

BragaMoro F2K2 Frequency Converter



Side View



On Cart

Key Features & Benefits



Engineered for Demanding Env.

- IGBT - PWM solid state high-efficiency integrated system converter for top class performances on 400Hz ground power supply
- Increased degree of protection from IP31 to IP52
- Trailer available (certified) on request to allow easy handling of the unit up to 150kVA



Customisable, Adaptable Design

- Wide input power supply range available from 380Vac to 480Vac 3Ph + G
- Drip-Proof cabinet Shields Alarm Buzzer
- 12 Pulse Thyristor bridge and input THD Filters
- 5th and 7th harmonic input filter on request on 6 pulse units
- Special color and Protection degree



Uncompromising Reliability

- $\pm 10\%$ output voltage adj potentiometer available on req
- 1Ph + N + G and 28Vdc (config available from 50A up to 600A)
- EN 61000-6-2, EN 61000-6-4, 2006/95/EC, ISO 1540, ISO 6858, SAE ARP 5015, MIL-STD-704F, MIL-STD-1472, DFS-400MIL, STD-405-F compliant.

General Data

	20kVA	30kVA	40kVA	60kVA	90kVA	120kVA
Overall Ac/Ac Efficiency at 100% load	92.7%	92.9%	93.1%	93.5%	93.7%	94.1%
Overall Ac/Ac Efficiency at 50% load	90.4%	90.7%	91.7%	92.1%	92.3%	92.5%
Heat Rejection at 100% Load 0,8PF (Btu)	5,598.95	8,199.73	13,336.52	20,290.31	24,712.10	29.650,05
Cooling Air(77F-86F/25°C-30°C) (CMF)	410.14	600.66	976.95	1,486.34	1,819.25	2,172.5
Audible Noise Level(at Five Feet) dB(A)	54		57	59		64
Fault Current Rating (KA)	25					
Operating Temperature (UPS)	32F-104F(0°C-40°C)					
Storage Temperature Range(UPS)	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 IP21 Other IP					
Enclosure (safety, cooling, colour)	Internal dead front construction, Forced air (redundant fans), TBD within the RAL grade					
Installation and Maintenance	Front access required for normal maintanance					
Conduit Access	Bottom standard-top option					
Standards	IEC62040, ISO9001,EN52001 -MIL-STD-405_F and others					
Electrostatic Discharge Immunity	4KV Contact / 8KV air discharge					
Configuration Standard	Stand alone					

Rectifier

Configuration	6 pulse tyristor Rectifier -- 12 pulse on request
Input voltage	380-400-415-440-480 Vac, 3 phase, 3 wire + ground $\pm$ 15%
Frequency	50/60Hz, +/- 10% selectable
Power Factor	0,9 lagging typical @ 100% load @ 400vac 0,92 lagging on 12 pulse

Rectifier

Inrush Current	Limited by soft-start circuit
Output Voltage Tolerance	+/- 1%

Inverter

Configuration		
Nominal Output Voltage (adj +/-10%)	Option 1	36V ac 1 phase, 2 wire + ground Max 20% unit size
	Option 2	28V DC 2 wire ground up to 600A
Inverter Bridge		IGBT Technology
Output Isolation Transformer		Yes
Output Waveform		True sine wave

Inverter Specs

Static	6 pulse thyristor Rectifier -- 12 pulse on request					
Load Step 0% - 100% - 0%	380-400-415-440-480 Vac, 3 phase, 3 wire + ground $\pm$ 15%					
Load Step 0% - 50% - 0%	50/60Hz, +/- 10% selectable					
100% Unbalanced Load	0,9 lagging typical @ 100% load @ 400vac 0,92 lagging on 12 pulse					
Gen Data	20kVA	30kVA	40kVA	60kVA	90kVA	120kVA
100%Unbalanced Load	$\pm$ 5%					

Output Voltage Distortion

100% Linear Load	2% THD Maximum
80% Non Linear Load	5% THD Maximum
Crest Factor Compatibility	3:1 with 80% load
Output Neutral Wire Rating	200%

Phase Displacement

100% Balanced Load	2% THD Maximum
100% Unbalanced Load (80%- 0-80%)	5% THD Maximum

Output Frequency

Free Running	400Hz, +/- 0.01%					
Overload Capability (on inverter)	125% at 0.8PF for 10 minutes / 150% at 0.8PF for 60 seconds					
Short Circuit Capability (on inverter)	150% of rated current for 60 sec, followed by current limitation					
Maximum Op Current @ 0.9	53A	79A	106A	174A	250A	334A

General

Alarm Contact (voltage free)	Alarm Contact (voltage free)
Serial Communication	5% THD Maximum Serial Communication
Standard	Emergency power off (User supplied N/C Contact)
Input Signals	AUX input 1*(default = on generator)

Code	Size	Weight (kg)
F2K2-020-std -U	800x750x1200	300
F2K2-030-std -U	800X750X1200	380
F2K2-040-std -U	800X1000X1600	390
F2K2-060-std -U	800X600X1800	860
F2K2-090-std -U	800X1000X1800	600