

COMPRESSOR DEFINITION

Designation	NE K2134U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	862AA51

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Low Back Pressure R290		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°F)	
5 Motor type	CSIR		
6 Starting torque	HST - High starting torque		
7 Expansion device	Capillary tube or Expansion valve		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	19.1	[kgf/cm ²] (272 psig)	/ °C - °F
9.2 Peak (gauge)	21.2	[kgf/cm ²] (301 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[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	ESTER / ISO22	
4 Weight (with oil charge)	11	[kg] (24.25 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH0027-59	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0168/G6	
6 Start winding resistance	30.56	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	6.18	[Ω at 25°C (77°F)] +/- 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	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Fan		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]
1533	386	449	330	2.04	4.56	4.65	1.17	1.36

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE32 Fan		(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]
-40	(-40)	836	211	245	176	1.28	2.47	4.72	1.19	1.38
-35	(-31)	1015	256	297	216	1.45	3.00	4.72	1.19	1.38
-30	(-22)	1266	319	371	253	1.62	3.75	5.01	1.26	1.47
-25	(-13)	1589	400	466	285	1.77	4.73	5.57	1.40	1.63
-20	(- 4)	1985	500	582	313	1.92	5.92	6.34	1.60	1.86
-15	(+ 5)	2452	618	718	338	2.05	7.35	7.28	1.83	2.13
-10	(+14)	2990	754	876	358	2.19	9.00	8.34	2.10	2.44

TEST CONDITIONS: @220V50Hz			ASHRAE32 Fan		(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]
-40	(-40)	792	200	232	193	1.38	2.34	4.11	1.04	1.21
-35	(-31)	960	242	281	231	1.56	2.84	4.17	1.05	1.22
-30	(-22)	1198	302	351	267	1.72	3.55	4.47	1.13	1.31
-25	(-13)	1505	379	441	301	1.88	4.48	4.97	1.25	1.46
-20	(- 4)	1882	474	551	334	2.03	5.62	5.63	1.42	1.65
-15	(+ 5)	2328	587	682	365	2.17	6.97	6.39	1.61	1.87
-10	(+14)	2843	716	833	394	2.31	8.55	7.23	1.82	2.12

TEST CONDITIONS: @220V50Hz			ASHRAE32 Fan		(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]
-40	(-40)	748	189	219	210	1.48	2.21	3.56	0.90	1.04
-35	(-31)	905	228	265	245	1.66	2.68	3.70	0.93	1.08
-30	(-22)	1130	285	331	281	1.83	3.35	4.01	1.01	1.18
-25	(-13)	1421	358	416	318	1.99	4.22	4.47	1.13	1.31
-20	(- 4)	1779	448	521	355	2.14	5.31	5.03	1.27	1.47
-15	(+ 5)	2204	555	646	392	2.29	6.60	5.63	1.42	1.65
-10	(+14)	2696	679	790	430	2.43	8.11	6.25	1.58	1.83

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
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	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
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		