

COMPRESSOR DEFINITION

Designation	VEG T7C
Nominal Voltage/Frequency	230 V 53-133 Hz
Engineering Number	513800018

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	230 / 53-133	[V / Hz]	
4 Application type	Low Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°F)	
5 Motor type	BPM		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	Static	187 to 255 V	187 to 242 V
8.2 LBP (43°C Ambient temperature)	Static	187 to 255 V	187 to 242 V
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm ²] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm ²] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	7.15	[cm ³] (0.436 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	18.000	
3 Lubricant charge	430	[ml] (14.54 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO10	
4 Weight (with oil charge)	10.59	[kg] (23.35 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	230 V 53-133 Hz 3 ~ (Three phase)	
2 Starting device type	Inverter	
2.1 Starting device	EU245608B02/EU245609N00	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	EU2456 09 N 00	
6 Start winding resistance	7.60	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	7.60	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	3.30	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	3.30	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V1600RPM			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]	
149	38	44	37	0.32	0.57	4.01	1.01	1.18	

TEST CONDITIONS: @220V2000RPM			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]	
195	49	57	45	0.39	0.74	4.30	1.08	1.26	

TEST CONDITIONS: @220V3000RPM			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]	
316	80	93	72	0.58	1.20	4.37	1.10	1.28	

TEST CONDITIONS: @220V4000RPM			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]	
397	100	116	97	0.58	1.51	4.08	1.03	1.20	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V1600RPM		CECOMAF Static				(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]
-35	(-31)	71	18	21	27	0.22	0.25	2.60	0.65	0.76
-30	(-22)	114	29	33	32	0.27	0.40	3.63	0.92	1.06
-25	(-13)	166	42	49	36	0.32	0.58	4.64	1.17	1.36
-20	(- 4)	226	57	66	40	0.35	0.79	5.62	1.42	1.65
-15	(+ 5)	295	74	86	44	0.38	1.03	6.58	1.66	1.93
-10	(+14)	372	94	109	49	0.41	1.30	7.55	1.90	2.21

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V1600RPM		CECOMAF Static			(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]
-35 (-31)	51	13	15	26	0.22	0.19	1.95	0.49	0.57	
-30 (-22)	98	25	29	32	0.27	0.37	3.04	0.77	0.89	
-25 (-13)	149	38	44	37	0.32	0.57	4.01	1.01	1.17	
-20 (- 4)	206	52	60	42	0.37	0.79	4.85	1.22	1.42	
-15 (+ 5)	267	67	78	48	0.40	1.02	5.59	1.41	1.64	
-10 (+14)	333	84	98	53	0.43	1.28	6.23	1.57	1.82	

TEST CONDITIONS: @220V1600RPM		CECOMAF Static			(Condensing temperature 65°C (+149°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]
-35 (-31)	35	9	10	25	0.20	0.15	1.45	0.36	0.42	
-30 (-22)	85	22	25	31	0.27	0.36	2.61	0.66	0.76	
-25 (-13)	137	34	40	38	0.33	0.58	3.55	0.89	1.04	
-20 (- 4)	189	48	55	44	0.39	0.80	4.28	1.08	1.25	
-15 (+ 5)	243	61	71	51	0.44	1.03	4.81	1.21	1.41	
-10 (+14)	297	75	87	58	0.48	1.27	5.14	1.30	1.51	

TEST CONDITIONS: @220V2000RPM		CECOMAF Static			(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]
-35 (-31)	92	23	27	35	0.28	0.32	2.65	0.67	0.78	
-30 (-22)	148	37	43	39	0.33	0.51	3.80	0.96	1.11	
-25 (-13)	216	54	63	44	0.38	0.75	4.87	1.23	1.43	
-20 (- 4)	295	74	87	50	0.42	1.03	5.88	1.48	1.72	
-15 (+ 5)	383	96	112	56	0.46	1.34	6.83	1.72	2.00	
-10 (+14)	476	120	139	61	0.49	1.67	7.75	1.95	2.27	

TEST CONDITIONS: @220V2000RPM		CECOMAF Static			(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]
-35 (-31)	80	20	23	33	0.28	0.30	2.37	0.60	0.70	
-30 (-22)	131	33	38	39	0.34	0.50	3.40	0.86	1.00	
-25 (-13)	195	49	57	45	0.39	0.74	4.30	1.08	1.26	
-20 (- 4)	267	67	78	52	0.44	1.02	5.10	1.29	1.49	
-15 (+ 5)	347	87	102	60	0.49	1.33	5.82	1.47	1.71	
-10 (+14)	431	109	126	67	0.52	1.66	6.47	1.63	1.90	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V2000RPM		CECOMAF Static			(Condensing temperature 65°C (+149°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]
-35 (-31)	55	14	16	31	0.24	0.23	1.81	0.46	0.53	
-30 (-22)	106	27	31	37	0.32	0.45	2.83	0.71	0.83	
-25 (-13)	168	42	49	45	0.39	0.71	3.68	0.93	1.08	
-20 (- 4)	239	60	70	54	0.45	1.01	4.40	1.11	1.29	
-15 (+ 5)	314	79	92	63	0.51	1.33	5.01	1.26	1.47	
-10 (+14)	393	99	115	71	0.56	1.67	5.51	1.39	1.61	

TEST CONDITIONS: @220V3000RPM		CECOMAF Static			(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]
-35 (-31)	165	42	48	54	0.41	0.57	3.07	0.77	0.90	
-30 (-22)	251	63	74	63	0.49	0.88	3.99	1.01	1.17	
-25 (-13)	343	87	101	72	0.57	1.20	4.79	1.21	1.40	
-20 (- 4)	446	113	131	81	0.64	1.56	5.54	1.40	1.62	
-15 (+ 5)	566	143	166	90	0.70	1.97	6.30	1.59	1.85	
-10 (+14)	706	178	207	98	0.75	2.47	7.13	1.80	2.09	

TEST CONDITIONS: @220V3000RPM		CECOMAF Static			(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]
-35 (-31)	137	34	40	51	0.40	0.52	2.66	0.67	0.78	
-30 (-22)	224	56	66	62	0.49	0.85	3.60	0.91	1.05	
-25 (-13)	315	80	92	72	0.58	1.20	4.37	1.10	1.28	
-20 (- 4)	416	105	122	83	0.66	1.59	5.03	1.27	1.47	
-15 (+ 5)	530	134	155	94	0.73	2.03	5.66	1.43	1.66	
-10 (+14)	664	167	195	105	0.79	2.55	6.32	1.59	1.85	

TEST CONDITIONS: @220V3000RPM		CECOMAF Static			(Condensing temperature 65°C (+149°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]
-35 (-31)	89	22	26	45	0.35	0.38	1.98	0.50	0.58	
-30 (-22)	180	45	53	58	0.46	0.76	3.02	0.76	0.88	
-25 (-13)	272	69	80	70	0.57	1.15	3.83	0.97	1.12	
-20 (- 4)	372	94	109	83	0.67	1.58	4.50	1.13	1.32	
-15 (+ 5)	484	122	142	96	0.75	2.06	5.07	1.28	1.49	
-10 (+14)	613	154	180	109	0.82	2.61	5.63	1.42	1.65	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V4000RPM		CECOMAF Static			(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]
-35	(-31)	233	59	68	73	0.54	0.81	3.20	0.81	0.94
-30	(-22)	330	83	97	85	0.65	1.15	3.90	0.98	1.14
-25	(-13)	449	113	132	98	0.76	1.57	4.62	1.16	1.35
-20	(- 4)	592	149	174	110	0.86	2.07	5.37	1.35	1.57
-15	(+ 5)	760	192	223	123	0.94	2.66	6.16	1.55	1.81
-10	(+14)	954	240	280	136	1.01	3.34	7.00	1.76	2.05

TEST CONDITIONS: @220V4000RPM		CECOMAF Static			(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]
-35	(-31)	180	45	53	69	0.52	0.68	2.59	0.65	0.76
-30	(-22)	278	70	81	83	0.65	1.06	3.34	0.84	0.98
-25	(-13)	397	100	116	97	0.77	1.51	4.08	1.03	1.20
-20	(- 4)	539	136	158	112	0.88	2.06	4.81	1.21	1.41
-15	(+ 5)	706	178	207	127	0.97	2.70	5.54	1.40	1.62
-10	(+14)	898	226	263	143	1.05	3.45	6.26	1.58	1.84

TEST CONDITIONS: @220V4000RPM		CECOMAF Static			(Condensing temperature 65°C (+149°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]
-35	(-31)	125	31	37	63	0.46	0.53	1.99	0.50	0.58
-30	(-22)	225	57	66	78	0.61	0.95	2.84	0.72	0.83
-25	(-13)	346	87	101	95	0.75	1.46	3.63	0.91	1.06
-20	(- 4)	488	123	143	112	0.88	2.07	4.36	1.10	1.28
-15	(+ 5)	654	165	192	130	0.99	2.78	5.05	1.27	1.48
-10	(+14)	844	213	247	148	1.08	3.60	5.70	1.44	1.67

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted		
3.2 DISCHARGE	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted		
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		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		