COMPRESSOR DEFINITION

Designation	**NT 2170UV**
Nominal Voltage/Frequency	**115 V 60 Hz**
Engineering Number	**842MG02**

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 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	18.4	[kgf/cm²] (262 psig)	/ ºC - ºF
9.2 Peak	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	3/4	[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	AB / ISO32	
4 Weight (with oil charge)	16.5	[kg] (36.38 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (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	RVA2AE3C-105	
3 Start capacitor	243-292(250)	[µF(VAC minimum)]
4 Run capacitor	35(400)	[µF(VAC minimum)]
5 Motor protection	T0736/C9	
6 Start winding resistance	2.66	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	0.43	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	55.00	[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	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ARILBP**			Evaporating temperature		**-23.3°C (-9.94°F)**
@115V60Hz			**Fan**			(Condensing temperature		**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]
2632	663	771	689	6.78	10.69	3.82	0.96	1.12

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ARI4**					(Condensing temperature **35ºC (+95ºF))**			
@115V60Hz		**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)**	1532	386	449	452	4.94	5.31	3.38	0.85	0.99
-35	**(-31)**	1947	491	571	505	5.32	6.78	3.86	0.97	1.13
-30	**(-22)**	2493	628	731	565	5.78	8.71	4.41	1.11	1.29
-25	**(-13)**	3170	799	929	633	6.32	11.13	5.01	1.26	1.47
-20	**(- 4)**	3978	1003	1166	707	6.95	14.05	5.62	1.42	1.65
-15	**(+ 5)**	4917	1239	1441	789	7.65	17.49	6.23	1.57	1.83
-10	**(+14)**	5988	1509	1755	879	8.44	21.46	6.81	1.72	2.00

TEST CONDITIONS:		**ARI4**					(Condensing temperature **45ºC (+113ºF))**			
@115V60Hz		**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)**	1261	318	370	461	5.02	4.83	2.74	0.69	0.80
-35	**(-31)**	1617	408	474	522	5.45	6.22	3.11	0.78	0.91
-30	**(-22)**	2093	528	613	589	5.95	8.08	3.55	0.90	1.04
-25	**(-13)**	2689	678	788	663	6.54	10.43	4.05	1.02	1.19
-20	**(- 4)**	3404	858	997	743	7.20	13.29	4.58	1.15	1.34
-15	**(+ 5)**	4239	1068	1242	830	7.95	16.68	5.11	1.29	1.50
-10	**(+14)**	5193	1309	1522	924	8.78	20.62	5.62	1.42	1.65

TEST CONDITIONS:		**ARI4**					(Condensing temperature **55ºC (+131ºF))**			
@115V60Hz		**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)**	1019	257	299	469	5.10	4.37	2.17	0.55	0.64
-35	**(-31)**	1298	327	380	540	5.59	5.60	2.41	0.61	0.71
-30	**(-22)**	1686	425	494	616	6.16	7.31	2.73	0.69	0.80
-25	**(-13)**	2182	550	639	699	6.81	9.52	3.12	0.79	0.91
-20	**(- 4)**	2786	702	816	788	7.55	12.25	3.54	0.89	1.04
-15	**(+ 5)**	3498	881	1025	882	8.36	15.51	3.97	1.00	1.16
-10	**(+14)**	4318	1088	1265	983	9.25	19.32	4.39	1.11	1.29

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		