COMPRESSOR DEFINITION

Designation	**EM X55CLC**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**701PA90**

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 Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°F)	
5 Motor type	RSCR		
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	187 to 255 V	-
8.2 LBP (43ºC Ambient temperature)	Static	187 to 255 V	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm²] (98 psig)	/ ºC - ºF
9.2 Peak	7.8	[kgf/cm²] (111 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	9.04	[cm³] (0.552 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	7.6	[kg] (16.75 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	TSD	
2.1 Starting device	TSD-220V/TSD2-220V1.2/TSD2-D-220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(350)/4(350)	[µF(VAC minimum)]
5 Motor protection	CP4TMC212N61A5	
6 Start winding resistance	16.55	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	25.00	[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	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**ASHRAE LBP-NOFAN** **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]
532	134	156	90	0.42	1.67	5.94	1.50	1.74

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32-NOFAN** (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)**	305	77	89	62	0.30	0.95	4.86	1.22	1.42
-30	**(-22)**	401	101	118	72	0.34	1.26	5.59	1.41	1.64
-25	**(-13)**	523	132	153	81	0.38	1.64	6.47	1.63	1.89
-20	**(- 4)**	671	169	197	90	0.42	2.11	7.47	1.88	2.19
-15	**(+ 5)**	846	213	248	99	0.47	2.66	8.60	2.17	2.52
-10	**(+14)**	1049	264	307	107	0.51	3.31	9.85	2.48	2.89

TEST CONDITIONS: **ASHRAE32-NOFAN** (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)**	286	72	84	61	0.30	0.90	4.72	1.19	1.38
-30	**(-22)**	386	97	113	72	0.35	1.21	5.38	1.36	1.58
-25	**(-13)**	511	129	150	83	0.40	1.60	6.15	1.55	1.80
-20	**(- 4)**	663	167	194	94	0.45	2.08	7.01	1.77	2.05
-15	**(+ 5)**	842	212	247	106	0.50	2.65	7.95	2.00	2.33
-10	**(+14)**	1049	264	307	117	0.56	3.31	8.97	2.26	2.63

TEST CONDITIONS: **ASHRAE32-NOFAN** (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)**	266	67	78	61	0.31	0.83	4.39	1.11	1.29
-30	**(-22)**	363	91	106	72	0.36	1.14	5.02	1.27	1.47
-25	**(-13)**	487	123	143	85	0.41	1.53	5.71	1.44	1.67
-20	**(- 4)**	637	161	187	98	0.47	2.00	6.45	1.63	1.89
-15	**(+ 5)**	816	206	239	112	0.53	2.57	7.24	1.82	2.12
-10	**(+14)**	1023	258	300	127	0.60	3.23	8.07	2.03	2.37

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32-NOFAN** (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)**	242	61	71	61	0.31	0.76	3.96	1.00	1.16
-30	**(-22)**	333	84	97	73	0.36	1.04	4.58	1.16	1.34
-25	**(-13)**	450	113	132	86	0.42	1.41	5.23	1.32	1.53
-20	**(- 4)**	594	150	174	101	0.48	1.87	5.89	1.48	1.72
-15	**(+ 5)**	767	193	225	117	0.56	2.41	6.55	1.65	1.92
-10	**(+14)**	968	244	284	134	0.63	3.06	7.22	1.82	2.12

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	Yes		
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 42º up + 45° to Back		
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	Slanted 0° up + 45° to Back		
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 43° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		