

COMPRESSOR DEFINITION

Designation	VEG T8C
Nominal Voltage/Frequency	230 V 53-133 Hz
Engineering Number	513800020

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	7.95	[cm ³] (0.485 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	20.000	
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 08B 02	
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		

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]	
171	43	50	41	0.32	0.65	4.22	1.06	1.24	

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]	
216	54	63	51	0.40	0.82	4.28	1.08	1.25	

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]	
346	87	101	80	0.60	1.32	4.35	1.10	1.27	

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]	
430	108	126	107	0.80	1.64	4.03	1.02	1.18	

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)	92	23	27	31	0.24	0.32	2.94	0.74	0.86
-30	(-22)	137	35	40	35	0.28	0.48	3.88	0.98	1.14
-25	(-13)	189	48	55	40	0.31	0.66	4.75	1.20	1.39
-20	(- 4)	250	63	73	45	0.34	0.87	5.60	1.41	1.64
-15	(+ 5)	323	81	95	50	0.38	1.13	6.51	1.64	1.91
-10	(+14)	409	103	120	54	0.41	1.43	7.54	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)	72	18	21	30	0.24	0.27	2.43	0.61	0.71	
-30 (-22)	119	30	35	35	0.28	0.45	3.40	0.86	1.00	
-25 (-13)	171	43	50	41	0.32	0.65	4.22	1.06	1.24	
-20 (- 4)	231	58	68	47	0.37	0.88	4.97	1.25	1.46	
-15 (+ 5)	301	76	88	53	0.41	1.15	5.71	1.44	1.67	
-10 (+14)	384	97	113	59	0.45	1.47	6.52	1.64	1.91	

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)	48	12	14	28	0.22	0.20	1.74	0.44	0.51	
-30 (-22)	97	24	28	34	0.27	0.41	2.80	0.71	0.82	
-25 (-13)	150	38	44	41	0.33	0.63	3.66	0.92	1.07	
-20 (- 4)	210	53	61	48	0.38	0.89	4.38	1.10	1.28	
-15 (+ 5)	279	70	82	56	0.43	1.19	5.04	1.27	1.48	
-10 (+14)	361	91	106	63	0.49	1.54	5.70	1.44	1.67	

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)	115	29	34	39	0.30	0.40	2.98	0.75	0.87	
-30 (-22)	175	44	51	44	0.34	0.61	3.91	0.99	1.15	
-25 (-13)	233	59	68	50	0.38	0.82	4.70	1.18	1.38	
-20 (- 4)	300	76	88	55	0.42	1.05	5.45	1.37	1.60	
-15 (+ 5)	383	97	112	60	0.46	1.34	6.31	1.59	1.85	
-10 (+14)	492	124	144	66	0.50	1.72	7.39	1.86	2.16	

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)	94	24	28	36	0.31	0.36	2.63	0.66	0.77	
-30 (-22)	156	39	46	44	0.36	0.60	3.56	0.90	1.04	
-25 (-13)	216	54	63	51	0.40	0.82	4.28	1.08	1.25	
-20 (- 4)	282	71	83	58	0.44	1.08	4.92	1.24	1.44	
-15 (+ 5)	364	92	107	65	0.49	1.39	5.60	1.41	1.64	
-10 (+14)	469	118	137	72	0.54	1.80	6.45	1.63	1.89	

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)	56	14	16	32	0.28	0.24	1.74	0.44	0.51	
-30 (-22)	122	31	36	42	0.34	0.51	2.80	0.70	0.82	
-25 (-13)	185	47	54	51	0.40	0.78	3.58	0.90	1.05	
-20 (- 4)	252	64	74	60	0.46	1.07	4.23	1.07	1.24	
-15 (+ 5)	334	84	98	69	0.52	1.42	4.86	1.22	1.42	
-10 (+14)	437	110	128	78	0.59	1.87	5.60	1.41	1.64	

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)	176	44	52	60	0.46	0.61	2.94	0.74	0.86	
-30 (-22)	277	70	81	69	0.53	0.97	3.98	1.00	1.17	
-25 (-13)	375	94	110	79	0.59	1.31	4.77	1.20	1.40	
-20 (- 4)	481	121	141	89	0.66	1.68	5.44	1.37	1.59	
-15 (+ 5)	606	153	178	99	0.72	2.11	6.14	1.55	1.80	
-10 (+14)	761	192	223	108	0.78	2.66	7.02	1.77	2.06	

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)	149	38	44	58	0.45	0.57	2.54	0.64	0.74	
-30 (-22)	249	63	73	69	0.53	0.95	3.59	0.91	1.05	
-25 (-13)	346	87	101	80	0.60	1.32	4.35	1.10	1.28	
-20 (- 4)	451	114	132	91	0.68	1.72	4.96	1.25	1.45	
-15 (+ 5)	575	145	168	103	0.75	2.20	5.56	1.40	1.63	
-10 (+14)	729	184	214	115	0.83	2.80	6.29	1.58	1.84	

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)	99	25	29	53	0.41	0.42	1.90	0.48	0.56	
-30 (-22)	200	50	59	64	0.50	0.84	3.03	0.76	0.89	
-25 (-13)	297	75	87	77	0.58	1.25	3.83	0.96	1.12	
-20 (- 4)	403	101	118	91	0.68	1.71	4.43	1.12	1.30	
-15 (+ 5)	527	133	154	106	0.77	2.24	4.98	1.26	1.46	
-10 (+14)	681	172	199	120	0.87	2.91	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)	236	59	69	82	0.00	0.82	2.88	0.73	0.84
-30	(-22)	341	86	100	93	0.00	1.19	3.66	0.92	1.07
-25	(-13)	472	119	138	107	0.00	1.65	4.41	1.11	1.29
-20	(- 4)	630	159	185	122	0.00	2.20	5.16	1.30	1.51
-15	(+ 5)	817	206	240	136	0.00	2.85	5.97	1.51	1.75
-10	(+14)	1035	261	303	150	0.00	3.62	6.89	1.74	2.02

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)	191	48	56	78	0.00	0.73	2.45	0.62	0.72
-30	(-22)	298	75	87	91	0.00	1.14	3.28	0.83	0.96
-25	(-13)	430	108	126	107	0.00	1.64	4.03	1.02	1.18
-20	(- 4)	588	148	172	124	0.00	2.24	4.74	1.19	1.39
-15	(+ 5)	773	195	226	142	0.00	2.96	5.45	1.37	1.60
-10	(+14)	986	249	289	159	0.00	3.78	6.22	1.57	1.82

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)	129	33	38	71	0.00	0.54	1.82	0.46	0.53
-30	(-22)	241	61	70	86	0.00	1.02	2.78	0.70	0.81
-25	(-13)	375	94	110	104	0.00	1.59	3.60	0.91	1.06
-20	(- 4)	533	134	156	123	0.00	2.26	4.33	1.09	1.27
-15	(+ 5)	718	181	210	144	0.00	3.05	5.01	1.26	1.47
-10	(+14)	929	234	272	164	0.00	3.96	5.69	1.43	1.67

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
2 Tray holder	Yes		
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		