COMPRESSOR DEFINITION

Designation	**ER US60HLP**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513305075**

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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	Static	198 to 255 V	-
8.2 LBP (43ºC Ambient temperature)	Static	198 to 255 V	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16,2	[kgf/cm²] (230 psig)	/ ºC - ºF
9.2 Peak (gauge)	20,6	[kgf/cm²] (293 psig)	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/6	[hp]
2 Displacement	5,19	[cm³] (0.317 cu.in)
2.1 Bore [mm]	21,000	
2.2 Stroke [mm]	15,000	
3 Lubricant charge	160	[ml] (5.41 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	7,68	[kg] (16.93 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	PTC	
2.1 Starting device	8EA17C1/QPS2-A22MG1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM213PFBYY-53	
6 Start winding resistance	21.78	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	22.22	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IRAM	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAELBP32**		Evaporating temperature	**-23,3°C (-9,94°F)**		
@220V50Hz			**Static**		(Condensing temperature	**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]
492	124	144	117	0,91	2,80	4,22	1,06	1,24

TEST CONDITIONS:			**SISTEMA**		Evaporating temperature	**-27°C (-16,6°F)**		
@220V50Hz			**Static**		(Condensing temperature	**42°C (107,6°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]
451	114	132	102	0,88	2,56	4,44	1,12	1,30

E - PERFORMANCE - CURVES

TEST CONDITIONS:			**ASHRAE32**			(Condensing temperature **35ºC (+95ºF))**				
@220V50Hz			**Static**							
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)**	282	71	83	81	0,85	1,59	3,45	0,87	1,01
-30	**(-22)**	397	100	116	93	0,87	2,25	4,27	1,08	1,25
-25	**(-13)**	539	136	158	105	0,89	3,06	5,16	1,30	1,51
-20	**(- 4)**	711	179	208	117	0,91	4,05	6,12	1,54	1,79
-15	**(+ 5)**	912	230	267	128	0,94	5,21	7,17	1,81	2,10
-10	**(+14)**	1144	288	335	138	0,96	6,56	8,31	2,09	2,44

TEST CONDITIONS:			**ASHRAE32**			(Condensing temperature **45ºC (+113ºF))**				
@220V50Hz			**Static**							
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)**	254	64	74	82	0,85	1,43	3,10	0,78	0,91
-30	**(-22)**	362	91	106	94	0,87	2,05	3,84	0,97	1,13
-25	**(-13)**	499	126	146	108	0,89	2,83	4,62	1,16	1,35
-20	**(- 4)**	665	168	195	122	0,92	3,79	5,44	1,37	1,59
-15	**(+ 5)**	862	217	253	136	0,96	4,92	6,32	1,59	1,85
-10	**(+14)**	1090	275	319	150	0,99	6,24	7,25	1,83	2,13

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55ºC (+131ºF))**
@220V50Hz **Static**

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)**	221	56	65	82	0,85	1,25	2,69	0,68	0,79
-30	**(-22)**	322	81	94	95	0,87	1,83	3,40	0,86	1,00
-25	**(-13)**	452	114	133	110	0,89	2,57	4,10	1,03	1,20
-20	**(- 4)**	612	154	179	127	0,93	3,49	4,82	1,21	1,41
-15	**(+ 5)**	803	202	235	144	0,98	4,59	5,55	1,40	1,63
-10	**(+14)**	1027	259	301	162	1,03	5,88	6,32	1,59	1,85

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@220V50Hz **Static**

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)**	179	45	53	81	0,85	1,01	2,22	0,56	0,65
-30	**(-22)**	272	69	80	94	0,86	1,54	2,92	0,74	0,86
-25	**(-13)**	394	99	116	110	0,89	2,24	3,59	0,90	1,05
-20	**(- 4)**	547	138	160	129	0,93	3,11	4,24	1,07	1,24
-15	**(+ 5)**	732	184	214	150	0,99	4,18	4,87	1,23	1,43
-10	**(+14)**	949	239	278	172	1,06	5,44	5,50	1,39	1,61

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EUEM		
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		