Performance Data Sheet according to EU regulation 2015/1095

Model:	MRSC2SE-10-029-LT-BG		Refrigerant:	R407F
Item	**Symbol***	**Value**		**Unit**
Evaporating temperature	t		-35	*°C*
Annual electricity consumption	Q		25389	*kWh/a*
Seasonal energy performance ratio	SEPR		1.72	-
Point A: Parameters at full load and ambient temperature 32 °C				
Rated cooling capacity	P_A		5.84	*kW*
Rated power input	D_A		5.91	*kW*
Rated COP	COP_A		0.99	-
Point B: Parameters at part load and ambient temperature 25 °C				
Declared cooling capacity	P_B		6.35	*kW*
Declared power input	D_B		5.04	*kW*
Declared COP	COP_B		1.26	-
Point C: Parameters at part load and ambient temperature 15 °C				
Declared cooling capacity	P_C		7.03	*kW*
Declared power input	D_C		4.00	*kW*
Declared COP	COP_C		1.76	-
Point D: Parameters at part load and ambient temperature 5 °C				
Declared cooling capacity	P_D		7.64	*kW*
Declared power input	D_D		3.15	*kW*
Declared COP	COP_D		2.43	-
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	MRSC2SE-10-029-LT-BG	
Refrigerant	R407F	
Section 1		Qty
Variable capacity compressor	ZF15K4E-TFD	0
Fixed capacity compressor 1	ZF15K4E-TFD	0
Fixed capacity compressor 2	ZF15K4E-TFD	0
Design Ambient	32°C	
SST	-10°C	
Suction Return	20°C	
Useful Superheat	30K	
Subcooling	0K	
% load at 5C	80%	
Section 2		Qty
Variable capacity compressor	ZF15K4E-TFD	0
Fixed capacity compressor 1	ZF15K4E-TFD	2
Fixed capacity compressor 2	ZF15K4E-TFD	0
Design Ambient	32°C	
SST	-35°C	
Suction Return	20°C	
Useful Superheat	55K	
Subcooling	0K	
% load at 5C	80%	
Conderser		
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		
Section	1	2
Design Ambient	32°C	32°C
SST	0°C	-38°C
Suction Return	0°C	-8°C
Useful Superheat	0K	5K
Subcooling	0K	0K
Condensing		38.14
Duty		4.45
Compressor power input		5.28
Total power input		
Compressor Current		12.74

SEPR	#DIV/0!	Section 1		-10°C	SEPR	1.72	Section 2		-35°C	
	A	B	C	D		A	B	C	D	
Ambient	32	25	15	5	Ambient	32	25	15	5	
Refrigeration Load					Refrigeration Load	5.84	5.54	5.11	4.68	
Condense (Dew) °C					Condense (Dew) °C	38.1	31.1	21.1	11.1	
					ZF15K4E-TFD	2	2	2	2	
										Capacity equal to or above required value
Duty kW					Duty kW	5.84	6.35	7.03	7.64	
Input kW					Input kW	5.43	4.56	3.52	2.67	
Fan power (allocation)					Fan power (allocation)	0.48	0.48	0.48	0.48	
Combined Input kW					Combined Input kW	5.91	5.04	4.00	3.15	
% Time operating					% Time operating	100%	75%	45%	22%	
COP					COP	0.99	1.26	1.76	2.43	
Condense (SDT) °C					Condense (SDT) °C	-	31.1	21.1	11.1	
					ZF15K4E-TFD		1	1	1	
							0	0	0	*Capacity below required value*
Duty kW					Duty kW		3.17	3.51	3.82	
Input kW					Input kW		2.28	1.76	1.33	
Fan input					Fan input		0.48	0.48	0.48	
Combined Input kW					Combined Input kW		2.76	2.24	1.81	
% Time operating					% Time operating		25%	55%	78%	
COP					COP		1.15	1.57	2.11	