

F2K - FREQUENCY CONVERTER *Datasheet*

General Data	10Kva	15Kva	20Kva	30Kva	40Kva	50Kva	60Kva	80Kva	100Kva	120Kva	150Kva	200Kva	250kva	300kva	350kva	400kva	500kva	600kva	800kva	1000kva
Overall Ac/Ac Efficiency at 100% load	90,5%	90,6%	90,7%	90,9%	91%	91,1%	91,2%	91,5%	91,7%	91,8%	91,8%	92%	92%	92,1%	92,2%	92,2%	92,4%	92,4%	92,5%	92,8%
Overall Ac/Ac Efficiency at 50% load	88,1%	88,2%	88,4%	88,7%	89,2%	89,7%	89,8%	90,1%	90,3%	90,3%	90,4%	90,5%	90,6%	90,6%	90,6%	90,7%	90,7%	90,7%	90,8%	90,9%
Heat Rejection at 100% Load 0,8PF (Btu)	2.866,00	4.426,09	5.598,95	8.199,73	10.800,95	13.336,52	15.806,65	20.290,31	24.712,10	29.265,32	36.581,65	47.482,43	59.353,04	70.256,99	80.841,16	92.389,90	112.282,60	134.739,12	177.096,65	211.828,97
Cooling Air(77F-86F/25°C-30°C) (CMF)	209,94	324,23	410,14	600,66	791,21	976,95	1.157,89	1.486,34	1.810,25	2.143,79	2.679,74	3.478,26	4.347,83	5.146,58	5.921,91	6.767,90	8.225,11	9.870,13	12.972,97	15.517,24
Audible Noise Level(at Five Feet)dB(A)	52	52	54	54	57	57	59	59	59	62	63	63	63	65	65	66	68	68	68	70
Fault Current Rating (KA)	25	25	25	25	25	25	25	25	25	25	25	50	50	50	50	50	50	50	50	50
Operating Temperature	32F-104F(0°C-40°C)																			
Storage Temperature Range	5F-122F(-15°C+50°C)																			
Relative Humidity	0-95% non condensing																			
Maximum Altitude(without derating)	3281Ft																			
Maximum Altitude(with derating)	4921Ft/-5% 6562Ft/-9% 8202Ft/ -14% 9843Ft/-18%																			
Enclosure (type)	Indoor IP20																			
Enclosure (safety)	Internal dead front construction																			
Enclosure (cooling)	Forced air (redundant Fans)																			
Enclosure (colour)	To be defined within the Ral grade																			
Installation and Maintenance	Front access required for normal maintenance																			
Conduit Access	Bottom standard-top option																			
Standards	UL1778, IEC62040, ISO9001,EN52001																			
Electrostatic Discharge Immunity	4KV Contact / 8KV air discharge																			
Configuration Standard	Stand alone																			
Configuration Optional	Parallel capability up to four units redundancy-capacity																			
Rectifier																				
Configuration	6 pulse thyristor Rectifier																			
Input Voltage	200-208-220 Vac or 380-400-415-440-460-480 Vac, 3 phase, 3 wire + ground																			
Frequency	50/60Hz, +/- 10% selectable																			
Power Factor	0,85 lagging typical @ 100% load @ 400vac																			
Input Current THD	< 28%																			
Inrush Current	Limited by soft-start circuit																			
Output Voltage Tolerance	+/- 1%																			
DC Ripple Voltage	+/- 1%																			
DC Ripple Current	Max 2% RMS																			
12 pulse (option)																				
Configuration	12 pulse thyristor Rectifier																			
Input Voltage	200-208-220 Vac or 380-400-415-440-460-480 Vac, 3 phase, 3 wire + ground																			
Frequency	50/60Hz, +/- 10% selectable																			
Power Factor	0,91 lagging typical @ 100% load @ 400vac																			
Input Current THD	< 9%																			
Inrush Current	Limited by soft-start circuit																			
Output Voltage Tolerance	+/- 0,75%																			
DC Ripple Voltage	+/- 1%																			
DC Ripple Current	Max 2% RMS																			
Inverter																				
Configuration	IGBT pwm controlled																			
Nominal Output Voltage	200-208-220 Vac or 380-400-440- 460-480 Vac, 3 phase, 4 wire + ground																			
Inverter Bridge	IGBT Technology																			
Output Isolation Transformer	yes																			
Output Waveform	True sine wave																			
Output Voltage Tolerance																				
Static	+/- 1%																			
Load Step 0% - 100% - 0%	+/-8% Recovering within tolerance into 2 cycles																			
Load Step 0% - 50% - 0%	+/-3% Recovering within tolerance into 2 cycles																			
100% Unbalanced Load (IEC62040)	+/-3% voltage deviation																			
Output Voltage Distortion																				
100% Linear Load	2% THD Maximum																			
80% Non Linear Load (IEC62040)	5% THD Maximum																			
Crest Factor Compatibility	3:1 with 80% load																			
Output Neutral Wire Rating	200%																			
Phase Displacement																				
100% Balanced Load	120° +/-1%																			
100% Unbalanced Load (80%-0-80%)	120° +/-2%																			
Output Frequency																				
Output frequency	50-60-400 Hz +/- 0.01%																			
Overload Capability	125% at 0.8PF for 10 minutes / 150% at 0.8PF for 60 seconds																			
Short Circuit Capability	150% of rated current for 60 sec, followed by current limitation																			
Maximum Output Current @ 0,8PF (A) (400V)	14.45	21.68	28.90	43.35	57.8	72.25	86.71	115,6	144,5	173,4	216,7	289,0	361,2	433	505	578	722	867	1156	1445
Alarm Contact (voltage free)	Four user defined contacts																			
Serial Communication	standard 1x RS232																			
Standard	Emergency power off (User supplied N/C Contact)																			