



**APPROVALS**



**ENGINEERING CODE**  
513306236

**APPROVED REFRIGERANT**  
R-290

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

**STANDARD CONDITIONS**  
ASHRAE

**APPLICATION**  
MBP

**COOLING CAPACITY**  
439 W (MBP)

**EFFICIENCY**  
1.86 W/W (MBP)

**MOTOR TYPE**  
CSIR

**STARTING TORQUE**  
HST

**DATA**

**General Data**

Type	Hermetic reciprocating
Technology Type	On-Off
Displacement	5.19 cm <sup>3</sup>
Compressor Cooling	Fan/NotControlled/220
Expansion Device	Capillary Tube or Expansion Valve
Horse Power	1/4 hp
Power Supply	220-240 V 50 Hz
Evaporating Temperature Range	-20 °C to 10 °C

**Electrical Data**

Motor type	CSIR
Starting Torque	HST
Start Winding Resistance	21.3 Ω at 25° C
Run Winding Resistance	12.95 Ω at 25° C

## Mechanical Data

Oil Charge	180 ml
Oil Type Configuration	ESTER
Oil Type Viscosity	ISO22
Weight	7.74 Kg

## Electrical Components

	Description
Starting Device	Relay   MTRP-34* QL2-3.95 ***
Motor Protection	T0250/G6
Start Capacitor	43-53 Uf/330 V

## External Characteristics

Tray Holder	Yes	
Connector	Internal Diameter	Shape
Suction	6.1 mm	Slanted 42° up + 45° to Back/Copper
Discharge	4.94 mm	Slanted parallel BP+24°to Back/Copper
Process	6.1 mm	Slanted 45° up + 45° to Back/Copper

## PERFORMANCE

## Rated Points

Condensing Temperature	Evaporating Temperature	Cooling Capacity	Power Consumption	Gas Flow Rate	Efficiency
54.40°C	-6.70°C	439 W	236 W	5.03 kg/h	1.86 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	407	164	3.92	2.47
-15	491	175	4.74	2.8
-10	593	185	5.75	3.21
-5	713	193	6.96	3.7
0	853	200	8.36	4.26
5	1010	206	9.97	4.9
10	1187	211	11.80	5.61

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	337	176	3.51	1.91
-15	404	191	4.22	2.12
-10	488	204	5.12	2.39
-5	588	217	6.20	2.71
0	705	229	7.49	3.08
5	840	241	8.98	3.48
10	992	253	10.69	3.92

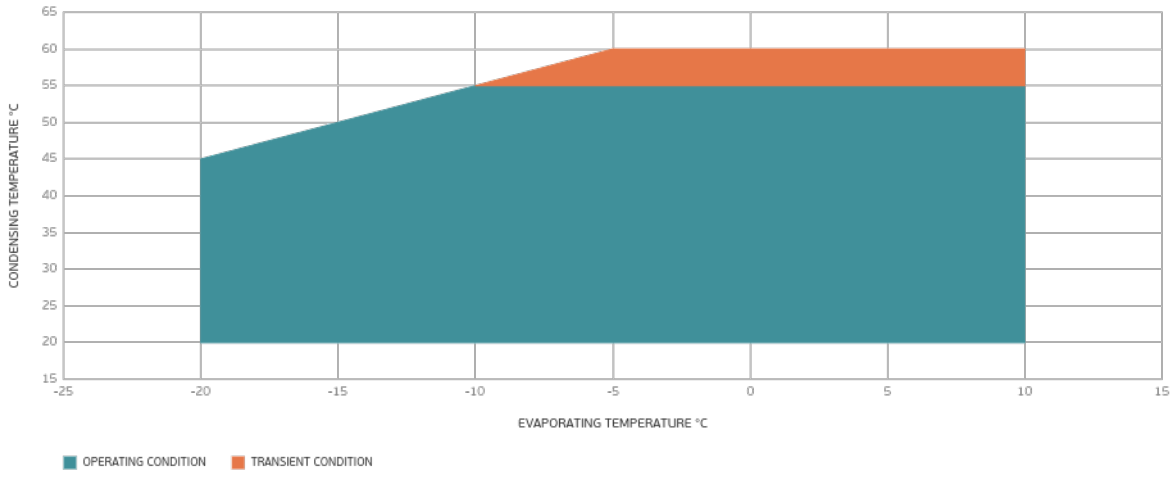
Test Condition: ASHRAEMBP46, Fan/NotControlled/220, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

### Condensing Temperature 55°C

Evaporating Temperature °C	Cooling Capacity W	Power W	Gas Flow Rate kg/h	Efficiency W/W
-20	269	194	3.06	1.39
-15	318	210	3.63	1.51
-10	383	226	4.39	1.7
-5	462	241	5.33	1.92
0	558	257	6.47	2.17
5	669	273	7.82	2.45
10	796	290	9.38	2.75

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

