

COMPRESSOR DEFINITION

Designation	NT 2168GS
Nominal Voltage/Frequency	200 V 50-60 Hz
Engineering Number	926ER02

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	200 / 50-60	[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	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 temperature			
9.1 Operating	25.2	[kgf/cm ²] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm ²] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	14.50	[cm ³] (0.885 cu.in)
2.1 Bore [mm]	34.120	
2.2 Stroke [mm]	15.870	
3 Lubricant charge	650	[ml] (21.98 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	18.15	[kg] (40.01 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200 V 50-60 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	T0926/K9	
6 Start winding resistance	3.60	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.10	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	28.00/28.50	[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: @200V60Hz			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]
2684	676	786	574	2.34	18.20	4.68	1.18	1.37

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)	926	233	271	269	2.24	6.22	3.46	0.87	1.01
-35	(-31)	1332	336	390	324	2.30	8.98	4.12	1.04	1.21
-30	(-22)	1845	465	541	378	2.36	12.48	4.87	1.23	1.43
-25	(-13)	2462	621	722	430	2.43	16.73	5.72	1.44	1.68
-20	(- 4)	3183	802	933	480	2.51	21.74	6.64	1.67	1.95
-15	(+ 5)	4005	1009	1173	525	2.59	27.52	7.64	1.93	2.24
-10	(+14)	4926	1241	1444	565	2.68	34.08	8.70	2.19	2.55

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)	853	215	250	285	2.25	5.73	2.97	0.75	0.87
-35	(-31)	1205	304	353	342	2.32	8.11	3.52	0.89	1.03
-30	(-22)	1665	420	488	400	2.39	11.24	4.16	1.05	1.22
-25	(-13)	2231	562	654	457	2.47	15.12	4.88	1.23	1.43
-20	(- 4)	2901	731	850	512	2.56	19.77	5.66	1.43	1.66
-15	(+ 5)	3673	926	1076	565	2.66	25.19	6.51	1.64	1.91
-10	(+14)	4547	1146	1332	614	2.76	31.39	7.41	1.87	2.17

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)	749	189	219	300	2.26	5.01	2.49	0.63	0.73
-35	(-31)	1068	269	313	359	2.34	7.17	3.00	0.76	0.88
-30	(-22)	1496	377	438	419	2.42	10.08	3.58	0.90	1.05
-25	(-13)	2031	512	595	481	2.52	13.74	4.22	1.06	1.24
-20	(- 4)	2672	673	783	542	2.62	18.17	4.92	1.24	1.44
-15	(+ 5)	3417	861	1001	602	2.73	23.38	5.67	1.43	1.66
-10	(+14)	4264	1075	1249	659	2.86	29.38	6.47	1.63	1.89

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)	1132	285	332	320	1.83	7.61	3.50	0.88	1.03
-35	(-31)	1623	409	476	382	1.95	10.94	4.28	1.08	1.25
-30	(-22)	2234	563	655	444	2.07	15.12	5.06	1.27	1.48
-25	(-13)	2970	748	870	506	2.19	20.18	5.87	1.48	1.72
-20	(- 4)	3832	966	1123	569	2.32	26.17	6.72	1.69	1.97
-15	(+ 5)	4824	1216	1414	630	2.46	33.15	7.64	1.92	2.24
-10	(+14)	5949	1499	1743	691	2.61	41.15	8.63	2.17	2.53

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)	693	175	203	327	1.84	4.64	2.16	0.54	0.63
-35	(-31)	1245	314	365	399	1.98	8.38	3.12	0.79	0.91
-30	(-22)	1899	479	556	470	2.11	12.82	4.03	1.02	1.18
-25	(-13)	2659	670	779	541	2.26	18.03	4.90	1.24	1.44
-20	(- 4)	3527	889	1034	612	2.41	24.04	5.76	1.45	1.69
-15	(+ 5)	4506	1136	1320	681	2.58	30.90	6.61	1.67	1.94
-10	(+14)	5600	1411	1641	750	2.77	38.66	7.48	1.88	2.19

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)	409	103	120	339	1.88	2.73	1.22	0.31	0.36
-35	(-31)	992	250	291	419	2.02	6.66	2.32	0.58	0.68
-30	(-22)	1659	418	486	499	2.17	11.18	3.30	0.83	0.97
-25	(-13)	2413	608	707	578	2.33	16.33	4.19	1.06	1.23
-20	(- 4)	3257	821	954	656	2.50	22.15	4.99	1.26	1.46
-15	(+ 5)	4194	1057	1229	733	2.70	28.69	5.74	1.45	1.68
-10	(+14)	5226	1317	1531	809	2.92	36.01	6.43	1.62	1.89

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	9.6 +0.07/+0.00	[mm]	(0.378" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	6.42 +0.08/+0.00	[mm]	(0.253" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Vertical		
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		