

### COMPRESSOR DEFINITION

Designation	NE X2183GKA
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	954AD76

### 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 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 <sup>2</sup> ] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm <sup>2</sup> ] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1	[hp]
2 Displacement	16.80	[cm <sup>3</sup> ] (1.025 cu.in)
2.1 Bore [mm]	31.190	
2.2 Stroke [mm]	22.000	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	11.38	[kg] (25.09 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	QL2-10-NTC -15	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	10(400)	[µF(VAC minimum)]
5 Motor protection	USP-Y02-83	
6 Start winding resistance	9.42	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.38	[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		

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			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]
3821	963	1120	755	3.76	25.90	5.06	1.28	1.48

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz			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)	1765	445	517	415	2.19	11.86	4.25	1.07	1.24
-35	(-31)	2368	597	694	490	2.54	15.97	4.84	1.22	1.42
-30	(-22)	3112	784	912	570	2.92	21.05	5.47	1.38	1.60
-25	(-13)	3997	1007	1171	654	3.32	27.15	6.11	1.54	1.79
-20	(- 4)	5023	1266	1472	743	3.74	34.30	6.76	1.70	1.98
-15	(+ 5)	6190	1560	1814	835	4.19	42.53	7.41	1.87	2.17
-10	(+14)	7498	1890	2197	932	4.66	51.87	8.05	2.03	2.36

TEST CONDITIONS: @208V60Hz			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)	1557	392	456	414	2.21	10.44	3.76	0.95	1.10
-35	(-31)	2158	544	632	500	2.60	14.53	4.32	1.09	1.27
-30	(-22)	2891	729	847	591	3.03	19.52	4.89	1.23	1.43
-25	(-13)	3755	946	1100	689	3.49	25.46	5.44	1.37	1.59
-20	(- 4)	4751	1197	1392	793	3.99	32.38	5.99	1.51	1.75
-15	(+ 5)	5878	1481	1723	904	4.54	40.31	6.51	1.64	1.91
-10	(+14)	7137	1799	2091	1020	5.12	49.27	7.00	1.76	2.05

TEST CONDITIONS: @208V60Hz			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)	1351	340	396	404	2.14	9.04	3.35	0.84	0.98
-35	(-31)	1960	494	574	501	2.58	13.17	3.90	0.98	1.14
-30	(-22)	2691	678	788	606	3.07	18.14	4.43	1.12	1.30
-25	(-13)	3544	893	1038	718	3.61	23.98	4.93	1.24	1.45
-20	(- 4)	4518	1139	1324	839	4.21	30.73	5.40	1.36	1.58
-15	(+ 5)	5615	1415	1645	968	4.86	38.42	5.81	1.46	1.70
-10	(+14)	6833	1722	2002	1105	5.56	47.08	6.17	1.56	1.81

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.1 +0.10/+0.00	[mm]	(0.319" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		