

COMPRESSOR DEFINITION

Designation	EG 75HLR
Nominal Voltage/Frequency	220-240 V 50-60 Hz
Engineering Number	513700299

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 50-60	[V / Hz]	
4 Application type	Low-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°F)	
5 Motor type	RSIR-CSIR		
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)	-	187 to 242 V	
8.2 LBP (43°C Ambient temperature)	-	187 to 242 V	
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm ²] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	6.76	[cm ³] (0.413 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	17.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	11.2	[kg] (24.69 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50-60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516159/213516353	
3 Start capacitor	64-77(220)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM319KFBYY-53	
6 Start winding resistance	43.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	10.35	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	12.80/11.90	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	1.70/1.50	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IRAM - TUV - 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]
684	172	200	141	1.08	3.89	4.87	1.23	1.43

TEST CONDITIONS: @220V60Hz			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]
805	203	236	161	1.04	4.57	5.00	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)	385	97	113	96	0.98	2.18	4.01	1.01	1.18
-30 (-22)	502	127	147	112	1.01	2.84	4.52	1.14	1.32
-25 (-13)	667	168	195	129	1.05	3.79	5.19	1.31	1.52
-20 (- 4)	878	221	257	146	1.09	4.99	5.99	1.51	1.76
-15 (+ 5)	1131	285	331	163	1.14	6.46	6.90	1.74	2.02
-10 (+14)	1425	359	418	180	1.20	8.17	7.88	1.99	2.31
-5 (+23)	1757	443	515	198	1.26	10.11	8.91	2.24	2.61

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)	338	85	99	96	0.98	1.91	3.52	0.89	1.03
-30 (-22)	460	116	135	115	1.02	2.61	4.03	1.02	1.18
-25 (-13)	619	156	181	134	1.06	3.51	4.63	1.17	1.36
-20 (- 4)	812	205	238	154	1.11	4.62	5.28	1.33	1.55
-15 (+ 5)	1036	261	304	174	1.18	5.91	5.97	1.50	1.75
-10 (+14)	1290	325	378	194	1.25	7.39	6.65	1.68	1.95
-5 (+23)	1570	396	460	215	1.32	9.03	7.31	1.84	2.14

E - PERFORMANCE - CURVES

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]
-35	(-31)	255	64	75	89	0.97	1.44	2.88	0.72	0.84
-30	(-22)	397	100	116	113	1.01	2.25	3.46	0.87	1.01
-25	(-13)	564	142	165	137	1.07	3.20	4.06	1.02	1.19
-20	(- 4)	754	190	221	162	1.14	4.29	4.65	1.17	1.36
-15	(+ 5)	965	243	283	187	1.22	5.51	5.18	1.31	1.52
-10	(+14)	1193	301	350	213	1.31	6.83	5.65	1.42	1.65
-5	(+23)	1437	362	421	239	1.41	8.27	6.00	1.51	1.76

TEST CONDITIONS: @220V60Hz		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]
-35	(-31)	410	103	120	102	0.87	2.32	4.00	1.01	1.17
-30	(-22)	572	144	168	124	0.92	3.24	4.63	1.17	1.36
-25	(-13)	778	196	228	147	1.00	4.42	5.32	1.34	1.56
-20	(- 4)	1030	260	302	170	1.09	5.86	6.05	1.53	1.77
-15	(+ 5)	1332	336	390	195	1.19	7.60	6.84	1.72	2.01
-10	(+14)	1685	425	494	219	1.29	9.66	7.69	1.94	2.25
-5	(+23)	2093	527	613	244	1.39	12.04	8.58	2.16	2.52

TEST CONDITIONS: @220V60Hz		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]
-35	(-31)	352	89	103	103	0.88	1.99	3.45	0.87	1.01
-30	(-22)	508	128	149	125	0.93	2.88	4.05	1.02	1.19
-25	(-13)	707	178	207	151	1.01	4.01	4.67	1.18	1.37
-20	(- 4)	952	240	279	178	1.11	5.42	5.32	1.34	1.56
-15	(+ 5)	1244	313	364	207	1.22	7.10	5.98	1.51	1.75
-10	(+14)	1587	400	465	238	1.34	9.09	6.68	1.68	1.96
-5	(+23)	1983	500	581	269	1.47	11.41	7.39	1.86	2.17

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz		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)	290	73	85	96	0.85	1.64	3.02	0.76	0.88
-30	(-22)	433	109	127	122	0.91	2.45	3.55	0.89	1.04
-25	(-13)	618	156	181	152	1.01	3.51	4.07	1.03	1.19
-20	(- 4)	847	213	248	185	1.13	4.82	4.58	1.15	1.34
-15	(+ 5)	1123	283	329	221	1.28	6.41	5.09	1.28	1.49
-10	(+14)	1448	365	424	259	1.44	8.30	5.59	1.41	1.64
-5	(+23)	1826	460	535	300	1.61	10.50	6.08	1.53	1.78

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
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	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
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		