

### COMPRESSOR DEFINITION

Designation	NT 2168GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	922DD04

### 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 <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	3/4	[hp]
2 Displacement	14.50	[cm <sup>3</sup> ] (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)	16.7	[kg] (36.82 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	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA2AI3C-124	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	10(400)	[µF(VAC minimum)]
5 Motor protection	T0645/G9	
6 Start winding resistance	6.49	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.69	[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: @208V60Hz			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]	
2088	526	612	592	2.93	21.62	3.53	0.89	1.03	

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		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)	997	251	292	322	1.93	8.17	3.09	0.78	0.91
-35	(-31)	1455	367	426	401	2.20	12.06	3.63	0.91	1.06
-30	(-22)	2011	507	589	473	2.46	16.77	4.25	1.07	1.25
-25	(-13)	2665	672	781	539	2.71	22.36	4.95	1.25	1.45
-20	(- 4)	3416	861	1001	600	2.97	28.89	5.70	1.44	1.67
-15	(+ 5)	4265	1075	1250	657	3.22	36.43	6.50	1.64	1.90
-10	(+14)	5212	1313	1527	710	3.46	45.05	7.33	1.85	2.15

TEST CONDITIONS: @208V60Hz		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)	746	188	219	326	1.92	7.10	2.31	0.58	0.68
-35	(-31)	1101	278	323	405	2.19	10.50	2.72	0.69	0.80
-30	(-22)	1550	391	454	481	2.47	14.84	3.21	0.81	0.94
-25	(-13)	2094	528	613	555	2.77	20.19	3.75	0.95	1.10
-20	(- 4)	2731	688	800	628	3.07	26.63	4.34	1.09	1.27
-15	(+ 5)	3462	872	1014	700	3.38	34.20	4.95	1.25	1.45
-10	(+14)	4287	1080	1256	772	3.71	42.99	5.57	1.40	1.63

TEST CONDITIONS: @208V60Hz		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)	506	128	148	335	1.83	5.72	1.49	0.38	0.44
-35	(-31)	744	187	218	411	2.12	8.48	1.82	0.46	0.53
-30	(-22)	1072	270	314	489	2.43	12.32	2.20	0.56	0.65
-25	(-13)	1490	375	437	568	2.76	17.30	2.62	0.66	0.77
-20	(- 4)	1998	504	585	650	3.12	23.50	3.07	0.77	0.90
-15	(+ 5)	2597	654	761	735	3.50	30.97	3.53	0.89	1.03
-10	(+14)	3286	828	963	823	3.91	39.78	3.99	1.00	1.17

**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		