COMPRESSOR DEFINITION

Designation	**EM T6165U**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513306249**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°F)	
5 Motor type	CSIR		
6 Starting torque	HST - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	18.4	[kgf/cm²] (262 psig)	/ ºC - ºF
9.2 Peak	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3-	[hp]
2 Displacement	5.96	[cm³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	7.75	[kg] (17.09 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-0025-65/QL2-5.15 **	
3 Start capacitor	64-77(320)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0571/G6	
6 Start winding resistance	18.99	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	9.92	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	12.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.20	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	1.50	[A] - Measured according to UL 984
11 Approval boards certification	CE - UKCA - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**EN12900MBP_HH** **Fan**		Evaporating temperature (Condensing temperature	**-10°C (14°F)** **45°C (113°F))**		
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
1654	417	485	247	1.74	5.57	6.70	1.69	1.96

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (Condensing temperature **35ºC (+95ºF))**
@220V50Hz **Fan**

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	**(- 4)**	1275	321	374	202	1.63	3.89	6.31	1.59	1.85
-15	**(+ 5)**	1549	390	454	213	1.66	4.76	7.26	1.83	2.13
-10	**(+14)**	1857	468	544	224	1.69	5.73	8.31	2.09	2.44
-5	**(+23)**	2212	557	648	233	1.72	6.85	9.49	2.39	2.78
0	**(+32)**	2628	662	770	243	1.75	8.19	10.83	2.73	3.17
+5	**(+41)**	3117	786	913	252	1.78	9.79	12.36	3.11	3.62
+10	**(+50)**	3695	931	1083	262	1.80	11.70	14.09	3.55	4.13

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V50Hz **Fan**

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	**(- 4)**	1113	281	326	216	1.67	3.71	5.18	1.31	1.52
-15	**(+ 5)**	1369	345	401	232	1.71	4.59	5.90	1.49	1.73
-10	**(+14)**	1653	416	484	247	1.74	5.57	6.68	1.68	1.96
-5	**(+23)**	1977	498	579	261	1.78	6.70	7.55	1.90	2.21
0	**(+32)**	2357	594	691	276	1.82	8.04	8.54	2.15	2.50
+5	**(+41)**	2805	707	822	290	1.86	9.64	9.66	2.44	2.83
+10	**(+50)**	3335	840	977	305	1.91	11.57	10.96	2.76	3.21

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V50Hz **Fan**

Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	**(- 4)**	970	244	284	233	1.72	3.59	4.15	1.05	1.22
-15	**(+ 5)**	1189	300	349	252	1.76	4.41	4.72	1.19	1.38
-10	**(+14)**	1431	361	419	270	1.81	5.33	5.31	1.34	1.56
-5	**(+23)**	1708	430	500	288	1.86	6.41	5.94	1.50	1.74
0	**(+32)**	2034	513	596	306	1.91	7.70	6.66	1.68	1.95
+5	**(+41)**	2422	610	710	324	1.97	9.26	7.47	1.88	2.19
+10	**(+50)**	2887	728	846	343	2.03	11.13	8.41	2.12	2.46

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42º up + 45° to Back		
3.2 DISCHARGE	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted parallet BP+24°to Back		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		