

### COMPRESSOR DEFINITION

Designation	NE X4170UA
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	864AD46

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	208-230 / 60	[ V / Hz ]	
4 Application type	Low-Medium Back Pressure (Light Commercial - Curves until T.Evap -		
4.1 Evaporating temperature range	-40°C to 0°C	(-40°F to 32°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	18.4	[kgf/cm <sup>2</sup> ] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm <sup>2</sup> ] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	3/4	[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)	11.42	[kg] (25.18 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	Voltage Relay	
2.1 Starting device	RVA4AH3C-648	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	10(400)	[µF(VAC minimum)]
5 Motor protection	USP-521-83	
6 Start winding resistance	9.27	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.39	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	26.00	[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	UL - VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V60Hz			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]
2698	680	791	603	3.01	10.96	4.47	1.13	1.31

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]
5342	1346	1565	819	3.89	22.33	6.52	1.64	1.91

### 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]
-40 (-40)	1433	361	420	380	2.23	4.96	3.75	0.94	1.10
-35 (-31)	1845	465	541	436	2.41	6.43	4.24	1.07	1.24
-30 (-22)	2387	602	700	491	2.60	8.35	4.88	1.23	1.43
-25 (-13)	3060	771	897	543	2.79	10.75	5.64	1.42	1.65
-20 (- 4)	3863	973	1132	594	2.98	13.63	6.50	1.64	1.91
-15 (+ 5)	4796	1209	1405	643	3.17	17.04	7.46	1.88	2.19
-10 (+14)	5860	1477	1717	691	3.36	21.00	8.48	2.14	2.49
-5 (+23)	7054	1778	2067	738	3.56	25.53	9.56	2.41	2.80
0 (+32)	8379	2111	2455	784	3.76	30.66	10.68	2.69	3.13

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]
-40 (-40)	1159	292	340	387	2.24	4.43	3.01	0.76	0.88
-35 (-31)	1521	383	446	448	2.45	5.85	3.41	0.86	1.00
-30 (-22)	1998	504	586	509	2.66	7.72	3.91	0.99	1.15
-25 (-13)	2590	653	759	570	2.88	10.05	4.52	1.14	1.32
-20 (- 4)	3297	831	966	631	3.10	12.86	5.20	1.31	1.52
-15 (+ 5)	4118	1038	1207	691	3.34	16.20	5.94	1.50	1.74
-10 (+14)	5054	1274	1481	752	3.58	20.07	6.72	1.69	1.97
-5 (+23)	6105	1539	1789	812	3.84	24.50	7.53	1.90	2.21
0 (+32)	7272	1832	2131	873	4.10	29.53	8.35	2.10	2.45

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz		ARI4 Fan			(Condensing temperature <b>55°C (+131°F)</b> )					
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)	929	234	272	387	2.25	3.99	2.39	0.60	0.70
-35	(-31)	1231	310	361	454	2.47	5.32	2.72	0.68	0.80
-30	(-22)	1633	411	478	522	2.71	7.08	3.13	0.79	0.92
-25	(-13)	2133	538	625	591	2.97	9.30	3.61	0.91	1.06
-20	(- 4)	2733	689	801	662	3.24	12.00	4.13	1.04	1.21
-15	(+ 5)	3432	865	1006	733	3.53	15.21	4.69	1.18	1.37
-10	(+14)	4230	1066	1240	806	3.83	18.95	5.26	1.33	1.54
-5	(+23)	5128	1292	1503	880	4.15	23.25	5.84	1.47	1.71
0	(+32)	6125	1544	1795	956	4.49	28.12	6.39	1.61	1.87

### 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		