COMPRESSOR DEFINITION

Designation	**EM U32CLC**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**893BA75**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220-240 / 50	[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		
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 254 V	-
8.2 LBP (43ºC Ambient temperature)	Static	198 to 254 V	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm²] (109 psig)	/ ºC - ºF
9.2 Peak (gauge)	9.8	[kgf/cm²] (139 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[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	MINERAL / ISO7	
4 Weight (with oil charge)	7.1	[kg] (15.65 lb.)
5 Nitrogen charge	-	[kgf/cm²]

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	MSDA3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM110NFBYY-53	
6 Start winding resistance	28.30	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	38.90	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	2.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.44	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	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]
330	83	97	71	0.45	1.04	4.68	1.18	1.37

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)**	200	50	59	52	0.39	0.63	3.84	0.97	1.13
-30	**(-22)**	266	67	78	57	0.41	0.83	4.64	1.17	1.36
-25	**(-13)**	346	87	101	64	0.42	1.09	5.47	1.38	1.60
-20	**(- 4)**	442	111	130	70	0.44	1.39	6.35	1.60	1.86
-15	**(+ 5)**	556	140	163	76	0.46	1.75	7.29	1.84	2.14
-10	**(+14)**	689	174	202	83	0.48	2.17	8.30	2.09	2.43
-5	**(+23)**	843	212	247	89	0.51	2.66	9.40	2.37	2.76

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)**	180	45	53	52	0.39	0.56	3.46	0.87	1.01
-30	**(-22)**	247	62	72	59	0.41	0.77	4.20	1.06	1.23
-25	**(-13)**	328	83	96	66	0.43	1.03	4.94	1.24	1.45
-20	**(- 4)**	425	107	124	74	0.45	1.33	5.70	1.44	1.67
-15	**(+ 5)**	538	136	158	83	0.48	1.69	6.49	1.63	1.90
-10	**(+14)**	670	169	196	92	0.51	2.11	7.31	1.84	2.14
-5	**(+23)**	822	207	241	101	0.55	2.60	8.19	2.06	2.40

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)**	156	39	46	52	0.39	0.49	3.03	0.76	0.89
-30	**(-22)**	223	56	65	60	0.41	0.70	3.74	0.94	1.10
-25	**(-13)**	303	76	89	68	0.44	0.95	4.42	1.12	1.30
-20	**(- 4)**	397	100	116	78	0.47	1.25	5.09	1.28	1.49
-15	**(+ 5)**	508	128	149	88	0.50	1.60	5.75	1.45	1.68
-10	**(+14)**	637	161	187	99	0.54	2.01	6.41	1.62	1.88
-5	**(+23)**	786	198	230	111	0.59	2.49	7.09	1.79	2.08

E - PERFORMANCE - CURVES

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)**	129	33	38	50	0.38	0.41	2.55	0.64	0.75
-30	**(-22)**	193	49	57	59	0.41	0.61	3.27	0.82	0.96
-25	**(-13)**	270	68	79	69	0.44	0.85	3.92	0.99	1.15
-20	**(- 4)**	360	91	106	80	0.48	1.13	4.51	1.14	1.32
-15	**(+ 5)**	467	118	137	92	0.52	1.47	5.07	1.28	1.49
-10	**(+14)**	591	149	173	106	0.57	1.86	5.60	1.41	1.64
-5	**(+23)**	734	185	215	120	0.63	2.32	6.11	1.54	1.79

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
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 42°		
3.2 DISCHARGE	5.02 +0.02/-0.02	[mm]	(0.198" +0.001"/-0.001")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6 +0.08/-0.08	[mm]	(0.236" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		