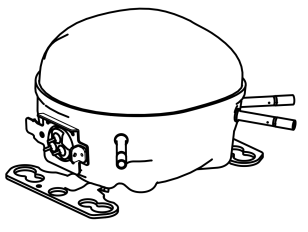
COMPRESSOR TECHNICAL DATA

VESD7C



ENGINEERING CODE
513907075

REFRIGERANT
R-600a

POWER SUPPLY
220-240 V 50-60 Hz

APPLICATION
LBP

MOTOR TYPE
BPM

STANDARD
ASHRAE

COOLING CAPACITY (4500 RPM)
181 W

EFFICIENCY (4500 RPM)
1.88 W/W

DATA

GENERAL DATA

Model	VESD7C
Type	Hermetic Reciprocating
Technology	VCC
Compressor Application	LBP
Expansion Device	Capillary Tube
Compressor Cooling	Static/220
Starting Torque	LST
Plant	CHINA

ELECTRICAL DATA

Start Winding Resistance	9.6 Ω at 25°C
Run Winding Resistance	9.6 Ω at 25°C

MECHANICAL DATA

Displacement	7.23 cm^3
Oil Charge	190 ml
Oil Type	ALQUILB
Oil Viscosity	ISO5
Weight	6.8 Kg

ELECTRICAL COMPONENTS

CSR CSIR BOX	No
Starting Device Type	INVERTER
Starting Device Description	PFC CF02D01 M
Inverter	PFC CF02D01 M
Inverter Description	PFC CF02D01 M

PERFORMANCE

TESTED CONDITIONS

Tested Refrigerant	R-600a
Tested Application	LBP
Tested Standard	ASHRAE
Tested Cooling	Static
Tested Voltage	220 V
Max Refrigerant Charge	150 g
Refrigerant Temperature	Dew

Performance on Compressor Speed: 1300 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
54.4	-23.3	48	1.82	27	0.21	0.52

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	31	1.83	17	0.12	0.33
-30	42	2.09	20	0.15	0.45
-25	54	2.37	23	0.18	0.58
-20	70	2.69	26	0.20	0.75
-15	89	3.09	29	0.22	0.96
-10	113	3.59	31	0.24	1.22

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	26	1.50	17	0.14	0.28
-30	37	1.76	21	0.17	0.40
-25	50	2.02	25	0.19	0.53
-20	65	2.29	28	0.22	0.70
-15	84	2.61	32	0.24	0.90
-10	107	2.99	36	0.27	1.15

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 55ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	30	1.46	21	0.17	0.32
-25	43	1.71	25	0.20	0.46
-20	58	1.97	30	0.23	0.63
-15	77	2.24	34	0.26	0.83
-10	99	2.55	39	0.29	1.07

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

Performance on Compressor Speed: 1600 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
54.4	-23.3	62	1.92	32	0.25	0.67

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	37	1.75	21	0.16	0.40
-30	50	2.03	25	0.18	0.54
-25	67	2.35	29	0.21	0.72
-20	87	2.72	32	0.24	0.94
-15	112	3.14	36	0.26	1.20
-10	140	3.63	39	0.29	1.52

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	33	1.52	21	0.17	0.35
-30	46	1.79	26	0.20	0.49
-25	63	2.07	30	0.23	0.67
-20	82	2.36	35	0.26	0.89
-15	106	2.69	39	0.30	1.14
-10	134	3.05	44	0.33	1.44

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 55ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	39	1.54	25	0.19	0.42
-25	55	1.81	31	0.24	0.60
-20	75	2.08	36	0.28	0.81
-15	98	2.34	42	0.32	1.06
-10	125	2.63	48	0.36	1.35

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

Performance on Compressor Speed: 2000 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
54.4	-23.3	62	1.92	32	0.25	0.67

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	37	1.75	21	0.16	0.40
-30	50	2.03	25	0.18	0.54
-25	67	2.35	29	0.21	0.72
-20	87	2.72	32	0.24	0.94
-15	112	3.14	36	0.26	1.20
-10	140	3.63	39	0.29	1.52

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	33	1.52	21	0.17	0.35
-30	46	1.79	26	0.20	0.49
-25	63	2.07	30	0.23	0.67
-20	82	2.36	35	0.26	0.89
-15	106	2.69	39	0.30	1.14
-10	134	3.05	44	0.33	1.44

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 55ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	39	1.54	25	0.19	0.42
-25	55	1.81	31	0.24	0.60
-20	75	2.08	36	0.28	0.81
-15	98	2.34	42	0.32	1.06
-10	125	2.63	48	0.36	1.35

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

Performance on Compressor Speed: 3000 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
54.4	-23.3	120	1.91	63	0.47	1.29

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	68	1.68	41	0.31	0.73
-30	95	1.97	48	0.35	1.02
-25	128	2.26	57	0.41	1.38
-20	168	2.58	65	0.47	1.81
-15	215	2.95	73	0.52	2.32
-10	270	3.39	80	0.58	2.91

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	61	1.48	41	0.32	0.65
-30	86	1.74	49	0.37	0.92
-25	117	2.00	59	0.43	1.26
-20	156	2.27	69	0.50	1.68
-15	203	2.57	79	0.57	2.18
-10	257	2.91	88	0.63	2.78

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 55ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	78	1.58	50	0.37	0.84
-25	107	1.82	59	0.44	1.16
-20	144	2.06	70	0.52	1.55
-15	189	2.32	82	0.60	2.04
-10	243	2.60	94	0.68	2.63

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

Performance on Compressor Speed: 4500 RPM

RATED POINTS

Condensing Temperature °C	Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
54.4	-23.3	181	1.88	97	0.7	1.95

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	108	1.62	67	0.49	1.16
-30	144	1.87	77	0.56	1.54
-25	185	2.12	87	0.62	1.99
-20	236	2.40	98	0.68	2.54
-15	297	2.73	109	0.74	3.20
-10	371	3.12	119	0.81	4.00

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-35	97	1.44	67	0.49	1.04
-30	134	1.70	79	0.58	1.44
-25	177	1.92	92	0.66	1.90
-20	228	2.16	105	0.73	2.45
-15	289	2.43	119	0.79	3.12
-10	363	2.74	133	0.87	3.92

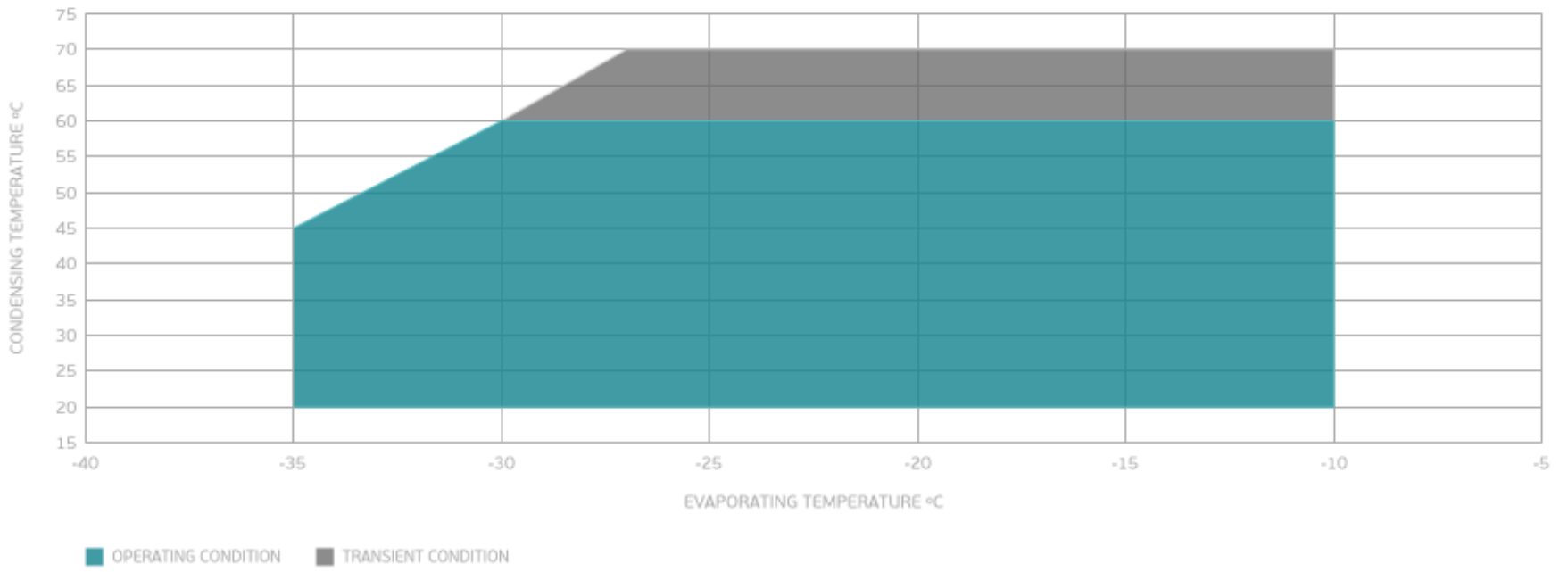
Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

PERFORMANCE CURVE — Condensing Temperature 55ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	119	1.57	76	0.58	1.28
-25	164	1.80	91	0.67	1.76
-20	216	2.01	107	0.76	2.33
-15	278	2.24	124	0.84	3.00
-10	353	2.49	142	0.93	3.82

Test Condition: Liquid 32.2 ºC, Return Gas 32.2 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

ENVELOPE



External

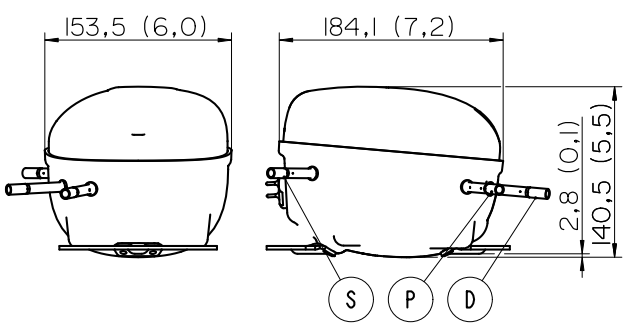
EXTERNAL CHARACTERISTICS

Base Plate	SMALL VES
Tray Holder	YES

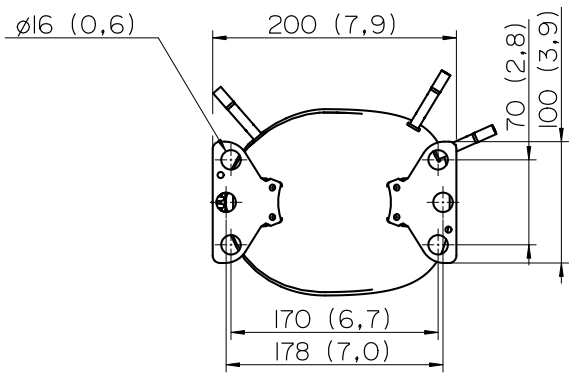
Connector	Internal Diameter	Shape	Material
Suction	6.1 mm	SLANTED 45° UP + 15° TO BACK	COPPER
Discharge	4.9 mm	SLANTED 25° OUT + 85° UP	COPPER
Process	6.2 mm	SLANTED 0° UP + 59° TO BACK	COPPER

EXTERNAL DIMENSIONS

SHELL



BASE



FENCE