



**Industrial, heavy duty rectifier, designed for all applications requiring DC power supply.**

- Technologies: *SCR and IGBT isolated rectifier  
6 – 12 pulse configuration*
- Current ratings: *From 10 to 500 Amps*
- Voltages: *230 – 400 – 480 – 600 VAC 3ph inputs  
24 – 48 – 110 – 220 VDC outputs*

## Product Description

The ASR is a robust and reliable industrial rectifier, designed to supply critical DC loads and to charge any type of battery. This product is the result of 40 years of experience in design and production of Power Source Equipment.

The ASR is based on standardized SCR and IGBT power conversion systems, to provide superior reliability, efficiency and cost effectiveness.

These systems are available in different types of enclosures, with protection ratings up to IP54 or NEMA 3R.

The control boards are based on microprocessors of the latest generation, equipped with alphanumeric and mimic display panels, integrated data-loggers and a complete set of connectivity options (RS-232, RS-485, USB, CANBUS, Wireless).

These ASR chargers can be equipped with a wide set of optional features, such as breakers, distribution panels, remote communication and alarm systems, dropping diodes.

A team of designers and field-application engineers is dedicated to support our Customers if they have special requirements. This type of support makes Bassi a unique partner for demanding Customers and mission critical applications.

## Typical Applications

- Oil & Gas and Petrochemical plants
- Power Stations and Substations
- Water Treatment plants
- Manufacturing plants
- Transportation

## Main Features

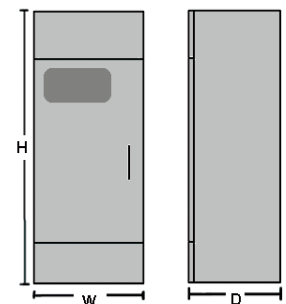
- Robust and reliable layout for industrial applications
- Standard configurations for cost effective, short lead time solutions
- Microprocessor control
- Full set of battery charging methods, with battery voltage/temperature compensation
- Extensive range of options and customized solutions
- Easy accessibility and maintenance

## Options

- Output Blocking diode for parallel operation
- Battery breaker
- Battery on racks or inside cabinets
- Earth fault monitoring and alarm
- Fan monitoring and alarm
- Remote relay alarms
- Advanced connectivity solutions:
  - Serial Ports: RS232/RS485, USB, MODBUS
  - CANBUS interface
  - Wireless interface
  - WEB Based remote control and management system ([www.DoctorFleet.com](http://www.DoctorFleet.com))
- Redundant supply for control boards
- Enclosure type IP54

## Product Specifications

AC INPUT				
STANDARD VOLTAGES	Singlephase 220-230-240 VAC $\pm$ 10% Threephase 220-240, 400, 480, 600 VAC $\pm$ 10% Frequency 50/60 Hz $\pm$ 5 Hz			
EFFICIENCY	>90%			
POWER FACTOR	>90% (Singlephase) >95% (Threephase – 12 pulse)			
DC OUTPUT				
STANDARD VOLTAGES	Nominal battery voltages: 24, 48, 110, 220 VDC			
CURRENT RATINGS	10, 20, 30, 40, 50, 100, 150, 200, 320, 500 AMPS			
CHARGING CHARACTERISTIC	IU (DIN 41773), U1U2I, I1I2U			
RECOMMENDED OPERATING VOLTAGES (V/cell, Adjustable)		Ni-Cd	VLA	VRLA
	Floating	1.40 - 1.50	2.20 - 2.30	2.27
	Boost	1.50 - 1.65	2.40 - 2.45	---
	Equalizing	1.70	2.70	2.35
OUTPUT REGULATION	Static Voltage Regulation: <1% Voltage Ripple: <1%			
OVERLOAD CAPACITY	<120% for 30 minutes <150% for 3 minutes >150% for 3 seconds			
PROTECTION				
BATTERY POLARITY REVERSAL	If the battery is connected with reverse polarity, the rectifier remains in stand-by mode and gives error/warning message.			
ELECTRONIC OVERLOAD PROTECTION	Complete protection in case of output short circuit, overload, over-temperature			
ANTI-ARCING	When the battery is connected, no arcing is generated at the connectors			
POWER-ON SELF-TEST	Every time the unit is powered, an automatic self-test of the power electronics and the control boards is executed in less than 10 seconds. In case of fault, the unit remains in safe stand-by mode and gives fault messages.			
MECHANICAL AND ENVIRONMENTAL				
DIMENSIONS (W x H x D mm)	CABINET A: 500 x 900 x 440 CABINET B: 550x 1300 x 550 CABINET C: 800 x 1600 x 500 CABINET D: 800 x 2000 x 600			
COLOR	RAL 7035			
COOLING	FORCED VENTILATION			
AUDIBLE NOISE	<65 dBA at 1 meter			



ENVIRONMENTAL PROTECTION	IP21 (Standard) IP31 (Optional) IP54 (Optional)
AMBIENT TEMPERATURE	OPERATION: -10 / +50 °C STORAGE: -20 / +70 °C
ALTITUDE	<2000m Derating according to EN62040-3
<b>USER INTERFACE AND CONNECTIVITY</b>	
USER INTERFACE	Alphanumeric LCD Display, 5x LEDs, keyboard and Audible
CONNECTIVITY	RS-232 / RS-485 (Standard) WEB based supervision and control system (Standard) Integrated Data-logger with USB port (Optional) Integrated Data-logger with Wireless connectivity
<b>STANDARDS</b>	
QUALITY	ISO 9001:2008
MARKING	CE
EMC	IEC EN 61000-6-2, IEC EN 61000-6-4
SAFETY	IEC EN 50178, IEC EN 62040-1
TEST AND PERFORMANCE	IEC EN 62040-3

*The information contained in this publication is subject to variations without notice.*

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