

### COMPRESSOR DEFINITION

Designation	VEG Y7C
Nominal Voltage/Frequency	230 V 53-133 Hz
Engineering Number	513800035

### 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	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 <sup>2</sup> ] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm <sup>2</sup> ] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	7.15	[cm <sup>3</sup> ] (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)	10.93	[kg] (24.10 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### 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	VCC32456XXXX	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	VCC32456XXXXX	
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)	-	[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]
170	43	50	35	0.30	0.65	4.80	1.21	1.41

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]
205	52	60	45	0.37	0.78	4.55	1.15	1.33

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]
340	86	100	74	0.58	1.30	4.62	1.16	1.35

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	99	0.76	1.64	4.34	1.09	1.27

### 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]
-35	(-31)	112	28	33	26	0.21	0.36	4.27	1.08	1.25
-30	(-22)	170	43	50	29	0.24	0.55	5.78	1.46	1.69
-25	(-13)	232	58	68	33	0.27	0.75	7.07	1.78	2.07
-20	(- 4)	301	76	88	36	0.29	0.97	8.30	2.09	2.43
-15	(+ 5)	381	96	112	40	0.31	1.22	9.62	2.42	2.82
-10	(+14)	476	120	140	43	0.33	1.54	11.19	2.82	3.28

### 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]	[W/W]
-35	(-31)	85	21	25	26	0.21	0.29	3.26	0.82	0.96
-30	(-22)	145	37	42	30	0.25	0.50	4.74	1.19	1.39
-25	(-13)	205	52	60	35	0.29	0.72	5.90	1.49	1.73
-20	(- 4)	271	68	79	39	0.32	0.94	6.92	1.74	2.03
-15	(+ 5)	345	87	101	43	0.35	1.21	7.95	2.00	2.33
-10	(+14)	432	109	127	47	0.38	1.51	9.14	2.30	2.68

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)	65	16	19	25	0.22	0.25	2.56	0.64	0.75
-30	(-22)	119	30	35	30	0.26	0.45	3.89	0.98	1.14
-25	(-13)	171	43	50	36	0.30	0.65	4.82	1.22	1.41
-20	(- 4)	226	57	66	41	0.34	0.86	5.53	1.39	1.62
-15	(+ 5)	287	72	84	47	0.38	1.10	6.15	1.55	1.80
-10	(+14)	358	90	105	52	0.42	1.38	6.85	1.73	2.01

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)	156	39	46	34	0.28	0.50	4.61	1.16	1.35
-30	(-22)	212	54	62	38	0.31	0.68	5.50	1.39	1.61
-25	(-13)	277	70	81	43	0.34	0.89	6.49	1.64	1.90
-20	(- 4)	357	90	105	47	0.37	1.15	7.65	1.93	2.24
-15	(+ 5)	458	115	134	51	0.39	1.47	9.03	2.27	2.64
-10	(+14)	586	148	172	55	0.42	1.89	10.69	2.69	3.13

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)	144	36	42	34	0.30	0.50	4.24	1.07	1.24
-30	(-22)	193	49	57	39	0.34	0.67	4.94	1.24	1.45
-25	(-13)	250	63	73	44	0.37	0.87	5.67	1.43	1.66
-20	(- 4)	318	80	93	49	0.40	1.11	6.49	1.63	1.90
-15	(+ 5)	405	102	119	54	0.43	1.42	7.46	1.88	2.19
-10	(+14)	517	130	151	60	0.47	1.81	8.66	2.18	2.54

### 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)	113	29	33	34	0.29	0.43	3.37	0.85	0.99	
-30 (-22)	158	40	46	39	0.33	0.60	4.02	1.01	1.18	
-25 (-13)	207	52	61	45	0.37	0.79	4.63	1.17	1.36	
-20 (- 4)	266	67	78	51	0.41	1.01	5.26	1.32	1.54	
-15 (+ 5)	340	86	100	57	0.45	1.30	5.97	1.51	1.75	
-10 (+14)	436	110	128	64	0.50	1.68	6.84	1.72	2.00	

TEST CONDITIONS: @220V3000RPM		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)	263	66	77	56	0.44	0.84	4.68	1.18	1.37	
-30 (-22)	338	85	99	62	0.47	1.09	5.45	1.37	1.60	
-25 (-13)	427	108	125	68	0.51	1.37	6.32	1.59	1.85	
-20 (- 4)	539	136	158	74	0.56	1.73	7.35	1.85	2.15	
-15 (+ 5)	682	172	200	79	0.61	2.19	8.58	2.16	2.51	
-10 (+14)	865	218	253	86	0.66	2.79	10.07	2.54	2.95	

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)	228	57	67	55	0.47	0.79	4.18	1.05	1.22	
-30 (-22)	303	76	89	63	0.49	1.05	4.79	1.21	1.40	
-25 (-13)	387	97	113	70	0.53	1.35	5.47	1.38	1.60	
-20 (- 4)	489	123	143	78	0.58	1.71	6.27	1.58	1.84	
-15 (+ 5)	618	156	181	85	0.64	2.16	7.23	1.82	2.12	
-10 (+14)	782	197	229	93	0.71	2.74	8.41	2.12	2.46	

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)	197	50	58	55	0.56	0.75	3.59	0.91	1.05	
-30 (-22)	266	67	78	65	0.56	1.01	4.09	1.03	1.20	
-25 (-13)	340	86	100	74	0.58	1.29	4.60	1.16	1.35	
-20 (- 4)	428	108	125	83	0.62	1.63	5.20	1.31	1.52	
-15 (+ 5)	537	135	157	91	0.68	2.06	5.91	1.49	1.73	
-10 (+14)	677	171	198	99	0.75	2.60	6.80	1.71	1.99	

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V4000RPM		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]
-35	(-31)	323	81	95	75	0.57	1.03	4.29	1.08	1.26
-30	(-22)	434	109	127	85	0.64	1.39	5.11	1.29	1.50
-25	(-13)	570	144	167	95	0.71	1.83	6.01	1.51	1.76
-20	(- 4)	737	186	216	105	0.78	2.37	7.03	1.77	2.06
-15	(+ 5)	938	236	275	115	0.85	3.02	8.19	2.06	2.40
-10	(+14)	1179	297	346	124	0.91	3.80	9.53	2.40	2.79

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]
-35	(-31)	270	68	79	73	0.59	0.94	3.73	0.94	1.09
-30	(-22)	376	95	110	84	0.67	1.31	4.45	1.12	1.30
-25	(-13)	504	127	148	96	0.74	1.75	5.21	1.31	1.53
-20	(- 4)	657	166	193	108	0.81	2.29	6.04	1.52	1.77
-15	(+ 5)	842	212	247	120	0.88	2.94	6.98	1.76	2.04
-10	(+14)	1062	268	311	132	0.95	3.72	8.04	2.03	2.36

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]
-35	(-31)	227	57	67	73	0.58	0.86	3.11	0.78	0.91
-30	(-22)	321	81	94	86	0.67	1.22	3.73	0.94	1.09
-25	(-13)	432	109	127	99	0.76	1.65	4.36	1.10	1.28
-20	(- 4)	565	142	166	113	0.85	2.16	5.01	1.26	1.47
-15	(+ 5)	725	183	212	127	0.94	2.78	5.72	1.44	1.68
-10	(+14)	917	231	269	141	1.03	3.52	6.51	1.64	1.91

### 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		