COMPRESSOR DEFINITION

Designation	**NB 1117Z**
Nominal Voltage/Frequency	**200-240 V 50 Hz / 230 V 60 Hz**
Engineering Number	**294RN42**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200-240 / 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	180 to 254 V	207 to 253 V
8.2 LBP (43ºC Ambient temperature)	Static	180 to 254 V	207 to 253 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)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	8.39	[cm³] (0.512 cu.in)
2.1 Bore [mm]	24.282	
2.2 Stroke [mm]	18.120	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	10.4	[kg] (22.93 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-240 V 50 Hz / 230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-34	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0175/G5	
6 Start winding resistance	39.37	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	7.89	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	13.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.18	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@200V50Hz**			**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]
623	157	183	161	1.16	3.54	3.87	0.98	1.13

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@200V50Hz** — **ASHRAE32** **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)**	372	94	109	107	0.98	2.10	3.48	0.88	1.02
-30	**(-22)**	506	128	148	126	1.04	2.87	4.04	1.02	1.18
-25	**(-13)**	670	169	196	147	1.11	3.81	4.57	1.15	1.34
-20	**(- 4)**	871	219	255	171	1.20	4.96	5.10	1.28	1.49
-15	**(+ 5)**	1113	280	326	196	1.29	6.35	5.66	1.43	1.66
-10	**(+14)**	1403	354	411	221	1.40	8.04	6.31	1.59	1.85

TEST CONDITIONS: **@200V50Hz** — **ASHRAE32** **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)**	321	81	94	105	0.98	1.82	3.07	0.77	0.90
-30	**(-22)**	457	115	134	125	1.04	2.59	3.65	0.92	1.07
-25	**(-13)**	618	156	181	149	1.12	3.51	4.14	1.04	1.21
-20	**(- 4)**	812	205	238	176	1.22	4.62	4.60	1.16	1.35
-15	**(+ 5)**	1045	263	306	205	1.33	5.96	5.06	1.28	1.48
-10	**(+14)**	1321	333	387	236	1.46	7.57	5.56	1.40	1.63

TEST CONDITIONS: **@200V50Hz** — **ASHRAE32** **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)**	261	66	76	100	0.96	1.48	2.61	0.66	0.76
-30	**(-22)**	398	100	116	123	1.03	2.25	3.23	0.81	0.95
-25	**(-13)**	557	140	163	149	1.13	3.16	3.73	0.94	1.09
-20	**(- 4)**	744	188	218	180	1.24	4.24	4.15	1.05	1.22
-15	**(+ 5)**	966	244	283	214	1.37	5.52	4.53	1.14	1.33
-10	**(+14)**	1229	310	360	250	1.53	7.04	4.91	1.24	1.44

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@200V50Hz **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)**	187	47	55	94	0.93	1.06	1.98	0.50	0.58
-30	**(-22)**	325	82	95	119	1.01	1.84	2.68	0.67	0.78
-25	**(-13)**	481	121	141	149	1.12	2.73	3.21	0.81	0.94
-20	**(- 4)**	663	167	194	183	1.25	3.77	3.63	0.91	1.06
-15	**(+ 5)**	874	220	256	222	1.41	4.99	3.96	1.00	1.16
-10	**(+14)**	1122	283	329	264	1.59	6.43	4.26	1.07	1.25

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	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
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		