

COMPRESSOR DEFINITION

Designation	VNE K606GK
Nominal Voltage/Frequency	100-300 V 33-75 Hz
Engineering Number	950BX71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	100-300 / 33-75	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°F)	
5 Motor type	BPM		
6 Starting torque	HST - 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	25.2	[kgf/cm ²] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm ²] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	6.20	[cm ³] (0.378 cu.in)
2.1 Bore [mm]	20.873	
2.2 Stroke [mm]	18.120	
3 Lubricant charge	500	[ml] (16.91 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	11.6	[kg] (25.57 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	100-300 V 33-75 Hz 3 ~ (Three phase)	
2 Starting device type	Inverter	
2.1 Starting device	VCCHP2456XXXXX	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MST20AMK-3166	
6 Start winding resistance	3.82	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.53	[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: @220V2000RPM			EN12900MBP_HH Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
1298	327	380	213	1.02	10.45	6.09	1.53	1.78

TEST CONDITIONS: @220V2400RPM			EN12900MBP_HH Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
1533	386	449	255	1.20	12.35	6.01	1.51	1.76

TEST CONDITIONS: @220V3000RPM			EN12900MBP_HH Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
1906	480	559	326	1.52	15.35	5.85	1.47	1.71

TEST CONDITIONS: @220V4500RPM			EN12900MBP_HH Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
2735	689	801	517	2.38	22.03	5.29	1.33	1.55

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V2000RPM		EN12900HH Fan				(Condensing temperature 35°C (+95°F))			
Evaporating temperature	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]
°C (°F)									
-20 (-4)	996	251	292	163	0.79	7.02	6.10	1.54	1.79
-15 (+5)	1254	316	368	179	0.87	8.90	7.00	1.76	2.05
-10 (+14)	1556	392	456	193	0.94	11.11	8.08	2.04	2.37
-5 (+23)	1900	479	557	204	0.99	13.69	9.34	2.35	2.74
0 (+32)	2288	577	670	212	1.03	16.65	10.77	2.71	3.16
+5 (+41)	2718	685	797	219	1.06	20.01	12.38	3.12	3.63
+10 (+50)	3192	804	935	223	1.07	23.81	14.16	3.57	4.15

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V2000RPM		EN12900HH Fan			(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]
-20	(- 4)	845	213	247	176	0.85	6.70	4.81	1.21	1.41
-15	(+ 5)	1059	267	310	195	0.93	8.46	5.42	1.37	1.59
-10	(+14)	1311	330	384	213	1.02	10.56	6.15	1.55	1.80
-5	(+23)	1603	404	470	228	1.09	13.03	7.01	1.77	2.05
0	(+32)	1933	487	567	242	1.16	15.90	7.99	2.01	2.34
+5	(+41)	2303	580	675	254	1.23	19.19	9.10	2.29	2.67
+10	(+50)	2712	683	795	264	1.28	22.92	10.33	2.60	3.03

TEST CONDITIONS: @220V2000RPM		EN12900HH Fan			(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]
-20	(- 4)	685	173	201	188	0.91	6.29	3.62	0.91	1.06
-15	(+ 5)	854	215	250	212	1.00	7.92	4.05	1.02	1.19
-10	(+14)	1058	267	310	234	1.09	9.91	4.54	1.14	1.33
-5	(+23)	1297	327	380	254	1.19	12.28	5.11	1.29	1.50
0	(+32)	1571	396	460	273	1.28	15.06	5.74	1.45	1.68
+5	(+41)	1880	474	551	291	1.37	18.27	6.45	1.63	1.89
+10	(+50)	2224	560	652	308	1.46	21.93	7.24	1.82	2.12

TEST CONDITIONS: @220V2400RPM		EN12900HH Fan			(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]
-20	(- 4)	1178	297	345	197	0.94	8.30	5.98	1.51	1.75
-15	(+ 5)	1464	369	429	214	1.01	10.39	6.85	1.73	2.01
-10	(+14)	1807	455	529	230	1.08	12.91	7.87	1.98	2.31
-5	(+23)	2206	556	646	244	1.15	15.90	9.05	2.28	2.65
0	(+32)	2663	671	780	257	1.22	19.38	10.36	2.61	3.04
+5	(+41)	3176	800	931	269	1.30	23.38	11.80	2.97	3.46
+10	(+50)	3748	944	1098	279	1.39	27.93	13.36	3.37	3.92

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V2400RPM		EN12900HH Fan			(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]
-20	(- 4)	992	250	291	211	1.01	7.87	4.70	1.18	1.38
-15	(+ 5)	1236	312	362	233	1.11	9.88	5.30	1.34	1.55
-10	(+14)	1529	385	448	254	1.20	12.31	6.03	1.52	1.77
-5	(+23)	1871	472	548	273	1.28	15.22	6.86	1.73	2.01
0	(+32)	2263	570	663	290	1.36	18.61	7.80	1.96	2.28
+5	(+41)	2704	681	792	307	1.45	22.53	8.82	2.22	2.59
+10	(+50)	3196	805	936	322	1.55	27.00	9.93	2.50	2.91

TEST CONDITIONS: @220V2400RPM		EN12900HH Fan			(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]
-20	(- 4)	799	201	234	222	1.06	7.35	3.60	0.91	1.06
-15	(+ 5)	1003	253	294	249	1.19	9.30	4.03	1.02	1.18
-10	(+14)	1248	315	366	275	1.30	11.68	4.54	1.14	1.33
-5	(+23)	1535	387	450	299	1.41	14.53	5.13	1.29	1.50
0	(+32)	1864	470	546	323	1.52	17.87	5.77	1.46	1.69
+5	(+41)	2234	563	655	345	1.63	21.73	6.48	1.63	1.90
+10	(+50)	2647	667	776	365	1.74	26.14	7.23	1.82	2.12

TEST CONDITIONS: @220V3000RPM		EN12900HH Fan			(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]
-20	(- 4)	1446	364	424	253	1.19	10.20	5.71	1.44	1.67
-15	(+ 5)	1806	455	529	276	1.29	12.81	6.55	1.65	1.92
-10	(+14)	2233	563	654	297	1.39	15.95	7.51	1.89	2.20
-5	(+23)	2727	687	799	317	1.48	19.65	8.61	2.17	2.52
0	(+32)	3289	829	964	335	1.56	23.94	9.82	2.47	2.88
+5	(+41)	3918	987	1148	351	1.64	28.85	11.14	2.81	3.26
+10	(+50)	4615	1163	1352	367	1.71	34.41	12.55	3.16	3.68

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TEST CONDITIONS: @220V3000RPM		EN12900HH Fan			(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]
-20	(- 4)	1220	307	357	268	1.26	9.68	4.55	1.15	1.33
-15	(+ 5)	1535	387	450	297	1.39	12.27	5.17	1.30	1.51
-10	(+14)	1905	480	558	324	1.51	15.34	5.87	1.48	1.72
-5	(+23)	2328	587	682	349	1.63	18.93	6.66	1.68	1.95
0	(+32)	2806	707	822	374	1.74	23.08	7.52	1.89	2.20
+5	(+41)	3338	841	978	397	1.84	27.80	8.44	2.13	2.47
+10	(+50)	3925	989	1150	419	1.93	33.13	9.42	2.37	2.76

TEST CONDITIONS: @220V3000RPM		EN12900HH Fan			(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]
-20	(- 4)	996	251	292	282	1.32	9.16	3.53	0.89	1.03
-15	(+ 5)	1256	316	368	316	1.48	11.64	3.98	1.00	1.17
-10	(+14)	1557	392	456	348	1.63	14.57	4.47	1.13	1.31
-5	(+23)	1899	478	556	379	1.76	17.97	5.01	1.26	1.47
0	(+32)	2282	575	669	410	1.89	21.88	5.57	1.40	1.63
+5	(+41)	2707	682	793	439	2.01	26.34	6.15	1.55	1.80
+10	(+50)	3173	800	930	468	2.11	31.36	6.75	1.70	1.98

TEST CONDITIONS: @220V3600RPM		EN12900HH Fan			(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]
-20	(- 4)	1714	432	502	308	1.44	12.08	5.56	1.40	1.63
-15	(+ 5)	2128	536	623	337	1.56	15.09	6.32	1.59	1.85
-10	(+14)	2623	661	768	366	1.69	18.73	7.17	1.81	2.10
-5	(+23)	3198	806	937	395	1.82	23.04	8.10	2.04	2.37
0	(+32)	3855	971	1130	424	1.95	28.06	9.09	2.29	2.66
+5	(+41)	4593	1157	1346	454	2.08	33.82	10.11	2.55	2.96
+10	(+50)	5411	1364	1586	485	2.20	40.36	11.16	2.81	3.27

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V3600RPM		EN12900HH Fan			(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]
-20	(- 4)	1424	359	417	323	1.50	11.30	4.41	1.11	1.29
-15	(+ 5)	1786	450	523	358	1.66	14.26	4.98	1.26	1.46
-10	(+14)	2218	559	650	394	1.82	17.86	5.63	1.42	1.65
-5	(+23)	2721	686	797	429	1.99	22.13	6.34	1.60	1.86
0	(+32)	3295	830	965	465	2.15	27.10	7.09	1.79	2.08
+5	(+41)	3939	993	1154	501	2.30	32.82	7.87	1.98	2.31
+10	(+50)	4655	1173	1364	538	2.45	39.33	8.65	2.18	2.54

TEST CONDITIONS: @220V3600RPM		EN12900HH Fan			(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]
-20	(- 4)	1178	297	345	339	1.59	10.83	3.47	0.87	1.02
-15	(+ 5)	1472	371	431	381	1.77	13.65	3.87	0.98	1.13
-10	(+14)	1827	461	535	422	1.96	17.11	4.34	1.09	1.27
-5	(+23)	2243	565	657	463	2.14	21.23	4.84	1.22	1.42
0	(+32)	2719	685	797	505	2.31	26.07	5.38	1.36	1.58
+5	(+41)	3255	820	954	548	2.48	31.65	5.93	1.49	1.74
+10	(+50)	3852	971	1129	591	2.63	38.02	6.46	1.63	1.89

TEST CONDITIONS: @220V4500RPM		EN12900HH Fan			(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]
-20	(- 4)	2061	519	604	399	1.83	14.52	5.17	1.30	1.51
-15	(+ 5)	2566	647	752	440	2.03	18.20	5.83	1.47	1.71
-10	(+14)	3168	798	928	483	2.22	22.63	6.56	1.65	1.92
-5	(+23)	3868	975	1133	527	2.42	27.87	7.34	1.85	2.15
0	(+32)	4664	1175	1367	572	2.61	33.95	8.16	2.06	2.39
+5	(+41)	5558	1401	1629	618	2.80	40.91	8.99	2.27	2.64
+10	(+50)	6548	1650	1919	665	3.00	48.81	9.84	2.48	2.88

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V4500RPM		EN12900HH Fan			(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]
-20	(- 4)	1757	443	515	417	1.91	13.94	4.21	1.06	1.23
-15	(+ 5)	2192	553	642	465	2.14	17.51	4.72	1.19	1.38
-10	(+14)	2712	683	795	514	2.36	21.84	5.28	1.33	1.55
-5	(+23)	3316	836	972	563	2.59	26.97	5.89	1.48	1.73
0	(+32)	4004	1009	1173	613	2.82	32.93	6.53	1.65	1.91
+5	(+41)	4776	1204	1399	663	3.06	39.79	7.19	1.81	2.11
+10	(+50)	5631	1419	1650	714	3.31	47.58	7.85	1.98	2.30

TEST CONDITIONS: @220V4500RPM		EN12900HH Fan			(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]
-20	(- 4)	1414	356	414	432	2.00	13.01	3.28	0.83	0.96
-15	(+ 5)	1779	448	521	487	2.24	16.49	3.65	0.92	1.07
-10	(+14)	2215	558	649	543	2.48	20.73	4.08	1.03	1.20
-5	(+23)	2722	686	798	598	2.74	25.77	4.55	1.15	1.33
0	(+32)	3300	832	967	654	3.00	31.65	5.05	1.27	1.48
+5	(+41)	3949	995	1157	709	3.27	38.41	5.56	1.40	1.63
+10	(+50)	4669	1177	1368	764	3.56	46.11	6.06	1.53	1.78

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal
2 Tray holder	No
3 Connectors	
3.1 SUCTION	8.1 +0.10/+0.00 [mm] (0.319" +0.004"/+0.000")
3.1.1 Material	Copper
3.1.2 Shape	Slanted 42°
3.2 DISCHARGE	6.45 +0.10/+0.00 [mm] (0.254" +0.004"/+0.000")
3.2.1 Material	Copper
3.2.2 Shape	Slanted parallel to Base Plate
3.3 PROCESS	6.45 +0.10/+0.00 [mm] (0.254" +0.004"/+0.000")
3.3.1 Material	Copper
3.3.2 Shape	Slanted 42°
3.4 Oil cooler (Copper)	No [mm]
3.5 Connector sealing	Rubber Plugs