



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Compatibility with A2L refrigerants for manufacturing date after 02 2023 only

50 Hz

3DS-150

R454C Dew Point

Suction Return Temperature 18.3°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW												
	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
10.0	10.55	13.55	17.40	22.00	27.60								
15.0	10.05	12.95	16.65	21.10	26.40	32.60							
20.0	9.52	12.35	15.85	20.10	25.10	31.00	37.80	45.60					
25.0	8.98	11.70	15.05	19.10	23.90	29.50	35.90	43.30	51.60	55.20			
30.0	8.42	11.00	14.20	18.05	22.60	27.80	33.90	40.90	48.70	52.10	57.60	62.40	
35.0		10.30	13.35	16.95	21.20	26.20	31.90	38.40	45.80	49.00	54.20	58.70	
40.0		9.59	12.45	15.85	19.85	24.50	29.80	35.90	42.90	45.90	50.70	54.90	
45.0			11.50	14.70	18.40	22.70	27.70	33.40	39.90	42.70	47.10	51.10	
50.0			10.55	13.50	16.95	20.90	25.50	30.80	36.80	39.40	43.50	47.20	
55.0				12.25	15.40	19.10	23.30	28.10	33.60	36.00	39.90	43.30	
60.0					13.85	17.20	21.00	25.40	30.40	32.60	36.10	39.20	
65.0					12.25	15.25	18.70	22.70	27.20	29.20	32.30		
70.0						13.25	16.30	19.85	23.90				

Cond °C	Power, kW												
	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
10.0	3.82	4.24	4.60	4.85	4.97								
15.0	4.09	4.57	4.99	5.33	5.55	5.62							
20.0	4.33	4.87	5.36	5.78	6.10	6.29	6.31	6.15					
25.0	4.53	5.13	5.69	6.20	6.61	6.91	7.07	7.05	6.82	6.67			
30.0	4.70	5.35	5.99	6.58	7.09	7.51	7.79	7.90	7.83	7.75	7.54	7.31	
35.0		5.54	6.25	6.93	7.54	8.07	8.47	8.73	8.81	8.79	8.69	8.54	
40.0		5.70	6.48	7.24	7.95	8.59	9.12	9.52	9.76	9.80	9.80	9.74	
45.0			6.68	7.52	8.33	9.08	9.74	10.30	10.65	10.75	10.90	10.90	
50.0			6.84	7.77	8.68	9.54	10.35	11.00	11.55	11.70	11.90	12.05	
55.0				7.98	8.99	9.97	10.90	11.70	12.40	12.65	12.95	13.15	
60.0					9.27	10.35	11.40	12.35	13.20	13.50	13.90	14.20	
65.0					9.51	10.70	11.90	13.00	14.00	14.35	14.85		
70.0						11.05	12.35	13.55	14.70				

Compatibility with A2L refrigerants for manufacturing date after 02 2023 only

Cond °C	Current at 400 V, A												
	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
10.0	11.05	11.47	11.85	12.15	12.33								
15.0	11.30	11.76	12.21	12.59	12.86	12.99							
20.0	11.53	12.05	12.56	13.03	13.41	13.65	13.73	13.60					
25.0	11.75	12.32	12.91	13.47	13.96	14.34	14.56	14.59	14.38	14.22			
30.0	11.94	12.58	13.25	13.91	14.51	15.03	15.40	15.60	15.58	15.50	15.30	15.05	
35.0		12.82	13.57	14.34	15.07	15.72	16.25	16.63	16.80	16.81	16.73	16.60	
40.0		13.02	13.87	14.74	15.60	16.41	17.11	17.67	18.04	18.13	18.19	18.17	
45.0			14.13	15.13	16.13	17.08	17.95	18.70	19.29	19.46	19.66	19.76	
50.0			14.36	15.48	16.62	17.74	18.79	19.74	20.53	20.80	21.14	21.36	
55.0				15.80	17.09	18.37	19.61	20.75	21.77	22.13	22.62	22.96	
60.0					17.51	18.97	20.40	21.76	23.00	23.46	24.09	24.56	
65.0					17.89	19.53	21.16	22.73	24.21	24.76	25.55		
70.0						20.05	21.88	23.67	25.39				

Cond °C	Suction Mass Flow, g/s												
	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
10.0	50.20	64.70	83.20	106.00	133.00								
15.0	49.50	64.10	82.40	105.00	132.00	163.50							
20.0	48.70	63.30	81.60	104.00	130.50	162.00	199.00	241.00					
25.0	47.80	62.40	80.50	102.50	129.00	160.00	196.50	239.00	287.00	309.00			
30.0	46.70	61.30	79.30	101.00	127.00	158.00	194.00	235.00	284.00	305.00	339.00	370.00	
35.0		60.10	78.00	99.50	125.00	155.50	191.00	232.00	279.00	301.00	334.00	365.00	
40.0		58.60	76.30	97.60	123.00	152.50	187.50	228.00	275.00	296.00	329.00	360.00	
45.0			74.40	95.40	120.50	149.50	184.00	224.00	270.00	291.00	324.00	354.00	
50.0			72.20	92.90	117.50	146.00	179.50	219.00	265.00	285.00	318.00	348.00	
55.0				90.00	114.00	142.00	175.00	214.00	259.00	279.00	312.00	341.00	
60.0					110.00	137.50	170.00	208.00	253.00	273.00	305.00	334.00	
65.0					105.50	132.50	164.50	202.00	246.00	266.00	298.00		
70.0						127.00	158.00	195.00	239.00				

Compatibility with A2L refrigerants for manufacturing date after 02 2023 only

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	3
Displacement @ 50 Hz, m ³ /h	49.9
Bore/Stroke, mm	61.9/63.5
Length/Width, mm	710/370
Height, mm	490
Net Weight, kg	166
Gross Weight, kg	178
Rotalock Discharge, inch	1 1/8
Suction, inch	1 5/8
Drive Frequency Range, Hz	25 - 60
Oil Quantity, l	3.7
Oil type (original charge)	POE RL32-3MAF
Oil type (approved oils)	POE RL32-3MAF
Base mounting (hole dia), mm	381 x 305 (18)
Sound Pressure @ 1m, dBA	70.6
Sound Power, dBA	81.6
High Side PS gauge, bar	32.5
Low Side PS gauge, bar	22.5
Refrigerant's GWP	148
Refrigerant's classification	A2L

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

Maximum Operating Current, A	29
Locked Rotor Current, A	128
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Oil Pressure Switch	OPS2 Sensor
Mounting Springs	4

Compatibility with A2L refrigerants for manufacturing date after 02 2023 only

ACCESSORIES OPTIONAL

<p>Additional Cooling Capacity Control Crankcase Heater Enclosure Class Oil Pressure Switch Unloaded start Deep Oil Sump Adapter Kit Check Valve Oil Control System</p>	<p>70 W Vertical Air Flow Fan Moduload 70 W Internal IP 56 OPS2 Electronic Switch Available Mounted For Parallel Operation For unloaded start operation ALCO Trax-Oil OM3</p>
---	---

MOTOR OPTIONS

<i>Motor Code</i>	<i>Power Supply</i>	<i>Nominal Voltage, V</i>	<i>Start Connection</i>	<i>DOL Connection</i>	<i>Amps Factor</i>
AWM	380-420 V / 3~ / 50 Hz	400	YY/Y	Y	1.00
EWL	220-240 V / 3~ / 50 Hz	230	Y/DELTA	DELTA	1.73
EWL	380-420 V / 3~ / 50 Hz	400		Y	1.00
EWM	380-420 V / 3~ / 50 Hz	400	Y/DELTA	DELTA	1.00
EWY	500-550 V / 3~ / 50 Hz	525	Y/DELTA	DELTA	0.76
AWR	220-240 V / 3~ / 50 Hz	230	YY/Y	Y	1.73
AWY	500-550 V / 3~ / 50 Hz	525	YY/Y	Y	0.76
TWY	500-550 V / 3~ / 50 Hz	525		DELTA	0.76
EWK	220-240 V / 3~ / 60 Hz	230	Y/DELTA	DELTA	2.10
EWK	380-420 V / 3~ / 60 Hz	380		Y	1.20
EWD	440-480 V / 3~ / 60 Hz	460	Y/DELTA	DELTA	1.00
AWX	380 V / 3~ / 60 Hz	380	YY/Y	Y	1.20
AWD	440-480 V / 3~ / 60 Hz	460	YY/Y	Y	1.00

Compatibility with A2L refrigerants for manufacturing date after 02 2023 only