

### COMPRESSOR DEFINITION

Designation	<b>J 2192GK</b>
Nominal Voltage/Frequency	<b>115 V 60 Hz</b>
Engineering Number	<b>963AG01</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	115 / 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 - 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 <sup>2</sup> ] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm <sup>2</sup> ] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	11/4	[hp]
2 Displacement	26.11	[cm <sup>3</sup> ] (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 <sup>2</sup> ] (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	Voltage Relay	
2.1 Starting device	3ARR3B3S3	
3 Start capacitor	340-408(165)	[µF(VAC minimum)]
4 Run capacitor	20(450)	[µF(VAC minimum)]
5 Motor protection	15HM2350-168	
6 Start winding resistance	2.01	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	87.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	15.00	[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: @100V50Hz			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	8.40	26.09	4.45	1.12	1.30

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V50Hz			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	543	5.26	9.88	2.72	0.68	0.80
-35	(-31)	2463	621	722	624	6.06	16.61	3.92	0.99	1.15
-30	(-22)	3483	878	1021	710	6.89	23.57	4.90	1.23	1.44
-25	(-13)	4552	1147	1334	801	7.78	30.93	5.70	1.44	1.67
-20	(- 4)	5694	1435	1669	899	8.72	38.88	6.36	1.60	1.86
-15	(+ 5)	6932	1747	2031	1003	9.72	47.62	6.92	1.74	2.03
-10	(+14)	8287	2088	2428	1115	10.80	57.33	7.42	1.87	2.17

TEST CONDITIONS: @100V50Hz			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)	1301	328	381	453	4.32	8.72	2.89	0.73	0.85
-35	(-31)	2125	536	623	567	5.46	14.30	3.72	0.94	1.09
-30	(-22)	3025	762	886	684	6.63	20.43	4.41	1.11	1.29
-25	(-13)	4023	1014	1179	806	7.82	27.27	4.99	1.26	1.46
-20	(- 4)	5141	1295	1506	932	9.05	35.04	5.52	1.39	1.62
-15	(+ 5)	6402	1613	1876	1063	10.33	43.90	6.01	1.52	1.76
-10	(+14)	7830	1973	2294	1201	11.66	54.05	6.53	1.65	1.91

TEST CONDITIONS: @100V50Hz			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)	1142	288	335	364	3.39	7.64	3.07	0.77	0.90
-35	(-31)	1800	454	528	510	4.88	12.09	3.55	0.89	1.04
-30	(-22)	2582	651	757	659	6.37	17.40	3.96	1.00	1.16
-25	(-13)	3510	884	1028	810	7.87	23.75	4.35	1.10	1.28
-20	(- 4)	4606	1161	1350	965	9.38	31.33	4.75	1.20	1.39
-15	(+ 5)	5893	1485	1727	1124	10.93	40.33	5.21	1.31	1.53
-10	(+14)	7395	1863	2167	1288	12.51	50.95	5.76	1.45	1.69

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V60Hz		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)	1294	326	379	635	6.15	8.70	2.04	0.51	0.60	
-35 (-31)	2521	635	739	730	7.09	17.00	3.42	0.86	1.00	
-30 (-22)	3789	955	1110	830	8.06	25.64	4.56	1.15	1.34	
-25 (-13)	5127	1292	1502	937	9.10	34.83	5.49	1.38	1.61	
-20 (- 4)	6563	1654	1923	1051	10.20	44.82	6.27	1.58	1.84	
-15 (+ 5)	8125	2048	2381	1173	11.38	55.82	6.93	1.75	2.03	
-10 (+14)	9841	2480	2884	1304	12.64	68.08	7.52	1.90	2.20	

TEST CONDITIONS: @100V60Hz		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)	1312	331	385	531	5.06	8.80	2.51	0.63	0.74	
-35 (-31)	2310	582	677	664	6.40	15.55	3.45	0.87	1.01	
-30 (-22)	3400	857	996	801	7.76	22.96	4.23	1.07	1.24	
-25 (-13)	4609	1161	1351	943	9.15	31.25	4.88	1.23	1.43	
-20 (- 4)	5965	1503	1748	1090	10.59	40.66	5.47	1.38	1.60	
-15 (+ 5)	7497	1889	2197	1244	12.08	51.41	6.02	1.52	1.76	
-10 (+14)	9233	2327	2705	1405	13.64	63.74	6.59	1.66	1.93	

TEST CONDITIONS: @100V60Hz		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)	1334	336	391	426	3.97	8.93	3.06	0.77	0.90	
-35 (-31)	2108	531	618	597	5.71	14.16	3.56	0.90	1.04	
-30 (-22)	3022	762	886	771	7.45	20.36	3.97	1.00	1.16	
-25 (-13)	4106	1035	1203	948	9.20	27.78	4.36	1.10	1.28	
-20 (- 4)	5388	1358	1579	1129	10.98	36.65	4.75	1.20	1.39	
-15 (+ 5)	6894	1737	2020	1315	12.79	47.18	5.20	1.31	1.53	
-10 (+14)	8653	2181	2536	1507	14.64	59.62	5.76	1.45	1.69	

### 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		