MODEL
EMC3140U

APPROVALS

ENGINEERING CODE
711WA57

APPROVED REFRIGERANT
R-290

POWER SUPPLY
220-240 V 50 Hz

STANDARD CONDITIONS
ASHRAE

APPLICATION
L/MBP

COOLING CAPACITY
463 W (LBP)

EFFICIENCY
1.76 W/W (LBP)

MOTOR TYPE
RSCR

STARTING TORQUE
LST

DATA

General Data

Type	Hermetic reciprocating
Technology Type	On-Off
Displacement	9.04 cm³
Compressor Cooling	Fan/NotControled/220
Fan Air Flow	270 m³/h
Expansion Device	Capillary Tube
Horse Power	1/2 hp
Max Condensing Pressure Operating	18.07 bar
Max Condensing Pressure Peak	20.17 bar
Power Supply	220-240 V 50 Hz
Evaporating Temperature Range	-35 °C to 5 °C

Electrical Data

Motor type	RSCR
Starting Torque	LST
Start Winding Resistance	13.3 Ω at 25° C
Run Winding Resistance	9.25 Ω at 25° C

Mechanical Data

Maximum Recommended Refrigerant Charge	150 g
Oil Charge	150 ml
Oil Type Configuration	ESTER
Oil Type Viscosity	ISO10
Pressurization	Light vacuum
Weight	8.2 Kg
Free Internal Volume	1.5 L

Electrical Components

	Description
Starting Device	PTC | MI2021 V230
Run Capacitor	8
Motor Protection	MRA-38172-3166

External Characteristics

Base Plate	European
Tray Holder	Yes
Height	171 mm

Connector	Internal Diameter	Shape
Suction	6.1 mm	Slanted 42? up + 45? to Back/Copper
Discharge	4.94 mm	Straight/Copper
Process	6.1 mm	Slanted 46?/Copper

PERFORMANCE

Rated Points

Condensing Temperature	Evaporating Temperature	Cooling Capacity	Power Consumption	Current	Gas Flow Rate	Efficiency
54.40°C	-23.30°C	463 W	264 W	1.25 A	4.71 kg/h	1.76 W/W

Test Condition: ASHRAELBP32, Fan/NotControled/220, Return Gas 32.2°C, Evaporation -23.30°C, Condensing 54.40°C, Ambient 32.2°C , Liquid 32.2°C, Subcooling 22.2K. Data in accordance to EN 12900:2013 and AHRI 540:2015 polynomial equation and uncertainty guidance.

Performance Curve Data

Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Power W	Current A	Gas Flow Rate kg/h	Efficiency W/W
-35	302	182	0.89	3.05	1.66
-30	384	203	0.98	3.89	1.89
-25	483	224	1.07	4.90	2.15
-20	598	244	1.16	6.09	2.45
-15	731	263	1.25	7.47	2.77
-10	881	282	1.34	9.05	3.12
-5	1050	300	1.42	10.83	3.5
0	1237	317	1.5	12.84	3.9
5	1443	334	1.58	15.07	4.32

Test Condition: ASHRAELBP32, Fan/NotControled/220, Return Gas 32.2°C, Ambient 32.2°C , Liquid 32.2°C. Data in accordance to EN 12900:2013 and AHRI 540:2015 polynomial equation and uncertainty guidance.

Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Power W	Current A	Gas Flow Rate kg/h	Efficiency W/W
-35	284	188	0.92	2.87	1.51
-30	363	213	1.03	3.67	1.7
-25	457	239	1.14	4.64	1.91
-20	569	265	1.25	5.79	2.15
-15	699	290	1.36	7.14	2.41
-10	846	316	1.47	8.68	2.68
-5	1011	341	1.59	10.43	2.96
0	1195	367	1.7	12.40	3.26
5	1397	392	1.81	14.59	3.56

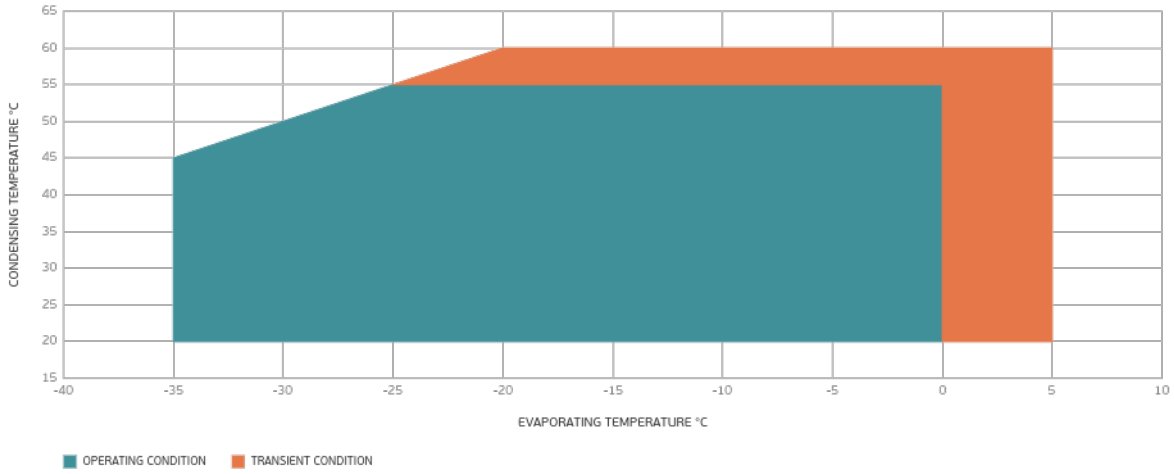
Test Condition: ASHRAELBP32, Fan/NotControled/220, Return Gas 32.2°C, Ambient 32.2°C , Liquid 32.2°C. Data in accordance to EN 12900:2013 and AHRI 540:2015 polynomial equation and uncertainty guidance.

Condensing Temperature 55°C

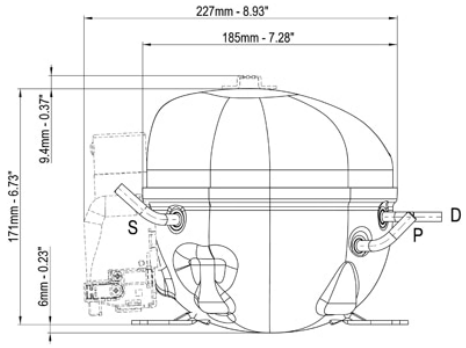
Evaporating Temperature °C	Cooling Capacity W	Power W	Current A	Gas Flow Rate kg/h	Efficiency W/W
-25	428	254	1.21	4.35	1.69
-20	536	283	1.34	5.45	1.89
-15	661	313	1.48	6.75	2.11
-10	804	343	1.62	8.25	2.35
-5	965	374	1.76	9.96	2.58
0	1145	405	1.91	11.88	2.83
5	1344	438	2.06	14.03	3.07

Test Condition: ASHRAELBP32, Fan/NotControled/220, Return Gas 32.2°C, Ambient 32.2°C , Liquid 32.2°C. Data in accordance to EN 12900:2013 and AHRI 540:2015 polynomial equation and uncertainty guidance.

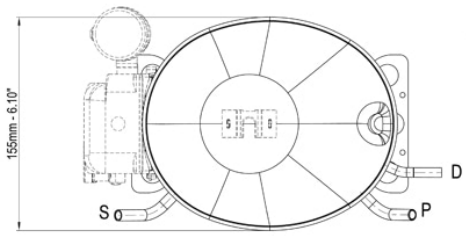
Operating Envelope

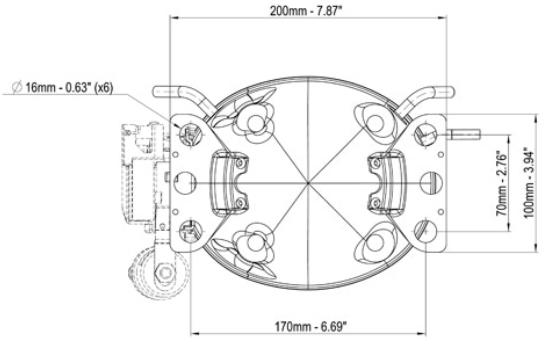


External Dimensions

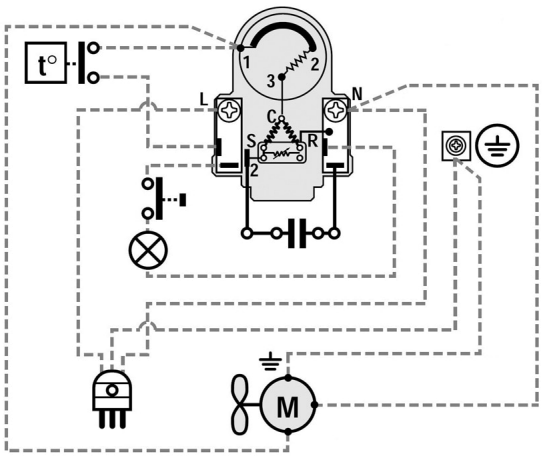


	∅ mm	∅ in	Material
S - Suction	6.10 - 6.20	0.24	Cu
P - Process	6.10 - 6.20	0.24	Cu
D - Discharge	4.90 - 5.02	0.19	Cu





Wiring Diagram



Assembly Instructions