

AETES

AC Converter 3P3-3P4 60-120 kVA

Industrial-Grade Enclosure

Output Galvanic Isolation

Diagnostic User Panel



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DESCRIPTION

The AETES FTM Series 3-phase 50 Hz to 60 Hz AC Frequency Converter is an advanced industrial system engineered to convert a 3-phase 50 Hz (380V /400V /415V) utility input into a regulated, low-distortion 60 Hz AC output (440V /460V /480V).

It provides AC power, which is especially important for energy and industry applications. This equipment features an integrated output isolation transformer providing complete, galvanic isolation between the AC input and the load, and uses all advantages of Digital Signal Processor control. It also features a user-friendly interface and automation-compatible communication capabilities.

FEATURES

- Internal Isolation Transformer at output
- Fully Digitally Controlled conventional rectifier and IGBT inverter
- Soft start, smart control and high reliability with digital signal processor
- User language selection from front panel (EN, ES, FR, PT, RU, TR)
- Low output voltage ripple and high reliability
- User panel with LCD display, showing measurements, status and alarm messages
- Audible alarm and LED indicators for easy observation of status
- Calibration of measurements from front panel
- DC Low, DC High, Line Failure, Over Temperature, Short Circuit protections
- Ability to program all operation parameters (Password Protected)
- Programmable alarm relay contact outputs (4 standard, up to 16 relays as option)
- Voltage Vector Control technology
- Modbus RS232 communication, standard
- Log records with date and time stamp up to 200 events

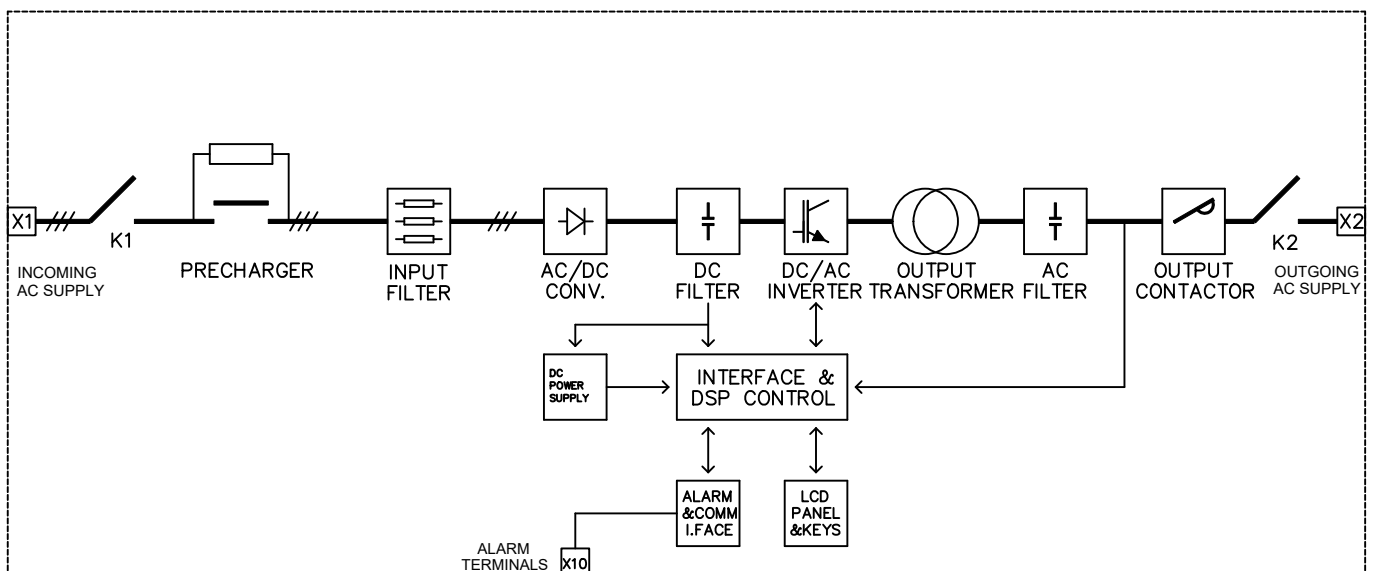
GENERAL SPECIFICATION

MODEL :	FTM-3P3-3P4-060	FTM-3P3-3P4-080	FTM-3P3-3P4-100	FTM-3P3-3P4-120
INPUT				
Nominal Voltage	Options: 3P4W or 3P3W AC 380V, 400V, 415V (±15%)			
Nominal Frequency	50Hz (±10%)			
Power Factor (Nominal)	0.80 (<0.90 at 12 Pulse Optional)			
ITHD	<30-35% standard (<12% at 12 pulse Optional)			
OUTPUT				
Nominal Voltage	Options: 3P4W or 3P3W AC 440V, 450V, 460V, 480V (±1%)			
Nominal Frequency	60Hz			
Output Voltage Adjustment	Optional			
Crest Factor	3:1			
THDv	<3% at Linear Load			
Power Rating (kVA)	60 kVA	80 kVA	100 kVA	120 kVA
Power Rating (kW)	48 kW	64 kW	80 kW	96 kW
GENERAL PROPERTIES				
Circuit Breakers	Thermal-Magnetic Circuit Breakers for Input			
Cooling	Fan Forced Cooling (Standard), Natural Cooling (Optional)			
Isolation Voltage	1500 or 3000VAC input/chassis and output/chassis			
Efficiency at full load	>88%			
Protection level	IP20 (Optional: IP31 to IP55)Front			
Cable Entry	Bottom (Optional: Top, Rear, Side)			
ENVIRONMENTAL				
Acoustic Noise	72 dB			
Storage Temperature	-20 °C to +70 °C			
Operating Temperature	-5°C to +50°C			
Relative Humidity	0 - 90% Non-condensing			
Max Altitude	1,000 m			
COMMUNICATION				
Communication	ModBus RS232 (Standard), 4 Dry Contacts (Standard), RS485 (Optional), TCP IP (Optional)			
COMPATIBILITY				
Design Criteria	IEC62040-1, IEC62040-2			
MECHANICAL				
Color	RAL7035 (Standard), others (Optional)			
Dimensions (mm)	A:1000 B:1000 C:2000		A:1200 B:1200 C:2000	
NOTE: All specifications subject to change without notice. Consult AETES's Technical Support Department for special applications. All terms or names used above are registered trademarks of their respective owners.				

OPTIONS

- 12 Pulse option to limit input current distortion
- Active Parallel Current Sharing operation up to 2 devices
- Wide Screen HMI Touch Panel with Mimic Diagram
- Surge Protective Device modules
- Analog Gauges (Input / Output Voltages and Currents)
- Transducers for Input / Output Voltage / Current (4-20mA and 0-10V)
- AC Earth Leakage Monitoring
- Power Meter for Input Power Factor / kVA / kW measurement
- Additional Dry Contact Relay boards (Max. 3 pcs, 12 relays)
- Internal cabinet heating, lighting
- Enclosure paint and IP change (IP31, IP41, IP54, IP55)
- Specified DC bus voltage with battery input and battery breaker
- Additional communication ports; RS485/ TCP IP

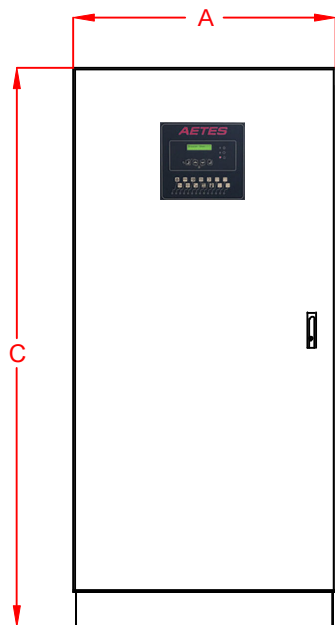
LINE DIAGRAM



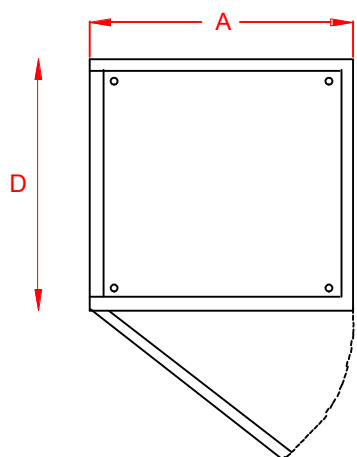
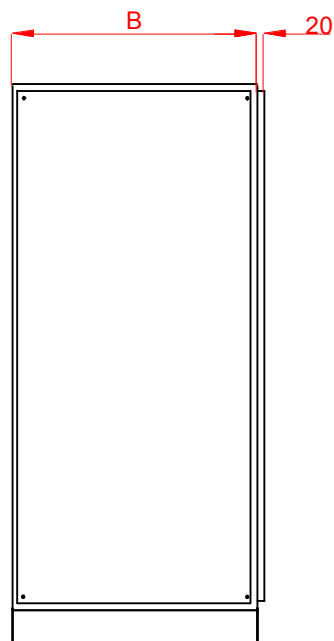
AETES FTM Series 3-Phase AC/AC Converter 60-120 kVA Single Line Diagram

DRAWING

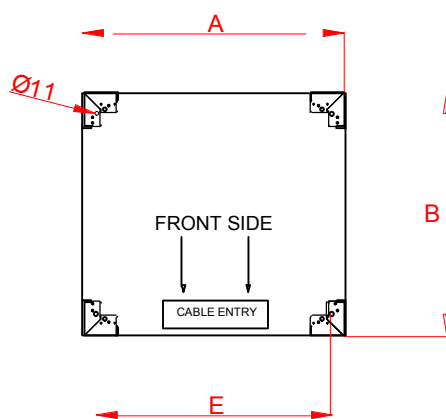
FRONT



LEFT



TOP



BOTTOM

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