

# AETES

AC/AC Converter 600V 60Hz

*Internal Isolation Transformer  
Industrial-Grade Enclosure  
Advanced User Panel*



*"...power alliance..."*

## DESCRIPTION

AETES AC 3-ph 50Hz to 600V 60Hz Converter is a high technology equipment, including all protection and control systems, which is designed and manufactured to convert an AC 3-ph voltage 50Hz to another pure sinus and regulated AC 600V with 60Hz frequency. It provides AC power, which is especially important for energy and industry applications. This equipment contains an output isolation transformer, it provides full electrical isolation between AC input supply and AC output, and uses all advantages of Digital Signal Processor control. It provides handy user interface and advanced communication features.

## FEATURES

- Internal Isolation Transformer at output
- Full Digital Controlled conventional rectifier and IGBT inverter
- Soft start, smart control and high reliability with digital signal processor
- User language selection from front panel (DE, EN, ES, NL, PT, TR etc.)
- 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 the 200 events

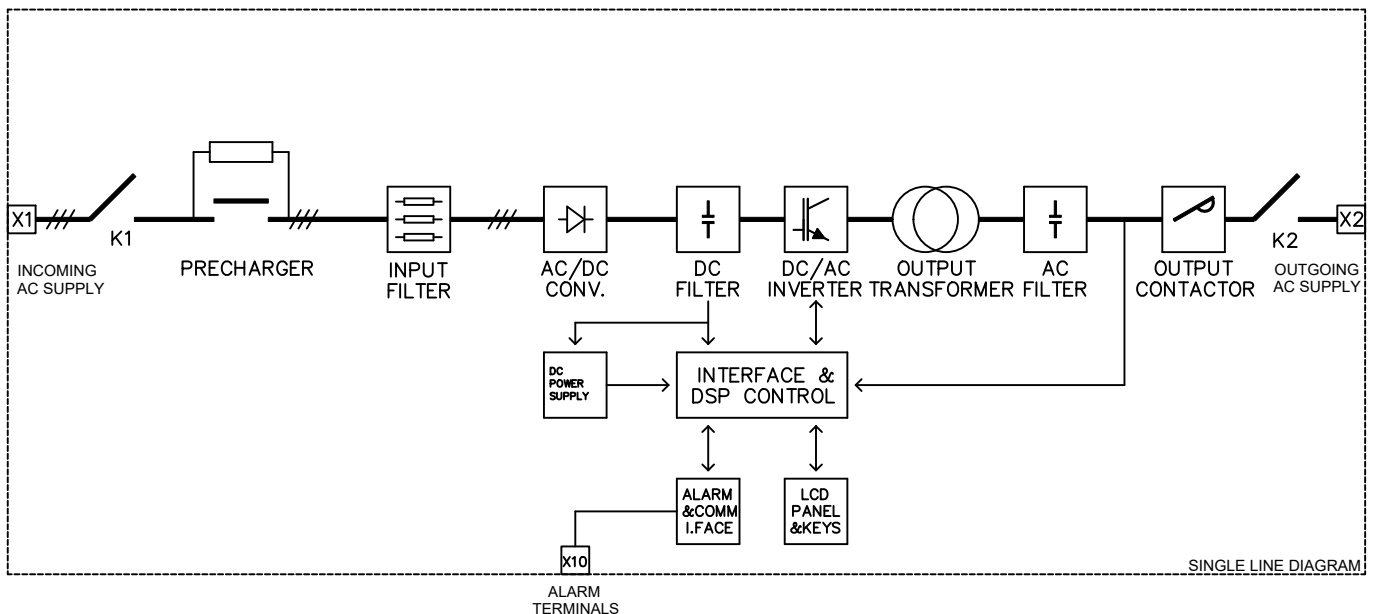
# GENERAL SPECIFICATION

MODEL :	FFM-3P3-3P6-060	FFM-3P3-3P6-080	FFM-3P3-3P6-100	FFM-3P3-3P6-120
<b>INPUT</b>				
Nominal Voltage	Options: 3P4W or 3P3W AC 380/220V ; 400/230V ; 415/240V ( $\pm 15\%$ )			
Nominal Frequency	50Hz ( $\pm 10\%$ )			
Power Factor (Nominal)	0.80 (<0.90 at 12 Pulse Optional)			
ITHD	<30-35% standard (<12% at 12 pulse Optional)			
<b>OUTPUT</b>				
Nominal Voltage	Options: 3P4W or 3P3W AC 600V ( $\pm 1\%$ )			
Nominal Frequency	60Hz			
Output Voltage Adjustment	Optional			
Crest Factor	3:1			
THD	<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
<b>GENERAL PROPERTIES</b>				
Circuit Breakers	Thermic-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			
Cable Entry	Front Bottom			
<b>ENVIRONMENTAL</b>				
Acoustic Noise	72 dB			
Storage Temperature	(-20 °C) – (+70 °C)			
Operating Temperature	(-5°C) - (+50°C)			
Relative Humidity	0 - 90% Non-condensing			
Max Altitude	2000m			
<b>COMMUNICATION</b>				
Communication	ModBus RS232 (Standard), 4 Dry Contacts (Standard), RS485 (Optional), TCP IP (Optional)			
<b>COMPATIBILITY</b>				
Design Criteria	IEC62040-1, IEC62040-2			
<b>MECHANICAL</b>				
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 4 devices
- Wide Screen HMI Touch Panel and Mimic Diagram
- Surge Suppression Device and Input Snubber modules
- Analog Gauges (Input / Output Voltages and Currents)
- Transducers for Input / Output Voltage / Current (4-20mA and 0-10V)
- AC Earth Leakage Monitoring
- Powermeter 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)
- Specified DC bus voltage with battery input and battery breaker
- Additional communication ports; RS485/ TCP IP/ SNMP

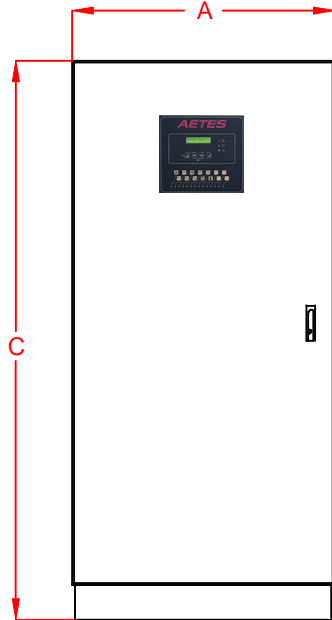
# LINE DIAGRAM



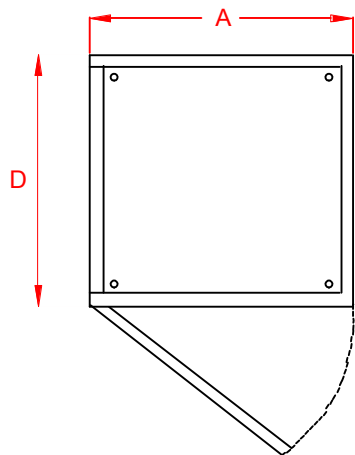
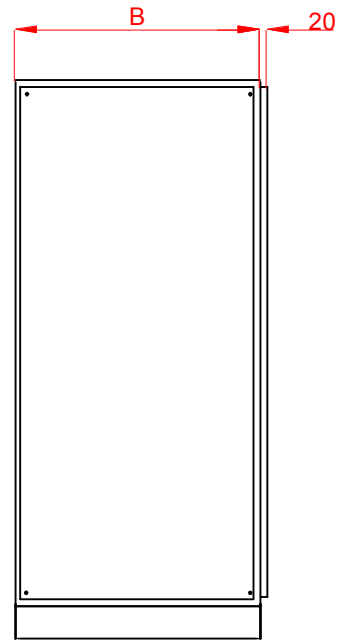
AETES AC/AC Converter 3-Phase Line Diagram

# DRAWING

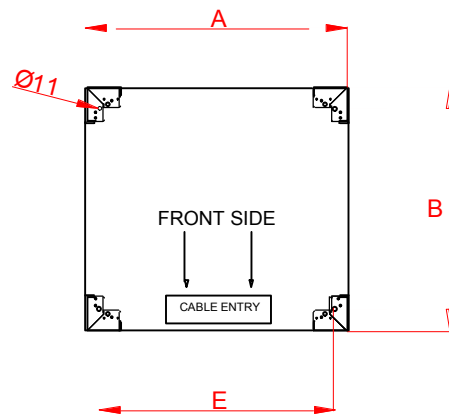
FRONT



LEFT

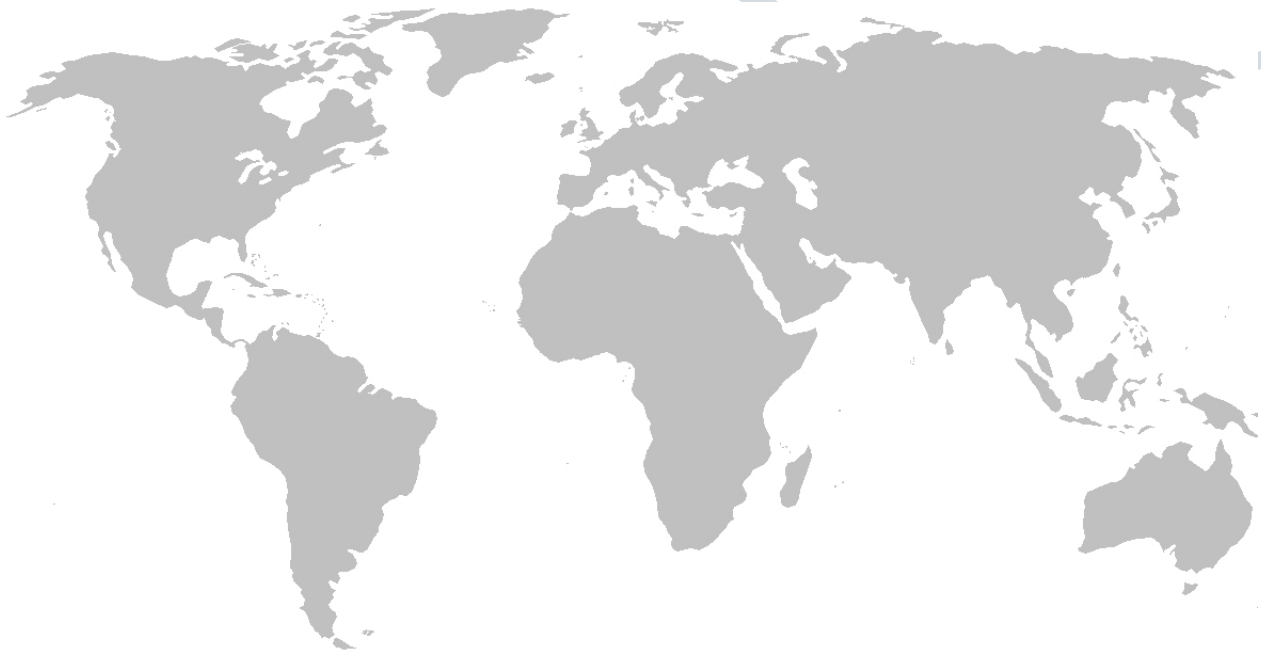


TOP



BOTTOM

*"...power alliance..."*



**AETES**  
*"...power alliance..."*

The specifications, drawings and images indicated in this document are based on current information. All content is subject to modifications or additions. For more information on our local sales offices, visit us at our website below.