COMPRESSOR DEFINITION

Designation	**NE U2155U**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**862KA51**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	220-240 / 50	[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	CSIR		
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	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)	11.1	[kg] (24.47 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-49-65	
3 Start capacitor	64-77(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0056/G6	
6 Start winding resistance	19.29	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	5.98	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	17.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	3.13	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**EN12900LBP_HH**		Evaporating temperature		**-35°C (-31°F)**	
@220V50Hz			**Fan**		(Condensing temperature		**40°C (104°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]
1241	313	364	301	2.06	3.92	4.12	1.04	1.21

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**EN12900HH**					(Condensing temperature **35ºC (+95ºF))**			
@220V50Hz		**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)**	1068	269	313	258	1.89	3.23	4.12	1.04	1.21
-35	**(-31)**	1360	343	399	294	2.00	4.12	4.64	1.17	1.36
-30	**(-22)**	1738	438	509	330	2.12	5.28	5.28	1.33	1.55
-25	**(-13)**	2201	555	645	366	2.25	6.70	6.01	1.52	1.76
-20	**(- 4)**	2750	693	806	402	2.38	8.40	6.84	1.72	2.00
-15	**(+ 5)**	3384	853	992	438	2.52	10.38	7.73	1.95	2.26
-10	**(+14)**	4104	1034	1203	473	2.66	12.65	8.67	2.19	2.54

TEST CONDITIONS:		**EN12900HH**					(Condensing temperature **45ºC (+113ºF))**			
@220V50Hz		**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)**	906	228	266	269	1.91	2.98	3.38	0.85	0.99
-35	**(-31)**	1179	297	345	310	2.04	3.90	3.80	0.96	1.11
-30	**(-22)**	1519	383	445	353	2.19	5.04	4.30	1.08	1.26
-25	**(-13)**	1927	486	565	396	2.35	6.41	4.85	1.22	1.42
-20	**(- 4)**	2402	605	704	440	2.52	8.02	5.44	1.37	1.60
-15	**(+ 5)**	2944	742	863	486	2.70	9.87	6.06	1.53	1.78
-10	**(+14)**	3554	896	1041	532	2.90	11.97	6.69	1.69	1.96

TEST CONDITIONS:		**EN12900HH**					(Condensing temperature **55ºC (+131ºF))**			
@220V50Hz		**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)**	756	191	222	275	1.94	2.76	2.75	0.69	0.81
-35	**(-31)**	1009	254	296	323	2.09	3.69	3.12	0.79	0.91
-30	**(-22)**	1311	330	384	373	2.26	4.81	3.51	0.89	1.03
-25	**(-13)**	1663	419	487	424	2.46	6.12	3.92	0.99	1.15
-20	**(- 4)**	2064	520	605	478	2.67	7.62	4.33	1.09	1.27
-15	**(+ 5)**	2515	634	737	534	2.90	9.33	4.72	1.19	1.38
-10	**(+14)**	3015	760	883	592	3.15	11.26	5.08	1.28	1.49

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
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		