

COMPRESSOR DEFINITION

Designation	NT 2152ZV
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	215CG02

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115 / 60	[V / Hz]	
4 Application type	Low Back Pressure R134a		
4.1 Evaporating temperature range	-30°C to -5°C	(-22°F to 23°F)	
5 Motor type	CSCR		
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	14.2	[kgf/cm ²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm ²] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[hp]
2 Displacement	26.21	[cm ³] (1.599 cu.in)
2.1 Bore [mm]	36.990	
2.2 Stroke [mm]	24.400	
3 Lubricant charge	450	[ml] (15.22 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	18.2	[kg] (40.12 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA7AC3C-115	
3 Start capacitor	340-408(330)	[µF(VAC minimum)]
4 Run capacitor	40(400)	[µF(VAC minimum)]
5 Motor protection	15HM1958	
6 Start winding resistance	1.06	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.42	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	70.00	[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: @115V60Hz			ARILBP Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 48.9°C (120.02°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]	
2081	524	610	568	6.34	16.00	3.66	0.92	1.07	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			ARI4 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]
-30	(-22)	1739	438	510	453	5.63	11.57	3.83	0.97	1.12
-25	(-13)	2463	621	722	521	6.01	16.44	4.76	1.20	1.39
-20	(- 4)	3251	819	953	580	6.40	21.77	5.61	1.41	1.65
-15	(+ 5)	4122	1039	1208	636	6.76	27.72	6.45	1.63	1.89
-10	(+14)	5094	1284	1493	693	7.06	34.46	7.31	1.84	2.14
-5	(+23)	6187	1559	1813	757	7.27	42.18	8.22	2.07	2.41

TEST CONDITIONS: @115V60Hz			ARI4 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]
-30	(-22)	1296	327	380	417	5.46	9.49	3.07	0.77	0.90
-25	(-13)	2023	510	593	528	6.07	14.91	3.84	0.97	1.12
-20	(- 4)	2777	700	814	623	6.70	20.56	4.50	1.13	1.32
-15	(+ 5)	3578	902	1048	706	7.32	26.62	5.10	1.28	1.49
-10	(+14)	4444	1120	1302	782	7.90	33.26	5.68	1.43	1.66
-5	(+23)	5394	1359	1581	856	8.41	40.66	6.28	1.58	1.84

TEST CONDITIONS: @115V60Hz			ARI4 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]
-30	(-22)	683	172	200	333	5.07	5.64	2.11	0.53	0.62
-25	(-13)	1448	365	424	492	5.87	11.95	2.87	0.72	0.84
-20	(- 4)	2204	555	646	626	6.71	18.28	3.50	0.88	1.03
-15	(+ 5)	2970	748	870	740	7.57	24.80	4.03	1.02	1.18
-10	(+14)	3765	949	1103	839	8.40	31.67	4.51	1.14	1.32
-5	(+23)	4608	1161	1350	927	9.19	39.09	4.96	1.25	1.45

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	9.6 +0.07/+0.00	[mm]	(0.378" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	6.42 +0.08/+0.00	[mm]	(0.253" +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		