

COMPRESSOR DEFINITION

Designation	VNE K206GK
Nominal Voltage/Frequency	100-300 V 33-75 Hz
Engineering Number	950DX71

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	Low Back Pressure R404A		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°F)	
5 Motor type	BPM		
6 Starting torque	HST - Hight 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 - ELETRICAL 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	MST38AMK-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	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

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]
771	194	226	179	0.79	5.23	4.30	1.08	1.26

TEST CONDITIONS: @220V2400RPM			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]
886	223	260	205	0.91	6.01	4.33	1.09	1.27

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]
1117	281	327	259	1.15	7.57	4.32	1.09	1.27

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]
1314	331	385	309	1.38	8.91	4.25	1.07	1.25

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]
1596	402	468	388	1.73	10.82	4.12	1.04	1.21

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V2000RPM		ASHRAE32 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]
-40 (-40)	347	87	102	113	0.52	2.33	3.06	0.77	0.90	
-35 (-31)	478	120	140	128	0.58	3.22	3.72	0.94	1.09	
-30 (-22)	641	162	188	143	0.64	4.34	4.48	1.13	1.31	
-25 (-13)	839	211	246	157	0.71	5.70	5.34	1.35	1.56	
-20 (- 4)	1072	270	314	171	0.77	7.32	6.28	1.58	1.84	
-15 (+ 5)	1343	339	394	184	0.83	9.23	7.30	1.84	2.14	
-10 (+14)	1654	417	485	196	0.89	11.44	8.40	2.12	2.46	

TEST CONDITIONS: @220V2000RPM		ASHRAE32 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]
-40 (-40)	312	79	91	116	0.52	2.09	2.69	0.68	0.79	
-35 (-31)	431	109	126	132	0.59	2.90	3.27	0.82	0.96	
-30 (-22)	583	147	171	148	0.67	3.93	3.92	0.99	1.15	
-25 (-13)	768	193	225	165	0.74	5.20	4.64	1.17	1.36	
-20 (- 4)	988	249	290	182	0.82	6.73	5.43	1.37	1.59	
-15 (+ 5)	1246	314	365	199	0.90	8.54	6.26	1.58	1.83	
-10 (+14)	1542	389	452	216	0.97	10.65	7.15	1.80	2.09	

TEST CONDITIONS: @220V2000RPM		ASHRAE32 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]
-40 (-40)	293	74	86	118	0.53	1.96	2.47	0.62	0.72	
-35 (-31)	400	101	117	135	0.61	2.69	2.98	0.75	0.87	
-30 (-22)	538	136	158	153	0.69	3.63	3.52	0.89	1.03	
-25 (-13)	710	179	208	173	0.78	4.81	4.11	1.04	1.21	
-20 (- 4)	917	231	269	194	0.87	6.24	4.74	1.19	1.39	
-15 (+ 5)	1160	292	340	215	0.97	7.94	5.39	1.36	1.58	
-10 (+14)	1442	363	423	238	1.07	9.94	6.06	1.53	1.78	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V2400RPM		ASHRAE32 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]
-40 (-40)	409	103	120	132	0.62	2.75	3.11	0.78	0.91	
-35 (-31)	557	140	163	148	0.68	3.76	3.76	0.95	1.10	
-30 (-22)	741	187	217	164	0.75	5.01	4.50	1.13	1.32	
-25 (-13)	962	242	282	180	0.82	6.53	5.33	1.34	1.56	
-20 (- 4)	1221	308	358	196	0.89	8.34	6.24	1.57	1.83	
-15 (+ 5)	1521	383	446	211	0.97	10.45	7.22	1.82	2.12	
-10 (+14)	1864	470	546	225	1.03	12.89	8.27	2.09	2.42	

TEST CONDITIONS: @220V2400RPM		ASHRAE32 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]
-40 (-40)	368	93	108	134	0.65	2.47	2.75	0.69	0.80	
-35 (-31)	504	127	148	152	0.71	3.39	3.31	0.83	0.97	
-30 (-22)	677	171	198	171	0.78	4.57	3.95	1.00	1.16	
-25 (-13)	890	224	261	191	0.86	6.03	4.66	1.17	1.36	
-20 (- 4)	1144	288	335	210	0.95	7.80	5.43	1.37	1.59	
-15 (+ 5)	1441	363	422	231	1.04	9.88	6.26	1.58	1.83	
-10 (+14)	1783	449	522	250	1.14	12.31	7.14	1.80	2.09	

TEST CONDITIONS: @220V2400RPM		ASHRAE32 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]
-40 (-40)	336	85	98	134	0.69	2.25	2.49	0.63	0.73	
-35 (-31)	454	114	133	153	0.74	3.05	2.98	0.75	0.87	
-30 (-22)	612	154	179	175	0.81	4.12	3.52	0.89	1.03	
-25 (-13)	811	204	238	198	0.89	5.49	4.11	1.04	1.20	
-20 (- 4)	1054	266	309	222	0.99	7.17	4.75	1.20	1.39	
-15 (+ 5)	1343	338	393	247	1.10	9.19	5.43	1.37	1.59	
-10 (+14)	1678	423	492	273	1.22	11.56	6.15	1.55	1.80	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V3000RPM		ASHRAE32 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]
-40 (-40)	499	126	146	161	0.75	3.35	3.10	0.78	0.91	
-35 (-31)	688	173	202	185	0.85	4.64	3.73	0.94	1.09	
-30 (-22)	920	232	269	207	0.96	6.22	4.44	1.12	1.30	
-25 (-13)	1198	302	351	230	1.06	8.14	5.22	1.32	1.53	
-20 (- 4)	1525	384	447	251	1.16	10.41	6.08	1.53	1.78	
-15 (+ 5)	1903	480	558	272	1.26	13.08	7.00	1.76	2.05	
-10 (+14)	2336	589	685	292	1.35	16.16	7.98	2.01	2.34	

TEST CONDITIONS: @220V3000RPM		ASHRAE32 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]
-40 (-40)	434	109	127	162	0.75	2.91	2.69	0.68	0.79	
-35 (-31)	619	156	181	188	0.86	4.16	3.28	0.83	0.96	
-30 (-22)	846	213	248	215	0.98	5.71	3.93	0.99	1.15	
-25 (-13)	1118	282	328	241	1.09	7.58	4.63	1.17	1.36	
-20 (- 4)	1439	363	422	268	1.21	9.81	5.37	1.35	1.57	
-15 (+ 5)	1811	456	531	295	1.33	12.42	6.15	1.55	1.80	
-10 (+14)	2238	564	656	322	1.45	15.45	6.96	1.75	2.04	

TEST CONDITIONS: @220V3000RPM		ASHRAE32 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]
-40 (-40)	383	96	112	164	0.76	2.56	2.33	0.59	0.68	
-35 (-31)	552	139	162	191	0.87	3.71	2.90	0.73	0.85	
-30 (-22)	764	193	224	219	1.00	5.15	3.49	0.88	1.02	
-25 (-13)	1021	257	299	249	1.14	6.91	4.11	1.04	1.21	
-20 (- 4)	1326	334	388	279	1.28	9.02	4.75	1.20	1.39	
-15 (+ 5)	1681	424	493	311	1.43	11.51	5.40	1.36	1.58	
-10 (+14)	2091	527	613	345	1.58	14.41	6.05	1.53	1.77	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V3600RPM		ASHRAE32 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]
-40 (-40)	591	149	173	196	0.88	3.97	3.02	0.76	0.88	
-35 (-31)	817	206	239	224	1.00	5.51	3.65	0.92	1.07	
-30 (-22)	1090	275	319	251	1.12	7.38	4.34	1.09	1.27	
-25 (-13)	1417	357	415	279	1.24	9.63	5.08	1.28	1.49	
-20 (- 4)	1801	454	528	306	1.36	12.30	5.89	1.48	1.73	
-15 (+ 5)	2246	566	658	333	1.49	15.43	6.74	1.70	1.98	
-10 (+14)	2757	695	808	361	1.61	19.07	7.64	1.93	2.24	

TEST CONDITIONS: @220V3600RPM		ASHRAE32 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]
-40 (-40)	532	134	156	197	0.90	3.57	2.70	0.68	0.79	
-35 (-31)	746	188	218	228	1.04	5.02	3.26	0.82	0.96	
-30 (-22)	1008	254	295	260	1.18	6.81	3.88	0.98	1.14	
-25 (-13)	1325	334	388	291	1.33	8.98	4.54	1.14	1.33	
-20 (- 4)	1699	428	498	324	1.48	11.58	5.24	1.32	1.54	
-15 (+ 5)	2136	538	626	357	1.63	14.65	5.98	1.51	1.75	
-10 (+14)	2640	665	774	391	1.79	18.23	6.76	1.70	1.98	

TEST CONDITIONS: @220V3600RPM		ASHRAE32 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]
-40 (-40)	491	124	144	197	0.90	3.29	2.48	0.63	0.73	
-35 (-31)	688	173	201	230	1.05	4.62	2.99	0.75	0.88	
-30 (-22)	934	235	274	265	1.21	6.30	3.53	0.89	1.04	
-25 (-13)	1236	312	362	301	1.37	8.36	4.11	1.04	1.21	
-20 (- 4)	1597	402	468	338	1.53	10.86	4.72	1.19	1.38	
-15 (+ 5)	2021	509	592	377	1.71	13.83	5.36	1.35	1.57	
-10 (+14)	2514	633	737	417	1.89	17.32	6.02	1.52	1.76	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V4500RPM		ASHRAE32 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]
-40 (-40)	695	175	204	240	1.06	4.67	2.89	0.73	0.85	
-35 (-31)	967	244	283	277	1.25	6.52	3.50	0.88	1.02	
-30 (-22)	1309	330	384	315	1.43	8.86	4.16	1.05	1.22	
-25 (-13)	1720	434	504	354	1.60	11.69	4.87	1.23	1.43	
-20 (- 4)	2202	555	645	392	1.77	15.03	5.62	1.42	1.65	
-15 (+ 5)	2752	694	807	430	1.93	18.91	6.41	1.61	1.88	
-10 (+14)	3373	850	988	466	2.10	23.33	7.22	1.82	2.12	

TEST CONDITIONS: @220V4500RPM		ASHRAE32 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]
-40 (-40)	598	151	175	240	1.06	4.01	2.51	0.63	0.73	
-35 (-31)	860	217	252	278	1.26	5.79	3.09	0.78	0.91	
-30 (-22)	1192	300	349	320	1.45	8.05	3.72	0.94	1.09	
-25 (-13)	1592	401	467	363	1.65	10.80	4.37	1.10	1.28	
-20 (- 4)	2062	520	604	408	1.85	14.05	5.05	1.27	1.48	
-15 (+ 5)	2601	655	762	453	2.06	17.83	5.74	1.45	1.68	
-10 (+14)	3209	809	940	498	2.27	22.16	6.45	1.62	1.89	

TEST CONDITIONS: @220V4500RPM		ASHRAE32 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]
-40 (-40)	541	136	159	240	1.06	3.62	2.24	0.57	0.66	
-35 (-31)	783	197	229	280	1.26	5.26	2.80	0.71	0.82	
-30 (-22)	1094	276	320	324	1.47	7.37	3.38	0.85	0.99	
-25 (-13)	1472	371	431	371	1.68	9.96	3.97	1.00	1.16	
-20 (- 4)	1920	484	563	421	1.90	13.06	4.56	1.15	1.34	
-15 (+ 5)	2436	614	714	473	2.14	16.67	5.15	1.30	1.51	
-10 (+14)	3021	761	885	526	2.40	20.82	5.73	1.45	1.68	

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		