

### COMPRESSOR DEFINITION

Designation	EM 65HHC
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	513307217

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115 / 60	[ V / Hz ]	
4 Application type	Low-Medium-High Back Pressure		
4.1 Evaporating temperature range	-35°C to 15°C	(-31°F to 59°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	-	103 to 135 V
8.2 LBP (43°C Ambient temperature)	Static	-	103 to 135 V
8.3 HBP (32°C Ambient temperature)	Fan	-	103 to 135 V
8.4 HBP (43°C Ambient temperature)	Fan	-	103 to 135 V
9 Maximum condensing temperature			
9.1 Operating	14.2	[kgf/cm <sup>2</sup> ] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm <sup>2</sup> ] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/6+	[hp]
2 Displacement	5.54	[cm <sup>3</sup> ] (0.338 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	16.000	
3 Lubricant charge	200	[ml] (6.76 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	7	[kg] (15.43 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA14C3/8EA1B3/QPS2-A4R7MD3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM427NFBYY-53	
6 Start winding resistance	3.70	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.20	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	15.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	2.70	[A] - Measured according to UL 984
11 Approval boards certification	CE - UKCA - UL	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			ASHRAEHBP32 Static		Evaporating temperature (Condensing temperature)		7.2°C (44.96°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]	
2600	655	762	276	2.49		9.42	2.37	2.76	

TEST CONDITIONS: @115V60Hz			ASHRAEHBP32 Fan		Evaporating temperature (Condensing temperature)		7.2°C (44.96°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]	
2600	655	762	276	2.49		9.42	2.37	2.76	

TEST CONDITIONS: @115V60Hz			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]	
645	163	189	145	1.36	3.66	4.45	1.12	1.30	

TEST CONDITIONS: @115V60Hz			ASHRAELBP32 Fan		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]	
645	163	189	145	1.36	3.66	4.45	1.12	1.30	

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ASHRAE32 Fan				(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]
-35	(-31)	337	85	99	107	1.04	1.90	3.11	0.78	0.91
-30	(-22)	446	112	131	123	1.14	2.54	3.67	0.92	1.08
-25	(-13)	600	151	176	138	1.25	3.42	4.39	1.11	1.29
-20	(- 4)	800	202	234	153	1.38	4.55	5.25	1.32	1.54
-15	(+ 5)	1046	264	306	169	1.51	5.96	6.19	1.56	1.81
-10	(+14)	1338	337	392	185	1.66	7.66	7.21	1.82	2.11
-5	(+23)	1678	423	492	203	1.82	9.65	8.26	2.08	2.42
0	(+32)	2066	521	605	222	2.00	11.94	9.32	2.35	2.73
+5	(+41)	2502	631	733	242	2.18	14.56	10.35	2.61	3.03
+10	(+50)	2988	753	875	264	2.38	17.51	11.33	2.85	3.32
+15	(+59)	3523	888	1032	288	2.59	20.80	12.22	3.08	3.58

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ASHRAE32 Fan			(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)	305	77	89	105	1.04	1.72	2.89	0.73	0.85
-30	(-22)	407	102	119	123	1.16	2.31	3.34	0.84	0.98
-25	(-13)	554	140	162	141	1.29	3.15	3.95	1.00	1.16
-20	(- 4)	746	188	219	159	1.44	4.25	4.69	1.18	1.37
-15	(+ 5)	984	248	288	177	1.59	5.61	5.52	1.39	1.62
-10	(+14)	1269	320	372	197	1.76	7.26	6.42	1.62	1.88
-5	(+23)	1601	403	469	217	1.95	9.20	7.35	1.85	2.15
0	(+32)	1980	499	580	239	2.14	11.45	8.29	2.09	2.43
+5	(+41)	2409	607	706	262	2.35	14.01	9.21	2.32	2.70
+10	(+50)	2886	727	846	287	2.57	16.91	10.06	2.54	2.95
+15	(+59)	3413	860	1000	315	2.80	20.15	10.84	2.73	3.18

TEST CONDITIONS: @115V60Hz		ASHRAE32 Fan			(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)	259	65	76	101	0.99	1.46	2.59	0.65	0.76
-30	(-22)	352	89	103	121	1.14	2.00	2.95	0.74	0.86
-25	(-13)	490	123	144	142	1.31	2.79	3.46	0.87	1.01
-20	(- 4)	673	170	197	163	1.48	3.83	4.10	1.03	1.20
-15	(+ 5)	902	227	264	185	1.67	5.14	4.84	1.22	1.42
-10	(+14)	1177	297	345	207	1.87	6.73	5.64	1.42	1.65
-5	(+23)	1499	378	439	231	2.09	8.62	6.47	1.63	1.90
0	(+32)	1869	471	548	256	2.31	10.81	7.31	1.84	2.14
+5	(+41)	2288	577	670	283	2.55	13.31	8.12	2.05	2.38
+10	(+50)	2755	694	807	312	2.80	16.14	8.88	2.24	2.60
+15	(+59)	3272	825	959	343	3.06	19.31	9.55	2.41	2.80

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal AMEM		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Straight		
3.2 DISCHARGE	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted		
3.3 PROCESS	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		