0.00	0.00	Combined Input kW						
% Time operating		13%	27%	37%	% Time operating						
COP		-	-	-	COP						

Capacity equal to or above required value

Capacity below required value