

FREQUENCY CONVERTER

Tailors of the Industry



FC GS SERIES

CE

FREQUENCY CONVERTER

TELECOM

MARINE

ITS TRAFFIC

MILITARY

POWER PLANTS

OIL & GAS

RAILWAY

ALTERNATIVE



WHY US?

▪ OUTSTANDING RELIABILITY ON MARINE ENVIRONMENT

With marine certificated design. We ensure 100% reliability on harsh marine applications.

**Bureau Veritas, ABS and DNV-GL Certificates available

▪ 400HZ OPERATION FOR AIRPORTS & SHIPS

In air and marine vessels 400Hz is essential. Our products provide clean power suitable for this.

▪ EASY MAINTENANCE AND REPAIR

Modular board structure and front access with smart component locating topology for the easiest repair and maintenance.

▪ MILSPEC COMPLIANCE

Certification for MILSPEC on our Industrial Frequency Converter systems. Rigid cabinets ensure durability on military applications.

▪ 28VDC AUXILIARY OUTPUT FOR AIRCRAFTS

28VDC Auxiliary output with its special connector can be implemented for aircraft tests.

OPERATE ON EVERY ENVIRONMENT

▪ OUTSTANDING RELIABILITY ON MARINE ENVIRONMENT

With FC Series construction and ventilation systems. Your operation will not be depending on environmental conditions. From dust to salt, operation will continue uninterrupted. The unit have been tested and approved on operations even in 70°C.

▪ SERVICE AND SUPPORT

Modular board structure and front access allows easy maintenance for 7/24/365 operation. 20 years spare parts availability and swift service response will keep your Hz going.



FREQUENCY CONVERTER



**400Hz CONVERTER
FOR MARINE & AIR VESSELS**

FREQUENCY CONVERTER

MODEL	FC SERIES (3/3, 3/1, 1/1 PHASE)
INPUT	
Voltage (1 Phase)	220VAC±15% Standard (110VAC to 260VAC ±15% available)
Voltage (3 Phase)	3x380VAC±15% Standard (190VAC to 460VAC ±15% available)
Frequency	50, 60 and 400Hz ±10% Standard (other input Hz available)
Phase Rotation	Any (Automatic Phase Lock)
Inrush Current	10 x I _{nom}
OUTPUT	
Power (kVA)	1kVA to 600kVA (Between ranges available)
Frequency	50, 60 and 400Hz ±10% Standard (other input Hz available)
Voltage (1 Phase)	220VAC±15% Standard (110VAC to 260VAC ±15% available)
Voltage (3 Phase)	3x380VAC±15% Standard (190VAC to 460VAC ±15% available)
Voltage Regulation	<1% Maximum
Voltage Recovery	<50ms @ unbalanced load
Voltage Stability	<1% @ balanced load / <3% @ unbalanced load
THDu	<2%
Overload Capacity	continuous @ 110% load 1 hours @ 125% load 5 minutes @ 150% load 20 seconds @ 200% load
Isolation Values	1500, 2000 or 3000VAC input&output/chassis
PHYSICAL CHARACTERISTICS	
Protection Degree	Standard: IP20, (IP21 to IP54 available)
Cooling System	Forced Ventilation (Natural cooling, Smart Fans available)
Cable Entry	Standard: Bottom (Top, Rear, Side available)
Cabinet Color	Standard: RAL7032,7035 (Others available)
ENVIRONMENT	
Operating Temperature	0 to 50C°
Storage Temperature	-25 to 70C°
Relative Humidity	0 to 100% (non-condensing)
Operating Altitude	1000m from MSL (1% derate each 100m after 1000m)
Acoustic Noise	<65dB (depend on capacity)
Isolation Resistance	200MΩ
COMMUNICATIONS	
Standard Comm.	RS232, Dry Contact x4 to x16 (OPT: RS485, TCP and IEC61850)
Parallel Operation	2 Units
HMI	Standard: LED/LCD Panel (HMI Touch Panel, Mimic Panel available)
PROTECTIONS	
Protections	Overload, Short Circuit, Over Voltage, Under Voltage, Over Temperature
Optional Protections	Synchronization Protection, Fan Failure, AC Earth Fault
STANDARDS	
IEC 62040	Uninterruptible power systems (UPS) – Part 1&2&3
MILSPEC	MIL-STD461-E
MILSPEC	MIL-STD1399-300B