

COMPRESSOR DEFINITION

Designation	NE 2134E
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	263AD71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
3 Nominal voltage and frequency	208-230 / 60	[V / Hz]	
4 Application type	Low Back Pressure R22		
4.1 Evaporating temperature range	-30°C to -10°C	(-22°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)	21.7	[kgf/cm ²] (309 psig)	/ °C - °F
9.2 Peak (gauge)	24.2	[kgf/cm ²] (344 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[hp]
2 Displacement	12.11	[cm ³] (0.739 cu.in)
2.1 Bore [mm]	27.775	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO46	
4 Weight (with oil charge)	11.65	[kg] (25.68 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-47	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0816/G9	
6 Start winding resistance	22.19	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.45	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	18.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.90	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			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]
1754	442	514	469	3.06	9.58	3.74	0.94	1.10

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V50Hz			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]
-30	(-22)	1403	354	411	343	5.90	7.64	4.09	1.03	1.20
-25	(-13)	1753	442	514	378	6.08	9.57	4.64	1.17	1.36
-20	(- 4)	2210	557	648	416	6.32	12.10	5.32	1.34	1.56
-15	(+ 5)	2775	699	813	455	6.60	15.25	6.09	1.53	1.78
-10	(+14)	3447	869	1010	497	6.93	19.03	6.94	1.75	2.03

TEST CONDITIONS: @208V50Hz			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]
-30	(-22)	1174	296	344	324	5.67	6.39	3.62	0.91	1.06
-25	(-13)	1547	390	453	378	6.01	8.44	4.10	1.03	1.20
-20	(- 4)	2007	506	588	432	6.40	10.98	4.64	1.17	1.36
-15	(+ 5)	2553	643	748	488	6.84	14.03	5.23	1.32	1.53
-10	(+14)	3185	803	933	544	7.33	17.58	5.86	1.48	1.72

TEST CONDITIONS: @208V50Hz			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]
-30	(-22)	953	240	279	305	5.46	5.18	3.13	0.79	0.92
-25	(-13)	1349	340	395	377	5.95	7.36	3.57	0.90	1.05
-20	(- 4)	1812	457	531	448	6.49	9.92	4.04	1.02	1.18
-15	(+ 5)	2340	590	686	519	7.08	12.85	4.52	1.14	1.32
-10	(+14)	2934	739	860	589	7.72	16.19	4.98	1.25	1.46

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		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]
-30 (-22)	1642	414	481	401	2.95	8.94	4.09	1.03	1.20	
-25 (-13)	2051	517	601	443	3.04	11.19	4.64	1.17	1.36	
-20 (- 4)	2585	652	758	486	3.16	14.16	5.31	1.34	1.56	
-15 (+ 5)	3246	818	951	533	3.30	17.84	6.08	1.53	1.78	
-10 (+14)	4033	1016	1182	582	3.47	22.26	6.93	1.75	2.03	

TEST CONDITIONS: @208V60Hz		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]
-30 (-22)	1373	346	402	379	2.84	7.47	3.62	0.91	1.06	
-25 (-13)	1810	456	530	442	3.01	9.88	4.09	1.03	1.20	
-20 (- 4)	2348	592	688	506	3.20	12.85	4.64	1.17	1.36	
-15 (+ 5)	2987	753	875	571	3.42	16.41	5.23	1.32	1.53	
-10 (+14)	3727	939	1092	636	3.67	20.57	5.86	1.48	1.72	

TEST CONDITIONS: @208V60Hz		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]
-30 (-22)	1115	281	327	357	2.73	6.07	3.13	0.79	0.92	
-25 (-13)	1579	398	463	441	2.98	8.62	3.57	0.90	1.05	
-20 (- 4)	2120	534	621	525	3.25	11.60	4.04	1.02	1.18	
-15 (+ 5)	2738	690	802	607	3.54	15.04	4.52	1.14	1.32	
-10 (+14)	3432	865	1006	689	3.86	18.94	4.98	1.25	1.46	

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.03 +0.07/+0.00	[mm]	(0.316" +0.003"/+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		