

COMPRESSOR DEFINITION

Designation	NT 2160UV
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	842GG02

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	115 / 60	[V / Hz]	
4 Application type	Low Back Pressure R290		
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	18.4	[kgf/cm ²] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	17.39	[cm ³] (1.061 cu.in)
2.1 Bore [mm]	34.120	
2.2 Stroke [mm]	19.030	
3 Lubricant charge	450	[ml] (15.22 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	AB / ISO32	
4 Weight (with oil charge)	16.5	[kg] (36.38 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA9AD3C-121	
3 Start capacitor	243-292(250)	[µF(VAC minimum)]
4 Run capacitor	20(400)	[µF(VAC minimum)]
5 Motor protection	T0793/C9	
6 Start winding resistance	2.66	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.43	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	54.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	7.00	[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: @115V60Hz			ARILBP Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 48.9°C (120.02°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]
2177	549	638	579	6.49	7.47	3.76	0.95	1.10

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			ARI4 Fan		(Condensing temperature 35°C (+95°F))					
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)	1255	316	368	376	5.18	4.35	3.32	0.84	0.97
-35	(-31)	1571	396	460	423	5.46	5.47	3.73	0.94	1.09
-30	(-22)	2013	507	590	472	5.77	7.03	4.27	1.08	1.25
-25	(-13)	2581	650	756	523	6.12	9.06	4.93	1.24	1.44
-20	(- 4)	3275	825	960	578	6.51	11.56	5.66	1.43	1.66
-15	(+ 5)	4095	1032	1200	635	6.93	14.56	6.45	1.62	1.89
-10	(+14)	5041	1270	1477	695	7.39	18.07	7.26	1.83	2.13

TEST CONDITIONS: @115V60Hz			ARI4 Fan		(Condensing temperature 45°C (+113°F))					
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)	1015	256	298	375	5.14	3.88	2.71	0.68	0.79
-35	(-31)	1294	326	379	428	5.47	4.97	3.03	0.76	0.89
-30	(-22)	1677	423	491	484	5.84	6.47	3.46	0.87	1.01
-25	(-13)	2164	545	634	544	6.25	8.40	3.97	1.00	1.16
-20	(- 4)	2757	695	808	607	6.72	10.77	4.54	1.14	1.33
-15	(+ 5)	3454	870	1012	673	7.22	13.59	5.13	1.29	1.50
-10	(+14)	4255	1072	1247	743	7.78	16.89	5.72	1.44	1.68

TEST CONDITIONS: @115V60Hz			ARI4 Fan		(Condensing temperature 55°C (+131°F))					
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)	782	197	229	374	5.14	3.36	2.09	0.53	0.61
-35	(-31)	1030	259	302	434	5.51	4.44	2.37	0.60	0.69
-30	(-22)	1361	343	399	497	5.93	5.90	2.73	0.69	0.80
-25	(-13)	1775	447	520	565	6.41	7.74	3.14	0.79	0.92
-20	(- 4)	2273	573	666	636	6.94	9.99	3.58	0.90	1.05
-15	(+ 5)	2854	719	836	712	7.52	12.65	4.02	1.01	1.18
-10	(+14)	3518	887	1031	792	8.17	15.75	4.43	1.12	1.30

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		