COMPRESSOR DEFINITION

Designation	**NB T1116Y**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**815EA63**

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 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	12.11	[cm³] (0.739 cu.in)
2.1 Bore [mm]	27.775	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	10.72	[kg] (23.63 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	T0521/07	
6 Start winding resistance	20.90	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	17.80	[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**			**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]
522	132	153	125	0.78	1.99	4.18	1.05	1.22

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz**		**CECOMAF** **Static**				(Condensing temperature **35ºC (+95ºF))**				
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)**	405	102	119	84	0.66	1.30	4.77	1.20	1.40
-30	**(-22)**	525	132	154	99	0.70	1.68	5.32	1.34	1.56
-25	**(-13)**	682	172	200	114	0.74	2.19	6.03	1.52	1.77
-20	**(- 4)**	878	221	257	128	0.79	2.82	6.90	1.74	2.02
-15	**(+ 5)**	1113	281	326	141	0.83	3.58	7.90	1.99	2.31
-10	**(+14)**	1389	350	407	154	0.88	4.48	9.03	2.28	2.65

TEST CONDITIONS: **@220V50Hz**		**CECOMAF** **Static**				(Condensing temperature **45ºC (+113ºF))**				
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)**	358	90	105	88	0.67	1.24	4.06	1.02	1.19
-30	**(-22)**	464	117	136	104	0.71	1.62	4.47	1.13	1.31
-25	**(-13)**	603	152	177	121	0.76	2.10	4.99	1.26	1.46
-20	**(- 4)**	775	195	227	137	0.82	2.70	5.61	1.41	1.64
-15	**(+ 5)**	983	248	288	155	0.88	3.43	6.33	1.60	1.85
-10	**(+14)**	1226	309	359	172	0.95	4.29	7.13	1.80	2.09

TEST CONDITIONS: **@220V50Hz**		**CECOMAF** **Static**				(Condensing temperature **55ºC (+131ºF))**				
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)**	303	76	89	91	0.68	1.15	3.35	0.84	0.98
-30	**(-22)**	397	100	116	108	0.72	1.51	3.69	0.93	1.08
-25	**(-13)**	519	131	152	127	0.78	1.98	4.09	1.03	1.20
-20	**(- 4)**	671	169	197	147	0.85	2.56	4.56	1.15	1.34
-15	**(+ 5)**	853	215	250	168	0.93	3.26	5.07	1.28	1.49
-10	**(+14)**	1066	269	312	189	1.02	4.09	5.63	1.42	1.65

E - PERFORMANCE - CURVES

TEST CONDITIONS: **CECOMAF** (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)**	238	60	70	93	0.68	1.00	2.54	0.64	0.74
-30	**(-22)**	322	81	94	111	0.73	1.36	2.89	0.73	0.85
-25	**(-13)**	430	108	126	132	0.80	1.82	3.26	0.82	0.95
-20	**(- 4)**	562	142	165	155	0.89	2.38	3.64	0.92	1.07
-15	**(+ 5)**	721	182	211	180	0.98	3.06	4.03	1.02	1.18
-10	**(+14)**	906	228	265	206	1.09	3.86	4.41	1.11	1.29

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 +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		