

COMPRESSOR DEFINITION

Designation	EM U65HLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513300209

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Low Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°F)	
5 Motor type	RSIR		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	Static	187 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	187 to 255 V	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	14.2	[kgf/cm ²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm ²] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	5.96	[cm ³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO7	
4 Weight (with oil charge)	7.4	[kg] (16.31 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA17C1/QPS2-A22MG1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM232NFBYY-53	
6 Start winding resistance	22.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	15.15	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	7.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.13	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	1.33	[A] - Measured according to UL 984
11 Approval boards certification	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Static		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 54.4°C (129.92°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]
631	159	185	126	0.84	3.59	5.01	1.26	1.47

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 45°C (+113°F))				
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]
-35 (-31)	357	90	105	93	0.65	2.02	3.84	0.97	1.13
-30 (-22)	498	125	146	111	0.71	2.82	4.48	1.13	1.31
-25 (-13)	668	168	196	132	0.78	3.79	5.06	1.28	1.48
-20 (- 4)	869	219	255	155	0.87	4.94	5.61	1.41	1.64
-15 (+ 5)	1103	278	323	179	0.96	6.30	6.15	1.55	1.80
-10 (+14)	1374	346	403	205	1.07	7.87	6.70	1.69	1.96

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 55°C (+131°F))				
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]
-35 (-31)	312	79	91	87	0.69	1.76	3.56	0.90	1.04
-30 (-22)	430	108	126	102	0.74	2.43	4.24	1.07	1.24
-25 (-13)	572	144	168	119	0.79	3.25	4.85	1.22	1.42
-20 (- 4)	741	187	217	138	0.86	4.22	5.41	1.36	1.59
-15 (+ 5)	939	237	275	158	0.93	5.36	5.95	1.50	1.74
-10 (+14)	1169	295	343	180	1.02	6.70	6.48	1.63	1.90

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 65°C (+149°F))				
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]
-35 (-31)	230	58	67	82	0.70	1.30	2.83	0.71	0.83
-30 (-22)	352	89	103	100	0.75	1.99	3.48	0.88	1.02
-25 (-13)	493	124	145	121	0.81	2.80	4.05	1.02	1.19
-20 (- 4)	658	166	193	144	0.89	3.74	4.56	1.15	1.34
-15 (+ 5)	846	213	248	168	0.97	4.83	5.03	1.27	1.47
-10 (+14)	1062	268	311	194	1.06	6.09	5.48	1.38	1.61

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 40° up + 45° to Back		
3.2 DISCHARGE	4.9 +0.10/-0.05	[mm]	(0.193" +0.004"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 24° to Back		
3.3 PROCESS	6.2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 40° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		