



ZEAS condensing unit for commercial refrigeration

LREQ-BY1/LREQ-BY1R



Inverter



Scroll compressor

Refrigeration solution for medium to large capacity applications featuring proven VRV technology

- › One model for all applications from -45°C to 10°C evaporating temperature
- › Perfect solution for all cooling and freezing applications with variable load conditions and high energy efficiency requirements. In particular used in supermarkets, cold storage, blast coolers and freezers etc.
- › VRV (Variable Refrigerant Volume) technology for flexible application range
- › Low sound level including „night mode“ operation
- › Dedicated unit to allow multi combination of 2 x 15 HP or 2 x 20 HP resulting in less pipework or installation time

LREQ-BY1/LREQ-BY1R



LREQ-BY1/BY1R				5	6	8	10	12	15	20	15	20	
Refrigerating capacity	Low temperature	Nom.	kW	5.51 (1)	6.51 (1)	8.33 (1)	10.0 (1)	10.7 (1)	13.9 (1)	15.4 (1)		-	
	Medium temperature	Nom.	kW	12.5 (2)	15.2 (2)	19.8 (2)	23.8 (2)	26.5 (2)	33.9 (2)	37.9 (2)		-	
Power input	Low temperature	Nom.	kW	4.65 (1)	5.88 (1)	7.72 (1)	9.27 (1)	9.89 (1)	12.8 (1)	14.1 (1)		-	
	Medium temperature	Nom.	kW	5.10 (2)	6.56 (2)	8.76 (2)	10.6 (2)	12.0 (2)	15.2 (2)	17.0 (2)		-	
Capacity control	Method			Variable								-	
Seasonal energy performance ratio SEPR	R-410A	Te -10°C		3.86	3.79	3.64	3.42	3.51	3.38	3.23		-	
		Te -35°C		1.80	1.77	1.84	1.88	1.80	1.70			-	
Annual electricity consumption Q	R-410A	Te -10°C	kWh/a	19,907	24,681	33,483	42,794	46,377	61,683	72,030		-	
		Te -35°C	kWh/a	22,805	27,453	33,817	39,747	44,363	61,090	67,325		-	
Parameters at full load and ambient temp. 32°C (Point A)	R-410A	Te -10°C	Rated COP (COPA)	2.45	2.32	2.26	2.25	2.21	2.23			-	
		Te -35°C	Rated COP (COPA)	1.18	1.11		1.08		1.09			-	
Parameters at part load and ambient temp. 25°C (Point B)	R-410A	Te -10°C	Declared COP	2.94	2.86	2.74	2.65	2.59	2.55	2.44		-	
		Te -35°C	Declared COP	1.30	1.31	1.24	1.21		1.33	1.28		-	
Parameters at full load and ambient temp. 43°C	R-410A	Te -10°C	Declared COP	1.54	1.57	1.40	1.46	1.47	1.46	1.51		-	
		Te -35°C	Declared COP	0.76	0.74	0.68	0.70	0.71		0.74		-	
Dimensions	Unit	Height	mm	1,680							1,680		
		Width	mm	635			930			1,240			
		Depth	mm	765							765		
Weight	Unit		kg	166			242			331	337	331	337
Heat exchanger	Type			Cross fin coil									
Compressor	Type			Hermetically sealed scroll compressor									
	Output		W	2,600	3,200	2,100	3,000	3,400	2,600	3,400	2,600	3,400	
	Piston displacement		m³/h	11.18	13.85	19.68	23.36	25.27	32.24	35.8	32.24	35.80	
	Speed		rpm	5,280	6,540	4,320	6,060	6,960	5,280	6,960	5,280	6,960	
	Starting method			Direct on line (inverter driven)									
Compressor 2	Output		W	-			3,600			3,600			
	Piston displacement		m³/h	-			19.68	23.36	25.27	32.24	35.8	32.24	35.80
	Speed		rpm	-			2,900			2,900			
Compressor 3	Output		W	-					3,600		3,600		
	Piston displacement		m³/h	-					32.24	35.8	32.24	35.80	
	Speed		rpm	-					2,900		2,900		
Fan	Type			Propeller fan									
	Quantity			1					2		2		
Fan motor	Air flow rate	Cooling	Nom. m³/min	95	102	171	179	191	230	240	230	240	
	Output		W	350			750			350	750	350	750
Fan motor 2	Drive			Direct drive									
	Output		W	-					350	750	350	750	
Sound pressure level	Nom.		dBA	55.0 (3)	56.0 (3)	57.0 (3)	59.0 (3)	61.0 (3)	62.0 (3)	63.0 (3)	62.0	63.0	
Operation range	Evaporator	Cooling	Max.~Min. °CDB	10~~45									
Refrigerant	Type			R-410A									
	GWP			2,087.5									
	Charge		kg	5.2			7.9			11.5		11.5	
			TCO _{2eq}	10.9			16.5			24.0		24.0	
Power supply	Control			Electronic expansion valve									
		Phase/Frequency/Voltage	Hz/V	3~/50/380-415									

(1) Cooling: evaporating temp. -35°C; outdoor temp. 32°C; suction SH10°C

(2) Cooling: evaporating temp. -10°C; outdoor temp. 32°C; suction SH10°C

(3) Sound pressure data: measured at 1m in front of unit, at 1.5m height

RLA is based on following conditions: outdoor temp. 32°CDB; suction SH 10°C; saturated temperature equivalent to suction pressure -10°C

Maximum allowable voltage range variation between phases is 2%.

Contains fluorinated greenhouse gases

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