COMPRESSOR DEFINITION

Designation	**NE U2155U**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**862KE71**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	115-127 / 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	1/2	[hp]
2 Displacement	13.54	[cm³] (0.826 cu.in)
2.1 Bore [mm]	29.362	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	AB / ISO32	
4 Weight (with oil charge)	11	[kg] (24.25 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVAH7AA3C-571	
3 Start capacitor	189-227(250)	[µF(VAC minimum)]
4 Run capacitor	20(400)	[µF(VAC minimum)]
5 Motor protection	MST20JZ-3261	
6 Start winding resistance	5.99	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	1.10	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	40.00	[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)**
@127V60Hz			**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]
2075	523	608	497	5.03	8.43	4.17	1.05	1.22

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ARI4**					(Condensing temperature **35ºC (+95ºF))**			
@127V60Hz		**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)**	1097	276	321	321	4.13	3.81	3.39	0.86	0.99
-35	**(-31)**	1418	357	416	361	4.31	4.94	3.93	0.99	1.15
-30	**(-22)**	1840	464	539	402	4.50	6.43	4.58	1.16	1.34
-25	**(-13)**	2361	595	692	443	4.72	8.29	5.33	1.34	1.56
-20	**(- 4)**	2981	751	873	485	4.96	10.52	6.14	1.55	1.80
-15	**(+ 5)**	3700	932	1084	528	5.22	13.16	7.01	1.77	2.05
-10	**(+14)**	4516	1138	1323	572	5.50	16.19	7.90	1.99	2.31

TEST CONDITIONS:		**ARI4**					(Condensing temperature **45ºC (+113ºF))**			
@127V60Hz		**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)**	886	223	260	328	4.13	3.39	2.72	0.69	0.80
-35	**(-31)**	1175	296	344	373	4.34	4.52	3.16	0.80	0.93
-30	**(-22)**	1553	391	455	419	4.58	5.99	3.70	0.93	1.08
-25	**(-13)**	2018	509	591	467	4.85	7.83	4.30	1.08	1.26
-20	**(- 4)**	2571	648	753	518	5.15	10.04	4.96	1.25	1.45
-15	**(+ 5)**	3210	809	941	570	5.48	12.63	5.63	1.42	1.65
-10	**(+14)**	3936	992	1153	624	5.84	15.63	6.32	1.59	1.85

TEST CONDITIONS:		**ARI4**					(Condensing temperature **55ºC (+131ºF))**			
@127V60Hz		**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)**	759	191	222	334	4.18	3.26	2.26	0.57	0.66
-35	**(-31)**	995	251	291	383	4.42	4.29	2.60	0.65	0.76
-30	**(-22)**	1307	329	383	435	4.69	5.67	3.00	0.76	0.88
-25	**(-13)**	1695	427	497	490	5.01	7.40	3.46	0.87	1.01
-20	**(- 4)**	2159	544	633	549	5.36	9.49	3.94	0.99	1.16
-15	**(+ 5)**	2698	680	791	610	5.76	11.96	4.43	1.12	1.30
-10	**(+14)**	3312	835	970	674	6.20	14.82	4.90	1.24	1.44

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		