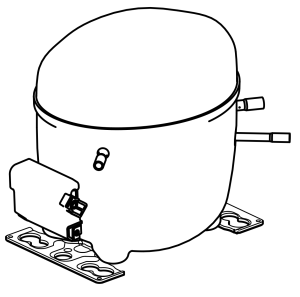
COMPRESSOR TECHNICAL DATA

FMFT415U



ENGINEERING CODE
513805006

REFRIGERANT
R-290

POWER SUPPLY
220-240 V 50-60 Hz

APPLICATION
L/MBP

MOTOR TYPE
BPM

STANDARD
CECOMAF

COOLING CAPACITY (5000 RPM)
1528 W

EFFICIENCY (5000 RPM)
1.62 W/W

DATA

GENERAL DATA

Model	FMFT415U
Type	Hermetic Reciprocating
Technology	VCC
Compressor Application	L/MBP
Expansion Device	Capillary Tube or Expansion Valve
Compressor Cooling	Fan/220
HP	1 1/4
Starting Torque	LST/HST
Plant	BRAZIL

ELECTRICAL DATA

Start Winding Resistance	3.79 Ω at 25°C
Run Winding Resistance	3.79 Ω at 25°C

MECHANICAL DATA

Displacement	14.77 cm^3
Oil Charge	430 ml
Oil Type	ALQUILB
Oil Viscosity	ISO22
Weight	10.9 Kg

ELECTRICAL COMPONENTS

CSR CSIR BOX	No
Starting Device Type	INVERTER
Starting Device Description	CF10C01 M 0.1 X
Overload Protection	CF10C01 M 0.1 XX A Y
Inverter	CF10C01 M 0.1 X
Inverter Description	CF10C01 M 0.1 X PFC

PERFORMANCE

TESTED CONDITIONS

Tested Refrigerant	R-290
Tested Application	MBP
Tested Standard	CECOMAF
Tested Cooling	Fan
Tested Voltage	220 V
Max Refrigerant Charge	150 g
Refrigerant Temperature	Dew

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
55	-10	627	1.78	353	-	7.98

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	219	1.62	135	-	2.26
-35	282	1.77	159	-	2.92
-30	357	1.96	182	-	3.70
-25	444	2.18	203	-	4.61
-20	544	2.44	223	-	5.67
-15	659	2.73	241	-	6.89
-10	790	3.07	257	-	8.30
-5	937	3.45	271	-	9.90
0	1101	3.90	282	-	11.71

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	189	1.33	142	-	2.12
-35	247	1.45	170	-	2.79
-30	315	1.59	198	-	3.56
-25	395	1.74	226	-	4.47
-20	486	1.91	254	-	5.53
-15	591	2.10	281	-	6.75
-10	710	2.32	307	-	8.15
-5	844	2.55	331	-	9.75
0	994	2.81	354	-	11.56

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	272	1.28	213	-	3.40
-25	344	1.39	247	-	4.31
-20	426	1.51	283	-	5.37
-15	520	1.64	318	-	6.58
-10	627	1.78	353	-	7.98
-5	748	1.93	388	-	9.58
0	884	2.09	423	-	11.38

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

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
55	-10	1105	1.82	607	-	14.07

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	386	1.53	253	-	3.97
-35	495	1.71	290	-	5.13
-30	626	1.89	331	-	6.49
-25	780	2.09	374	-	8.10
-20	960	2.31	416	-	10.00
-15	1167	2.55	457	-	12.20
-10	1405	2.84	494	-	14.76
-5	1675	3.19	526	-	17.70
0	1979	3.60	550	-	21.06

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	333	1.26	264	-	3.74
-35	432	1.42	305	-	4.88
-30	551	1.57	351	-	6.23
-25	691	1.72	402	-	7.82
-20	853	1.88	455	-	9.70
-15	1042	2.05	508	-	11.90
-10	1257	2.25	560	-	14.44
-5	1503	2.47	608	-	17.37
0	1781	2.73	652	-	20.71

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	474	1.32	360	-	5.92
-25	598	1.44	417	-	7.50
-20	743	1.56	478	-	9.36
-15	911	1.68	542	-	11.54
-10	1105	1.82	607	-	14.07
-5	1326	1.98	670	-	16.98
0	1576	2.16	731	-	20.30

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

Performance on Compressor Speed: 3600 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
55	-10	1305	1.76	742	-	16.62

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	459	1.51	305	-	4.73
-35	587	1.69	348	-	6.07
-30	741	1.86	399	-	7.68
-25	923	2.03	456	-	9.59
-20	1137	2.21	515	-	11.84
-15	1384	2.42	573	-	14.46
-10	1666	2.65	628	-	17.51
-5	1988	2.94	677	-	21.01
0	2350	3.28	716	-	25.00

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	397	1.24	320	-	4.46
-35	515	1.40	368	-	5.80
-30	654	1.54	426	-	7.39
-25	819	1.67	490	-	9.28
-20	1012	1.81	560	-	11.51
-15	1234	1.96	631	-	14.10
-10	1489	2.13	700	-	17.11
-5	1779	2.33	765	-	20.56
0	2107	2.56	823	-	24.50

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	562	1.32	427	-	7.01
-25	709	1.42	499	-	8.89
-20	880	1.52	578	-	11.08
-15	1078	1.63	660	-	13.65
-10	1305	1.76	742	-	16.62
-5	1564	1.90	822	-	20.03
0	1856	2.07	897	-	23.91

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

Performance on Compressor Speed: 5000 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
55	-10	1528	1.62	945	-	19.38

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	596	1.44	413	-	6.15
-35	775	1.59	489	-	7.98
-30	996	1.71	582	-	10.29
-25	1244	1.83	680	-	12.92
-20	1508	1.96	769	-	15.75
-15	1774	2.12	836	-	18.62
-10	2030	2.34	868	-	21.40
-5	2264	2.66	852	-	23.95
0	2462	3.17	776	-	26.12

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	531	1.18	451	-	5.98
-35	686	1.30	526	-	7.72
-30	879	1.42	621	-	9.93
-25	1098	1.52	722	-	12.45
-20	1330	1.63	816	-	15.14
-15	1562	1.76	890	-	17.87
-10	1782	1.91	931	-	20.48
-5	1977	2.14	926	-	22.84
0	2135	2.48	861	-	24.80

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

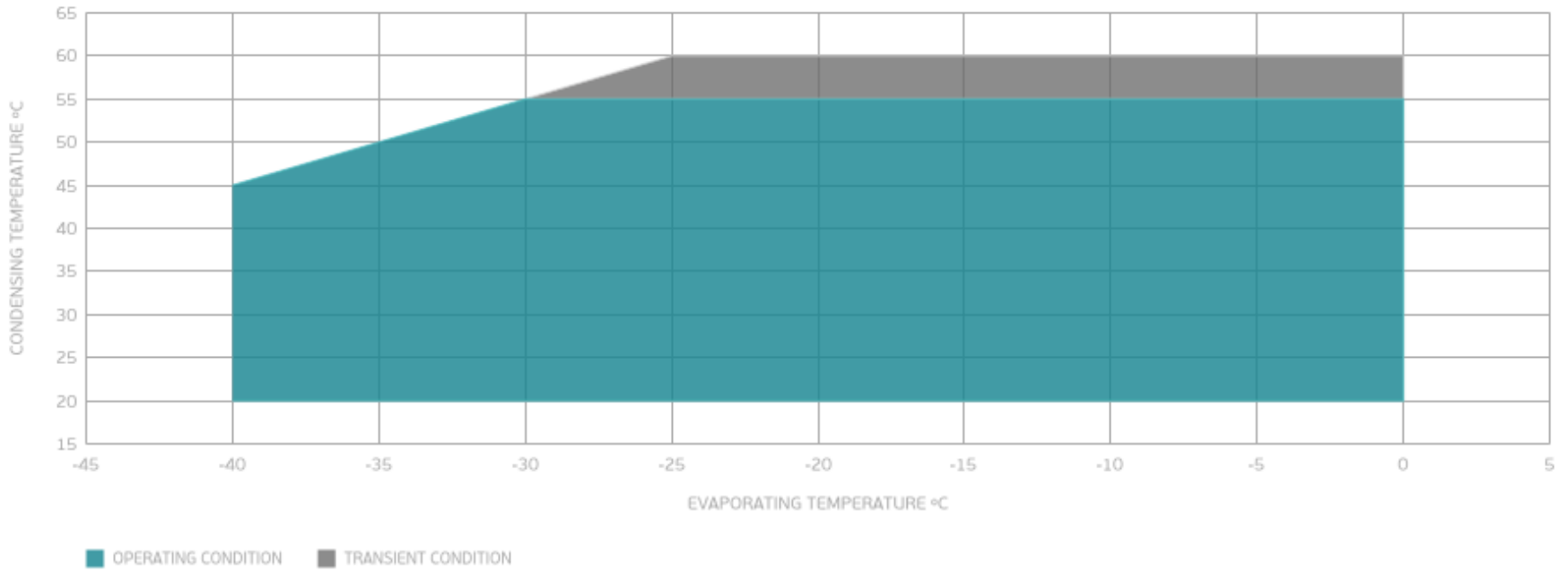
PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	751	1.20	623	-	9.39
-25	941	1.30	725	-	11.80
-20	1143	1.39	821	-	14.36
-15	1343	1.49	898	-	16.93
-10	1528	1.62	945	-	19.38
-5	1686	1.78	947	-	21.55
0	1804	2.02	892	-	23.32

Test Condition: Subcooling 0 K, Return Gas 32 °C. Data are an indication of performance based simulation.

ENVELOPE



External

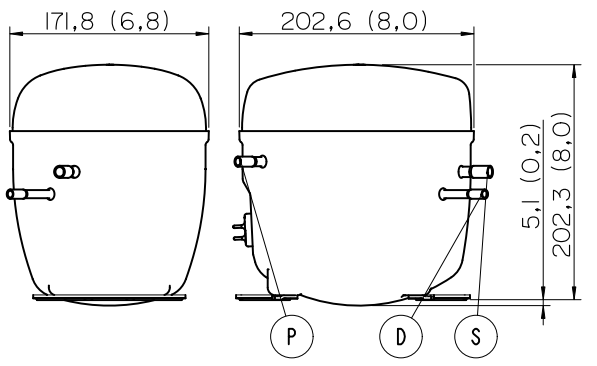
EXTERNAL CHARACTERISTICS

Base Plate	JP
Tray Holder	NO

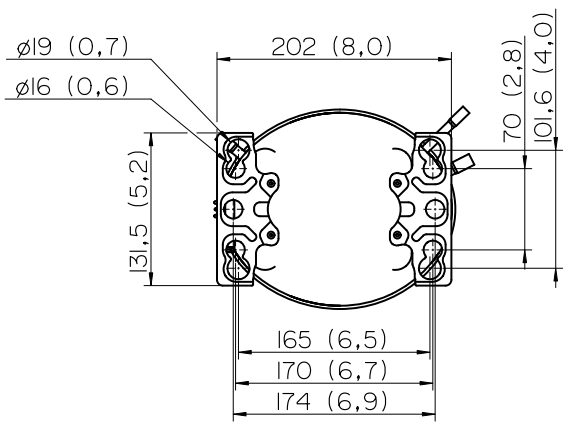
Connector	Internal Diameter	Shape	Material
Suction	8.2 mm	STRAIGHT	COPPER
Discharge	6.5 mm	STRAIGHT	COPPER
Process	6.5 mm	STRAIGHT	COPPER

EXTERNAL DIMENSIONS

SHELL



BASE



FENCE