

COMPRESSOR DEFINITION

Designation	NT 2168GK
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	922DG02

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 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	450	[ml] (15.22 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	17	[kg] (37.48 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	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	3AAR3B5M3	
3 Start capacitor	243-292(165)	[µF(VAC minimum)]
4 Run capacitor	35(440)	[µF(VAC minimum)]
5 Motor protection	T0793/C9	
6 Start winding resistance	2.66	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.43	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[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: @115V60Hz			ARILBP Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 48.9°C (120.02°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]
2081	524	610	595	5.71	21.54	3.50	0.88	1.03

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ARI4 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)	1058	267	310	347	3.72	8.69	3.05	0.77	0.89
-35	(-31)	1509	380	442	418	4.27	12.51	3.61	0.91	1.06
-30	(-22)	2047	516	600	484	4.80	17.06	4.23	1.07	1.24
-25	(-13)	2678	675	785	545	5.30	22.46	4.91	1.24	1.44
-20	(- 4)	3409	859	999	603	5.79	28.81	5.65	1.42	1.66
-15	(+ 5)	4244	1069	1244	658	6.26	36.25	6.45	1.62	1.89
-10	(+14)	5189	1308	1521	710	6.72	44.87	7.31	1.84	2.14

TEST CONDITIONS: @115V60Hz		ARI4 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)	790	199	231	336	3.62	7.49	2.35	0.59	0.69
-35	(-31)	1160	292	340	415	4.24	11.06	2.80	0.70	0.82
-30	(-22)	1602	404	470	491	4.85	15.36	3.27	0.82	0.96
-25	(-13)	2123	535	622	564	5.46	20.51	3.76	0.95	1.10
-20	(- 4)	2728	687	799	635	6.07	26.62	4.29	1.08	1.26
-15	(+ 5)	3422	862	1003	704	6.69	33.81	4.86	1.22	1.42
-10	(+14)	4211	1061	1234	772	7.32	42.19	5.46	1.37	1.60

TEST CONDITIONS: @115V60Hz		ARI4 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)	468	118	137	310	3.37	5.31	1.52	0.38	0.44
-35	(-31)	770	194	226	400	4.07	8.78	1.92	0.48	0.56
-30	(-22)	1130	285	331	487	4.77	12.98	2.31	0.58	0.68
-25	(-13)	1553	391	455	573	5.50	18.03	2.71	0.68	0.79
-20	(- 4)	2045	515	599	659	6.24	24.04	3.11	0.78	0.91
-15	(+ 5)	2611	658	765	744	7.01	31.14	3.51	0.89	1.03
-10	(+14)	3257	821	954	829	7.81	39.44	3.92	0.99	1.15

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		