COMPRESSOR DEFINITION

Designation	**NE U2140U**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**862IA51**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
2.1 Max Refrigerant Charge	150 [g]		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Low Back Pressuure 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 pressures/temperature			
9.1 Operating (gauge)	19,1	[kgf/cm²] (272 psig)	/ ºC - ºF
9.2 Peak (gauge)	21,2	[kgf/cm²] (301 psig)	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[hp]
2 Displacement	9,99	[cm³] (0.610 cu.in)
2.1 Bore [mm]	26,497	
2.2 Stroke [mm]	18,120	
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)	10,5	[kg] (23.15 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL 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	MTRPH-0025-65	
3 Start capacitor	64-77(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0660/G6	
6 Start winding resistance	24.26	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	7.79	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	14.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAELBP32**			Evaporating temperature		**-23,3°C (-9,94°F)**
@220V50Hz			**Fan**			(Condensing temperature		**54,4°C (129,92°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]
1656	417	485	326	1,96	4,93	5,08	1,28	1,49

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **35ºC (+95ºF))**			
@220V50Hz		**Fan**								
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)**	817	206	239	194	1,51	2,41	4,20	1,06	1,23
-35	**(-31)**	1052	265	308	221	1,59	3,11	4,76	1,20	1,39
-30	**(-22)**	1348	340	395	247	1,67	4,00	5,45	1,37	1,60
-25	**(-13)**	1705	430	499	273	1,75	5,07	6,25	1,58	1,83
-20	**(- 4)**	2122	535	622	297	1,83	6,33	7,15	1,80	2,09
-15	**(+ 5)**	2600	655	762	321	1,92	7,79	8,11	2,04	2,38
-10	**(+14)**	3139	791	920	344	2,01	9,44	9,11	2,30	2,67

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **45ºC (+113ºF))**			
@220V50Hz		**Fan**								
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)**	772	194	226	202	1,54	2,28	3,83	0,96	1,12
-35	**(-31)**	996	251	292	233	1,63	2,95	4,28	1,08	1,26
-30	**(-22)**	1279	322	375	264	1,73	3,79	4,85	1,22	1,42
-25	**(-13)**	1619	408	474	294	1,83	4,81	5,49	1,38	1,61
-20	**(- 4)**	2018	508	591	325	1,95	6,02	6,19	1,56	1,81
-15	**(+ 5)**	2473	623	725	357	2,07	7,41	6,93	1,75	2,03
-10	**(+14)**	2987	753	875	389	2,20	8,99	7,69	1,94	2,25

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **55ºC (+131ºF))**			
@220V50Hz		**Fan**								
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)**	725	183	213	207	1,55	2,14	3,49	0,88	1,02
-35	**(-31)**	942	237	276	242	1,65	2,79	3,90	0,98	1,14
-30	**(-22)**	1214	306	356	277	1,77	3,60	4,38	1,10	1,28
-25	**(-13)**	1541	388	451	314	1,90	4,58	4,91	1,24	1,44
-20	**(- 4)**	1922	484	563	352	2,04	5,73	5,47	1,38	1,60
-15	**(+ 5)**	2359	594	691	391	2,19	7,06	6,04	1,52	1,77
-10	**(+14)**	2849	718	835	432	2,35	8,57	6,59	1,66	1,93

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		