AETES

AC CONVERTER 3PH 60Hz

Internal Isolation Transformer

Industrial-Grade Enclosure

Advanced User Panel

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DESCRIPTION

AETES AC 50Hz to AC 60Hz Converter is a high technology equipment, including all protection and control systems, which is designed and manufactured to convert an AC voltage 50Hz to another pure sinus and regulated AC voltage 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 :	400-480-060K	400-480-080K	400-480-100K	400-480-120K
INPUT				
Nominal Voltage	Options: 3P4W or 3P3W AC 380/220V ; 400/230V ; 415/240V (±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 ; 460V ; 480V ; 600V ; 690V (±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
GENERAL PROPERTIES				
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			
ENVIRONMANTAL				
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			
COMMUNICATION				
Communication	ModBus RS232 (Standard), 4 Dry Contacts (Standard), RS485 (Optional), TCP IP (Optional), MQTT (Optional)			
COMPATIBILITY				
Design Criteria	IEC62040-1, IEC62040-2			
MECHANICAL				
Color	RAL7035 (Standard), others (Optional)			
Dimensions (mm)	A:1000 B:1000 C:1800		A:1000 B:1200 C:2000	

NOTE: All specifications subject to change without notice. Consult AETES's Technical Support Department for special applications.
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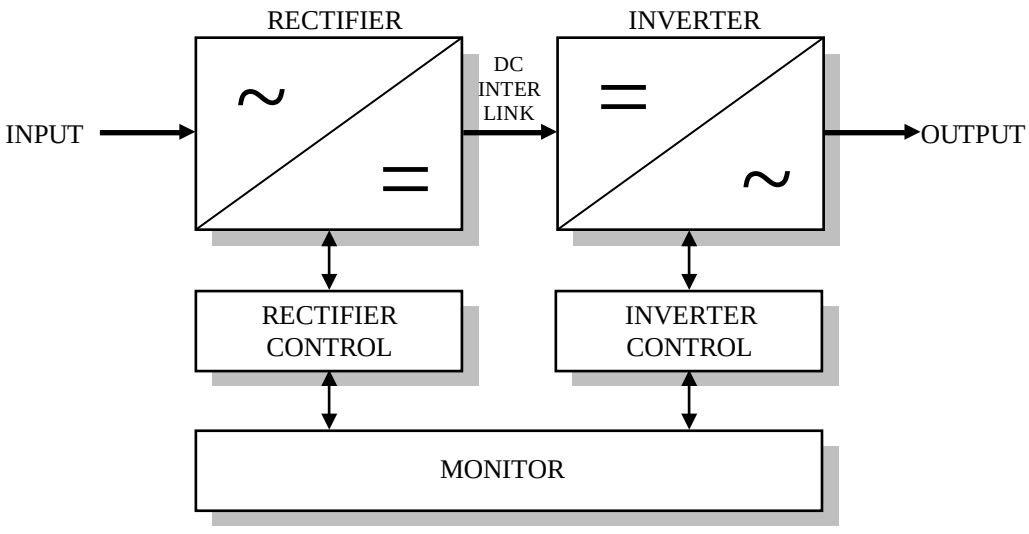
OPTIONS

- 12 Pulse option to limit input current distortion
- Active Parallel Current Sharing operation up to 4 devices
- Adjustable Output Voltage (±15%)
- 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/ MQTT

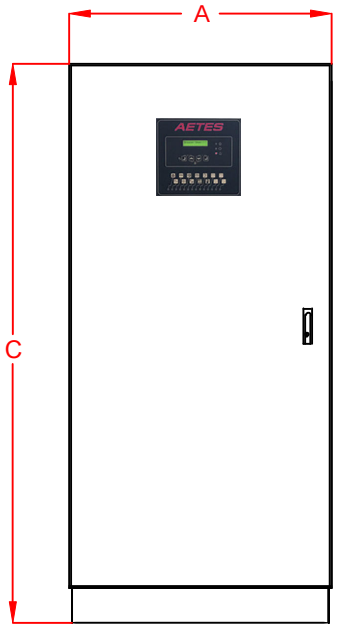
BLOCK DIAGRAM



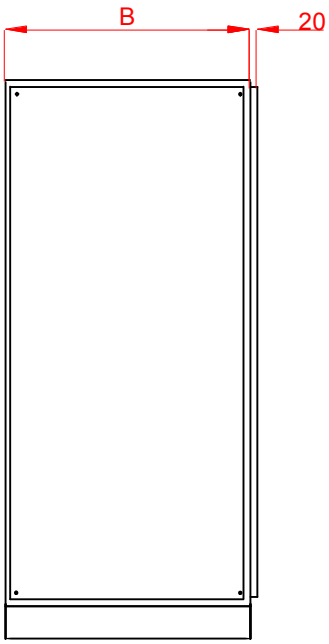
AETES AC-AC Converter 3PH Block Diagram

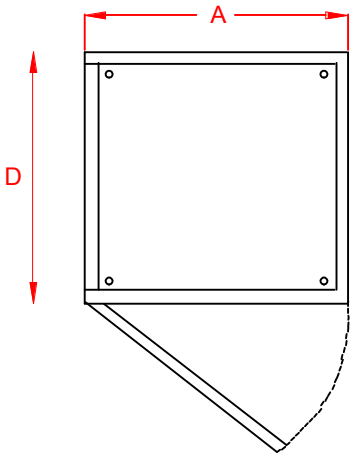
DRAWING

FRONT

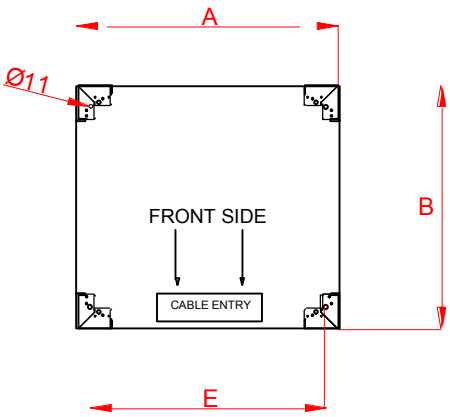


LEFT





TOP



BOTTOM

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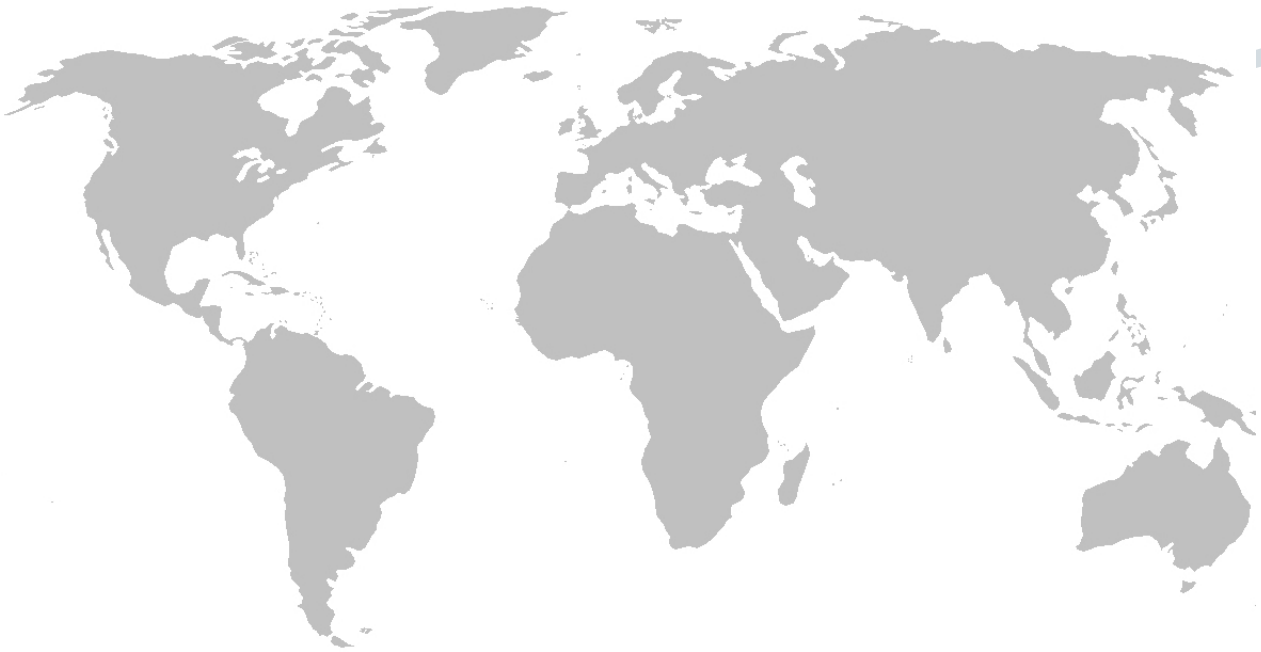

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