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 Expantion device	Capillary tube or Expansion valve		

8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-

9 Maximum condensing temperature			
9.1 Operating	25.2	[kgf/cm²] (358 psig)	/ ºC - ºF
9.2 Peak	28.3	[kgf/cm²] (402 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	6.20	[cm³] (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/cm²]

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 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.53	[Ω at 25ºC (77ºF)] +/- 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**			**EN12900LBP_HH** **Fan**		Evaporating temperature (Condensing temperature	**-35°C (-31°F)** **40°C (104°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]
429	108	126	127	0.63	3.16	3.38	0.85	0.99

TEST CONDITIONS: **@220V2400RPM**			**EN12900LBP_HH** **Fan**		Evaporating temperature (Condensing temperature	**-35°C (-31°F)** **40°C (104°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]
507	128	149	149	0.72	3.73	3.40	0.86	1.00

TEST CONDITIONS: **@220V3000RPM**			**EN12900LBP_HH** **Fan**		Evaporating temperature (Condensing temperature	**-35°C (-31°F)** **40°C (104°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]
631	159	185	187	0.89	4.64	3.37	0.85	0.99

TEST CONDITIONS: **@220V4500RPM**			**EN12900LBP_HH** **Fan**		Evaporating temperature (Condensing temperature	**-35°C (-31°F)** **40°C (104°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]
894	225	262	281	1.32	6.58	3.18	0.80	0.93

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V2000RPM**		**EN12900HH** **Fan**					(Condensing temperature **35ºC (+95ºF))**			
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	115	0.56	2.40	2.99	0.75	0.88
-35	**(-31)**	477	120	140	129	0.63	3.33	3.69	0.93	1.08
-30	**(-22)**	633	159	185	144	0.70	4.42	4.41	1.11	1.29
-25	**(-13)**	819	207	240	158	0.77	5.74	5.20	1.31	1.52
-20	**(- 4)**	1042	263	305	172	0.83	7.33	6.08	1.53	1.78
-15	**(+ 5)**	1307	329	383	185	0.89	9.26	7.08	1.78	2.07
-10	**(+14)**	1617	408	474	196	0.94	11.57	8.23	2.07	2.41

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V2000RPM **Fan**

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)**	232	59	68	118	0.58	1.79	2.00	0.50	0.59
-35	**(-31)**	363	91	106	133	0.65	2.84	2.73	0.69	0.80
-30	**(-22)**	508	128	149	148	0.72	4.00	3.41	0.86	1.00
-25	**(-13)**	674	170	198	165	0.80	5.32	4.07	1.03	1.19
-20	**(- 4)**	865	218	253	182	0.88	6.86	4.74	1.19	1.39
-15	**(+ 5)**	1086	274	318	199	0.96	8.67	5.44	1.37	1.59
-10	**(+14)**	1343	338	393	217	1.03	10.81	6.22	1.57	1.82

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V2000RPM **Fan**

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)**	139	35	41	122	0.59	1.26	1.13	0.28	0.33
-35	**(-31)**	264	67	77	136	0.66	2.39	1.93	0.49	0.56
-30	**(-22)**	393	99	115	152	0.74	3.57	2.59	0.65	0.76
-25	**(-13)**	532	134	156	170	0.82	4.85	3.16	0.80	0.93
-20	**(- 4)**	684	172	201	189	0.91	6.29	3.65	0.92	1.07
-15	**(+ 5)**	857	216	251	210	1.00	7.94	4.09	1.03	1.20
-10	**(+14)**	1053	265	309	231	1.10	9.86	4.53	1.14	1.33

TEST CONDITIONS: **EN12900HH** (Condensing temperature **35ºC (+95ºF))**
@220V2400RPM **Fan**

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)**	399	101	117	131	0.65	2.76	3.04	0.77	0.89
-35	**(-31)**	540	136	158	147	0.72	3.76	3.68	0.93	1.08
-30	**(-22)**	718	181	210	163	0.80	5.01	4.40	1.11	1.29
-25	**(-13)**	932	235	273	179	0.87	6.53	5.20	1.31	1.53
-20	**(- 4)**	1185	299	347	195	0.94	8.35	6.08	1.53	1.78
-15	**(+ 5)**	1478	372	433	210	1.00	10.48	7.03	1.77	2.06
-10	**(+14)**	1812	457	531	225	1.07	12.95	8.05	2.03	2.36

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V2400RPM **Fan**

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)**	314	79	92	131	0.64	2.45	2.41	0.61	0.70
-35	**(-31)**	438	110	128	150	0.73	3.43	2.93	0.74	0.86
-30	**(-22)**	592	149	173	169	0.82	4.65	3.49	0.88	1.02
-25	**(-13)**	777	196	228	189	0.91	6.13	4.10	1.03	1.20
-20	**(- 4)**	995	251	292	209	0.99	7.89	4.75	1.20	1.39
-15	**(+ 5)**	1246	314	365	229	1.08	9.96	5.44	1.37	1.59
-10	**(+14)**	1533	386	449	249	1.17	12.35	6.17	1.55	1.81

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V2400RPM **Fan**

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)**	230	58	67	132	0.64	2.07	1.74	0.44	0.51
-35	**(-31)**	336	85	98	152	0.74	3.04	2.20	0.56	0.65
-30	**(-22)**	466	117	136	174	0.84	4.23	2.68	0.67	0.78
-25	**(-13)**	620	156	182	197	0.94	5.67	3.16	0.80	0.93
-20	**(- 4)**	802	202	235	221	1.05	7.37	3.64	0.92	1.07
-15	**(+ 5)**	1011	255	296	245	1.16	9.37	4.13	1.04	1.21
-10	**(+14)**	1249	315	366	270	1.27	11.69	4.61	1.16	1.35

TEST CONDITIONS: **EN12900HH** (Condensing temperature **35ºC (+95ºF))**
@220V3000RPM **Fan**

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)**	479	121	140	159	0.77	3.31	3.00	0.76	0.88
-35	**(-31)**	658	166	193	181	0.87	4.58	3.64	0.92	1.07
-30	**(-22)**	881	222	258	203	0.96	6.15	4.34	1.09	1.27
-25	**(-13)**	1149	290	337	224	1.06	8.06	5.13	1.29	1.50
-20	**(- 4)**	1464	369	429	245	1.15	10.32	5.98	1.51	1.75
-15	**(+ 5)**	1828	461	536	265	1.24	12.97	6.89	1.74	2.02
-10	**(+14)**	2243	565	657	285	1.33	16.02	7.87	1.98	2.31

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V3000RPM **Fan**

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)**	380	96	111	159	0.77	2.96	2.40	0.60	0.70
-35	**(-31)**	537	135	157	185	0.89	4.20	2.90	0.73	0.85
-30	**(-22)**	730	184	214	211	1.00	5.73	3.46	0.87	1.01
-25	**(-13)**	961	242	282	237	1.11	7.58	4.05	1.02	1.19
-20	**(- 4)**	1232	310	361	262	1.23	9.77	4.69	1.18	1.37
-15	**(+ 5)**	1544	389	452	288	1.34	12.33	5.36	1.35	1.57
-10	**(+14)**	1899	479	556	313	1.45	15.30	6.07	1.53	1.78

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V3000RPM **Fan**

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)**	285	72	84	160	0.78	2.57	1.78	0.45	0.52
-35	**(-31)**	417	105	122	188	0.91	3.77	2.21	0.56	0.65
-30	**(-22)**	579	146	170	217	1.03	5.26	2.66	0.67	0.78
-25	**(-13)**	772	195	226	247	1.16	7.05	3.13	0.79	0.92
-20	**(- 4)**	997	251	292	277	1.30	9.17	3.60	0.91	1.06
-15	**(+ 5)**	1257	317	368	308	1.43	11.66	4.09	1.03	1.20
-10	**(+14)**	1552	391	455	338	1.57	14.52	4.58	1.15	1.34

TEST CONDITIONS: **EN12900HH** (Condensing temperature **35ºC (+95ºF))**
@220V3600RPM **Fan**

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)**	569	143	167	190	0.90	3.94	2.99	0.75	0.88
-35	**(-31)**	776	195	227	217	1.02	5.40	3.58	0.90	1.05
-30	**(-22)**	1037	261	304	244	1.14	7.25	4.26	1.07	1.25
-25	**(-13)**	1355	341	397	271	1.26	9.50	5.00	1.26	1.47
-20	**(- 4)**	1731	436	507	298	1.39	12.19	5.81	1.47	1.70
-15	**(+ 5)**	2167	546	635	324	1.51	15.36	6.69	1.69	1.96
-10	**(+14)**	2664	671	781	349	1.63	19.04	7.63	1.92	2.24

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V3600RPM **Fan**

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)**	448	113	131	190	0.92	3.49	2.36	0.60	0.69
-35	**(-31)**	631	159	185	221	1.05	4.93	2.86	0.72	0.84
-30	**(-22)**	858	216	251	252	1.19	6.74	3.39	0.86	0.99
-25	**(-13)**	1132	285	332	284	1.33	8.93	3.97	1.00	1.16
-20	**(- 4)**	1454	366	426	317	1.47	11.53	4.59	1.16	1.34
-15	**(+ 5)**	1826	460	535	349	1.62	14.59	5.23	1.32	1.53
-10	**(+14)**	2250	567	659	381	1.77	18.12	5.91	1.49	1.73

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V3600RPM **Fan**

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)**	333	84	98	191	0.92	3.00	1.74	0.44	0.51
-35	**(-31)**	490	123	143	224	1.06	4.43	2.18	0.55	0.64
-30	**(-22)**	681	172	200	259	1.21	6.19	2.63	0.66	0.77
-25	**(-13)**	910	229	267	295	1.37	8.31	3.09	0.78	0.91
-20	**(- 4)**	1176	296	345	332	1.54	10.82	3.55	0.90	1.04
-15	**(+ 5)**	1483	374	435	370	1.71	13.76	4.02	1.01	1.18
-10	**(+14)**	1833	462	537	408	1.89	17.15	4.48	1.13	1.31

TEST CONDITIONS: **EN12900HH** (Condensing temperature **35ºC (+95ºF))**
@220V4500RPM **Fan**

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)**	683	172	200	236	1.13	4.73	2.89	0.73	0.85
-35	**(-31)**	946	238	277	273	1.29	6.59	3.47	0.88	1.02
-30	**(-22)**	1272	320	373	310	1.45	8.89	4.11	1.03	1.20
-25	**(-13)**	1663	419	487	347	1.62	11.66	4.79	1.21	1.40
-20	**(- 4)**	2123	535	622	385	1.78	14.96	5.52	1.39	1.62
-15	**(+ 5)**	2654	669	778	421	1.95	18.82	6.30	1.59	1.85
-10	**(+14)**	3257	821	954	457	2.11	23.28	7.12	1.80	2.09

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V4500RPM **Fan**

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)**	526	133	154	234	1.12	4.09	2.26	0.57	0.66
-35	**(-31)**	759	191	223	275	1.30	5.94	2.76	0.70	0.81
-30	**(-22)**	1045	263	306	317	1.48	8.20	3.29	0.83	0.96
-25	**(-13)**	1384	349	406	360	1.67	10.92	3.84	0.97	1.12
-20	**(- 4)**	1781	449	522	404	1.87	14.12	4.41	1.11	1.29
-15	**(+ 5)**	2237	564	655	448	2.07	17.87	5.00	1.26	1.46
-10	**(+14)**	2754	694	807	492	2.27	22.18	5.61	1.41	1.64

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V4500RPM **Fan**

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	235	1.14	3.39	1.61	0.40	0.47
-35	**(-31)**	579	146	170	278	1.32	5.23	2.08	0.52	0.61
-30	**(-22)**	821	207	241	322	1.52	7.45	2.54	0.64	0.75
-25	**(-13)**	1106	279	324	369	1.73	10.10	3.00	0.76	0.88
-20	**(- 4)**	1436	362	421	417	1.94	13.21	3.45	0.87	1.01
-15	**(+ 5)**	1815	457	532	467	2.17	16.83	3.89	0.98	1.14
-10	**(+14)**	2244	565	658	517	2.39	21.00	4.33	1.09	1.27

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		