

COMPRESSOR DEFINITION

Designation	VEG Y11C
Nominal Voltage/Frequency	230 V 53-120 Hz
Engineering Number	513800031

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	198 to 265 V	198 to 265 V
8.2 LBP (43°C Ambient temperature)	Static	198 to 265 V	198 to 265 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	1/4	[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	MINERAL / ISO10	
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	9.50	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	9.50	[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	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]
275	69	81	56	0.45	1.05	4.90	1.23	1.44

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]
345	87	101	72	0.56	1.32	4.79	1.21	1.40

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]
630	159	185	139	1.03	2.40	4.54	1.14	1.33

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)	203	51	59	39	-	45.23	0.65	5.20	1.31	1.52
-30	(-22)	278	70	81	45	-	67.23	0.89	6.19	1.56	1.81
-25	(-13)	366	92	107	51	-	80.07	1.18	7.23	1.82	2.12
-20	(- 4)	471	119	138	56	-	35.99	1.51	8.37	2.11	2.45
-15	(+ 5)	596	150	175	62	-	22.32	1.92	9.65	2.43	2.83
-10	(+14)	745	188	218	67	-	52.15	2.40	11.12	2.80	3.26

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)	165	42	48	41	-	91.44	0.57	4.05	1.02	1.19
-30	(-22)	232	58	68	48	-	186.83	0.81	4.85	1.22	1.42
-25	(-13)	311	78	91	55	-	182.60	1.08	5.65	1.42	1.65
-20	(- 4)	407	103	119	62	-	121.44	1.42	6.51	1.64	1.91
-15	(+ 5)	523	132	153	70	-	46.05	1.83	7.49	1.89	2.19
-10	(+14)	663	167	194	77	-	0.86	2.32	8.63	2.17	2.53

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)	154	39	45	41	- 45.20	0.59	3.70	0.93	1.09	
-30 (-22)	209	53	61	49	67.29	0.79	4.32	1.09	1.26	
-25 (-13)	276	70	81	57	80.16	1.05	4.90	1.24	1.44	
-20 (- 4)	359	90	105	65	36.10	1.37	5.52	1.39	1.62	
-15 (+ 5)	462	116	135	74	- 22.19	1.77	6.22	1.57	1.82	
-10 (+14)	589	148	172	83	- 52.01	2.26	7.05	1.78	2.06	

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)	253	64	74	50	0.39	0.81	5.04	1.27	1.48	
-30 (-22)	347	87	102	57	0.44	1.11	6.04	1.52	1.77	
-25 (-13)	459	116	135	65	0.49	1.47	7.06	1.78	2.07	
-20 (- 4)	592	149	174	73	0.55	1.90	8.13	2.05	2.38	
-15 (+ 5)	748	189	219	80	0.60	2.41	9.32	2.35	2.73	
-10 (+14)	928	234	272	87	0.64	3.00	10.66	2.69	3.12	

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)	206	52	60	51	0.41	0.71	4.03	1.01	1.18	
-30 (-22)	293	74	86	59	0.46	1.02	4.91	1.24	1.44	
-25 (-13)	396	100	116	68	0.52	1.38	5.76	1.45	1.69	
-20 (- 4)	517	130	151	78	0.59	1.80	6.61	1.67	1.94	
-15 (+ 5)	659	166	193	87	0.65	2.30	7.53	1.90	2.21	
-10 (+14)	823	207	241	96	0.71	2.88	8.55	2.15	2.50	

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)	175	44	51	53	0.43	0.67	3.29	0.83	0.96	
-30 (-22)	251	63	74	62	0.49	0.96	4.09	1.03	1.20	
-25 (-13)	341	86	100	71	0.56	1.30	4.79	1.21	1.40	
-20 (- 4)	447	113	131	82	0.63	1.71	5.45	1.37	1.60	
-15 (+ 5)	570	144	167	93	0.71	2.18	6.12	1.54	1.79	
-10 (+14)	713	180	209	104	0.78	2.74	6.85	1.73	2.01	

E - PERFORMANCE - CURVES

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)	476	120	140	99	0.75	1.53	4.80	1.21	1.41	
-30 (-22)	612	154	179	110	0.84	1.96	5.59	1.41	1.64	
-25 (-13)	806	203	236	126	0.95	2.58	6.41	1.62	1.88	
-20 (- 4)	1048	264	307	143	1.08	3.37	7.29	1.84	2.14	
-15 (+ 5)	1328	335	389	161	1.20	4.28	8.25	2.08	2.42	
-10 (+14)	1635	412	479	176	1.31	5.28	9.30	2.34	2.73	

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)	406	102	119	99	0.79	1.41	4.09	1.03	1.20	
-30 (-22)	537	135	157	114	0.89	1.87	4.72	1.19	1.38	
-25 (-13)	719	181	211	133	1.01	2.50	5.39	1.36	1.58	
-20 (- 4)	940	237	275	153	1.13	3.28	6.11	1.54	1.79	
-15 (+ 5)	1190	300	349	173	1.25	4.16	6.89	1.74	2.02	
-10 (+14)	1459	368	428	189	1.35	5.11	7.76	1.96	2.27	

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)	340	86	100	99	0.78	1.29	3.43	0.86	1.01	
-30 (-22)	462	116	135	117	0.90	1.76	3.97	1.00	1.16	
-25 (-13)	625	158	183	138	1.03	2.39	4.53	1.14	1.33	
-20 (- 4)	819	206	240	159	1.16	3.13	5.14	1.29	1.51	
-15 (+ 5)	1034	261	303	178	1.28	3.95	5.80	1.46	1.70	
-10 (+14)	1260	318	369	193	1.37	4.83	6.55	1.65	1.92	

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
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 60° up / 40° + 35°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		