

COMPRESSOR DEFINITION

Designation	VEG Z11C
Nominal Voltage/Frequency	230 V 53-120 Hz
Engineering Number	513802031

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	230 / 53-120	[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 255 V
8.2 LBP (43°C Ambient temperature)	Static	187 to 255 V	187 to 255 V
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm ²] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm ²] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	11.14	[cm ³] (0.680 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	21.000	
3 Lubricant charge	430	[ml] (14.54 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	10.99	[kg] (24.23 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	230 V 53-120 Hz 3 ~ (Three phase)	
2 Starting device type	Inverter	
2.1 Starting device	VCC32456XXXX	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	VCC32456XXXXX	
6 Start winding resistance	8.06	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	8.06	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	-	[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	CE - UKCA - 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]	
289	73	85	57	0.47	1.10	5.06	1.28	1.48	

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]	
344	87	101	68	0.55	1.31	5.04	1.27	1.48	

TEST CONDITIONS: @220V3600RPM			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]	
642	162	188	129	1.01	2.45	4.97	1.25	1.46	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V1600RPM		CECOMAF Static					(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]
-35	(-31)	230	58	67	36	0.36	0.74	6.46	1.63	1.89
-30	(-22)	285	72	84	42	0.40	0.92	6.97	1.76	2.04
-25	(-13)	362	91	106	47	0.46	1.16	7.74	1.95	2.27
-20	(- 4)	470	118	138	54	0.53	1.51	8.76	2.21	2.57
-15	(+ 5)	616	155	181	61	0.60	1.98	10.01	2.52	2.93
-10	(+14)	810	204	237	70	0.69	2.61	11.47	2.89	3.36

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]	[W/W]
-35	(-31)	209	53	61	39	0.38	0.72	5.31	1.34	1.55
-30	(-22)	262	66	77	46	0.43	0.91	5.69	1.43	1.67
-25	(-13)	329	83	96	53	0.49	1.15	6.29	1.59	1.84
-20	(- 4)	418	105	122	59	0.56	1.46	7.10	1.79	2.08
-15	(+ 5)	538	135	158	67	0.65	1.88	8.07	2.03	2.37
-10	(+14)	696	175	204	75	0.75	2.43	9.21	2.32	2.70

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)	178	45	52	41	0.39	0.67	4.36	1.10	1.28	
-30 (-22)	234	59	69	49	0.45	0.89	4.69	1.18	1.37	
-25 (-13)	296	75	87	57	0.53	1.13	5.18	1.31	1.52	
-20 (- 4)	371	94	109	64	0.62	1.42	5.82	1.47	1.70	
-15 (+ 5)	469	118	137	72	0.73	1.80	6.58	1.66	1.93	
-10 (+14)	596	150	175	80	0.85	2.29	7.44	1.88	2.18	

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)	137	35	40	40	0.40	0.59	3.50	0.88	1.03	
-30 (-22)	201	51	59	51	0.48	0.84	3.82	0.96	1.12	
-25 (-13)	262	66	77	60	0.58	1.10	4.25	1.07	1.25	
-20 (- 4)	329	83	96	69	0.71	1.39	4.78	1.20	1.40	
-15 (+ 5)	409	103	120	77	0.85	1.74	5.37	1.35	1.57	
-10 (+14)	511	129	150	86	1.01	2.18	6.03	1.52	1.77	

TEST CONDITIONS: @220V2000RPM		CECOMAF Static			(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]
-35 (-31)	281	71	82	44	0.45	0.90	6.38	1.61	1.87	
-30 (-22)	351	89	103	51	0.50	1.13	6.86	1.73	2.01	
-25 (-13)	451	114	132	59	0.56	1.45	7.65	1.93	2.24	
-20 (- 4)	581	146	170	67	0.64	1.87	8.71	2.20	2.55	
-15 (+ 5)	739	186	216	74	0.73	2.38	10.02	2.52	2.93	
-10 (+14)	925	233	271	81	0.84	2.98	11.52	2.90	3.38	

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)	240	61	70	47	0.46	0.83	5.18	1.30	1.52	
-30 (-22)	306	77	90	55	0.52	1.06	5.57	1.40	1.63	
-25 (-13)	398	100	117	64	0.59	1.39	6.22	1.57	1.82	
-20 (- 4)	517	130	152	72	0.68	1.80	7.09	1.79	2.08	
-15 (+ 5)	663	167	194	81	0.79	2.31	8.13	2.05	2.38	
-10 (+14)	834	210	244	90	0.90	2.92	9.32	2.35	2.73	

E - PERFORMANCE - CURVES

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)	211	53	62	49	0.47	0.80	4.36	1.10	1.28	
-30 (-22)	268	67	78	57	0.54	1.02	4.69	1.18	1.37	
-25 (-13)	350	88	102	67	0.62	1.33	5.21	1.31	1.53	
-20 (- 4)	456	115	134	77	0.73	1.74	5.88	1.48	1.72	
-15 (+ 5)	586	148	172	87	0.84	2.24	6.68	1.68	1.96	
-10 (+14)	739	186	217	98	0.97	2.84	7.57	1.91	2.22	

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)	185	47	54	49	0.49	0.78	3.73	0.94	1.09	
-30 (-22)	231	58	68	58	0.57	0.98	3.99	1.01	1.17	
-25 (-13)	300	75	88	69	0.67	1.27	4.39	1.11	1.29	
-20 (- 4)	390	98	114	80	0.78	1.65	4.89	1.23	1.43	
-15 (+ 5)	501	126	147	93	0.91	2.13	5.46	1.37	1.60	
-10 (+14)	634	160	186	105	1.04	2.70	6.05	1.52	1.77	

TEST CONDITIONS: @220V3600RPM		CECOMAF Static			(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]
-35 (-31)	485	122	142	88	0.87	1.56	5.45	1.37	1.60	
-30 (-22)	603	152	177	101	0.94	1.93	6.05	1.52	1.77	
-25 (-13)	776	196	227	113	1.05	2.49	6.89	1.74	2.02	
-20 (- 4)	1000	252	293	126	1.17	3.21	7.95	2.00	2.33	
-15 (+ 5)	1270	320	372	138	1.29	4.09	9.20	2.32	2.69	
-10 (+14)	1585	399	464	150	1.39	5.11	10.60	2.67	3.10	

TEST CONDITIONS: @220V3600RPM		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)	431	109	126	93	0.86	1.49	4.68	1.18	1.37	
-30 (-22)	548	138	160	106	0.95	1.90	5.17	1.30	1.51	
-25 (-13)	710	179	208	121	1.08	2.47	5.85	1.47	1.71	
-20 (- 4)	916	231	268	136	1.23	3.20	6.69	1.68	1.96	
-15 (+ 5)	1161	293	340	151	1.37	4.06	7.65	1.93	2.24	
-10 (+14)	1443	364	423	166	1.49	5.05	8.71	2.19	2.55	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V3600RPM		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)	379	95	111	96	0.88	1.44	3.99	1.01	1.17
-30	(-22)	489	123	143	111	0.99	1.87	4.40	1.11	1.29
-25	(-13)	639	161	187	128	1.13	2.44	4.95	1.25	1.45
-20	(- 4)	823	207	241	146	1.28	3.15	5.59	1.41	1.64
-15	(+ 5)	1039	262	305	164	1.43	3.98	6.30	1.59	1.85
-10	(+14)	1284	324	376	183	1.55	4.93	7.04	1.77	2.06

TEST CONDITIONS: @220V3600RPM		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)	330	83	97	97	0.95	1.39	3.37	0.85	0.99
-30	(-22)	431	109	126	116	1.05	1.82	3.73	0.94	1.09
-25	(-13)	563	142	165	135	1.19	2.38	4.17	1.05	1.22
-20	(- 4)	723	182	212	157	1.33	3.06	4.64	1.17	1.36
-15	(+ 5)	906	228	266	178	1.47	3.85	5.12	1.29	1.50
-10	(+14)	1111	280	325	200	1.58	4.73	5.57	1.40	1.63

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Straight		
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	Straight		
3.3 PROCESS	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		