

### COMPRESSOR DEFINITION

Designation	<b>T 2155GK</b>
Nominal Voltage/Frequency	<b>208-230 V 60 Hz</b>
Engineering Number	<b>936AD41</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 60	[ V / Hz ]	
4 Application type	Low Back Pressure R404A		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°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 pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm <sup>2</sup> ] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm <sup>2</sup> ] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/2+	[hp]
2 Displacement	14.50	[cm <sup>3</sup> ] (0.885 cu.in)
2.1 Bore [mm]	34.120	
2.2 Stroke [mm]	15.870	
3 Lubricant charge	550	[ml] (18.60 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	15.3	[kg] (33.73 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELETRICAL 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	3ARR3B10A3	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	15(450)	[µF(VAC minimum)]
5 Motor protection	3HM192-105	
6 Start winding resistance	6.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.80	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	25.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.70	[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: <b>@208V60Hz</b>			<b>ASHRAELBP32</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>-23.3°C (-9.94°F)</b> <b>54.4°C (129.92°F)</b>		
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]
2330	587	683	537	2.56	15.80	4.34	1.09	1.27

### E - PERFORMANCE - CURVES

TEST CONDITIONS: <b>@208V50Hz</b>			<b>ASHRAE32</b> <b>Fan</b>		(Condensing temperature <b>35°C (+95°F)</b> )				
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]
<b>-40 (-40)</b>	791	199	232	277	1.54	5.32	2.83	0.71	0.83
<b>-35 (-31)</b>	1165	294	341	339	1.88	7.86	3.45	0.87	1.01
<b>-30 (-22)</b>	1635	412	479	400	2.21	11.06	4.11	1.04	1.21
<b>-25 (-13)</b>	2223	560	651	459	2.54	15.10	4.85	1.22	1.42
<b>-20 (- 4)</b>	2954	744	865	516	2.86	20.17	5.71	1.44	1.67
<b>-15 (+ 5)</b>	3851	971	1129	572	3.17	26.47	6.72	1.69	1.97
<b>-10 (+14)</b>	4940	1245	1448	625	3.46	34.17	7.92	1.99	2.32

TEST CONDITIONS: <b>@208V50Hz</b>			<b>ASHRAE32</b> <b>Fan</b>		(Condensing temperature <b>45°C (+113°F)</b> )				
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]
<b>-40 (-40)</b>	618	156	181	219	1.24	4.15	2.82	0.71	0.83
<b>-35 (-31)</b>	994	251	291	295	1.64	6.70	3.37	0.85	0.99
<b>-30 (-22)</b>	1450	365	425	370	2.04	9.79	3.93	0.99	1.15
<b>-25 (-13)</b>	2009	506	589	444	2.44	13.62	4.53	1.14	1.33
<b>-20 (- 4)</b>	2695	679	790	516	2.84	18.37	5.21	1.31	1.53
<b>-15 (+ 5)</b>	3533	890	1035	586	3.23	24.23	6.01	1.51	1.76
<b>-10 (+14)</b>	4546	1146	1332	655	3.61	31.38	6.96	1.75	2.04

TEST CONDITIONS: <b>@208V50Hz</b>			<b>ASHRAE32</b> <b>Fan</b>		(Condensing temperature <b>55°C (+131°F)</b> )				
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]
<b>-40 (-40)</b>	451	114	132	164	0.95	3.01	2.75	0.69	0.81
<b>-35 (-31)</b>	831	209	243	253	1.41	5.58	3.26	0.82	0.96
<b>-30 (-22)</b>	1274	321	373	342	1.88	8.59	3.74	0.94	1.10
<b>-25 (-13)</b>	1805	455	529	429	2.35	12.22	4.22	1.06	1.24
<b>-20 (- 4)</b>	2448	617	717	516	2.82	16.65	4.75	1.20	1.39
<b>-15 (+ 5)</b>	3227	813	946	601	3.29	22.08	5.36	1.35	1.57
<b>-10 (+14)</b>	4165	1050	1220	684	3.75	28.70	6.09	1.53	1.78

### E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 35°C (+95°F))					
@208V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	1163	293	341	325	1.57	7.82	3.52	0.89	1.03
-35	(-31)	1501	378	440	397	1.92	10.12	3.86	0.97	1.13
-30	(-22)	1979	499	580	468	2.26	13.38	4.29	1.08	1.26
-25	(-13)	2626	662	769	537	2.59	17.84	4.88	1.23	1.43
-20	(- 4)	3470	875	1017	604	2.92	23.71	5.67	1.43	1.66
-15	(+ 5)	4540	1144	1330	669	3.23	31.21	6.72	1.69	1.97
-10	(+14)	5864	1478	1718	731	3.53	40.56	8.10	2.04	2.37

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 45°C (+113°F))					
@208V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	724	183	212	257	1.26	4.86	2.75	0.69	0.81
-35	(-31)	1164	293	341	345	1.67	7.84	3.39	0.85	0.99
-30	(-22)	1696	427	497	433	2.08	11.45	3.97	1.00	1.16
-25	(-13)	2350	592	689	519	2.49	15.93	4.56	1.15	1.34
-20	(- 4)	3153	795	924	604	2.90	21.49	5.22	1.31	1.53
-15	(+ 5)	4133	1042	1211	686	3.29	28.35	5.99	1.51	1.75
-10	(+14)	5320	1341	1559	767	3.68	36.73	6.93	1.75	2.03

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 55°C (+131°F))					
@208V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	298	75	87	192	0.97	1.98	1.68	0.42	0.49
-35	(-31)	840	212	246	296	1.44	5.65	2.69	0.68	0.79
-30	(-22)	1427	360	418	400	1.92	9.62	3.51	0.88	1.03
-25	(-13)	2088	526	612	502	2.40	14.13	4.19	1.06	1.23
-20	(- 4)	2850	718	835	603	2.88	19.38	4.78	1.20	1.40
-15	(+ 5)	3742	943	1096	703	3.35	25.60	5.35	1.35	1.57
-10	(+14)	4792	1208	1404	801	3.83	33.02	5.95	1.50	1.74

### F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
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	9.6 +0.07/+0.00	[mm]	(0.378" +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		