

MODEL  
**EMX6181U**



APPROVALS



**ENGINEERING CODE**  
721BI80

**APPROVED REFRIGERANT**  
R-290

**POWER SUPPLY**  
220-240 V 50 Hz

**STANDARD CONDITIONS**  
ASHRAE

**APPLICATION**  
MBP

**COOLING CAPACITY**  
595 W (MBP)

**EFFICIENCY**  
2.05 W/W (MBP)

**MOTOR TYPE**  
CSIR

**STARTING TORQUE**  
HST

DATA

General Data

Type	Hermetic reciprocating
Technology Type	On-Off
Displacement	6.92 cm <sup>3</sup>
Compressor Cooling	Fan/NotControlled/220
Fan Air Flow	270 m <sup>3</sup> /h
Expansion Device	Capillary Tube or Expansion Valve
Horse Power	1/3 hp
Max Condensing Pressure Operating	18.07 bar
Max Condensing Pressure Peak	20.17 bar
Power Supply	220-240 V 50 Hz / 220-240 V 60 Hz
Evaporating Temperature Range	-20 °C to 10 °C

Electrical Data

Motor type	CSIR
Starting Torque	HST
Start Winding Resistance	17.7 Ω at 25° C
Run Winding Resistance	7.85 Ω at 25° C
Locked Rotor Amperage (LRA)	13 A

## 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 Kg
Free Internal Volume	1.5 L

## Electrical Components

	Description
Start Capacitor	53-64 Uf/330 V
Starting Device	Relay   MTRPH-0027-65*
Motor Protection	4TM319NFBYY-153

## External Characteristics

Base Plate	European	
Tray Holder	Yes	
Height	171 mm	
Connector	Internal Diameter	Shape
Suction	6.1 mm	Slanted 42°/Copper
Discharge	6.1 mm	Straight/Copper
Process	6.1 mm	Slanted 46°/Copper

## PERFORMANCE

## Rated Points

Condensing Temperature	Evaporating Temperature	Cooling Capacity	Power Consumption	Gas Flow Rate	Efficiency
54.40°C	-6.70°C	595 W	290 W	6.81 kg/h	2.05 W/W

Test Condition: ASHRAEMB46, Fan/NotControlled/220, Return Gas 35°C, Evaporation -6.70°C, Condensing 54.40°C, Ambient 35°C, Liquid 46.1°C, Subcooling 8.3K. Data are an indication of performance based simulation.

## Performance Curve Data

### Condensing Temperature 35°C

Evaporating Temperature °C	Cooling Capacity W	Power W	Gas Flow Rate kg/h	Efficiency W/W
-20	454	199	4.37	2.28
-15	558	214	5.40	2.61
-10	681	225	6.61	3.02
-5	822	234	8.02	3.51
0	983	240	9.64	4.1
5	1165	242	11.50	4.81
10	1367	241	13.60	5.67

Test Condition: ASHRAEMBP46, Fan/NotControlled/220, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

### Condensing Temperature 45°C

Evaporating Temperature °C	Cooling Capacity W	Power W	Gas Flow Rate kg/h	Efficiency W/W
-20	400	215	4.17	1.86
-15	492	235	5.14	2.1
-10	601	252	6.31	2.38
-5	727	267	7.67	2.72
0	871	280	9.24	3.11
5	1034	290	11.05	3.57
10	1216	297	13.10	4.09

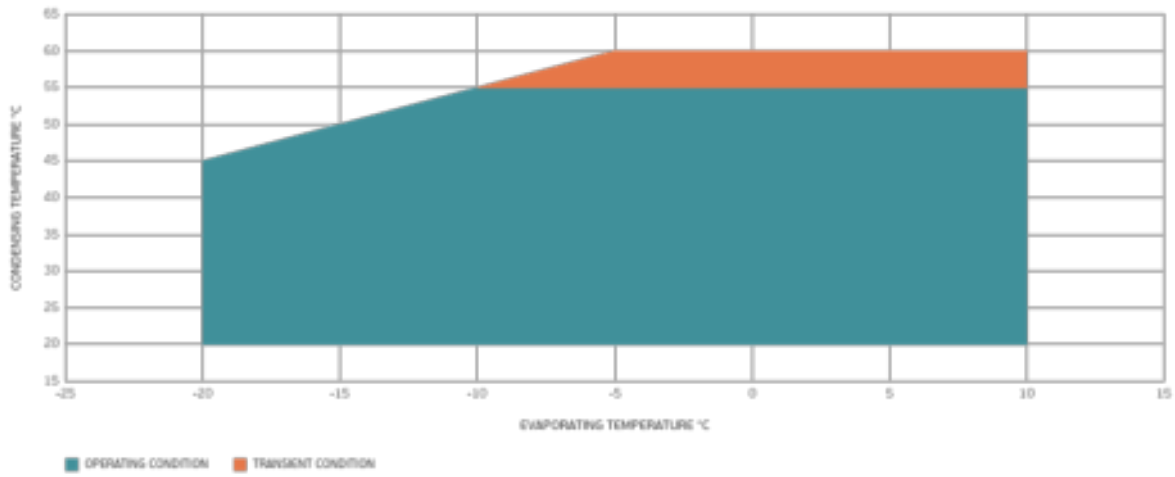
Test Condition: ASHRAEMBP46, Fan/NotControlled/220, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

### Condensing Temperature 55°C

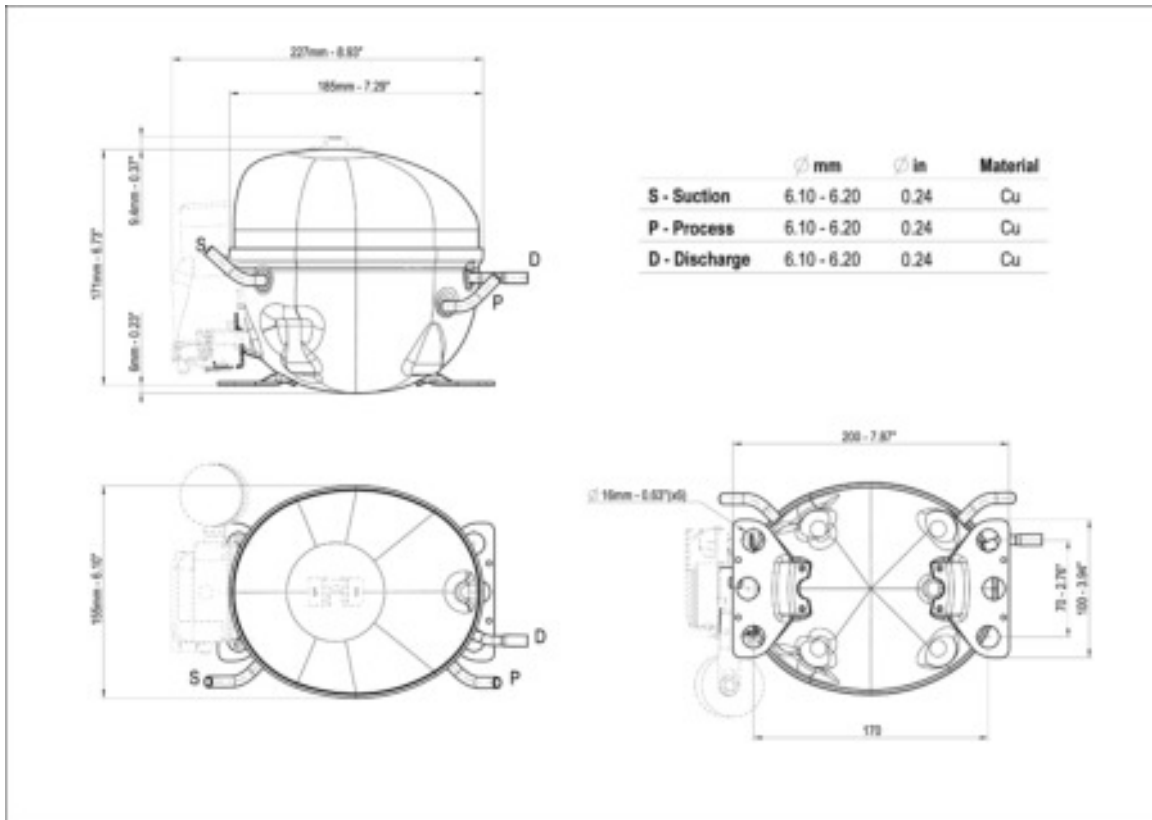
Evaporating Temperature °C	Cooling Capacity W	Power W	Gas Flow Rate kg/h	Efficiency W/W
-20	345	231	3.92	1.49
-15	425	255	4.85	1.67
-10	520	276	5.96	1.88
-5	630	296	7.26	2.13
0	756	314	8.78	2.4
5	900	331	10.52	2.72
10	1061	345	12.51	3.07

Test Condition: ASHRAEMBP46, Fan/NotControlled/220, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

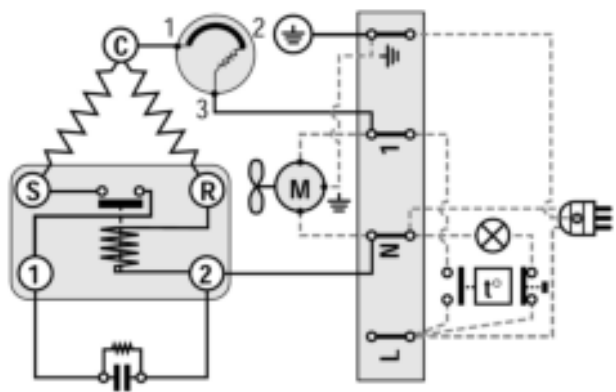
## Operating Envelope



## External Dimensions



## Wiring Diagram



## Assembly Instructions

