

COMPRESSOR DEFINITION

Designation	NE U2155U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	8620A51

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 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	13.54	[cm ³] (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)	10.3	[kg] (22.71 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

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	
3 Start capacitor	64-77(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MSP30APK-3259	
6 Start winding resistance	14.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.97	[Ω at 25°C (77°F)] +/- 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)	-	[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 - CE - UKCA - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 54.4°C (129.92°F)		
Cooling capacity (Qe)			Input power (We)	Electric current	Mass flow rate	Efficiency EER & COP			
+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
2137	539	626	442	2.55	6.36	4.83	1.22	1.42	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 Fan			(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity (Qe)			Input power (We)	Electric current	Mass flow rate	Efficiency EER & COP		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	1086	274	318	257	1.88	3.21	4.22	1.06	1.24
-35	(-31)	1392	351	408	294	1.99	4.12	4.75	1.20	1.39
-30	(-22)	1781	449	522	330	2.11	5.28	5.40	1.36	1.58
-25	(-13)	2255	568	661	366	2.24	6.71	6.16	1.55	1.80
-20	(- 4)	2811	708	824	402	2.37	8.39	7.00	1.76	2.05
-15	(+ 5)	3452	870	1011	437	2.51	10.34	7.89	1.99	2.31
-10	(+14)	4176	1052	1224	473	2.66	12.57	8.83	2.23	2.59

TEST CONDITIONS: @220V50Hz		ASHRAE32 Fan			(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity (Qe)			Input power (We)	Electric current	Mass flow rate	Efficiency EER & COP		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	1020	257	299	270	1.92	3.01	3.77	0.95	1.11
-35	(-31)	1316	332	386	312	2.05	3.89	4.23	1.06	1.24
-30	(-22)	1690	426	495	354	2.19	5.01	4.77	1.20	1.40
-25	(-13)	2143	540	628	397	2.35	6.37	5.40	1.36	1.58
-20	(- 4)	2674	674	783	440	2.52	7.98	6.07	1.53	1.78
-15	(+ 5)	3283	827	962	485	2.70	9.83	6.77	1.71	1.98
-10	(+14)	3971	1001	1164	531	2.89	11.95	7.48	1.88	2.19

TEST CONDITIONS: @220V50Hz		ASHRAE32 Fan			(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity (Qe)			Input power (We)	Electric current	Mass flow rate	Efficiency EER & COP		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	913	230	268	275	1.94	2.69	3.33	0.84	0.97
-35	(-31)	1210	305	355	322	2.09	3.58	3.75	0.95	1.10
-30	(-22)	1580	398	463	372	2.26	4.68	4.24	1.07	1.24
-25	(-13)	2022	510	593	423	2.45	6.01	4.78	1.20	1.40
-20	(- 4)	2538	640	744	477	2.66	7.57	5.33	1.34	1.56
-15	(+ 5)	3127	788	916	533	2.89	9.36	5.88	1.48	1.72
-10	(+14)	3789	955	1110	591	3.13	11.40	6.40	1.61	1.88

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		