COMPRESSOR DEFINITION

Designation	**NE K2116Z**
Nominal Voltage/Frequency	**115 V 60 Hz**
Engineering Number	**267FG90**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115 / 60	[V / Hz]	
4 Application type	Low Back Pressure R134a		
4.1 Evaporating temperature range	-30°C to -5°C	(-22°F to 23°F)	
5 Motor type	CSIR		
6 Starting torque	HST - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	14.2	[kgf/cm²] (202 psig)	/ ºC - ºF
9.2 Peak	15.9	[kgf/cm²] (226 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	7.37	[cm³] (0.450 cu.in)
2.1 Bore [mm]	24.282	
2.2 Stroke [mm]	15.920	
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	[kg] (22.05 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-0048	
3 Start capacitor	145-175(250)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0919/J5	
6 Start winding resistance	8.30	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.00	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	22.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@115V60Hz**			**ARILBP** **Static**		Evaporating temperature (Condensing temperature	**-23.3°C (-9.94°F)** **48.9°C (120.02°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]
584	147	171	186	2.90	4.49	3.14	0.79	0.92

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@115V60Hz**		**ARI4** **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]
-30	**(-22)**	506	127	148	148	2.72	3.35	3.43	0.86	1.00
-25	**(-13)**	697	176	204	172	2.84	4.66	4.05	1.02	1.19
-20	**(- 4)**	928	234	272	196	2.96	6.22	4.72	1.19	1.38
-15	**(+ 5)**	1197	302	351	221	3.10	8.06	5.42	1.37	1.59
-10	**(+14)**	1505	379	441	246	3.26	10.19	6.11	1.54	1.79
-5	**(+23)**	1853	467	543	273	3.45	12.62	6.77	1.71	1.98

TEST CONDITIONS: **@115V60Hz**		**ARI4** **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]
-30	**(-22)**	417	105	122	152	2.77	3.07	2.73	0.69	0.80
-25	**(-13)**	577	145	169	177	2.89	4.25	3.25	0.82	0.95
-20	**(- 4)**	780	197	229	203	3.03	5.76	3.83	0.97	1.12
-15	**(+ 5)**	1025	258	300	231	3.18	7.61	4.44	1.12	1.30
-10	**(+14)**	1312	331	385	261	3.35	9.82	5.04	1.27	1.48
-5	**(+23)**	1643	414	481	293	3.54	12.39	5.61	1.41	1.64

TEST CONDITIONS: **@115V60Hz**		**ARI4** **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]
-30	**(-22)**	295	74	86	154	2.78	2.43	1.92	0.48	0.56
-25	**(-13)**	432	109	127	181	2.94	3.57	2.40	0.60	0.70
-20	**(- 4)**	615	155	180	210	3.10	5.10	2.93	0.74	0.86
-15	**(+ 5)**	844	213	247	241	3.28	7.05	3.49	0.88	1.02
-10	**(+14)**	1118	282	328	276	3.47	9.41	4.05	1.02	1.19
-5	**(+23)**	1439	363	422	314	3.68	12.21	4.58	1.16	1.34

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.1 +0.10/+0.00	[mm]	(0.319" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +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		