

COMPRESSOR DEFINITION

Designation	NB T1114Y
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	810CA52

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	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	198 to 254 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 to 254 V	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm ²] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm ²] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	9.99	[cm ³] (0.610 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	18.120	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	10.15	[kg] (22.38 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

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	2019	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	AD23FQ10	
6 Start winding resistance	23.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	15.40	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.63	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]
409	103	120	107	0.68	1.56	3.82	0.96	1.12

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF Static				(Condensing temperature 35°C (+95°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)	311	78	91	78	0.60	0.99	4.02	1.01	1.18
-30 (-22)	419	106	123	86	0.62	1.34	4.88	1.23	1.43
-25 (-13)	555	140	163	97	0.65	1.78	5.73	1.44	1.68
-20 (- 4)	718	181	210	109	0.70	2.31	6.57	1.66	1.93
-15 (+ 5)	909	229	266	122	0.74	2.93	7.44	1.88	2.18
-10 (+14)	1128	284	330	135	0.79	3.64	8.36	2.11	2.45

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	270	68	79	77	0.60	0.94	3.47	0.87	1.02
-30 (-22)	366	92	107	88	0.63	1.27	4.15	1.05	1.22
-25 (-13)	487	123	143	101	0.68	1.70	4.80	1.21	1.41
-20 (- 4)	633	160	185	116	0.73	2.21	5.43	1.37	1.59
-15 (+ 5)	804	203	236	133	0.79	2.81	6.06	1.53	1.78
-10 (+14)	1001	252	293	150	0.84	3.50	6.73	1.69	1.97

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	215	54	63	83	0.61	0.82	2.60	0.66	0.76
-30 (-22)	301	76	88	94	0.64	1.14	3.24	0.82	0.95
-25 (-13)	410	103	120	108	0.69	1.56	3.81	0.96	1.12
-20 (- 4)	542	136	159	124	0.75	2.07	4.36	1.10	1.28
-15 (+ 5)	696	175	204	142	0.82	2.66	4.89	1.23	1.43
-10 (+14)	874	220	256	160	0.88	3.35	5.44	1.37	1.59

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	164	41	48	85	0.61	0.69	1.92	0.48	0.56
-30	(-22)	244	61	71	93	0.65	1.03	2.63	0.66	0.77
-25	(-13)	344	87	101	105	0.70	1.45	3.28	0.83	0.96
-20	(- 4)	464	117	136	120	0.77	1.97	3.87	0.98	1.14
-15	(+ 5)	604	152	177	136	0.83	2.57	4.44	1.12	1.30
-10	(+14)	766	193	224	153	0.90	3.26	5.00	1.26	1.46

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	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted parallel to Base Plate		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		