


Performance Data Sheet according to EU regulation 2015/1095

Model:	CPSC2SE-038-MT-EC	Refrigerant:	R407A
Item	Symbol*	Value	Unit
Evaporating temperature	t	-10	°C
Annual electricity consumption	Q	36262	kWh/a
Seasonal energy performance ratio	SEPR	4.13	-
Point A: Parameters at full load and ambient temperature 32 °C			
Rated cooling capacity	P _A	20.11	kW
Rated power input	D _A	8.06	kW
Rated COP	COP _A	2.49	-
Point B: Parameters at part load and ambient temperature 25 °C			
Declared cooling capacity	P _B	22.06	kW
Declared power input	D _B	7.52	kW
Declared COP	COP _B	2.93	-
Point C: Parameters at part load and ambient temperature 15 °C			
Declared cooling capacity	P _C	24.77	kW
Declared power input	D _C	6.65	kW
Declared COP	COP _C	3.72	-
Point D: Parameters at part load and ambient temperature 5 °C			
Declared cooling capacity	P _D	27.41	kW
Declared power input	D _D	5.66	kW
Declared COP	COP _D	4.84	-
Other Items			
Capacity control	Fixed		
Degradation coefficient**	Cdc	0.25	-
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*Units taken from english version of COMMISSION REGULATION (EU) 2015/1095

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

Unit Name	CPSC2SE-038-MT-EC	
Refrigerant	R407A	
<u>Section 1</u>		
Variable capacity compressor	ZFD13KVE-TFD EVI	Qty 0
Fixed capacity compressor 1	35-Q019	2
Fixed capacity compressor 2	ZB38KCE-TFD	0
Design Ambient	32°C	
SST	-10°C	
Suction Return	20°C	
Useful Superheat	30K	
Subcooling	0K	
% load at 5C	80%	
<u>Section 2</u>		
Variable capacity compressor	ZFD41K5E-TFD	Qty 0
Fixed capacity compressor 1	ZF18K4E-TFD	0
Fixed capacity compressor 2	ZF34K5E-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)	19.6	1.96
Fan input (const)	0.48	
Design Calculations		
<u>Section</u>	<u>1</u>	<u>2</u>
Design Ambient	32°C	32°C
SST	-8°C	0°C
Suction Return	12°C	0°C
Useful Superheat	10K	0K
Subcooling	0K	0K
Condensing	44.03	44.03
Duty	20.17	
Compressor power input	7.95	
Total power input	8.43	
Compressor Current	14.01	

SEPR	4.13	Section 1 -10°C				SEPR	#DIV/0!	Section 2 -35°C			
Ambient	A	B	C	D	Ambient	A	B	C	D		
Refrigeration Load	20.11	19.07	17.58	16.09	Refrigeration Load						
Condense (Dew) °C 35-Q019	43.1 2 0	36.8 2 0	27.8 2 0	18.7 2 0	Condense (Dew) °C						
Duty kW	20.11	22.06	24.77	27.41	Duty kW						
Input kW	7.58	7.04	6.17	5.18	Input kW						
Fan power (allocation)	0.48	0.48	0.48	0.48	Fan power (allocation)						
Combined Input kW	8.06	7.52	6.65	5.66	Combined Input kW						
% Time operating	100%	71%	37%	11%	% Time operating						
COP	2.49	2.93	3.72	4.84	COP						
Condense (SDT) °C 35-Q019	-	31.1 1 0	21.1 1 0	11.1 1 0	Condense (SDT) °C						
Duty kW		11.89	13.35	14.74	Duty kW						
Input kW		3.25	2.73	2.15	Input kW						
Fan input		0.48	0.48	0.48	Fan input						
Combined Input kW		3.73	3.21	2.63	Combined Input kW						
% Time operating		29%	63%	89%	% Time operating						
COP		3.18	4.16	5.61	COP						

Capacity
equal to or
above
required
value

Capacity
below
required
value