

COMPRESSOR DEFINITION

Designation	VEM T404U
Nominal Voltage/Frequency	230 V 40-150 Hz
Engineering Number	513903040

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	230 / 40-150	[V / Hz]	
4 Application type	Low-Medium Back Pressure (Light Commercial / Peak 65°C)		
4.1 Evaporating temperature range	-40°C to 0°C	(-40°F to 32°F)	
5 Motor type	BPM		
6 Starting torque	LST/HST - Low/High starting torque		
7 Expansion device	Capillary tube or Expansion valve		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	18.4	[kgf/cm ²] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3+	[hp]
2 Displacement	4.25	[cm ³] (0.259 cu.in)
2.1 Bore [mm]	19.000	
2.2 Stroke [mm]	15.000	
3 Lubricant charge	220	[ml] (7.44 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO22	
4 Weight (with oil charge)	7.18	[kg] (15.83 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	230 V 40-150 Hz 3 ~ (Three phase)	
2 Starting device type	Inverter	
2.1 Starting device	VCC32456 SXAXX	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	INVERTER VCC3 2456 S	
6 Start winding resistance	13.65	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	13.65	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	2.80/2.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	2.00/2.00	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	2.00/2.00	[A] - Measured according to UL 984
11 Approval boards certification	TUV	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V1200RPM			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]
362	91	106	58	0.54	1.08	6.24	1.57	1.83

TEST CONDITIONS: @220V1200RPM			ASHRAELBP32 Fan		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]
368	93	108	56	0.54	1.10	6.57	1.66	1.93

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]
448	113	131	69	0.63	1.33	6.49	1.64	1.90

TEST CONDITIONS: @220V1600RPM			ASHRAELBP32 Fan		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]
457	115	134	68	0.63	1.36	6.72	1.69	1.97

TEST CONDITIONS: @220V2000RPM			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]
551	139	161	85	0.75	1.64	6.48	1.63	1.90

TEST CONDITIONS: @220V2000RPM			ASHRAELBP32 Fan		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]
563	142	165	84	0.75	1.68	6.70	1.69	1.96

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V3000RPM			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]
807	203	236	126	1.07	2.40	6.40	1.61	1.88

TEST CONDITIONS: @220V3000RPM			ASHRAELBP32 Fan		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]
826	208	242	126	1.07	2.46	6.56	1.65	1.92

TEST CONDITIONS: @220V3600RPM			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]
939	237	275	149	1.26	2.79	6.30	1.59	1.85

TEST CONDITIONS: @220V3600RPM			ASHRAELBP32 Fan		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]
966	243	283	151	1.26	2.88	6.40	1.61	1.88

TEST CONDITIONS: @220V4500RPM			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]
1180	297	346	192	1.60	3.51	6.15	1.55	1.80

TEST CONDITIONS: @220V4500RPM			ASHRAELBP32 Fan		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]
1208	304	354	194	1.60	3.60	6.23	1.57	1.83

E - PERFORMANCE - CURVES

TEST CONDITIONS:	ASHRAE32	(Condensing temperature 35°C (+95°F))
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E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V1200RPM		ASHRAE32 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]
-40	(-40)	212	53	62	27	0.31	0.63	7.73	1.95	2.26
-35	(-31)	256	65	75	33	0.36	0.76	7.70	1.94	2.26
-30	(-22)	309	78	91	39	0.41	0.92	7.97	2.01	2.33
-25	(-13)	372	94	109	44	0.45	1.11	8.52	2.15	2.50
-20	(- 4)	445	112	130	48	0.49	1.33	9.37	2.36	2.74
-15	(+ 5)	531	134	156	51	0.53	1.59	10.49	2.64	3.07
-10	(+14)	631	159	185	54	0.55	1.90	11.90	3.00	3.49
-5	(+23)	747	188	219	55	0.57	2.26	13.57	3.42	3.98
0	(+32)	879	221	258	56	0.58	2.67	15.52	3.91	4.55

TEST CONDITIONS: @220V1200RPM		ASHRAE32 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]
-40	(-40)	201	51	59	30	0.33	0.59	6.77	1.71	1.98	
-35	(-31)	245	62	72	37	0.38	0.72	6.66	1.68	1.95	
-30	(-22)	297	75	87	43	0.44	0.88	6.77	1.71	1.98	
-25	(-13)	358	90	105	49	0.49	1.07	7.10	1.79	2.08	
-20	(- 4)	431	109	126	55	0.55	1.28	7.65	1.93	2.24	
-15	(+ 5)	515	130	151	60	0.60	1.54	8.41	2.12	2.46	
-10	(+14)	614	155	180	65	0.65	1.85	9.37	2.36	2.75	
-5	(+23)	728	183	213	69	0.69	2.20	10.53	2.65	3.09	
0	(+32)	858	216	252	73	0.72	2.61	11.90	3.00	3.49	

TEST CONDITIONS: @220V1200RPM		ASHRAE32 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]
-40	(-40)	185	47	54	31	0.34	0.55	6.02	1.52	1.76	
-35	(-31)	228	57	67	39	0.40	0.68	5.90	1.49	1.73	
-30	(-22)	279	70	82	47	0.47	0.83	5.94	1.50	1.74	
-25	(-13)	340	86	100	55	0.54	1.01	6.12	1.54	1.79	
-20	(- 4)	411	104	120	63	0.61	1.23	6.44	1.62	1.89	
-15	(+ 5)	495	125	145	71	0.69	1.48	6.90	1.74	2.02	
-10	(+14)	592	149	173	78	0.76	1.78	7.49	1.89	2.20	
-5	(+23)	704	177	206	86	0.83	2.13	8.22	2.07	2.41	
0	(+32)	833	210	244	93	0.90	2.53	9.07	2.29	2.66	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V1200RPM		ASHRAE32 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]
-40	(-40)	162	41	47	30	0.34	0.48	5.29	1.33	1.55
-35	(-31)	205	52	60	39	0.42	0.61	5.24	1.32	1.54
-30	(-22)	255	64	75	50	0.50	0.76	5.27	1.33	1.54
-25	(-13)	315	79	92	60	0.59	0.94	5.37	1.35	1.57
-20	(- 4)	385	97	113	71	0.69	1.15	5.54	1.40	1.62
-15	(+ 5)	467	118	137	82	0.79	1.40	5.78	1.46	1.69
-10	(+14)	563	142	165	93	0.89	1.69	6.08	1.53	1.78
-5	(+23)	674	170	197	104	1.00	2.04	6.43	1.62	1.89
0	(+32)	801	202	235	116	1.10	2.43	6.84	1.72	2.01

TEST CONDITIONS: @220V1600RPM		ASHRAE32 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]
-40	(-40)	258	65	76	35	0.38	0.76	7.27	1.83	2.13
-35	(-31)	320	81	94	42	0.44	0.95	7.51	1.89	2.20
-30	(-22)	389	98	114	49	0.50	1.15	7.93	2.00	2.32
-25	(-13)	468	118	137	55	0.55	1.39	8.56	2.16	2.51
-20	(- 4)	560	141	164	60	0.60	1.67	9.41	2.37	2.76
-15	(+ 5)	668	168	196	64	0.64	2.00	10.52	2.65	3.08
-10	(+14)	795	200	233	68	0.67	2.39	11.89	3.00	3.48
-5	(+23)	943	238	276	70	0.69	2.85	13.56	3.42	3.97
0	(+32)	1116	281	327	71	0.71	3.39	15.55	3.92	4.56

TEST CONDITIONS: @220V1600RPM		ASHRAE32 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]
-40	(-40)	237	60	69	38	0.40	0.70	6.29	1.59	1.84
-35	(-31)	299	75	88	46	0.47	0.88	6.48	1.63	1.90
-30	(-22)	367	92	108	54	0.54	1.09	6.79	1.71	1.99
-25	(-13)	445	112	130	61	0.60	1.32	7.23	1.82	2.12
-20	(- 4)	535	135	157	67	0.66	1.60	7.84	1.98	2.30
-15	(+ 5)	641	161	188	74	0.72	1.92	8.63	2.17	2.53
-10	(+14)	764	193	224	79	0.77	2.30	9.62	2.42	2.82
-5	(+23)	908	229	266	84	0.82	2.75	10.85	2.73	3.18
0	(+32)	1076	271	315	88	0.86	3.27	12.32	3.10	3.61

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V1600RPM		ASHRAE32 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]
-40 (-40)	215	54	63	39	0.41	0.64	5.58	1.41	1.63	
-35 (-31)	276	70	81	48	0.49	0.82	5.76	1.45	1.69	
-30 (-22)	343	86	100	57	0.56	1.02	6.00	1.51	1.76	
-25 (-13)	418	105	123	66	0.64	1.24	6.31	1.59	1.85	
-20 (- 4)	506	127	148	74	0.72	1.51	6.72	1.69	1.97	
-15 (+ 5)	608	153	178	83	0.79	1.82	7.25	1.83	2.12	
-10 (+14)	727	183	213	91	0.87	2.19	7.91	1.99	2.32	
-5 (+23)	866	218	254	99	0.94	2.62	8.74	2.20	2.56	
0 (+32)	1028	259	301	106	1.01	3.13	9.75	2.46	2.86	

TEST CONDITIONS: @220V1600RPM		ASHRAE32 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]
-40 (-40)	193	49	56	38	0.42	0.57	4.96	1.25	1.45	
-35 (-31)	252	63	74	49	0.50	0.75	5.19	1.31	1.52	
-30 (-22)	316	80	93	59	0.59	0.94	5.41	1.36	1.59	
-25 (-13)	389	98	114	70	0.68	1.16	5.64	1.42	1.65	
-20 (- 4)	472	119	138	81	0.78	1.41	5.90	1.49	1.73	
-15 (+ 5)	570	144	167	92	0.87	1.71	6.21	1.56	1.82	
-10 (+14)	684	172	200	104	0.97	2.06	6.59	1.66	1.93	
-5 (+23)	817	206	239	115	1.07	2.47	7.07	1.78	2.07	
0 (+32)	973	245	285	126	1.17	2.96	7.67	1.93	2.25	

TEST CONDITIONS: @220V2000RPM		ASHRAE32 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]
-40 (-40)	311	78	91	46	0.48	0.92	6.78	1.71	1.99	
-35 (-31)	385	97	113	54	0.55	1.14	7.12	1.79	2.09	
-30 (-22)	469	118	137	61	0.61	1.39	7.63	1.92	2.24	
-25 (-13)	568	143	166	68	0.68	1.69	8.34	2.10	2.44	
-20 (- 4)	684	172	200	74	0.73	2.04	9.25	2.33	2.71	
-15 (+ 5)	821	207	240	80	0.78	2.46	10.40	2.62	3.05	
-10 (+14)	981	247	287	84	0.82	2.95	11.81	2.98	3.46	
-5 (+23)	1168	294	342	87	0.84	3.53	13.50	3.40	3.96	
0 (+32)	1386	349	406	89	0.86	4.21	15.50	3.91	4.54	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V2000RPM		ASHRAE32 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]
-40	(-40)	289	73	85	49	0.49	0.85	6.01	1.51	1.76
-35	(-31)	362	91	106	58	0.57	1.07	6.26	1.58	1.83
-30	(-22)	445	112	130	67	0.65	1.32	6.62	1.67	1.94
-25	(-13)	542	136	159	75	0.72	1.61	7.12	1.79	2.09
-20	(- 4)	655	165	192	83	0.79	1.95	7.77	1.96	2.28
-15	(+ 5)	788	199	231	91	0.86	2.36	8.61	2.17	2.52
-10	(+14)	944	238	277	98	0.92	2.84	9.64	2.43	2.83
-5	(+23)	1127	284	330	104	0.97	3.41	10.90	2.75	3.19
0	(+32)	1339	337	392	109	1.02	4.07	12.41	3.13	3.64

TEST CONDITIONS: @220V2000RPM		ASHRAE32 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]
-40	(-40)	263	66	77	49	0.50	0.78	5.43	1.37	1.59
-35	(-31)	335	85	98	60	0.59	0.99	5.66	1.43	1.66
-30	(-22)	417	105	122	70	0.68	1.24	5.94	1.50	1.74
-25	(-13)	512	129	150	81	0.77	1.52	6.31	1.59	1.85
-20	(- 4)	623	157	182	91	0.86	1.86	6.77	1.71	1.98
-15	(+ 5)	753	190	221	101	0.94	2.25	7.36	1.85	2.16
-10	(+14)	905	228	265	111	1.03	2.72	8.09	2.04	2.37
-5	(+23)	1083	273	317	120	1.11	3.27	8.99	2.27	2.63
0	(+32)	1290	325	378	128	1.18	3.92	10.09	2.54	2.96

TEST CONDITIONS: @220V2000RPM		ASHRAE32 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]
-40	(-40)	233	59	68	47	0.51	0.69	4.85	1.22	1.42
-35	(-31)	305	77	89	60	0.60	0.90	5.13	1.29	1.50
-30	(-22)	386	97	113	72	0.70	1.14	5.41	1.36	1.58
-25	(-13)	479	121	140	85	0.81	1.42	5.71	1.44	1.67
-20	(- 4)	587	148	172	98	0.91	1.75	6.06	1.53	1.77
-15	(+ 5)	714	180	209	111	1.02	2.14	6.47	1.63	1.90
-10	(+14)	863	217	253	124	1.13	2.59	6.97	1.76	2.04
-5	(+23)	1036	261	304	136	1.24	3.13	7.59	1.91	2.22
0	(+32)	1238	312	363	148	1.35	3.76	8.34	2.10	2.44

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V3000RPM		ASHRAE32 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]
-40	(-40)	425	107	125	71	0.71	1.26	6.01	1.52	1.76
-35	(-31)	540	136	158	82	0.79	1.60	6.55	1.65	1.92
-30	(-22)	672	169	197	93	0.88	1.99	7.19	1.81	2.11
-25	(-13)	824	208	242	103	0.96	2.45	7.96	2.01	2.33
-20	(- 4)	1002	252	294	113	1.04	2.99	8.89	2.24	2.60
-15	(+ 5)	1209	305	354	122	1.11	3.62	10.00	2.52	2.93
-10	(+14)	1449	365	425	129	1.18	4.36	11.33	2.86	3.32
-5	(+23)	1728	436	506	134	1.22	5.23	12.91	3.25	3.78
0	(+32)	2050	517	601	138	1.25	6.23	14.77	3.72	4.33

TEST CONDITIONS: @220V3000RPM		ASHRAE32 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]
-40	(-40)	405	102	119	74	0.73	1.20	5.47	1.38	1.60
-35	(-31)	516	130	151	87	0.82	1.53	5.89	1.48	1.73
-30	(-22)	642	162	188	100	0.92	1.90	6.37	1.60	1.87
-25	(-13)	789	199	231	113	1.03	2.35	6.94	1.75	2.03
-20	(- 4)	961	242	282	125	1.13	2.87	7.63	1.92	2.23
-15	(+ 5)	1162	293	340	137	1.23	3.48	8.46	2.13	2.48
-10	(+14)	1396	352	409	147	1.32	4.20	9.48	2.39	2.78
-5	(+23)	1668	420	489	156	1.40	5.04	10.71	2.70	3.14
0	(+32)	1983	500	581	164	1.47	6.03	12.18	3.07	3.57

TEST CONDITIONS: @220V3000RPM		ASHRAE32 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]
-40	(-40)	377	95	110	75	0.73	1.11	5.07	1.28	1.48
-35	(-31)	483	122	142	90	0.84	1.43	5.42	1.37	1.59
-30	(-22)	605	152	177	105	0.96	1.79	5.79	1.46	1.70
-25	(-13)	747	188	219	120	1.08	2.22	6.22	1.57	1.82
-20	(- 4)	913	230	268	135	1.21	2.72	6.73	1.69	1.97
-15	(+ 5)	1108	279	325	150	1.33	3.32	7.35	1.85	2.15
-10	(+14)	1336	337	392	164	1.45	4.02	8.11	2.04	2.38
-5	(+23)	1602	404	469	177	1.57	4.84	9.04	2.28	2.65
0	(+32)	1910	481	560	188	1.67	5.80	10.18	2.57	2.98

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V3000RPM		ASHRAE32 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]
-40	(-40)	342	86	100	72	0.73	1.01	4.67	1.18	1.37
-35	(-31)	444	112	130	89	0.85	1.31	5.01	1.26	1.47
-30	(-22)	561	141	164	107	0.98	1.66	5.33	1.34	1.56
-25	(-13)	698	176	204	125	1.13	2.07	5.67	1.43	1.66
-20	(- 4)	859	216	252	143	1.27	2.56	6.06	1.53	1.77
-15	(+ 5)	1048	264	307	161	1.42	3.14	6.52	1.64	1.91
-10	(+14)	1270	320	372	179	1.57	3.82	7.08	1.78	2.07
-5	(+23)	1530	385	448	196	1.72	4.62	7.77	1.96	2.28
0	(+32)	1831	461	537	212	1.85	5.56	8.63	2.18	2.53

TEST CONDITIONS: @220V3600RPM		ASHRAE32 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]
-40	(-40)	503	127	147	87	0.85	1.49	5.75	1.45	1.68
-35	(-31)	636	160	186	100	0.95	1.88	6.32	1.59	1.85
-30	(-22)	792	200	232	113	1.05	2.35	6.99	1.76	2.05
-25	(-13)	975	246	286	126	1.16	2.90	7.77	1.96	2.28
-20	(- 4)	1191	300	349	137	1.26	3.55	8.70	2.19	2.55
-15	(+ 5)	1444	364	423	149	1.35	4.33	9.78	2.46	2.86
-10	(+14)	1739	438	510	159	1.43	5.23	11.03	2.78	3.23
-5	(+23)	2080	524	610	167	1.50	6.29	12.49	3.15	3.66
0	(+32)	2473	623	725	174	1.55	7.52	14.15	3.57	4.15

TEST CONDITIONS: @220V3600RPM		ASHRAE32 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]
-40	(-40)	470	118	138	90	0.86	1.39	5.23	1.32	1.53
-35	(-31)	598	151	175	105	0.97	1.77	5.69	1.43	1.67
-30	(-22)	748	188	219	120	1.09	2.22	6.21	1.56	1.82
-25	(-13)	925	233	271	135	1.22	2.75	6.81	1.72	2.00
-20	(- 4)	1135	286	333	150	1.34	3.39	7.52	1.89	2.20
-15	(+ 5)	1381	348	405	165	1.46	4.14	8.35	2.11	2.45
-10	(+14)	1668	420	489	179	1.58	5.02	9.33	2.35	2.73
-5	(+23)	2001	504	586	191	1.68	6.05	10.48	2.64	3.07
0	(+32)	2385	601	699	203	1.77	7.25	11.80	2.97	3.46

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V3600RPM		ASHRAE32 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]
-40 (-40)	436	110	128	92	0.88	1.29	4.79	1.21	1.40	
-35 (-31)	557	140	163	108	1.00	1.65	5.18	1.31	1.52	
-30 (-22)	700	176	205	125	1.13	2.08	5.61	1.41	1.64	
-25 (-13)	870	219	255	143	1.27	2.59	6.09	1.54	1.79	
-20 (- 4)	1071	270	314	160	1.42	3.19	6.65	1.68	1.95	
-15 (+ 5)	1308	330	383	178	1.56	3.92	7.30	1.84	2.14	
-10 (+14)	1586	400	465	196	1.71	4.77	8.06	2.03	2.36	
-5 (+23)	1910	481	560	213	1.85	5.77	8.95	2.26	2.62	
0 (+32)	2284	575	669	229	1.97	6.94	10.00	2.52	2.93	

TEST CONDITIONS: @220V3600RPM		ASHRAE32 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]
-40 (-40)	401	101	117	92	0.90	1.18	4.30	1.08	1.26	
-35 (-31)	513	129	150	110	1.03	1.52	4.69	1.18	1.38	
-30 (-22)	647	163	190	128	1.17	1.92	5.09	1.28	1.49	
-25 (-13)	808	204	237	148	1.32	2.40	5.51	1.39	1.61	
-20 (- 4)	999	252	293	168	1.48	2.98	5.97	1.50	1.75	
-15 (+ 5)	1226	309	359	189	1.65	3.67	6.49	1.64	1.90	
-10 (+14)	1493	376	437	210	1.82	4.49	7.10	1.79	2.08	
-5 (+23)	1805	455	529	231	1.99	5.46	7.80	1.97	2.29	
0 (+32)	2167	546	635	251	2.15	6.59	8.62	2.17	2.53	

TEST CONDITIONS: @220V4500RPM		ASHRAE32 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]
-40 (-40)	602	152	176	110	1.05	1.78	5.46	1.38	1.60	
-35 (-31)	775	195	227	128	1.17	2.29	6.03	1.52	1.77	
-30 (-22)	976	246	286	146	1.30	2.89	6.68	1.68	1.96	
-25 (-13)	1209	305	354	163	1.44	3.60	7.44	1.88	2.18	
-20 (- 4)	1480	373	434	179	1.58	4.42	8.31	2.09	2.44	
-15 (+ 5)	1794	452	526	194	1.71	5.37	9.31	2.35	2.73	
-10 (+14)	2155	543	631	207	1.82	6.49	10.45	2.63	3.06	
-5 (+23)	2568	647	753	219	1.92	7.77	11.74	2.96	3.44	
0 (+32)	3039	766	890	229	1.98	9.24	13.19	3.32	3.86	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V4500RPM		ASHRAE32 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]
-40	(-40)	562	142	165	114	1.05	1.66	4.97	1.25	1.46
-35	(-31)	730	184	214	134	1.18	2.16	5.44	1.37	1.59
-30	(-22)	927	234	272	154	1.33	2.75	5.97	1.50	1.75
-25	(-13)	1157	292	339	175	1.50	3.44	6.58	1.66	1.93
-20	(- 4)	1426	359	418	195	1.67	4.26	7.28	1.83	2.13
-15	(+ 5)	1738	438	509	214	1.84	5.21	8.08	2.04	2.37
-10	(+14)	2099	529	615	233	2.00	6.31	8.99	2.27	2.63
-5	(+23)	2512	633	736	251	2.14	7.60	10.03	2.53	2.94
0	(+32)	2983	752	874	268	2.25	9.07	11.20	2.82	3.28

TEST CONDITIONS: @220V4500RPM		ASHRAE32 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]
-40	(-40)	514	130	151	114	1.05	1.52	4.53	1.14	1.33
-35	(-31)	673	170	197	137	1.19	1.99	4.95	1.25	1.45
-30	(-22)	861	217	252	159	1.36	2.55	5.41	1.36	1.59
-25	(-13)	1084	273	318	183	1.55	3.22	5.92	1.49	1.74
-20	(- 4)	1346	339	394	206	1.75	4.01	6.50	1.64	1.90
-15	(+ 5)	1652	416	484	230	1.95	4.95	7.14	1.80	2.09
-10	(+14)	2006	506	588	254	2.14	6.04	7.87	1.98	2.31
-5	(+23)	2415	608	708	277	2.32	7.30	8.71	2.19	2.55
0	(+32)	2882	726	844	299	2.49	8.76	9.65	2.43	2.83

TEST CONDITIONS: @220V4500RPM		ASHRAE32 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]
-40	(-40)	459	116	135	112	1.07	1.36	4.04	1.02	1.18
-35	(-31)	604	152	177	136	1.21	1.79	4.46	1.12	1.31
-30	(-22)	779	196	228	160	1.39	2.31	4.90	1.23	1.43
-25	(-13)	989	249	290	186	1.59	2.94	5.36	1.35	1.57
-20	(- 4)	1239	312	363	213	1.81	3.69	5.85	1.47	1.71
-15	(+ 5)	1534	386	449	240	2.03	4.59	6.39	1.61	1.87
-10	(+14)	1878	473	550	268	2.25	5.65	6.99	1.76	2.05
-5	(+23)	2277	574	667	296	2.47	6.88	7.66	1.93	2.25
0	(+32)	2735	689	801	324	2.67	8.31	8.42	2.12	2.47

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EUEM		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.2 +0.12/-0.08	[mm]	(0.323" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Straight		
3.2 DISCHARGE	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-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		