



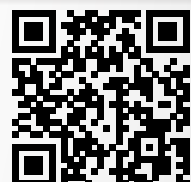
RECTIFIER CHARGER FOR INDUSTRIAL USAGE



TO BE AN
ENVIRONMENTAL
FRIENDLY LEADING
IN RELIABLE POWER
SOURCE

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SHINOZAWA CORPORATION

was established in 1953 at Meguro, Tokyo. Our profession is to design and produce AC/DC power system supply for industrial application.

Since 1953, we have supplied our product to support and protect Japan railway, nuclear power plant, telecommunication system, air transportation and many more critical applications. We also provide OEM solutions to battery suppliers all over Japan whether for domestic usage or overseas.

Our outstanding reliable and quality product coupled with high responsibility of our customer duties awarded us robust trustworthiness from all customers across all industrial sectors and markets. As a fact and to support business's growth, we are now extending our services into other areas to better support international customer's demand.

GRADUAL GROWTH OF THE COMPANY

- 1953** Establishing first plant at Meguro, Tokyo.
- 1964** Moving to new plant in Yokohama.
- 1967** Building a new plant for cabinet manufacturing.
- 1973** Extending production to second plant.
- 1985** Co-operation with Singapore distributor for sales & service centre.
- 2005** Co-operation with Thailand distributor for sales & service centre.
- 2008** Establishing Shinozawa Thailand to provide products & services in Asia.



GCD Board



Alarm Logic PCB



Output voltage free



Supervisor PCB

SHINOZAWA CORPORATION

rectifier is full bridge SCR controlled AC/DC rectifier with input isolation transformer. The system provided constant current output with drooping system. Our input rectifier is 6 pulse or 12 pulse designed depending on requirements by option. The rectifier also parallelable by two or more redundant rectifier for increase capacity or fault tolerance by N+1. The monitor and alarms are from the front panel and monitor with easy to access with auxiliary contacts from system to connect with other device. The LCD panel for monitoring is provide as option for easy reading on electrical value included with battery data monitoring parameter. The parameters can be set to comply with load and battery requirement. With this LCD display the rectifier can communication with other device via RS485/Modbus, TCP/IP and other as request.

FULL BRIDGE RECTIFIER SYSTEM

LONG LIFE ANALOG ALARM

ADVANCE PULSE TRIGGER DESIGN

ISOLATION CLASS TRANSFORMER

SILVER COATING BUS BAR COMPLY WITH OIL & GAS REGULATION

FULLY INPUT AND OUTPUT PROTECTION

DUAL BATTERY MCB FOR HOT SWAP REPLACEMENT

COMPLETE WITH AUTO/MANUAL MODE TO SELECT VRLA OR VENTED TYPE BATTERY

COMPLETE WITH EQUALIZING/BOOST, FLOAT FUNCTION AND TIMER

COMPLETE WITH SID CONTROL

NATURAL COOLING SYSTEM

COMPLETE WITH DC DISTRIBUTION CENTER

COMPLETE WITH EXTERNAL ALARM

EASY OPERATION AND MAINTENANCE

DESIGN OPERATION LIFE TIME 12-15 YEARS

STANDATD JIS C4402, ISO9001, OHSAS 18001, IEC 60146

BATTERY TEMPERATURE COMPENSATION SYSTEM

BATTERY CHARGING CURRENT LIMIT FUNCTION

APPLICATION

SWITCHGEAR

TELECOMMUNICATION

DC LOAD POWER

CONTROL EQUIPMENT

INSTRUMENTATION

MEDICAL EQUIPMENT

FIRE AND SECURITY SYSTEM

ALARM SYSTEM

EMERGENCY LIGHT SYSTEM

ENGINE STARTING

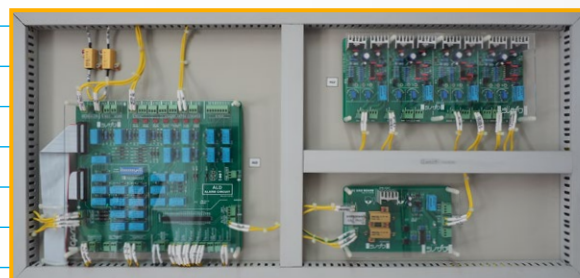
SOLAR POWER SYSTEM

MARINE EQUIPMENT

ELECTRONIC SWITCHING SYSTEM

ELECTRIC VEHICLE

DC BACKUP POWER SYSTEM



STANDARD FUNCTION

- Adjustable timer for boost charging
- Adjustable boost and float charge voltage
- Automatic and manual operation (VRLA / Vented Type battery selected)
- Output filter inductor and DC long life capacitor
- Silicon dropper to control output voltage for vented type battery
- Low battery indication and alarm contacts
- Rectifier failure indication and alarm contacts
- Low electrolyte level sensor for vented type battery
- Earth fault indication and alarm contacts
- Automatic boost charge
- Parallel redundant operation
- Over / Under voltage protection
- MCB Trip alarm
- Reset button
- Float / Equalizing status
- Input on status
- Free contact alarm
- Battery Temperature Charging Compensation System
- Battery Charging Current Limit System

TECHNICAL CHARACTERISTICS

INPUT

Nominal AC voltage (VAC) 220 VAC 1 Phase, 380, 400, 525 VAC 3 Phase 4 Wire (other range by option)

Input voltage tolerance (%) +15% / -20% (wide range available)

Input frequency (Hz) 50 Hz (60 Hz available)

Input frequency tolerance (%) ±6%

OUTPUT

Nominal DC voltage (VDC) 12 / 24 / 48 / 110 / 125 / 220 / 240

Available rating (A) 10 - 3000

Voltage stability (static) ±1%

Voltage ripple <1% RMS

Drooping current 120% × Rated current

Efficiency >92%

GENERAL DATA

Operating temperature (°C) -10 - 40

Relative humidity (%) <95

Operating attitude (m) 1000 M

Cooling system Natural convection (Air force cooling system option)

External Protection IP 41 (other upon request)

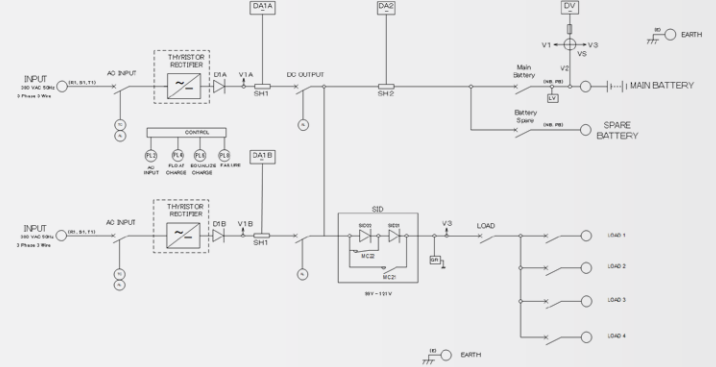
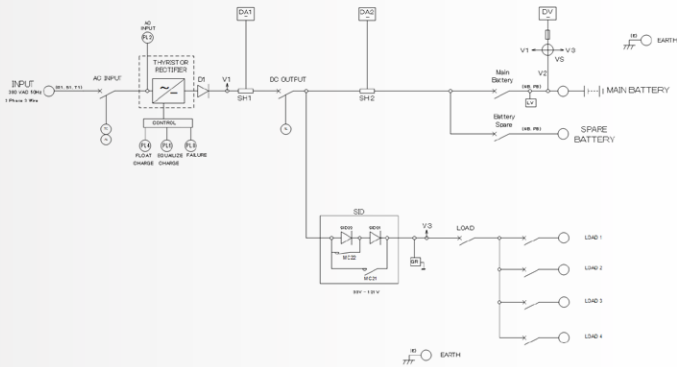
Voltage free contact Common alarm (and individual alarm)

Frame color 5Y7/1 or RAL 7032 (other color by request)

Dimension Varying according to rating and option

Noise Level Max. 60dB(A)

- ✔ Industrial grade designed
- ✔ Output voltage comply with all load type
- ✔ Long service life designed with low MTBR
- ✔ Custom design for special request
- ✔ Suitable for all type of battery with automatic boost charge
- ✔ Accepted to design by existing system installed
- ✔ Designed for general purpose and specific usage



**STANDARD
SYSTEM
DIAGRAM**

**STANDARD
PARALLEL
SYSTEM
DIAGRAM
1 SID**

**STANDARD
PARALLEL
SYSTEM
DIAGRAM
DUAL SID**

**STANDARD
CABINET
DESIGN**

