

FREQUENCY CONVERTER

OUTSTANDING RELIABILITY ON MARINE ENVIRONMENT

With Marine Certificated Design
Bureau Veritas, ABS and DNV GL Certificates Available
We Ensure 100% Reliability on Harsh Marine Applications



400Hz OPERATION FOR AIRPORTS SHIPS

In Air and Marine Vessels 400Hz is Essential
Our Products Provide Clean Power Suitable for This



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



FC SERIES | FREQUENCY CONVERTER



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KEY FEATURES			
Model	FC 3/3	FC 3/1	FC 1/1
Input Phase	Three Phases	Three Phases	Single Phase
Output Phase	Three Phases	Single Phase	Single Phase
Rated Power		Up to 600kVA	
INPUT PARAMETERS			
Input Voltage	3x380VAC±15% Standard (190VAC to 460VAC ±15% available)	3x380VAC±15% Standard (190VAC to 460VAC ±15% available)	220VAC±15% Standard (110VAC to 260VAC ±15% available)
Frequency		50Hz, 60Hz or 400Hz (±10%)	
Phase Rotation		Any (Automatic Phase Lock)	
Inrush Current		10 x I _{nom}	
OUTPUT PARAMETERS			
Output Voltage	3x380VAC±15% Standard (190VAC to 460VAC ±15% available)	3x380VAC±15% Standard (190VAC to 460VAC ±15% available)	220VAC±15% Standard (110VAC to 260VAC ±15% available)
Frequency		50Hz, 60Hz or 400Hz (±10%)	
Voltage Regulation		<1% Maximum	
Voltage Recovery		<50ms @ unbalanced load	
Voltage Stability		<1% @ balanced load / <3% @ unbalanced load	
THDu		<2%	
Overload Capacity		110% load: continuous 125% load: 1 hour 150% load: 5min 200% load: 20sec	
Isolation		1500, 2000 or 3000VAC Input&Output to Chassis	
PHYSICAL CHARACTERISTICS			
Cabinet Type		Standalone Tower (OPT: Others)	
Cabinet Colour		RAL7032, RAL7035 (OPT: Others)	
Protection Degree		IP20 (OPT: IP21 to IP55)	
Cooling System		Fan Forced Ventilation (OPT: Natural Cooling, Water Cooling, Smart Fans)	
Cable Entry		Bottom (OPT: Top, Rear, Side)	
ENVIRONMENT			
Storage Temperature		-25 to 70°C	
Operating Temperature		-10 to 50°C	
Relative Humidity		0 to 95% (Non-Condensing)	
Operating Altitude		1000m from MSL (1% derate each 100m after 1000m)	
Acoustic Noise		55dB to 80dB	
COMMUNICATIONS			
Standard Communication		ModBus RTU over RS232 (OPT: RS485, ModBus TCP/IP, SNMP and IEC61850), Dry Contact x4 (OPT: to x16)	
Parallel Operation		Passive: Infinite (OPT: Active: Up to 2 Units)	
HMI		LED/LCD Panel (OPT: Touch Screen Panel, Mimic Panel)	
Languages		Turkish, English, German, Dutch, Portuguese, Spanish, Russian	
PROTECTIONS			
Input / Output Protection		MCB or MCCB for Input and Output Line (Input AC) Failure Output Current Limiting, DC Earth Fault, Over Temperature Charger Failure, Emergency Stop	
ADDITIONAL FEATURES (OPT.)			
Operating in Parallel		1+1 system (Standby, Current Sharing, Parallel Redundant)	
Gauges		Input Voltage & Current Output Voltage & Current	
Protections		Fan Failure, SCR Fuse Failure, Breaker Off, External Block Parallel Fault, Temperature Probe Failure, High Ripple	
Others		SPD, Cabinet Heater, Cabinet Lightning, Service Plug	
STANDARDS			
EN62040-1		General and Safety Requirements for UPS	
EN62040-2		Electromagnetic Compatibility (EMC) Requirements fo UPS	
ISO14001 - ISO9001		Quality Assurance	

Note: Product properties may change without a notice by EPC.