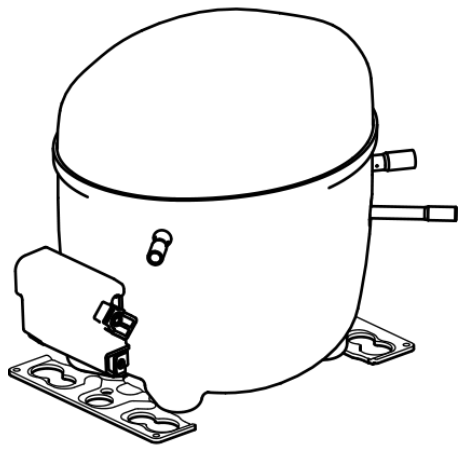
COMPRESSOR TECHNICAL DATA

FMFT413U



ENGINEERING CODE
513805003

REFRIGERANT
R-290

POWER SUPPLY
220-240 V 50-60 Hz

APPLICATION
LBP

MOTOR TYPE
BPM

STANDARD
EN12900

COOLING CAPACITY (4500 RPM)
551 W

EFFICIENCY (4500 RPM)
1.41 W/W

DATA

GENERAL DATA

Model	FMFT413U
Type	Hermetic Reciprocating
Technology	VCC
Compressor Application	LBP
Expansion Device	Capillary Tube
Compressor Cooling	Fan/220
HP	1/2
Starting Torque	LST
Plant	BRAZIL

ELECTRICAL DATA

Start Winding Resistance	4.3 Ω at 25°C
Run Winding Resistance	4.3 Ω at 25°C

MECHANICAL DATA

Displacement	12.92 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
Overload Protection	CF10C01 M 0.1 XX A Y
Inverter	CF10C01 M 0.1 X
Inverter Description	CF10C01 M 0.1 X PFC

EXTERNAL CHARACTERISTICS

Base Plate	UNI V2
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

PERFORMANCE

TESTED CONDITIONS

Tested Refrigerant	R-290
Tested Application	LBP
Tested Standard	EN12900
Tested Cooling	Fan
Tested Voltage	220 V
Refrigerant Temperature	Dew

Performance on Compressor Speed: 1800 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
40	-35	229	1.55	148	-	2.64

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	191	1.55	123	-	2.06
-35	252	1.72	146	-	2.79
-30	320	1.92	167	-	3.55
-25	397	2.16	184	-	4.41
-20	488	2.44	200	-	5.41
-15	595	2.79	213	-	6.62
-10	722	3.21	225	-	8.07
-5	873	3.70	236	-	9.82
0	1050	4.27	246	-	11.93

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	148	1.22	121	-	1.78
-35	207	1.38	149	-	2.50
-30	270	1.54	175	-	3.27
-25	342	1.71	200	-	4.14
-20	426	1.91	223	-	5.18
-15	526	2.14	246	-	6.42
-10	645	2.41	268	-	7.93
-5	787	2.71	291	-	9.75
0	955	3.04	314	-	11.94

Test Condition: Subcooling 0 K, Return Gas 20 ºC. 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	226	1.22	185	-	3.02
-25	291	1.35	216	-	3.91
-20	367	1.49	247	-	4.97
-15	459	1.65	278	-	6.25
-10	568	1.83	311	-	7.81
-5	699	2.03	344	-	9.69
0	856	2.25	380	-	11.96

Test Condition: Subcooling 0 K, Return Gas 20 °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
40	-35	379	1.5	252	-	4.36

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	314	1.49	210	-	3.43
-35	406	1.66	244	-	4.47
-30	519	1.85	280	-	5.72
-25	652	2.07	316	-	7.21
-20	809	2.31	350	-	8.97
-15	991	2.60	381	-	11.02
-10	1198	2.93	408	-	13.41
-5	1434	3.34	430	-	16.16
0	1699	3.82	444	-	19.30

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	266	1.21	219	-	3.19
-35	351	1.36	258	-	4.24
-30	454	1.51	300	-	5.49
-25	574	1.67	344	-	6.96
-20	715	1.85	388	-	8.70
-15	878	2.04	430	-	10.74
-10	1064	2.27	469	-	13.09
-5	1275	2.53	505	-	15.80
0	1512	2.83	535	-	18.89

Test Condition: Subcooling 0 K, Return Gas 20 ºC. 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	384	1.23	311	-	5.16
-25	491	1.36	362	-	6.63
-20	616	1.49	414	-	8.36
-15	760	1.63	467	-	10.37
-10	924	1.78	518	-	12.69
-5	1109	1.96	566	-	15.37
0	1319	2.16	610	-	18.42

Test Condition: Subcooling 0 K, Return Gas 20 °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
40	-35	431	1.44	298	-	4.95

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	357	1.43	250	-	3.90
-35	462	1.60	290	-	5.08
-30	598	1.78	336	-	6.59
-25	764	1.98	386	-	8.44
-20	962	2.21	436	-	10.66
-15	1191	2.47	482	-	13.26
-10	1453	2.80	519	-	16.27
-5	1748	3.21	545	-	19.70
0	2077	3.75	554	-	23.58

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	307	1.15	267	-	3.69
-35	398	1.30	305	-	4.80
-30	516	1.45	355	-	6.24
-25	661	1.61	411	-	8.01
-20	834	1.78	470	-	10.15
-15	1036	1.96	527	-	12.67
-10	1267	2.18	580	-	15.59
-5	1528	2.45	624	-	18.94
0	1819	2.78	654	-	22.72

Test Condition: Subcooling 0 K, Return Gas 20 ºC. 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	432	1.19	364	-	5.81
-25	556	1.31	423	-	7.50
-20	704	1.44	488	-	9.54
-15	877	1.58	554	-	11.96
-10	1076	1.74	619	-	14.79
-5	1302	1.92	677	-	18.03
0	1555	2.14	726	-	21.71

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

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
40	-35	551	1.41	390	-	6.33

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 35ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	453	1.41	322	-	4.97
-35	574	1.54	373	-	6.30
-30	732	1.71	429	-	8.04
-25	924	1.90	486	-	10.18
-20	1148	2.13	540	-	12.71
-15	1402	2.38	588	-	15.60
-10	1685	2.69	626	-	18.86
-5	1993	3.06	651	-	22.47
0	2326	3.53	659	-	26.42

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

PERFORMANCE CURVE

Condensing Temperature 45ºC

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-40	406	1.19	341	-	4.87
-35	520	1.30	401	-	6.27
-30	664	1.42	467	-	8.04
-25	837	1.57	534	-	10.15
-20	1035	1.73	600	-	12.61
-15	1257	1.90	660	-	15.39
-10	1502	2.11	712	-	18.49
-5	1767	2.35	751	-	21.89
0	2049	2.65	773	-	25.58

Test Condition: Subcooling 0 K, Return Gas 20 ºC. Data are an indication of performance based simulation.

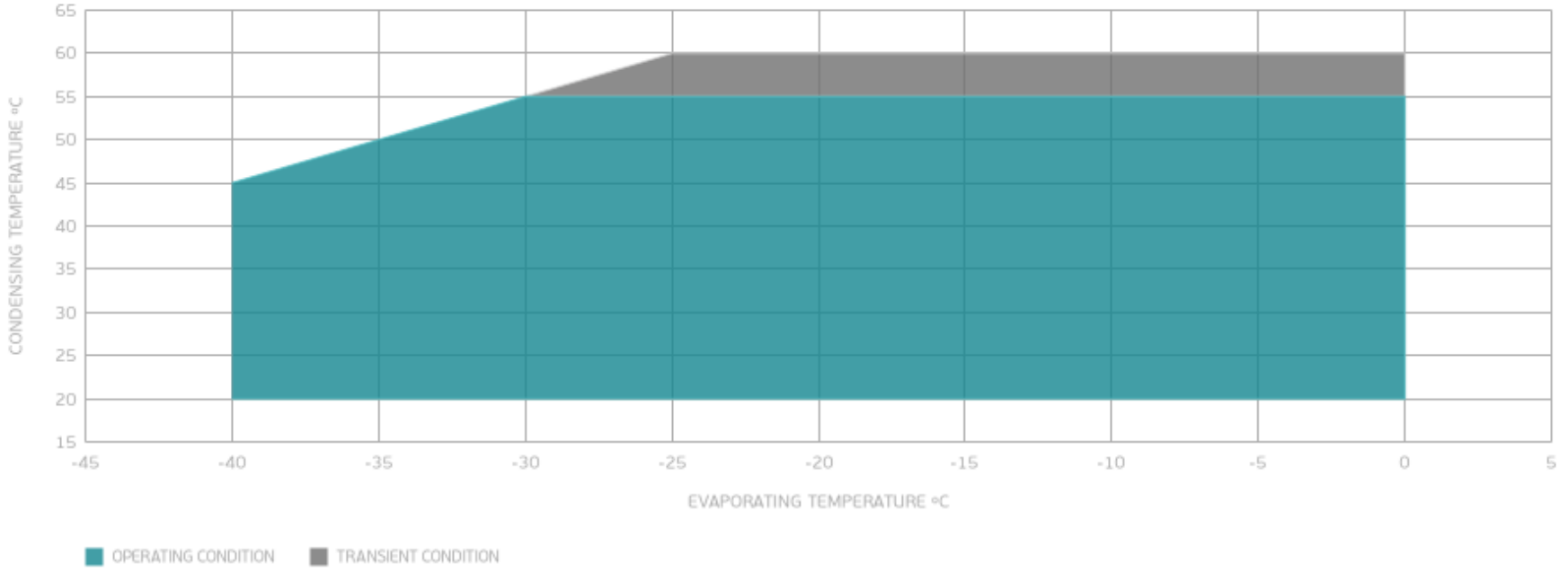
PERFORMANCE CURVE

Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Efficiency W/W	Power Consumption W	Current A	Gas Flow Rate kg/h
-30	570	1.19	480	-	7.69
-25	725	1.30	558	-	9.81
-20	900	1.42	635	-	12.23
-15	1093	1.54	708	-	14.93
-10	1302	1.69	772	-	17.90
-5	1526	1.85	825	-	21.12
0	1761	2.04	862	-	24.59

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

ENVELOPE



EXTERNAL DIMENSIONS

