

### COMPRESSOR DEFINITION

Designation	VNE K614Z
Nominal Voltage/Frequency	100-300 V 33-75 Hz
Engineering Number	260AX71

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	100-300 / 33-75	[ V / Hz ]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°F to 50°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	14.2	[kgf/cm <sup>2</sup> ] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm <sup>2</sup> ] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	14.28	[cm <sup>3</sup> ] (0.871 cu.in)
2.1 Bore [mm]	30.157	
2.2 Stroke [mm]	20.000	
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 <sup>2</sup> ]

### 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	MST20EL-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: <b>@220V2000RPM</b>			<b>EN12900HBP_HH</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>5°C (41°F)</b> <b>50°C (122°F)</b>		
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]
3090	779	905	368	1.58	21.13	8.40	2.12	2.46

TEST CONDITIONS: <b>@220V2400RPM</b>			<b>EN12900HBP_HH</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>5°C (41°F)</b> <b>50°C (122°F)</b>		
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]
3518	887	1031	430	1.85	24.05	8.18	2.06	2.40

TEST CONDITIONS: <b>@220V3000RPM</b>			<b>EN12900HBP_HH</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>5°C (41°F)</b> <b>50°C (122°F)</b>		
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]
4209	1061	1233	545	2.38	28.78	7.72	1.95	2.26

TEST CONDITIONS: <b>@220V3600RPM</b>			<b>EN12900HBP_HH</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>5°C (41°F)</b> <b>50°C (122°F)</b>		
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]
4832	1218	1416	667	2.92	33.04	7.24	1.82	2.12

TEST CONDITIONS: <b>@220V4500RPM</b>			<b>EN12900HBP_HH</b> <b>Fan</b>		Evaporating temperature (Condensing temperature	<b>5°C (41°F)</b> <b>50°C (122°F)</b>		
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]
5587	1408	1637	860	3.80	38.20	6.50	1.64	1.90

### 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%			
	°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15 (+5)	1483	374	434	206	0.85	8.67	7.17	1.81	2.10	
-10 (+14)	1884	475	552	228	0.95	11.06	8.26	2.08	2.42	
-5 (+23)	2382	600	698	251	1.05	14.04	9.51	2.40	2.79	
0 (+32)	2978	751	873	274	1.15	17.64	10.89	2.74	3.19	
+5 (+41)	3672	925	1076	297	1.25	21.88	12.37	3.12	3.62	
+10 (+50)	4463	1125	1308	320	1.35	26.79	13.93	3.51	4.08	

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]
-15 (+5)	1248	315	366	221	0.93	7.96	5.67	1.43	1.66	
-10 (+14)	1622	409	475	251	1.06	10.38	6.47	1.63	1.90	
-5 (+23)	2083	525	610	281	1.19	13.39	7.40	1.86	2.17	
0 (+32)	2632	663	771	312	1.32	17.02	8.43	2.13	2.47	
+5 (+41)	3269	824	958	342	1.46	21.28	9.55	2.41	2.80	
+10 (+50)	3993	1006	1170	373	1.60	26.20	10.71	2.70	3.14	

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]
-15 (+5)	1080	272	316	241	1.01	7.60	4.48	1.13	1.31	
-10 (+14)	1404	354	411	277	1.17	9.92	5.07	1.28	1.49	
-5 (+23)	1806	455	529	313	1.33	12.83	5.78	1.46	1.69	
0 (+32)	2286	576	670	349	1.49	16.34	6.56	1.65	1.92	
+5 (+41)	2844	717	833	385	1.65	20.47	7.39	1.86	2.16	
+10 (+50)	3480	877	1020	422	1.82	25.26	8.24	2.08	2.42	

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]
-15 (+5)	1749	441	512	251	1.06	10.22	6.97	1.76	2.04	
-10 (+14)	2223	560	651	280	1.19	13.05	7.94	2.00	2.33	
-5 (+23)	2797	705	820	309	1.32	16.49	9.04	2.28	2.65	
0 (+32)	3471	875	1017	339	1.45	20.56	10.24	2.58	3.00	
+5 (+41)	4243	1069	1243	369	1.58	25.29	11.51	2.90	3.37	
+10 (+50)	5116	1289	1499	399	1.71	30.71	12.82	3.23	3.76	

### 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]
-15	(+ 5)	1494	377	438	268	1.14	9.53	5.57	1.40	1.63
-10	(+14)	1921	484	563	304	1.30	12.29	6.32	1.59	1.85
-5	(+23)	2442	615	716	339	1.46	15.70	7.19	1.81	2.11
0	(+32)	3058	771	896	375	1.61	19.77	8.16	2.06	2.39
+5	(+41)	3769	950	1104	410	1.77	24.53	9.19	2.32	2.69
+10	(+50)	4574	1153	1340	445	1.92	30.01	10.27	2.59	3.01

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]
-15	(+ 5)	1241	313	364	284	1.20	8.73	4.37	1.10	1.28
-10	(+14)	1603	404	470	327	1.39	11.33	4.91	1.24	1.44
-5	(+23)	2056	518	602	369	1.58	14.60	5.57	1.40	1.63
0	(+32)	2599	655	761	411	1.76	18.57	6.32	1.59	1.85
+5	(+41)	3231	814	947	453	1.95	23.27	7.13	1.80	2.09
+10	(+50)	3954	996	1159	495	2.14	28.71	7.99	2.01	2.34

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]
-15	(+ 5)	2076	523	608	314	1.34	12.13	6.60	1.66	1.93
-10	(+14)	2647	667	776	354	1.51	15.54	7.48	1.89	2.19
-5	(+23)	3333	840	977	395	1.70	19.65	8.43	2.12	2.47
0	(+32)	4133	1042	1211	439	1.89	24.49	9.42	2.37	2.76
+5	(+41)	5048	1272	1479	483	2.09	30.09	10.45	2.63	3.06
+10	(+50)	6078	1532	1781	529	2.30	36.48	11.48	2.89	3.36

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]
-15	(+ 5)	1801	454	528	336	1.44	11.48	5.35	1.35	1.57
-10	(+14)	2312	583	677	381	1.64	14.80	6.07	1.53	1.78
-5	(+23)	2931	739	859	428	1.85	18.84	6.85	1.73	2.01
0	(+32)	3658	922	1072	476	2.06	23.65	7.68	1.94	2.25
+5	(+41)	4493	1132	1317	526	2.29	29.25	8.55	2.16	2.51
+10	(+50)	5437	1370	1593	576	2.52	35.67	9.44	2.38	2.76

### E - PERFORMANCE - CURVES

TEST CONDITIONS:		EN12900HH			(Condensing temperature 55°C (+131°F))					
@220V3000RPM		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%						+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1518	383	445	350	1.50	10.68	4.34	1.09	1.27	
-10 (+14)	1961	494	575	402	1.73	13.86	4.88	1.23	1.43	
-5 (+23)	2506	632	734	456	1.97	17.80	5.49	1.38	1.61	
0 (+32)	3152	794	924	512	2.22	22.53	6.16	1.55	1.80	
+5 (+41)	3900	983	1143	568	2.48	28.08	6.87	1.73	2.01	
+10 (+50)	4750	1197	1392	625	2.75	34.49	7.59	1.91	2.23	

TEST CONDITIONS:		EN12900HH			(Condensing temperature 35°C (+95°F))					
@220V3600RPM		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%						+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	2360	595	692	376	1.61	13.80	6.28	1.58	1.84	
-10 (+14)	3016	760	884	425	1.84	17.71	7.09	1.79	2.08	
-5 (+23)	3799	957	1113	480	2.08	22.39	7.91	1.99	2.32	
0 (+32)	4709	1187	1380	541	2.35	27.90	8.71	2.19	2.55	
+5 (+41)	5746	1448	1684	606	2.65	34.25	9.48	2.39	2.78	
+10 (+50)	6910	1741	2025	676	2.97	41.48	10.22	2.58	2.99	

TEST CONDITIONS:		EN12900HH			(Condensing temperature 45°C (+113°F))					
@220V3600RPM		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%						+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	2052	517	601	400	1.72	13.08	5.13	1.29	1.50	
-10 (+14)	2653	668	777	455	1.97	16.98	5.83	1.47	1.71	
-5 (+23)	3371	850	988	514	2.23	21.68	6.55	1.65	1.92	
0 (+32)	4208	1060	1233	578	2.51	27.21	7.28	1.83	2.13	
+5 (+41)	5163	1301	1513	646	2.82	33.61	8.00	2.01	2.34	
+10 (+50)	6237	1572	1827	717	3.15	40.91	8.69	2.19	2.55	

TEST CONDITIONS:		EN12900HH			(Condensing temperature 55°C (+131°F))					
@220V3600RPM		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%						+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1756	442	514	417	1.80	12.35	4.21	1.06	1.23	
-10 (+14)	2272	572	666	480	2.08	16.05	4.74	1.19	1.39	
-5 (+23)	2897	730	849	546	2.37	20.57	5.31	1.34	1.55	
0 (+32)	3631	915	1064	615	2.69	25.95	5.90	1.49	1.73	
+5 (+41)	4475	1128	1311	688	3.02	32.22	6.50	1.64	1.91	
+10 (+50)	5429	1368	1591	764	3.37	39.41	7.11	1.79	2.08	

### E - PERFORMANCE - CURVES

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]
-15 (+5)	2766	697	811	477	2.07	16.17	5.80	1.46	1.70	
-10 (+14)	3530	890	1034	545	2.37	20.72	6.48	1.63	1.90	
-5 (+23)	4432	1117	1299	622	2.72	26.12	7.12	1.79	2.09	
0 (+32)	5470	1378	1603	710	3.11	32.40	7.70	1.94	2.26	
+5 (+41)	6645	1675	1947	808	3.55	39.61	8.22	2.07	2.41	
+10 (+50)	7957	2005	2332	917	4.04	47.76	8.68	2.19	2.54	

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]
-15 (+5)	2411	608	706	500	2.16	15.37	4.82	1.21	1.41	
-10 (+14)	3107	783	910	574	2.50	19.89	5.42	1.36	1.59	
-5 (+23)	3930	990	1151	656	2.87	25.27	5.99	1.51	1.76	
0 (+32)	4879	1230	1430	746	3.28	31.55	6.54	1.65	1.92	
+5 (+41)	5955	1501	1745	844	3.72	38.77	7.05	1.78	2.07	
+10 (+50)	7159	1804	2098	952	4.20	46.96	7.52	1.90	2.20	

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]
-15 (+5)	2056	518	602	516	2.22	14.47	3.99	1.00	1.17	
-10 (+14)	2675	674	784	599	2.60	18.90	4.47	1.13	1.31	
-5 (+23)	3411	860	999	688	3.01	24.23	4.95	1.25	1.45	
0 (+32)	4263	1074	1249	784	3.45	30.47	5.43	1.37	1.59	
+5 (+41)	5232	1318	1533	887	3.91	37.67	5.90	1.49	1.73	
+10 (+50)	6317	1592	1851	996	4.39	45.87	6.34	1.60	1.86	

### 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		