

RECTIFIERS THG-SERIES



12/24/48/110/220V 10 - 400A

Thyristor controlled rectifiers with galvanic isolation transformer at the input

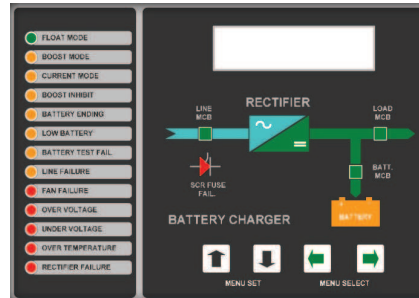
- Adjustable Timer for Boost Charging
- Adjustable Boost and Float Charge Voltages
- Adjustable Total Output Current
- Event History for all Electrical values and failures
- Automatic and Manual Battery Test
- Boost inhibit facility for interlock redundant application
- Output Filter Inductor and DC Longlife Capacitor
- Electronic Over / Under Voltage, Over Current and Short Circuit Protections
- Parallel Redundant Operation
- Boost and Float dropper control output for Ni-Cd and Lead-Acid Battery
- Temperature Compensation for Battery
- Dry contact alarms (rectifier failure, and low battery)
- RS232 communication

Full Automation Type with special features:

- 8 dry contact alarms which can also be remotely monitored:
 - Low Battery, Battery Test Fail, Line Failure, Fan Failure, Overvoltage, Undervoltage, Overtemperature, Rectifier Failure
- Line MCB, Load MCB and Battery MCB Failure LED Indications
- Battery and Load currents can be separately set
- Automatic Boost Charge Selection according to boost / float current set value
- RS 485 / Modbus / TCP IP communication

2 years warranty

RECTIFIERS THG-SERIES



Rectifier control panel

Technical data ▶▶

SINGLE-PHASE (110/115/208/220/230/240VAC +-15%)
THREE-PHASE (190/200/380/400/415/480 +-15%)

Output voltage (VDC)	Maximum current	Options
12V 24V 48V 110V	10A	Silicon Droppers for AGM or NiCd-Batteries (30-200A) LVD-protection 30-400A Special cabinet for internal batteries 12-pulse-version (instead of 6-pulse standard)
	20A	
	30A	
	60A	
	100A	
	200A	
12V 24V 48V 110V 220V	30A	
	60A	
	100A	
	200A	
	300A	
	400A	

INPUT
Power factor
ITHD
Input protection
OUTPUT
Floating Output Voltage
Output Voltage Adjustment
Output Current Adjustment
Battery Charge Current Adjustment
Boost Charge Voltage
Boost voltage (V/C)
Float voltage (V/C)
Nominal Output Current
Maximum Output Current
Output Ripple
Dynamic Response (w/out battery group)
Dynamic Response (with battery group)
Battery Charging Principle
Output Protection
Battery Protection
GENERAL
Interface
Boost Timer
Cooling
Isolation Voltage
Efficiency at full load
MTBF
Operating Temperature
Protection Level

>0.8 Inductive (>0.9 with 12 Pulse Rectifier)
<30% (standard); <10% (with 12 Pulse Rectifier)
Thermic-Magnetic Over Current Protection, Over Voltage Protection, Phase Sequence Free Operation (3 Phase), Soft Start
12/24 VDC±1% / 48 VDC±1% / 110 VDC±1% / 220 VDC ±1%
12/24VDC output: 10VDC to 30VDC, 48VDC output: 48VDC to 60VDC, 110VDC output: 110VDC to 160VDC, 220VDC output: 220VDC to 300VDC
0-100% of Nominal Output Current
0-100% of Nominal Output Current
100% to 120% of Floating Output Voltage
2,4 lead acid battery 1,60 NiCd Battery
2,23 lead acid battery 1,40 NiCd battery
Available upto 1200 Amp (12 Pulse over 400 Amp)
100% of nominal output current
1% RMS AC of Output Voltage
±5% of Output Voltage (25% load change at 50% load)
±2% of Output Voltage (100% load change)
Constant Current/ Constant Voltage
Short Circuit, Over Voltage, Reverse Voltage, MCB and Phase Sequence Protection
L-C filters, Overcurrent Electronic protection, Over Voltage protection and Thermic fuse
RS232 (Standard); RS485 (Optional)
0 – 99.9 hours adjustable
Forced fans with smart fan controlling system
2500VAC input/chassis and output/chassis
>90% (single phase) >92% (three phase)
100,000 Hrs. (w/out battery group)
-10 / + 40 °C
IP20 (Standard); IP54 (Optional)

RECTIFIERS
IG-SERIES



Single-phase version



Three-phase
version

12/24/48/110V

15 - 200A

IGBT-technology

Microprocessor Controller

Constant voltage and constant current charging

Adjustable Boost and Nominal Charge Voltage

Alphanumerical LCD Display and Control Panel

Adjustable Output Current

High Voltage Protection

Over Current Protection

Short Circuit Protection

Over Temperature Protection

Parallel Operation Capability

Input Filter

Low DC Voltage Protection (LVD)

Dry Contact Alarms

Small Footprints, Compact Size

2 years warranty

RECTIFIERS IG-SERIES



LCD Display (Alphanumerical)

System status informations
Voltage, current, temperature
Charge values can be observed digitally

LED Indicators:

- Overload
- Line
- Battery Operation
- Load
- Low DC Voltage Protection (LVD)
- General Fault
- Buttons for easy search on the menu

Technical data ▶▶

Model
INPUT
Voltage
Frequency
Power Factor
OUTPUT
Voltage
Boost Charge Voltage
Nominal Current
Max Output Current
Output Fluctuation
Dynamic Response
Output protection
GENERAL
Dimension (WxDxH)
Weight (kg)
Efficiency
Operating Temperature
Relative Humidity
Input/Output Connections
Fuses
STANDARDS
Protection
EMC
Performance
Safety
OPTIONS
Dry Contact Alarms
LVD

IG-Charger 1/1	IG-Charger 3/3
single-phase, 90-280 VAC	three-phase, 155V-485VAC
50/60 Hz ±5%	
>0,98	>0,95
24/48/110 VDC ±1% (Adjustable)	12/24/48/110VDC ±1% (Adjustable)
100% , 120% of the nominal output voltage	
15A/30A/60A (Adjustable)	25A/50A/100A/200A(Adjustable)
110% Inominal	
≤ 1% rms AC output voltage	
5% of Output Voltage (25% load change at 50% load)	
Short circuit/Over Voltage Protection	Electronic short circuit / over voltage / reverse voltage protections
25x30x45cm	21x55x61cm
20	36
>90 %	
0 – 40 °C	0 – 50 °C
5% - 90%	
Connector	Terminals
Input, Load and Battery (3 pieces)	Input, load and 3 pcs double pole thermic magnetic automat
IP 20	
EN 50091-2	
EN 62040-3, EN 50091-3	
EN 50091-1	
Normally open(NO), Normally Closed(NC)	
Yes - DC Low Voltage Protection	