

COMPRESSOR DEFINITION

Designation	VEG Y8C
Nominal Voltage/Frequency	230 V 53-133 Hz
Engineering Number	513800036

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 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)	10.93	[kg] (24.10 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	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]
190	48	56	40	0.33	0.72	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]
235	59	69	50	0.41	0.90	4.68	1.18	1.37

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]
370	93	108	80	0.63	1.41	4.63	1.17	1.36

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]
490	123	144	112	0.86	1.87	4.38	1.10	1.28

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)	142	36	42	29	0.25	0.45	4.84	1.22	1.42
-30	(-22)	201	51	59	34	0.28	0.64	5.91	1.49	1.73
-25	(-13)	269	68	79	38	0.31	0.86	7.07	1.78	2.07
-20	(- 4)	347	88	102	42	0.33	1.12	8.34	2.10	2.45
-15	(+ 5)	436	110	128	45	0.35	1.40	9.72	2.45	2.85
-10	(+14)	534	135	157	48	0.37	1.72	11.20	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)	122	31	36	29	0.24	0.43	4.23	1.06	1.24
-30	(-22)	171	43	50	34	0.28	0.59	5.03	1.27	1.47
-25	(-13)	229	58	67	39	0.32	0.80	5.90	1.49	1.73
-20	(- 4)	298	75	87	44	0.35	1.04	6.83	1.72	2.00
-15	(+ 5)	379	95	111	48	0.38	1.32	7.83	1.97	2.29
-10	(+14)	470	118	138	53	0.41	1.65	8.90	2.24	2.61

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)	101	25	29	28	0.24	0.38	3.53	0.89	1.03
-30	(-22)	140	35	41	34	0.29	0.53	4.16	1.05	1.22
-25	(-13)	191	48	56	40	0.33	0.73	4.83	1.22	1.42
-20	(- 4)	254	64	74	46	0.37	0.97	5.53	1.39	1.62
-15	(+ 5)	328	83	96	52	0.41	1.26	6.25	1.58	1.83
-10	(+14)	415	105	122	59	0.45	1.59	7.02	1.77	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)	186	47	54	37	0.30	0.59	4.99	1.26	1.46
-30	(-22)	252	64	74	43	0.34	0.81	5.83	1.47	1.71
-25	(-13)	332	84	97	49	0.38	1.07	6.84	1.72	2.00
-20	(- 4)	428	108	125	54	0.41	1.38	8.01	2.02	2.35
-15	(+ 5)	540	136	158	58	0.44	1.74	9.32	2.35	2.73
-10	(+14)	672	169	197	63	0.47	2.17	10.77	2.71	3.15

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)	153	39	45	37	0.30	0.53	4.16	1.05	1.22
-30	(-22)	207	52	61	43	0.35	0.72	4.80	1.21	1.41
-25	(-13)	276	70	81	49	0.39	0.96	5.59	1.41	1.64
-20	(- 4)	360	91	106	55	0.43	1.25	6.51	1.64	1.91
-15	(+ 5)	462	116	135	61	0.47	1.61	7.55	1.90	2.21
-10	(+14)	583	147	171	67	0.50	2.04	8.70	2.19	2.55

E - PERFORMANCE - CURVES

TEST CONDITIONS:		CECOMAF			(Condensing temperature 55°C (+131°F))					
@220V2000RPM		Static								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%						+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-35 (-31)	133	34	39	37	0.30	0.51	3.63	0.91	1.06	
-30 (-22)	176	44	51	43	0.36	0.67	4.10	1.03	1.20	
-25 (-13)	232	58	68	50	0.41	0.88	4.68	1.18	1.37	
-20 (- 4)	305	77	89	57	0.45	1.16	5.37	1.35	1.57	
-15 (+ 5)	395	100	116	64	0.49	1.51	6.16	1.55	1.81	
-10 (+14)	505	127	148	72	0.54	1.94	7.04	1.77	2.06	

TEST CONDITIONS:		CECOMAF			(Condensing temperature 35°C (+95°F))					
@220V3000RPM		Static								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%						+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-35 (-31)	278	70	81	61	0.46	0.89	4.55	1.15	1.33	
-30 (-22)	369	93	108	68	0.52	1.19	5.39	1.36	1.58	
-25 (-13)	473	119	139	75	0.57	1.52	6.30	1.59	1.85	
-20 (- 4)	600	151	176	82	0.61	1.93	7.31	1.84	2.14	
-15 (+ 5)	759	191	222	89	0.65	2.44	8.48	2.14	2.48	
-10 (+14)	959	242	281	97	0.71	3.09	9.84	2.48	2.88	

TEST CONDITIONS:		CECOMAF			(Condensing temperature 45°C (+113°F))					
@220V3000RPM		Static								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%						+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-35 (-31)	236	60	69	59	0.44	0.82	4.04	1.02	1.18	
-30 (-22)	320	81	94	67	0.52	1.11	4.73	1.19	1.39	
-25 (-13)	413	104	121	76	0.58	1.44	5.45	1.37	1.60	
-20 (- 4)	526	133	154	84	0.63	1.83	6.24	1.57	1.83	
-15 (+ 5)	667	168	196	93	0.69	2.33	7.15	1.80	2.09	
-10 (+14)	847	213	248	103	0.75	2.97	8.21	2.07	2.41	

TEST CONDITIONS:		CECOMAF			(Condensing temperature 55°C (+131°F))					
@220V3000RPM		Static								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%						+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-35 (-31)	208	52	61	61	0.47	0.79	3.43	0.86	1.00	
-30 (-22)	286	72	84	70	0.56	1.08	4.03	1.02	1.18	
-25 (-13)	370	93	109	80	0.63	1.41	4.62	1.16	1.35	
-20 (- 4)	471	119	138	90	0.69	1.80	5.24	1.32	1.54	
-15 (+ 5)	597	150	175	101	0.75	2.29	5.94	1.50	1.74	
-10 (+14)	758	191	222	112	0.81	2.91	6.75	1.70	1.98	

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]	[W/W]
-35 (-31)	384	97	113	83	0.61	1.23	4.60	1.16	1.35	
-30 (-22)	497	125	146	97	0.72	1.60	5.16	1.30	1.51	
-25 (-13)	635	160	186	108	0.79	2.04	5.94	1.50	1.74	
-20 (- 4)	807	203	236	117	0.84	2.59	6.90	1.74	2.02	
-15 (+ 5)	1020	257	299	127	0.90	3.28	8.00	2.02	2.34	
-10 (+14)	1285	324	377	139	0.98	4.14	9.21	2.32	2.70	

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)	300	76	88	79	0.57	1.04	3.81	0.96	1.12	
-30 (-22)	420	106	123	95	0.71	1.46	4.39	1.11	1.29	
-25 (-13)	557	140	163	109	0.80	1.94	5.13	1.29	1.50	
-20 (- 4)	720	181	211	120	0.87	2.51	6.00	1.51	1.76	
-15 (+ 5)	917	231	269	132	0.94	3.21	6.94	1.75	2.03	
-10 (+14)	1158	292	339	146	1.03	4.05	7.93	2.00	2.32	

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)	228	58	67	75	0.57	0.87	3.06	0.77	0.90	
-30 (-22)	354	89	104	95	0.74	1.34	3.65	0.92	1.07	
-25 (-13)	488	123	143	112	0.86	1.86	4.33	1.09	1.27	
-20 (- 4)	639	161	187	127	0.95	2.44	5.06	1.28	1.48	
-15 (+ 5)	818	206	240	141	1.03	3.13	5.83	1.47	1.71	
-10 (+14)	1031	260	302	158	1.12	3.96	6.57	1.66	1.93	

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		