COMPRESSOR DEFINITION

Designation	**VEG T8H**
Nominal Voltage/Frequency	**230 V 53-133 Hz**
Engineering Number	**513800012**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	Static	198 to 265 V	198 to 265 V
8.2 LBP (43ºC Ambient temperature)	Static	198 to 265 V	198 to 265 V
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	14.2	[kgf/cm²] (202 psig)	/ ºC - ºF
9.2 Peak	15.9	[kgf/cm²] (226 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	7.95	[cm³] (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	ESTER / ISO10	
4 Weight (with oil charge)	11.15	[kg] (24.58 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

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	EU245607B02/EU245607N00	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	EU245607N00	
6 Start winding resistance	6.40	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	6.40	[Ω at 25ºC (77ºF)] +/- 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**			**ASHRAELBP32** **Static**		Evaporating temperature (Condensing temperature	**-23.3°C (-9.94°F)** **54.4°C (129.92°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]
412	104	121	76	0.57	2.34	5.45	1.37	1.60

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **45ºC (+113ºF))**
@220V1600RPM **Static**

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	46	0.33	1.18	4.57	1.15	1.34
-30	**(-22)**	291	73	85	57	0.44	1.65	5.15	1.30	1.51
-25	**(-13)**	400	101	117	68	0.53	2.27	5.92	1.49	1.73
-20	**(- 4)**	535	135	157	78	0.61	3.05	6.83	1.72	2.00
-15	**(+ 5)**	697	176	204	89	0.68	3.98	7.84	1.97	2.30
-10	**(+14)**	886	223	260	100	0.75	5.08	8.89	2.24	2.60

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55ºC (+131ºF))**
@220V1600RPM **Static**

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	45	0.33	1.05	4.10	1.03	1.20
-30	**(-22)**	261	66	76	58	0.45	1.48	4.55	1.15	1.33
-25	**(-13)**	362	91	106	70	0.55	2.06	5.16	1.30	1.51
-20	**(- 4)**	490	124	144	83	0.64	2.79	5.89	1.48	1.73
-15	**(+ 5)**	645	163	189	97	0.73	3.68	6.68	1.68	1.96
-10	**(+14)**	828	209	242	111	0.82	4.74	7.49	1.89	2.19

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@220V1600RPM **Static**

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)**	141	36	41	43	0.31	0.80	3.29	0.83	0.96
-30	**(-22)**	212	53	62	57	0.44	1.20	3.74	0.94	1.10
-25	**(-13)**	310	78	91	71	0.56	1.76	4.33	1.09	1.27
-20	**(- 4)**	434	109	127	86	0.67	2.47	5.00	1.26	1.46
-15	**(+ 5)**	585	147	171	102	0.77	3.34	5.70	1.44	1.67
-10	**(+14)**	763	192	224	119	0.88	4.37	6.40	1.61	1.88

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **45ºC (+113ºF))**
@220V3000RPM **Static**

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)**	391	99	115	91	0.67	2.21	4.25	1.07	1.24
-30	**(-22)**	571	144	167	111	0.81	3.23	5.16	1.30	1.51
-25	**(-13)**	786	198	230	131	0.95	4.46	6.01	1.51	1.76
-20	**(- 4)**	1045	263	306	153	1.10	5.95	6.85	1.73	2.01
-15	**(+ 5)**	1357	342	398	175	1.24	7.75	7.73	1.95	2.27
-10	**(+14)**	1732	436	507	198	1.39	9.92	8.73	2.20	2.56

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55ºC (+131ºF))**
@220V3000RPM **Static**

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)**	316	80	93	88	0.67	1.79	3.61	0.91	1.06
-30	**(-22)**	505	127	148	111	0.82	2.86	4.54	1.14	1.33
-25	**(-13)**	723	182	212	135	0.98	4.11	5.35	1.35	1.57
-20	**(- 4)**	982	247	288	161	1.15	5.59	6.11	1.54	1.79
-15	**(+ 5)**	1288	325	378	187	1.32	7.36	6.87	1.73	2.01
-10	**(+14)**	1653	417	484	214	1.49	9.47	7.69	1.94	2.25

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@220V3000RPM **Static**

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)**	248	62	73	81	0.61	1.40	3.07	0.77	0.90
-30	**(-22)**	435	110	128	107	0.79	2.47	4.02	1.01	1.18
-25	**(-13)**	649	164	190	135	0.98	3.69	4.80	1.21	1.41
-20	**(- 4)**	898	226	263	164	1.17	5.11	5.47	1.38	1.60
-15	**(+ 5)**	1190	300	349	196	1.37	6.79	6.10	1.54	1.79
-10	**(+14)**	1536	387	450	228	1.57	8.80	6.75	1.70	1.98

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **45ºC (+113ºF))**
@220V4500RPM **Static**

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)**	506	127	148	132	0.91	2.86	3.83	0.97	1.12
-30	**(-22)**	755	190	221	159	1.11	4.28	4.72	1.19	1.38
-25	**(-13)**	1045	263	306	190	1.32	5.93	5.50	1.39	1.61
-20	**(- 4)**	1385	349	406	222	1.53	7.88	6.25	1.57	1.83
-15	**(+ 5)**	1787	450	524	254	1.74	10.20	7.04	1.77	2.06
-10	**(+14)**	2261	570	662	284	1.93	12.95	7.96	2.01	2.33

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55ºC (+131ºF))**
@220V4500RPM **Static**

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)**	448	113	131	129	0.89	2.54	3.46	0.87	1.01
-30	**(-22)**	684	172	200	158	1.10	3.87	4.30	1.08	1.26
-25	**(-13)**	956	241	280	191	1.32	5.43	5.00	1.26	1.46
-20	**(- 4)**	1277	322	374	227	1.55	7.27	5.65	1.42	1.65
-15	**(+ 5)**	1655	417	485	262	1.77	9.45	6.32	1.59	1.85
-10	**(+14)**	2102	530	616	296	1.98	12.04	7.10	1.79	2.08

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@220V4500RPM **Static**

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	96	111	125	0.89	2.14	3.03	0.76	0.89
-30	**(-22)**	607	153	178	157	1.12	3.44	3.85	0.97	1.13
-25	**(-13)**	868	219	254	193	1.35	4.93	4.51	1.14	1.32
-20	**(- 4)**	1174	296	344	231	1.59	6.68	5.09	1.28	1.49
-15	**(+ 5)**	1535	387	450	270	1.82	8.76	5.68	1.43	1.67
-10	**(+14)**	1960	494	574	308	2.05	11.23	6.35	1.60	1.86

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		