

Nova 100 VA–300 kVA Solid State Frequency Converters

Three-Phase
Single-Phase
50, 60, 400 Hz

**High-Reliability Frequency Converters for demanding shock, vibration, humidity and EMI environments.
Can meet MIL-STD-810C, MIL-STD-1399, MIL-STD-1472 & MIL-STD-461D optionally.
-Military applications include HMMWV, UAV, Shipboard, Submarine, and Mobile Power Units-**

INPUT

Voltage (specify): Most standard voltages available in 1 and 3 ϕ configurations.
Frequency: 60 Hz, 50 Hz, and 400 Hz
Starting Current Surge: Limited per MIL-M-4803D (3 ϕ FC-Series)
Phase Rotation: Any (3 ϕ Units)
Input Circuit Protection: Circuit Breaker / Fuses, Transient Suppressors
POWER FACTOR CORRECTION AVAILABLE ON SOME MODELS

OUTPUT

Power Ratings: 100 VA – 300 kVA
Voltage (specify): Any standard voltage
Frequency: 60 Hz, 50 Hz, and 400 Hz
Frequency Regulation: $\pm 0.5\%$ (Crystal available)
Frequency Transients: None
Voltage Regulation: $\pm 1.5\%$
Dynamic Voltage Regulation: $\pm 10\%$
Total Harmonic Distortion: 3% Typical, 5% Max
Overload: 120% Typical (Consult factory for specifics)
Efficiency: 85-95%, depending on model
Power Factor: 0.7 lead to 0.7 lag
Output Circuit Protection: Current Limit, Short Circuit Protection, Thermal Protection, and Semiconductor Protection

ENVIRONMENTAL SPECIFICATIONS

Operating Temp. Range: -20 C $^{\circ}$ to +50 C $^{\circ}$
Humidity: 95% non-condensing
Elevation: 10,000 ft. typical
Audible Noise: 65 dBA at 5ft typical
Cooling: Forced Air
MTBF: 30,000 hours
MTTR: Less than 30 minutes

NOTE: The specifications above are generalized for all of the Frequency Converters shown below. Please consult individual data sheets for exact specifications.

APPLICATIONS

- Military Vehicles and Shelters
- Communications Systems
- Cellular Sites
- Aircraft Power
- European Power / Export Testing
- U.S. Power Abroad
- Railroad Signaling Power
- Power Conditioning & Frequency Stabilization

INSTRUMENTATION AND INDICATORS

- Output voltmeter (with phase selector switch on 3 ϕ output models)
- Output ammeter (with phase selector switch on 3 ϕ output models)
- Input and output power on lamps
- Fault lamp (some models)
- Start button (3 ϕ models only)
- Stop / Reset button (3 ϕ models only)
- Self-diagnostics (3 ϕ models only)

PARTIAL LISTING OF AVAILABLE OPTIONS

- 19", 23", or 24" Panel Mount on GLFC Models
- Custom Enclosures
- Frequency Meter
- Elapsed Time Meter
- Ruggedization against shock and vibration to MIL-STD-810
- Alarm Contact Closures
- Remote Start/Stop Control
- Custom Output Frequencies
- Custom Paint
- Output Circuit Breaker
- Crystal Frequency Control

CUSTOM DESIGNS AVAILABLE



Custom Compact Designs Available

Contact Factory for Details

ADVANCED MODULAR GLFC-SERIES



1 kVA Model GLFC1K50-120-220 shown with optional 19" rack-mounting panel

F/C Dimensions: 5.25"H x 19"W x 8"D / 17 lbs.

HEAVY DUTY 3 FC-SERIES



**-FC-SERIES 5 kVA -300 kVA-
*400 Hz Three-Phase Models Available***

1 MODELS ¹	KVA	I/O VOLTAGE	F/C LBS	Dimensions H"xW"xD"
GLFC50 ⁶	0.5	Any standard	15	5.0x8x12.5
GLFC1K ⁶	1	I/O voltage	15	5.0x8x12.5
GSFC1.5K ⁶	1.5	available for	105	5.25x19x22
GSFC2K	2	all 1 ϕ Phase	125	5.25x19x22
GSFC3K	3	models shown.	180	8.75x19x22
GSFC5K	5		200	8.75x19x24
GSFC7.5K	7.5	Three-Phase	425	30x36x17
GSFC10K	10	input available	450	30x36x17
GSFC15K	15	on most	525	30x36x17
GSFC20K	20	models shown	C/F	C/F
GSFC30K	30	(required above 3 kVA).	C/F	C/F

3 ϕ MODELS ¹	KVA	I/O VOLTAGE	FREQ. (Hz)	F/C LBS	Dimensions ² H"xW"xD"	ENCLOSURE ³
GLFC1.5K3	1.5	120/208 VAC,	50 Hz,	90	5.25x19x24	Consult Factory
GLFC2K3	2			90	5.25x19x24	
GLFC3K3	3			90	5.25x19x24	
FC5K3	5	220/380 VAC,	60 Hz,	360	54x36x16	NEMA 3-R WALL/FLOOR MOUNT
FC7.5K3	7.5			380	54x36x16	
FC10K3	10			665	60x36x16	
FC15K3	15	277/480 VAC,	400 Hz	835	60x36x16	NEMA-12 FLOOR-MOUNT
FC20K3	20			980	72x48x17	
FC30K3	30			1090	72x48x17	
FC40K3	40	and other	Input /	1525	84x60x17	Consult Factory
MKFC50K3	50	I/O voltages	Output	1700	65x49.5x29.5	
MKFC60K3	60			1720	65x49.5x29.5	
MKFC80K3	80			1975	65x49.5x29.5	
MKFC100K3	100		Available for	2290	65x49.5x29.5	
MKFC120K3	120	Available for	most Three-Phase	2600	65x49.5x29.5	
MKFC150K3	150			2900	65x49.5x29.5	
MKFC200K3	200	all Three-Phase		3900	65x81x29.5	
MKFC250K3	250			4500	65x81x29.5	
MKFC300K3	300	Models shown	Models shown	4650	65x81x29.5	

Notes:

- When ordering, choose model series, output power rating, output frequency, input voltage, and output voltage (in order) to form Nova part number. Example: Model GLFC1K50-120-220 is a GL-Series F/C with an input of 120 VAC, 60 Hz and an output of 220 VAC, 50 Hz, 1 kVA.
- Height measurements for Three-Phase units include floor-mounting feet. If wall-mount enclosure is desired, specify and delete 24" from height shown above (3 ϕ models).
- Many types of enclosures are available. Please consult the factory for details.
- All weights shown above are approximate. Please consult the factory for details.
- Charts above depict partial model selection. Additional models available. Consult the factory for details.
- Power Factor Correction for AC Input is available.

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SOLID STATE 50 HZ 60 HZ 400HZ FREQUENCY CONVERTERS SINGLE & THREE PHASE



GLOBAL VISION
A POWER
CONCEPT