

COMPRESSOR DEFINITION

Designation	J 9232GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	963ND01

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 60	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 0°C	(-4°F to 32°F)	
5 Motor type	CSCR		
6 Starting torque	HST - Hight 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)	25.7	[kgf/cm ²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm ²] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1 1/4	[hp]
2 Displacement	26.11	[cm ³] (1.593 cu.in)
2.1 Bore [mm]	41.770	
2.2 Stroke [mm]	19.066	
3 Lubricant charge	890	[ml] (30.10 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	21.65	[kg] (47.73 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	Voltage Relay	
2.1 Starting device	3ARR3B3AV3	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	20(450)	[µF(VAC minimum)]
5 Motor protection	T0824/C9	
6 Start winding resistance	5.56	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.23	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	49.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	9.70	[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: @200V50Hz			ASHRAEHBP46 Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°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]
13754	3466	4030	1675	9.51	113.23	8.21	2.07	2.41

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz			ASHRAE46 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]
-20	(- 4)	5822	1467	1706	921	5.01	36.97	6.32	1.59	1.85
-15	(+ 5)	7429	1872	2177	1013	5.33	47.42	7.34	1.85	2.15
-10	(+14)	9413	2372	2758	1100	5.64	60.45	8.56	2.16	2.51
-5	(+23)	11774	2967	3450	1181	5.95	76.18	9.97	2.51	2.92
0	(+32)	14512	3657	4252	1256	6.26	94.73	11.55	2.91	3.38
+5	(+41)	17629	4442	5166	1326	6.57	116.21	13.28	3.35	3.89
+10	(+50)	21122	5323	6189	1391	6.87	140.75	15.13	3.81	4.43

TEST CONDITIONS: @200V50Hz			ASHRAE46 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]
-20	(- 4)	4859	1224	1424	925	5.04	34.03	5.26	1.33	1.54
-15	(+ 5)	6300	1587	1846	1044	5.49	44.40	6.03	1.52	1.77
-10	(+14)	8054	2030	2360	1157	5.95	57.17	6.95	1.75	2.04
-5	(+23)	10122	2551	2966	1266	6.40	72.43	7.99	2.01	2.34
0	(+32)	12504	3151	3664	1370	6.85	90.32	9.13	2.30	2.68
+5	(+41)	15200	3830	4454	1470	7.29	110.95	10.36	2.61	3.04
+10	(+50)	18210	4589	5336	1565	7.74	134.44	11.65	2.94	3.41

TEST CONDITIONS: @200V50Hz			ASHRAE46 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]
-20	(- 4)	3859	972	1131	930	5.06	30.35	4.15	1.04	1.21
-15	(+ 5)	5123	1291	1501	1076	5.66	40.55	4.76	1.20	1.40
-10	(+14)	6637	1672	1945	1217	6.26	52.95	5.45	1.37	1.60
-5	(+23)	8401	2117	2462	1355	6.85	67.65	6.20	1.56	1.82
0	(+32)	10415	2625	3052	1489	7.44	84.79	6.99	1.76	2.05
+5	(+41)	12680	3195	3716	1619	8.03	104.47	7.80	1.96	2.28
+10	(+50)	15195	3829	4452	1746	8.61	126.82	8.60	2.17	2.52

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V60Hz		ASHRAE46 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]
-20	(- 4)	6812	1717	1996	1077	5.87	43.25	6.32	1.59	1.85
-15	(+ 5)	8691	2190	2547	1185	6.24	55.48	7.34	1.85	2.15
-10	(+14)	11013	2775	3227	1287	6.60	70.72	8.56	2.16	2.51
-5	(+23)	13775	3471	4036	1382	6.96	89.13	9.97	2.51	2.92
0	(+32)	16979	4279	4975	1470	7.32	110.83	11.55	2.91	3.38
+5	(+41)	20625	5198	6044	1551	7.69	135.97	13.27	3.35	3.89
+10	(+50)	24713	6228	7242	1625	8.08	164.67	15.13	3.81	4.43

TEST CONDITIONS: @200V60Hz		ASHRAE46 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]
-20	(- 4)	5685	1433	1666	1083	5.89	39.82	5.26	1.32	1.54
-15	(+ 5)	7371	1857	2160	1221	6.43	51.95	6.03	1.52	1.77
-10	(+14)	9423	2375	2761	1354	6.96	66.88	6.95	1.75	2.04
-5	(+23)	11843	2984	3470	1481	7.49	84.75	7.99	2.01	2.34
0	(+32)	14630	3687	4287	1603	8.02	105.68	9.13	2.30	2.68
+5	(+41)	17785	4482	5211	1719	8.56	129.82	10.36	2.61	3.04
+10	(+50)	21308	5370	6244	1828	9.11	157.31	11.66	2.94	3.42

TEST CONDITIONS: @200V60Hz		ASHRAE46 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]
-20	(- 4)	4514	1138	1323	1088	5.92	35.51	4.15	1.04	1.22
-15	(+ 5)	5993	1510	1756	1258	6.62	47.44	4.76	1.20	1.40
-10	(+14)	7764	1957	2275	1424	7.32	61.95	5.46	1.37	1.60
-5	(+23)	9829	2477	2880	1585	8.01	79.15	6.20	1.56	1.82
0	(+32)	12186	3071	3571	1742	8.71	99.21	6.99	1.76	2.05
+5	(+41)	14837	3739	4348	1894	9.42	122.24	7.80	1.96	2.28
+10	(+50)	17782	4481	5211	2041	10.14	148.40	8.60	2.17	2.52

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	12.77 +0.08/+0.00	[mm]	(0.503" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	8 +0.07/+0.00	[mm]	(0.315" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	9.6 +0.07/+0.00	[mm]	(0.378" +0.003"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Vertical		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		