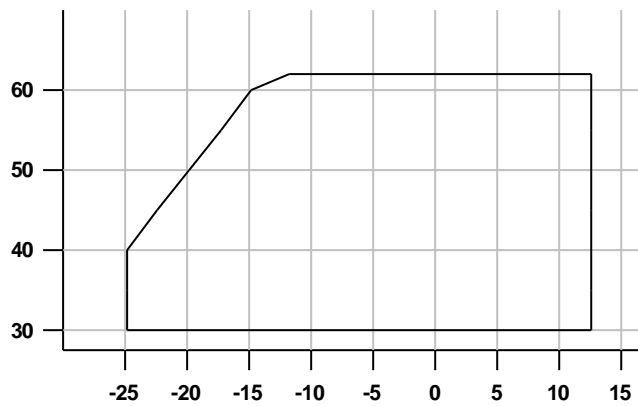


50Hz

D3DS-1500

R22



Minimum evaporating temp. with:  
 ——— 25°C Suction Gas Return

Suction Return Temperature 20.0°C      **Evaporating Temperature °C**      Liquid subcooling 0.0K

Cond °C	Capacity kW									
	-25	-20	-15	-10	-5	0	5	7	10	12.5
30	15.85	20.10	25.00	30.70	37.40	45.00	53.80	57.70	64.00	69.60
35	14.85	18.90	23.60	29.10	35.40	42.70	51.10	54.80	60.70	66.00
40	13.90	17.70	22.20	27.40	33.40	40.30	48.30	51.80	57.40	62.50
45		16.55	20.80	25.70	31.40	38.00	45.50	48.90	54.20	58.90
50		15.45	19.45	24.10	29.50	35.70	42.80	45.90	50.90	55.40
55			18.20	22.50	27.60	33.40	40.00	43.00	47.60	51.80
60			16.95	21.00	25.70	31.10	37.30	40.00	44.40	48.30
62				20.40	25.00	30.20	36.20	38.90	43.10	46.90
	Power Input kW									
	-25	-20	-15	-10	-5	0	5	7	10	12.5
30	6.75	7.31	7.79	8.16	8.41	8.50	8.40	8.30	8.08	7.83
35	7.07	7.73	8.32	8.82	9.20	9.45	9.52	9.50	9.40	9.25
40	7.37	8.12	8.82	9.44	9.96	10.35	10.60	10.65	10.65	10.60
45		8.50	9.30	10.05	10.70	11.25	11.65	11.75	11.90	11.95
50		8.87	9.76	10.60	11.40	12.05	12.65	12.80	13.05	13.20
55			10.20	11.15	12.05	12.85	13.60	13.85	14.15	14.40
60			10.70	11.70	12.70	13.65	14.50	14.85	15.25	15.60
62				11.95	13.00	13.95	14.90	15.20	15.70	16.05
	Current 400V, A									
	-25	-20	-15	-10	-5	0	5	7	10	12.5
30	13.70	14.56	15.30	15.88	16.26	16.40	16.25	16.10	15.75	15.36
35	14.19	15.20	16.12	16.90	17.50	17.89	18.01	17.97	17.81	17.57
40	14.66	15.82	16.91	17.88	18.70	19.32	19.70	19.78	19.80	19.73
45		16.41	17.66	18.82	19.84	20.70	21.34	21.53	21.73	21.81
50		16.98	18.39	19.72	20.95	22.03	22.93	23.22	23.59	23.83
55			19.11	20.61	22.02	23.32	24.46	24.86	25.40	25.78
60			19.83	21.48	23.08	24.58	25.95	26.45	27.14	27.67
62				21.84	23.50	25.08	26.53	27.07	27.83	28.41
	Mass Flow g/s									
	-25	-20	-15	-10	-5	0	5	7	10	12.5
30	84.00	107.00	134.00	165.00	202.00	245.00	296.00	319.00	355.00	388.00
35	81.50	104.00	130.50	162.00	198.00	241.00	291.00	313.00	350.00	382.00
40	79.00	101.50	127.50	158.00	195.00	237.00	286.00	308.00	344.00	376.00
45		98.50	124.50	155.00	190.00	232.00	281.00	302.00	338.00	370.00
50		96.00	121.50	151.00	186.00	227.00	275.00	297.00	331.00	363.00
55			118.50	148.00	182.00	223.00	270.00	291.00	325.00	356.00
60			116.00	145.00	179.00	218.00	264.00	285.00	319.00	349.00
62				143.50	177.00	216.00	262.00	283.00	316.00	346.00

50Hz

D3DS-1500

R22

**DWM Copeland - Compressor - Refrigeration - Discus****COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Number of cylinders	3
Displacement @ 50 Hz, cu.m/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
Oil Quantity, l	3.7
Frequency Range, Hz	25 - 60
Base mounting (hole dia), mm	381 x 305 (18.0)
Sound Pressure @ 1m, dBA	73
High Side PS, bar(g)	28
Low Side PS, bar(g)	22.5

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

Maximum Operating Current, A	28.8
Locked Rotor Current, A	129
Default Enclosure Class	IP 54 (IEC 34)

**ACCESSORIES INCLUDED**

Oil Pressure Switch	OPS2 Sensor
Mounting Springs	4

**ACCESSORIES OPTIONAL**

Additional Cooling	70W Vertical Air Flow Fan
Capacity Control	Moduload
Crankcase Heater	70W Internal
Enclosure Class	IP 56
Oil Pressure Switch	OPS2 Electronic Switch
Unloaded start	Available
Deep Oil Sump	Mounted
Adapter Kit	For Parallel Operation
Check Valve (NRV)	For unloaded start operation

**MOTOR OPTIONS**

Power Supply	Nominal Voltage	Motor Code	Start Connection	DOL Connection	Amps Factor
380-420 V/3~/50H	400	AWM	YY/Y	Y	1.00
220-240 V/3~/50H	230	EWL	Y/DELTA	DELTA	1.73
380-420 V/3~/50H	400	EWL		Y	1.00
380-420 V/3~/50H	400	EWM	Y/DELTA	DELTA	1.00
500-550 V/3~/50H	525	EWY	Y/DELTA	DELTA	0.76
220-240 V/3~/50H	230	AWR	YY/Y	Y	1.73
500-550 V/3~/50H	525	AWY	YY/Y	Y	0.76
500-550 V/3~/50H	525	TWY		DELTA	0.76
220-240 V/3~/60H	230	EWK	Y/DELTA	DELTA	2.09
380-420 V/3~/60H	380	EWK		Y	1.26
440-480 V/3~/60H	460	EWD	Y/DELTA	DELTA	1.00
380 V/3~/60Hz	380	AWX	YY/Y	Y	1.26
440-480 V/3~/60H	460	AWD	YY/Y	Y	1.00

Model: D3DS-1500

Refrigerant: R22

S.I.

Suction Return Temperature 20.0°C

Liquid subcooling 0.0K

50Hz

	Evaporating Temperature °C									
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5
	Capacity kW									
30.0	15.85	20.10	25.00	30.70	37.40	45.00	53.80	57.70	64.00	69.60
35.0	14.85	18.90	23.60	29.10	35.40	42.70	51.10	54.80	60.70	66.00
40.0	13.90	17.70	22.20	27.40	33.40	40.30	48.30	51.80	57.40	62.50
45.0		16.55	20.80	25.70	31.40	38.00	45.50	48.90	54.20	58.90
50.0		15.45	19.45	24.10	29.50	35.70	42.80	45.90	50.90	55.40
55.0			18.20	22.50	27.60	33.40	40.00	43.00	47.60	51.80
60.0			16.95	21.00	25.70	31.10	37.30	40.00	44.40	48.30
62.0				20.40	25.00	30.20	36.20	38.90	43.10	46.90

	Power Input kW									
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5
30.0	6.75	7.31	7.79	8.16	8.41	8.50	8.40	8.30	8.08	7.83
35.0	7.07	7.73	8.32	8.82	9.20	9.45	9.52	9.50	9.40	9.25
40.0	7.37	8.12	8.82	9.44	9.96	10.35	10.60	10.65	10.65	10.60
45.0		8.50	9.30	10.05	10.70	11.25	11.65	11.75	11.90	11.95
50.0		8.87	9.76	10.60	11.40	12.05	12.65	12.80	13.05	13.20
55.0			10.20	11.15	12.05	12.85	13.60	13.85	14.15	14.40
60.0			10.70	11.70	12.70	13.65	14.50	14.85	15.25	15.60
62.0				11.95	13.00	13.95	14.90	15.20	15.70	16.05

	COP									
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5
30.0	2.35	2.75	3.21	3.77	4.44	5.30	6.41	6.95	7.92	8.89
35.0	2.10	2.44	2.84	3.30	3.85	4.52	5.36	5.77	6.46	7.14
40.0	1.88	2.18	2.52	2.90	3.35	3.90	4.56	4.87	5.39	5.89
45.0		1.95	2.24	2.57	2.94	3.38	3.91	4.16	4.56	4.94
50.0		1.74	1.99	2.27	2.59	2.96	3.39	3.58	3.90	4.20
55.0			1.78	2.02	2.29	2.59	2.95	3.10	3.36	3.60
60.0			1.59	1.79	2.02	2.28	2.57	2.70	2.91	3.10
62.0				1.71	1.92	2.16	2.43	2.55	2.75	2.92

	Mass Flow g/s									
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5
30.0	84.00	107.00	134.00	165.00	202.00	245.00	296.00	319.00	355.00	388.00
35.0	81.50	104.00	130.50	162.00	198.00	241.00	291.00	313.00	350.00	382.00
40.0	79.00	101.50	127.50	158.00	195.00	237.00	286.00	308.00	344.00	376.00
45.0		98.50	124.50	155.00	190.00	232.00	281.00	302.00	338.00	370.00
50.0		96.00	121.50	151.00	186.00	227.00	275.00	297.00	331.00	363.00
55.0			118.50	148.00	182.00	223.00	270.00	291.00	325.00	356.00
60.0			116.00	145.00	179.00	218.00	264.00	285.00	319.00	349.00
62.0				143.50	177.00	216.00	262.00	283.00	316.00	346.00

Model: D3DS-1500

Refrigerant: R22

	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5
	Heat Rejection kW									
30.0	22.30	27.00	32.40	38.50	45.40	53.10	61.80	65.60	71.60	77.00
35.0	21.60	26.20	31.50	37.40	44.10	51.70	60.10	63.80	69.60	74.80
40.0	20.90	25.40	30.60	36.40	42.90	50.20	58.40	61.90	67.60	72.60
45.0		24.60	29.60	35.30	41.60	48.70	56.60	60.00	65.50	70.30
50.0		23.90	28.80	34.20	40.30	47.10	54.80	58.10	63.30	67.90
55.0			27.90	33.20	39.00	45.60	52.90	56.10	61.10	65.50
60.0			27.10	32.20	37.80	44.10	51.10	54.10	58.90	63.10
62.0				31.80	37.30	43.50	50.40	53.30	58.00	62.10

# Copeland Selection Software

REFRIGERANT R22

## Operating Conditions:

Evaporating Temperature: -10.0°C  
 Condensing Temperature: 45.0°C  
 Liquid subcooling: 0.0K  
 Suction Return Temperature: 20.0°C

**Required Capacity: 20.0 kW**  
 Compressor Selected: D3DS-1500

### PERFORMANCE AT SPECIFIED OPERATING POINT D3DS-1500 Data at 50 Hz

Capacity kW	25.70
Power Input kW	10.05
COP	2.57
Mass Flow g/s	155.00
Heat Rejection kW	35.30

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders 3	Bore/Stroke, mm 61.9/63.5
Length/Width, mm 710/370	Height, mm 490
Net Weight, kg 166	Gross Weight, kg 178
Suction, inch 1 5/8	Oil Quantity, l 3.7
Frequency Range, Hz 25 - 60	High Side PS, bar(g) 28
Low Side PS, bar(g) 22.5	
Displacement @ 50 Hz, cu.m/h 49.9	
Rotalock Discharge, inch 1 1/8	
Base mounting (hole dia), mm 381 x 305 (18.0)	
Sound Pressure @ 1m, dBA 73	

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

Locked Rotor Current, A 129  
 Maximum Operating Current, A 28.8  
 Default Enclosure Class IP 54 (IEC 34)

### ACCESSORIES INCLUDED

Oil Pressure Switch	OPS2 Sensor
Mounting Springs	4

## ***ACCESSORIES OPTIONAL***

Additional Cooling  
Capacity Control  
Crankcase Heater  
Enclosure Class  
Oil Pressure Switch  
Unloaded start  
Deep Oil Sump  
Adapter Kit  
Check Valve (NRV)

70W Vertical Air Flow Fan  
Moduload  
70W Internal  
IP 56  
OPS2 Electronic Switch  
Available  
Mounted  
For Parallel Operation  
For unloaded start operation