

COMPRESSOR DEFINITION

Designation	VES F9C
Nominal Voltage/Frequency	230 V 32-150 Hz
Engineering Number	513907201

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	230 / 32-150	[V / Hz]	
4 Application type	Low-Medium Back Pressure (Fullmotion Compressors)		
4.1 Evaporating temperature range	-35°C to 0°C	(-31°F to 32°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 (32°C Ambient temperature)	Static	160 to 264 V	160 to 264 V
8.2 LBP (43°C Ambient temperature)	Static	160 to 264 V	160 to 264 V
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm²] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm²] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	9.04	[cm³] (0.552 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	205	[ml] (6.93 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	6.57	[kg] (14.48 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	230 V 31.7-150 Hz 3~ (Three phase)	
2 Starting device type	Inverter	
2.1 Starting device	VESF 2456 XXX X	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	INVERTER VES 2456X	
6 Start winding resistance	9.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	9.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (32/150 Hz)	2.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (32/150 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (32/150 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V950RPM			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]
160	40	47	25	0.24	0.50	6.48	1.63	1.90

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V950RPM				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]
-35	(-31)	98	25	29	15	0.17	0.31	6.32	1.59	1.85
-30	(-22)	133	34	39	18	0.19	0.42	7.27	1.83	2.13
-25	(-13)	175	44	51	21	0.21	0.55	8.33	2.10	2.44
-20	(- 4)	226	57	66	24	0.23	0.71	9.54	2.40	2.79
-15	(+ 5)	287	72	84	26	0.24	0.90	10.95	2.76	3.21
-10	(+14)	360	91	105	29	0.26	1.13	12.62	3.18	3.70
-5	(+23)	446	112	131	30	0.28	1.41	14.60	3.68	4.28
0	(+32)	547	138	160	32	0.30	1.73	16.94	4.27	4.96

TEST CONDITIONS: @220V950RPM				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]
-35	(-31)	87	22	26	16	0.17	0.27	5.46	1.38	1.60
-30	(-22)	121	30	35	19	0.20	0.38	6.27	1.58	1.84
-25	(-13)	161	41	47	23	0.22	0.51	7.11	1.79	2.08
-20	(- 4)	211	53	62	26	0.24	0.66	8.03	2.02	2.35
-15	(+ 5)	272	68	80	30	0.26	0.85	9.08	2.29	2.66
-10	(+14)	344	87	101	33	0.28	1.09	10.32	2.60	3.02
-5	(+23)	431	109	126	37	0.31	1.36	11.79	2.97	3.45
0	(+32)	533	134	156	40	0.34	1.69	13.54	3.41	3.97

TEST CONDITIONS: @220V950RPM		ASHRAE32 Static				(Condensing temperature 55°C (+131°F))				
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	70	18	21	16	0.17	0.22	4.36	1.10	1.28
-30	(-22)	102	26	30	20	0.20	0.32	5.19	1.31	1.52
-25	(-13)	142	36	42	24	0.22	0.45	5.98	1.51	1.75
-20	(- 4)	192	48	56	28	0.25	0.60	6.77	1.71	1.98
-15	(+ 5)	252	64	74	33	0.28	0.79	7.62	1.92	2.23
-10	(+14)	326	82	95	38	0.31	1.03	8.58	2.16	2.51
-5	(+23)	413	104	121	43	0.34	1.31	9.70	2.45	2.84
0	(+32)	517	130	152	47	0.38	1.64	11.04	2.78	3.24

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 35°C (+95°F))					
@220V1300RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	137	35	40	21	0.20	0.43	6.40	1.61	1.87
-30	(-22)	185	47	54	25	0.22	0.58	7.36	1.85	2.16
-25	(-13)	243	61	71	29	0.25	0.76	8.44	2.13	2.47
-20	(- 4)	314	79	92	32	0.27	0.99	9.67	2.44	2.83
-15	(+ 5)	398	100	117	36	0.30	1.25	11.08	2.79	3.25
-10	(+14)	499	126	146	39	0.33	1.57	12.69	3.20	3.72
-5	(+23)	617	155	181	42	0.36	1.95	14.55	3.67	4.26
0	(+32)	754	190	221	45	0.39	2.39	16.68	4.20	4.89

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 45°C (+113°F))					
@220V1300RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	123	31	36	22	0.21	0.38	5.59	1.41	1.64
-30	(-22)	170	43	50	26	0.24	0.53	6.43	1.62	1.88
-25	(-13)	227	57	66	31	0.27	0.71	7.32	1.85	2.15
-20	(- 4)	296	75	87	36	0.30	0.93	8.30	2.09	2.43
-15	(+ 5)	379	95	111	40	0.33	1.19	9.40	2.37	2.75
-10	(+14)	477	120	140	45	0.36	1.51	10.64	2.68	3.12
-5	(+23)	593	149	174	49	0.40	1.87	12.06	3.04	3.53
0	(+32)	728	183	213	54	0.44	2.31	13.69	3.45	4.01

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 55°C (+131°F))					
@220V1300RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	104	26	31	22	0.21	0.33	4.78	1.20	1.40
-30	(-22)	150	38	44	27	0.25	0.47	5.57	1.40	1.63
-25	(-13)	205	52	60	32	0.28	0.64	6.35	1.60	1.86
-20	(- 4)	272	69	80	38	0.32	0.85	7.16	1.80	2.10
-15	(+ 5)	352	89	103	44	0.36	1.11	8.02	2.02	2.35
-10	(+14)	447	113	131	50	0.40	1.41	8.96	2.26	2.63
-5	(+23)	560	141	164	56	0.44	1.77	10.02	2.52	2.94
0	(+32)	691	174	202	62	0.49	2.19	11.22	2.83	3.29

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 35°C (+95°F))					
@220V1600RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	167	42	49	26	0.24	0.52	6.36	1.60	1.86
-30	(-22)	225	57	66	31	0.27	0.70	7.25	1.83	2.13
-25	(-13)	296	75	87	36	0.31	0.93	8.30	2.09	2.43
-20	(- 4)	384	97	112	40	0.34	1.21	9.51	2.40	2.79
-15	(+ 5)	489	123	143	45	0.37	1.54	10.90	2.75	3.19
-10	(+14)	613	154	180	49	0.40	1.93	12.49	3.15	3.66
-5	(+23)	757	191	222	53	0.42	2.39	14.29	3.60	4.19
0	(+32)	924	233	271	56	0.44	2.93	16.32	4.11	4.78

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 45°C (+113°F))					
@220V1600RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	155	39	45	27	0.25	0.48	5.67	1.43	1.66
-30	(-22)	210	53	61	33	0.28	0.66	6.42	1.62	1.88
-25	(-13)	279	70	82	38	0.32	0.88	7.27	1.83	2.13
-20	(- 4)	364	92	107	44	0.36	1.14	8.24	2.08	2.41
-15	(+ 5)	466	117	136	50	0.40	1.47	9.32	2.35	2.73
-10	(+14)	586	148	172	55	0.44	1.85	10.56	2.66	3.09
-5	(+23)	726	183	213	61	0.48	2.30	11.95	3.01	3.50
0	(+32)	888	224	260	66	0.51	2.81	13.52	3.41	3.96

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 55°C (+131°F))					
@220V1600RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	133	34	39	27	0.25	0.42	4.85	1.22	1.42
-30	(-22)	188	47	55	34	0.29	0.59	5.58	1.41	1.63
-25	(-13)	256	64	75	40	0.33	0.80	6.35	1.60	1.86
-20	(- 4)	339	85	99	47	0.38	1.07	7.17	1.81	2.10
-15	(+ 5)	439	111	129	54	0.43	1.38	8.08	2.04	2.37
-10	(+14)	556	140	163	61	0.48	1.76	9.07	2.28	2.66
-5	(+23)	694	175	203	68	0.53	2.19	10.16	2.56	2.98
0	(+32)	852	215	250	75	0.58	2.70	11.39	2.87	3.34

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 35°C (+95°F))					
@220V2000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	211	53	62	33	0.29	0.66	6.31	1.59	1.85
-30	(-22)	281	71	82	39	0.33	0.88	7.17	1.81	2.10
-25	(-13)	367	92	108	45	0.37	1.15	8.15	2.05	2.39
-20	(- 4)	472	119	138	51	0.41	1.48	9.27	2.34	2.72
-15	(+ 5)	599	151	175	57	0.45	1.88	10.53	2.65	3.08
-10	(+14)	749	189	220	63	0.49	2.36	11.95	3.01	3.50
-5	(+23)	926	233	271	68	0.53	2.93	13.55	3.42	3.97
0	(+32)	1131	285	331	74	0.57	3.58	15.35	3.87	4.50

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 45°C (+113°F))					
@220V2000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	194	49	57	35	0.30	0.61	5.62	1.42	1.65
-30	(-22)	265	67	78	42	0.34	0.83	6.39	1.61	1.87
-25	(-13)	352	89	103	49	0.39	1.10	7.24	1.82	2.12
-20	(- 4)	456	115	134	56	0.44	1.43	8.18	2.06	2.40
-15	(+ 5)	581	146	170	63	0.49	1.83	9.22	2.32	2.70
-10	(+14)	728	184	213	70	0.54	2.30	10.38	2.62	3.04
-5	(+23)	901	227	264	77	0.59	2.85	11.67	2.94	3.42
0	(+32)	1100	277	322	84	0.64	3.49	13.11	3.30	3.84

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 55°C (+131°F))					
@220V2000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	169	43	50	34	0.29	0.53	4.96	1.25	1.45
-30	(-22)	242	61	71	42	0.35	0.76	5.69	1.43	1.67
-25	(-13)	329	83	96	51	0.41	1.03	6.45	1.63	1.89
-20	(- 4)	432	109	127	60	0.47	1.36	7.26	1.83	2.13
-15	(+ 5)	555	140	163	68	0.54	1.75	8.13	2.05	2.38
-10	(+14)	699	176	205	77	0.60	2.21	9.08	2.29	2.66
-5	(+23)	867	218	254	86	0.67	2.74	10.12	2.55	2.97
0	(+32)	1061	267	311	94	0.74	3.36	11.26	2.84	3.30

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 35°C (+95°F))					
@220V3000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	309	78	90	52	0.43	0.97	5.94	1.50	1.74
-30	(-22)	422	106	124	61	0.50	1.32	6.87	1.73	2.01
-25	(-13)	556	140	163	71	0.57	1.74	7.83	1.97	2.29
-20	(- 4)	714	180	209	81	0.64	2.24	8.83	2.23	2.59
-15	(+ 5)	900	227	264	91	0.71	2.83	9.91	2.50	2.90
-10	(+14)	1118	282	327	101	0.78	3.52	11.09	2.79	3.25
-5	(+23)	1372	346	402	110	0.85	4.34	12.40	3.13	3.63
0	(+32)	1666	420	488	120	0.91	5.28	13.87	3.50	4.07

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 45°C (+113°F))					
@220V3000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	282	71	83	53	0.43	0.88	5.35	1.35	1.57
-30	(-22)	395	100	116	64	0.52	1.24	6.17	1.55	1.81
-25	(-13)	528	133	155	75	0.61	1.66	7.00	1.76	2.05
-20	(- 4)	686	173	201	87	0.70	2.16	7.86	1.98	2.30
-15	(+ 5)	873	220	256	99	0.79	2.75	8.79	2.21	2.57
-10	(+14)	1093	275	320	112	0.88	3.45	9.80	2.47	2.87
-5	(+23)	1349	340	395	124	0.97	4.27	10.92	2.75	3.20
0	(+32)	1647	415	482	135	1.06	5.22	12.20	3.07	3.57

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 55°C (+131°F))					
@220V3000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	248	63	73	52	0.43	0.78	4.77	1.20	1.40
-30	(-22)	359	91	105	65	0.52	1.13	5.52	1.39	1.62
-25	(-13)	492	124	144	78	0.62	1.54	6.26	1.58	1.84
-20	(- 4)	649	164	190	92	0.73	2.04	7.03	1.77	2.06
-15	(+ 5)	836	211	245	107	0.84	2.63	7.83	1.97	2.30
-10	(+14)	1056	266	310	121	0.95	3.33	8.71	2.20	2.55
-5	(+23)	1314	331	385	136	1.06	4.16	9.70	2.44	2.84
0	(+32)	1613	407	473	150	1.17	5.12	10.81	2.72	3.17

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 35°C (+95°F))					
@220V4000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	384	97	112	70	0.54	1.20	5.52	1.39	1.62
-30	(-22)	503	127	147	82	0.64	1.57	6.16	1.55	1.81
-25	(-13)	666	168	195	95	0.73	2.09	7.01	1.77	2.06
-20	(- 4)	873	220	256	108	0.82	2.74	8.04	2.03	2.35
-15	(+ 5)	1122	283	329	122	0.91	3.53	9.19	2.31	2.69
-10	(+14)	1413	356	414	136	1.01	4.46	10.42	2.63	3.05
-5	(+23)	1743	439	511	149	1.10	5.51	11.71	2.95	3.43
0	(+32)	2113	532	619	162	1.19	6.70	13.01	3.28	3.81

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 45°C (+113°F))					
@220V4000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	372	94	109	72	0.57	1.16	5.14	1.30	1.51
-30	(-22)	484	122	142	85	0.68	1.52	5.71	1.44	1.67
-25	(-13)	637	161	187	99	0.78	2.00	6.46	1.63	1.89
-20	(- 4)	830	209	243	113	0.88	2.61	7.36	1.85	2.16
-15	(+ 5)	1062	268	311	127	0.99	3.34	8.35	2.10	2.45
-10	(+14)	1332	336	390	142	1.09	4.20	9.40	2.37	2.75
-5	(+23)	1639	413	480	157	1.20	5.18	10.47	2.64	3.07
0	(+32)	1981	499	580	171	1.32	6.28	11.51	2.90	3.37

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 55°C (+131°F))					
@220V4000RPM		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	347	87	102	73	0.58	1.08	4.72	1.19	1.38
-30	(-22)	456	115	134	87	0.68	1.43	5.24	1.32	1.54
-25	(-13)	603	152	177	102	0.79	1.89	5.92	1.49	1.73
-20	(- 4)	786	198	230	117	0.90	2.47	6.70	1.69	1.96
-15	(+ 5)	1005	253	295	133	1.02	3.17	7.55	1.90	2.21
-10	(+14)	1259	317	369	149	1.14	3.97	8.44	2.13	2.47
-5	(+23)	1545	389	453	166	1.27	4.89	9.31	2.35	2.73
0	(+32)	1864	470	546	182	1.40	5.91	10.14	2.55	2.97

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal VES		
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	Slanted 45° up + 49° to Back		
3.2 DISCHARGE	4.9 +0.10/-0.05	[mm]	(0.193" +0.004"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 24° to Back		
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	Slanted 0° up + 59° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		