# AETES

## Rectifier Charger 3PH-125-E

Internal Isolation Transformer Industrial-Grade Enclosure Advanced User Panel



"...power alliance..."

#### DESCRIPTION

AETES XTM 3PH Series Industrial Rectifier Charger is a high technology equipment, including all protection and control systems, which is designed and manufactured to convert 3 Phase AC voltage to pure and regulated 125V DC voltage. It provides DC power, which is especially important for industrial and defence applications. When this system is used with a battery group at its output, this equipment charges battteries and acts as a Uninterruptible DC Power Source.

This equipment contains an input isolation transformer and provides full electrical isolation between input supply and 125 Volt DC output. This uses all advantages of Digital Signal Processor control. It provides advanced multilingual user interface and advanced communication features. When used as battery charger, it can perform battery charge in 3 different modes: Float Charge, Equalizing Charge, Boost Charge.

#### **FEATURES**

- Internal Isolation Transformer at Input
- Full Digital Controlled Conventional Rectifier
- Soft Start, Smart control and high reliability with Digital Signal Processor
- Float charge, equalizing charge and boost charge modes
- Automatic and manual charge modes
- Low output voltage ripple and high reliability
- User panel with LCD display, showing measurements, status and alarm messages
- Audible alarm and Led displays for easy observation of Rectifier status
- Programmable current limitation
- User language selection from front panel (DE, EN, ES, NL, PT, TR)
- 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)
- Low Voltage Disconnect (LVD) Protection
- Modbus RTU RS232 Communication
- Log records with date and time stamp up the 200 events

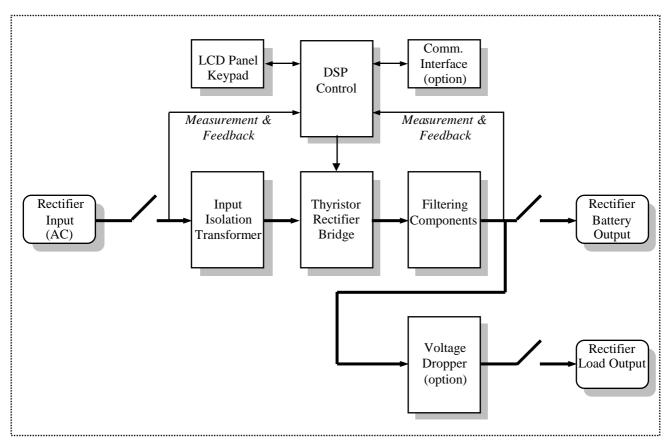
## **GENERAL SPECIFICATION**

MODEL XTM 3PH-125-E	/ <b>125A</b>	/ <b>150A</b>	/200A	
INPUT				
Nominal Voltage	Options: 3x208VAC / 3x3	80VAC / 3x400VAC / 3x415VAC / 3x44	40VAC / 3x480VAC (±15%)	
Nominal frequency	50Hz / 60Hz (±10%)			
Power Factor (Nominal)	0.80			
ITHD	<30-35% standard (<10% at 12 pulse Optional)			
Input Protection	Thermic Magnetic Overcurrent Protection, Overvoltage Protection			
OUTPUT		·		
Nominal Output Voltage		125V DC		
Output Voltage Adjustment	125V150V DC (Optional to 162.5V DC for NiCd)			
Output Current Adjustment	10-100% of Nominal Output Current			
Float Charger Voltage Range	100%-120% of Nominal Output Voltage			
Boost Charger Voltage	100% to 120% (opt.130%) of Floating Output Voltage			
Boost Voltage (V/C)	2,40 Lead Acid Battery 1,50 NiCd Battery			
Float Voltage (V/C)	2	2,24 Lead Acid Battery 1,40 NiCd Battery		
Nominal Output Current	125 Amp	150 Amp	200 Amp	
Max Output Current	137 Amp	165 Amp	220 Amp	
Voltage Ripple / Regulation		< 1.5% / <1.0%		
GENERAL PROPERTIES				
Bost Timer	0-99.9 hours adjustable			
Cooling	Fan Forced Cooling(Standard), Natural Cooling(Optional)			
solation Voltage	1500 or 3000VAC input/chassis and output/chassis			
Efficiency at full load	<91%			
Protection level	IP21(Standard) to IP54(Optional)			
Cable Entry	Front Bottom (Option: Top or Rear or Side)			
Filtering		LC Filter		
Circuit Breakers	Thermic-magnetic circuit breakers for input (Standard); for Battery and Load (Optional)			
Reset Button	Used for re-operation in case of fallure of the system.			
ENVIRONMENTAL				
Acoustic Noise	45 - 65 dB (according to Power Rating)			
Storage Temperature	(-20 °C) – (+70 °C)			
Operating Temperature	(-5°C) - (+50°C)			
Relative Humidity	0 - 95% Non-condensing			
Max Altitude	1000m (-1% Power for every 100m after 1000m) Max. 4000m			
Color	RAL7035 (Standard), others (Optional)			
COMMUNICATION & PARALLI	ELING			
Communication	ModBus RS232 (Standard), 4 Dry Contacts (Standard), RS485 (Optional), TCP IP (Optional)			
Paralleling	Parallel Redundant Kit (Optional)			
9				
COMPATIBILITY				

### **OPTIONS**

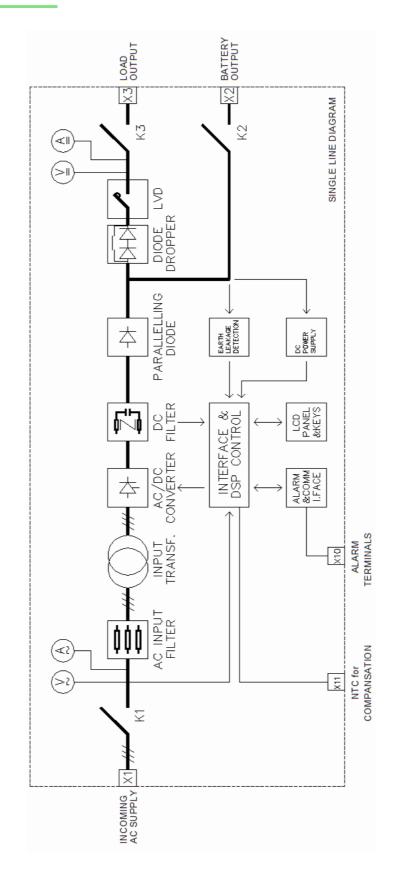
- 12 Pulse option to limit input current distortion
- Active parallel current sharing operation up to 4 devices
- Wide Screen HMI Touch Panel and Mimic Diagram
- Battery Temperature Compensation Module
- Analog Gauges (Input / Output / Battery Voltages and Currents)
- Transducers for Input / Output Voltage / Current (4-20mA and 0-10V)
- Load Output Voltage Dropper
- Input Power Factor / kVA / kW measurement
- Additional Dry Contact Relay Boards (Max. 3 pcs, 12 relays)
- Internal Cabinet Heater
- Additional Alarm and Communication Interface RS485/TCP-IP

### **BLOCK DIAGRAM**

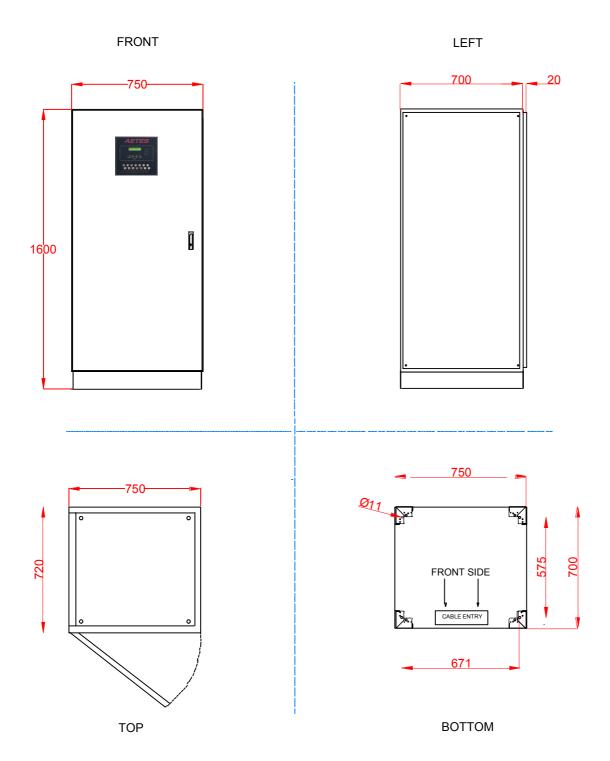


AETES 3PH Industrial Rectifier Charger Block Diagram

## **LINE DIAGRAM**



## **DRAWING**









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