

COMPRESSOR DEFINITION

Designation	NJ 9226GS
Nominal Voltage/Frequency	380-420 V 50 Hz / 440-480 V 60 Hz
Engineering Number	948LM19

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	380-420 / 50	[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	3PHASE		
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	1+	[hp]
2 Displacement	21.71	[cm ³] (1.325 cu.in)
2.1 Bore [mm]	38.087	
2.2 Stroke [mm]	19.066	
3 Lubricant charge	750	[ml] (25.36 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	19	[kg] (41.89 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	380-420 V 50 Hz / 440-480 V 60 Hz 3 ~ (Three phase)	
2 Starting device type	3PHASE	
2.1 Starting device		
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	31HM26-36	
6 Start winding resistance	9.33	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	9.33	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @420V60Hz			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]
12970	3268	3801	1520	2.80	106.78	8.53	2.15	2.50

E - PERFORMANCE - CURVES

TEST CONDITIONS: @420V50Hz			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)	4936	1244	1446	749	1.39	31.34	6.59	1.66	1.93
-15	(+ 5)	6295	1586	1845	819	1.50	40.18	7.69	1.94	2.25
-10	(+14)	7958	2005	2332	885	1.61	51.11	9.00	2.27	2.64
-5	(+23)	9926	2501	2909	946	1.71	64.23	10.49	2.64	3.08
0	(+32)	12200	3075	3575	1002	1.82	79.64	12.17	3.07	3.57
+5	(+41)	14781	3725	4331	1052	1.93	97.44	14.02	3.53	4.11
+10	(+50)	17667	4452	5177	1096	2.06	117.73	16.01	4.03	4.69

TEST CONDITIONS: @420V50Hz			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)	4124	1039	1208	754	1.38	28.88	5.48	1.38	1.60
-15	(+ 5)	5339	1345	1564	843	1.54	37.63	6.33	1.60	1.86
-10	(+14)	6807	1715	1995	929	1.69	48.32	7.32	1.84	2.15
-5	(+23)	8530	2149	2499	1011	1.83	61.04	8.43	2.12	2.47
0	(+32)	10506	2648	3079	1090	1.98	75.89	9.65	2.43	2.83
+5	(+41)	12738	3210	3732	1164	2.13	92.98	10.96	2.76	3.21
+10	(+50)	15224	3836	4461	1234	2.28	112.40	12.35	3.11	3.62

TEST CONDITIONS: @420V50Hz			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)	3279	826	961	759	1.36	25.79	4.32	1.09	1.27
-15	(+ 5)	4342	1094	1272	867	1.57	34.38	5.01	1.26	1.47
-10	(+14)	5607	1413	1643	974	1.77	44.74	5.76	1.45	1.69
-5	(+23)	7075	1783	2073	1079	1.96	56.98	6.56	1.65	1.92
0	(+32)	8745	2204	2563	1181	2.15	71.19	7.40	1.86	2.17
+5	(+41)	10619	2676	3112	1280	2.34	87.49	8.26	2.08	2.42
+10	(+50)	12697	3200	3720	1376	2.53	105.96	9.13	2.30	2.68

E - PERFORMANCE - CURVES

TEST CONDITIONS: @420V60Hz		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)	5775	1455	1692	876	1.63	36.67	6.59	1.66	1.93
-15	(+ 5)	7365	1856	2158	958	1.76	47.01	7.69	1.94	2.25
-10	(+14)	9311	2346	2728	1035	1.88	59.80	9.00	2.27	2.64
-5	(+23)	11614	2927	3403	1107	2.00	75.15	10.50	2.64	3.08
0	(+32)	14275	3597	4183	1172	2.13	93.18	12.18	3.07	3.57
+5	(+41)	17293	4358	5067	1230	2.28	114.00	14.03	3.53	4.11
+10	(+50)	20669	5209	6057	1279	2.46	137.74	16.04	4.04	4.70

TEST CONDITIONS: @420V60Hz		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)	4825	1216	1414	882	1.61	33.79	5.48	1.38	1.60
-15	(+ 5)	6247	1574	1830	986	1.80	44.03	6.33	1.60	1.86
-10	(+14)	7965	2007	2334	1087	1.97	56.53	7.32	1.84	2.15
-5	(+23)	9980	2515	2924	1183	2.14	71.41	8.43	2.12	2.47
0	(+32)	12292	3098	3602	1275	2.32	88.79	9.65	2.43	2.83
+5	(+41)	14902	3755	4367	1361	2.51	108.78	10.97	2.76	3.21
+10	(+50)	17811	4488	5219	1441	2.73	131.51	12.38	3.12	3.63

TEST CONDITIONS: @420V60Hz		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)	3836	967	1124	888	1.59	30.17	4.32	1.09	1.27
-15	(+ 5)	5080	1280	1489	1014	1.84	40.22	5.01	1.26	1.47
-10	(+14)	6561	1653	1922	1140	2.07	52.34	5.76	1.45	1.69
-5	(+23)	8278	2086	2426	1262	2.29	66.66	6.56	1.65	1.92
0	(+32)	10232	2579	2998	1382	2.52	83.30	7.40	1.86	2.17
+5	(+41)	12425	3131	3641	1497	2.76	102.37	8.27	2.08	2.42
+10	(+50)	14856	3744	4353	1608	3.02	123.99	9.16	2.31	2.68

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard
2 Tray holder	No
3 Connectors	
3.1 SUCTION	12.7 +0.25/-0.25 [mm] (0.500" +0.010"/-0.010")
3.1.1 Material	Steel
3.1.2 Shape	ROTOLOCK(Ex. thr. 1"-14UNS-2A)
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	6.42 +0.08/+0.00 [mm] (0.253" +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