

### COMPRESSOR DEFINITION

Designation	NT U6224ZV
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	215BD50

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	208-230 / 60	[ V / Hz ]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°F to 50°F)	
5 Motor type	CSCR		
6 Starting torque	HST - High 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	14.2	[kgf/cm <sup>2</sup> ] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm <sup>2</sup> ] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1 1/4	[hp]
2 Displacement	27.80	[cm <sup>3</sup> ] (1.696 cu.in)
2.1 Bore [mm]	38.100	
2.2 Stroke [mm]	24.400	
3 Lubricant charge	650	[ml] (21.98 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	18.1	[kg] (39.90 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	3ARR3B6V3	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	25(440)	[µF(VAC minimum)]
5 Motor protection	15HM1963-247	
6 Start winding resistance	3.09	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.27	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[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: @230V60Hz			ARIHBP Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°F) 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]
11428	2880	3349	1287	6.35	89.68	8.88	2.24	2.60

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz		ARI18 Fan			(Condensing temperature 35°C (+95°F) )					
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]
-15	(+5)	5590	1409	1638	800	3.97	34.95	6.98	1.76	2.05
-10	(+14)	7140	1799	2092	866	4.12	44.92	8.25	2.08	2.42
-5	(+23)	8972	2261	2629	928	4.43	56.71	9.68	2.44	2.84
0	(+32)	11143	2808	3265	987	4.96	70.85	11.30	2.85	3.31
+5	(+41)	13711	3455	4018	1045	5.78	87.86	13.11	3.30	3.84
+10	(+50)	16731	4216	4903	1104	6.94	108.28	15.15	3.82	4.44

TEST CONDITIONS: @230V60Hz		ARI18 Fan			(Condensing temperature 45°C (+113°F) )					
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]
-15	(+5)	4833	1218	1416	829	4.28	33.14	5.84	1.47	1.71
-10	(+14)	6250	1575	1831	915	4.47	43.14	6.83	1.72	2.00
-5	(+23)	7892	1989	2313	996	4.74	54.79	7.92	2.00	2.32
0	(+32)	9816	2474	2876	1074	5.13	68.62	9.13	2.30	2.68
+5	(+41)	12078	3044	3539	1150	5.70	85.15	10.50	2.64	3.08
+10	(+50)	14735	3713	4318	1227	6.51	104.93	12.02	3.03	3.52

TEST CONDITIONS: @230V60Hz		ARI18 Fan			(Condensing temperature 55°C (+131°F) )					
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]
-15	(+5)	4023	1014	1179	848	4.50	30.74	4.74	1.20	1.39
-10	(+14)	5296	1334	1552	954	4.78	40.64	5.54	1.40	1.62
-5	(+23)	6735	1697	1973	1054	5.04	52.04	6.39	1.61	1.87
0	(+32)	8398	2116	2461	1150	5.32	65.44	7.31	1.84	2.14
+5	(+41)	10342	2606	3030	1245	5.68	81.39	8.31	2.09	2.44
+10	(+50)	12624	3181	3699	1339	6.19	100.41	9.42	2.37	2.76

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	12.77 +0.08/+0.00	[mm]	(0.503" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	9.6 +0.07/+0.00	[mm]	(0.378" +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		