

COMPRESSOR DEFINITION

Designation	NE U6212GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	958HD92

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	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°F)	
5 Motor type	CSIR		
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	1/2	[hp]
2 Displacement	8.77	[cm ³] (0.535 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	15.920	
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)	11.5	[kg] (25.35 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	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-0050-31	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0798/J5	
6 Start winding resistance	15.17	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.87	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	22.00	[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	CCC - UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V60Hz			ARIMBP Fan		Evaporating temperature (Condensing temperature		-6.7°C (19.94°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]
2874	724	842	594	3.82	30.97	4.84	1.22	1.42

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz		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]
-20	(- 4)	2165	546	634	429	3.46	18.25	5.04	1.27	1.48
-15	(+ 5)	2535	639	743	477	3.55	21.69	5.34	1.34	1.56
-10	(+14)	3140	791	920	518	3.65	27.19	6.06	1.53	1.77
-5	(+23)	3981	1003	1166	554	3.75	34.95	7.18	1.81	2.10
0	(+32)	5057	1274	1482	584	3.85	45.17	8.67	2.18	2.54
+5	(+41)	6369	1605	1866	607	3.96	58.05	10.50	2.65	3.08
+10	(+50)	7917	1995	2320	625	4.08	73.78	12.66	3.19	3.71

TEST CONDITIONS: @230V60Hz		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]
-20	(- 4)	1780	449	522	445	3.45	17.42	4.01	1.01	1.17
-15	(+ 5)	2087	526	611	501	3.57	20.62	4.18	1.05	1.23
-10	(+14)	2590	653	759	550	3.70	25.92	4.70	1.18	1.38
-5	(+23)	3291	829	964	593	3.83	33.49	5.53	1.39	1.62
0	(+32)	4190	1056	1228	630	3.96	43.56	6.64	1.67	1.95
+5	(+41)	5286	1332	1549	660	4.09	56.30	8.02	2.02	2.35
+10	(+50)	6580	1658	1928	684	4.23	71.93	9.63	2.43	2.82

TEST CONDITIONS: @230V60Hz		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]
-20	(- 4)	1355	342	397	468	3.45	15.94	2.88	0.73	0.84
-15	(+ 5)	1596	402	468	530	3.62	18.99	3.02	0.76	0.88
-10	(+14)	1996	503	585	585	3.78	24.14	3.41	0.86	1.00
-5	(+23)	2555	644	749	633	3.94	31.61	4.04	1.02	1.18
0	(+32)	3274	825	959	674	4.09	41.59	4.87	1.23	1.43
+5	(+41)	4152	1046	1217	709	4.25	54.28	5.87	1.48	1.72
+10	(+50)	5190	1308	1521	736	4.41	69.88	7.03	1.77	2.06

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	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +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		