

COMPRESSOR DEFINITION

Designation	J 2192GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	963AD01

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	Low Back Pressure R404A		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°F)	
5 Motor type	CSCR		
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)	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	11/4	[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)	21.8	[kg] (48.06 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	3HM198-105	
6 Start winding resistance	5.66	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.21	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	40.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	5.40	[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			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]
3848	970	1128	864	4.81	26.09	4.45	1.12	1.30

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz			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)	1471	371	431	524	2.56	9.89	2.77	0.70	0.81
-35	(-31)	2405	606	705	629	3.07	16.22	3.83	0.97	1.12
-30	(-22)	3402	857	997	724	3.55	23.02	4.73	1.19	1.39
-25	(-13)	4473	1127	1311	814	4.02	30.39	5.51	1.39	1.61
-20	(- 4)	5629	1418	1649	906	4.47	38.44	6.19	1.56	1.81
-15	(+ 5)	6880	1734	2016	1004	4.92	47.27	6.82	1.72	2.00
-10	(+14)	8238	2076	2414	1113	5.35	57.00	7.43	1.87	2.18

TEST CONDITIONS: @200V50Hz			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)	974	246	286	396	1.94	6.53	2.45	0.62	0.72
-35	(-31)	1885	475	552	546	2.64	12.69	3.42	0.86	1.00
-30	(-22)	2876	725	843	683	3.32	19.42	4.23	1.07	1.24
-25	(-13)	3957	997	1160	811	3.97	26.83	4.91	1.24	1.44
-20	(- 4)	5140	1295	1506	936	4.59	35.03	5.50	1.39	1.61
-15	(+ 5)	6434	1621	1885	1064	5.20	44.12	6.03	1.52	1.77
-10	(+14)	7851	1978	2301	1200	5.79	54.20	6.53	1.65	1.91

TEST CONDITIONS: @200V50Hz			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)	478	120	140	268	1.31	3.20	1.91	0.48	0.56
-35	(-31)	1366	344	400	463	2.22	9.18	2.85	0.72	0.84
-30	(-22)	2351	592	689	641	3.08	15.84	3.63	0.92	1.06
-25	(-13)	3442	867	1009	807	3.91	23.29	4.28	1.08	1.25
-20	(- 4)	4651	1172	1363	967	4.72	31.63	4.83	1.22	1.42
-15	(+ 5)	5988	1509	1755	1125	5.49	40.98	5.33	1.34	1.56
-10	(+14)	7464	1881	2187	1287	6.24	51.42	5.79	1.46	1.70

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V60Hz		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]
-40	(-40)	1721	434	504	614	3.00	11.57	2.77	0.70	0.81
-35	(-31)	2814	709	825	736	3.58	18.98	3.83	0.97	1.12
-30	(-22)	3980	1003	1166	847	4.15	26.93	4.73	1.19	1.39
-25	(-13)	5233	1319	1533	953	4.70	35.55	5.51	1.39	1.61
-20	(- 4)	6586	1660	1930	1060	5.23	44.97	6.19	1.56	1.81
-15	(+ 5)	8050	2029	2359	1174	5.75	55.31	6.82	1.72	2.00
-10	(+14)	9639	2429	2824	1302	6.26	66.68	7.43	1.87	2.18

TEST CONDITIONS: @200V60Hz		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]
-40	(-40)	1140	287	334	464	2.27	7.64	2.45	0.62	0.72
-35	(-31)	2206	556	646	639	3.09	14.85	3.42	0.86	1.00
-30	(-22)	3365	848	986	799	3.88	22.72	4.23	1.07	1.24
-25	(-13)	4630	1167	1357	949	4.64	31.39	4.91	1.24	1.44
-20	(- 4)	6013	1515	1762	1095	5.37	40.98	5.50	1.39	1.61
-15	(+ 5)	7528	1897	2206	1245	6.09	51.62	6.03	1.52	1.77
-10	(+14)	9186	2315	2692	1404	6.78	63.42	6.53	1.65	1.91

TEST CONDITIONS: @200V60Hz		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]
-40	(-40)	559	141	164	314	1.54	3.74	1.91	0.48	0.56
-35	(-31)	1598	403	468	542	2.60	10.74	2.85	0.72	0.84
-30	(-22)	2750	693	806	750	3.61	18.53	3.63	0.92	1.06
-25	(-13)	4027	1015	1180	944	4.58	27.25	4.28	1.08	1.25
-20	(- 4)	5441	1371	1594	1131	5.52	37.01	4.83	1.22	1.42
-15	(+ 5)	7006	1765	2053	1316	6.42	47.94	5.33	1.34	1.56
-10	(+14)	8733	2201	2559	1506	7.30	60.17	5.79	1.46	1.70

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		