COMPRESSOR DEFINITION

Designation	**NT 2180GKV2**
Nominal Voltage/Frequency	**208-230 V 60 Hz**
Engineering Number	**923ZD04**

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 - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	25.2	[kgf/cm²] (358 psig)	/ ºC - ºF
9.2 Peak	28.3	[kgf/cm²] (402 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1	[hp]
2 Displacement	20.44	[cm³] (1.247 cu.in)
2.1 Bore [mm]	36.990	
2.2 Stroke [mm]	19.030	
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)	17.14	[kg] (37.79 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELECTRICAL 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	RVA2L3C	
3 Start capacitor	130-156(330)	[µF(VAC minimum)]
4 Run capacitor	10(400)	[µF(VAC minimum)]
5 Motor protection	T0590/G9	
6 Start winding resistance	5.62	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.07	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	40.00	[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	KC	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAELBP32**		Evaporating temperature		**-23.3°C (-9.94°F)**	
@208V60Hz			**Fan**		(Condensing temperature		**54.4°C (129.92°F))**	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
3962	998	1161	880	4.50	26.86	4.50	1.13	1.32

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE32**			(Condensing temperature **35ºC (+95ºF))**					
@208V60Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	1824	460	535	448	2.14	12.27	4.03	1.02	1.18
-35	**(-31)**	2467	622	723	569	2.73	16.64	4.37	1.10	1.28
-30	**(-22)**	3281	827	961	680	3.26	22.19	4.85	1.22	1.42
-25	**(-13)**	4276	1077	1253	783	3.75	29.05	5.46	1.38	1.60
-20	**(- 4)**	5464	1377	1601	880	4.24	37.32	6.19	1.56	1.81
-15	**(+ 5)**	6859	1728	2010	973	4.73	47.13	7.03	1.77	2.06
-10	**(+14)**	8470	2135	2482	1064	5.24	58.59	7.97	2.01	2.33

TEST CONDITIONS:		**ASHRAE32**			(Condensing temperature **45ºC (+113ºF))**					
@208V60Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	1426	359	418	455	2.16	9.56	3.17	0.80	0.93
-35	**(-31)**	2123	535	622	577	2.76	14.29	3.68	0.93	1.08
-30	**(-22)**	2956	745	866	694	3.32	19.96	4.24	1.07	1.24
-25	**(-13)**	3934	991	1153	810	3.88	26.68	4.84	1.22	1.42
-20	**(- 4)**	5072	1278	1486	925	4.46	34.57	5.47	1.38	1.60
-15	**(+ 5)**	6379	1608	1869	1043	5.07	43.74	6.12	1.54	1.79
-10	**(+14)**	7869	1983	2306	1163	5.74	54.33	6.79	1.71	1.99

TEST CONDITIONS:		**ASHRAE32**			(Condensing temperature **55ºC (+131ºF))**					
@208V60Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	1148	289	336	459	2.19	7.68	2.51	0.63	0.74
-35	**(-31)**	1851	466	542	579	2.78	12.44	3.16	0.80	0.93
-30	**(-22)**	2653	669	777	701	3.37	17.88	3.77	0.95	1.10
-25	**(-13)**	3567	899	1045	827	3.98	24.13	4.33	1.09	1.27
-20	**(- 4)**	4604	1160	1349	957	4.64	31.31	4.85	1.22	1.42
-15	**(+ 5)**	5776	1455	1692	1095	5.36	39.52	5.29	1.33	1.55
-10	**(+14)**	7094	1788	2079	1243	6.18	48.89	5.67	1.43	1.66

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		