

DC series

ELECTRYS provides customized solution for each customer taking into account different considerations to provide the most convenient solution by determining :

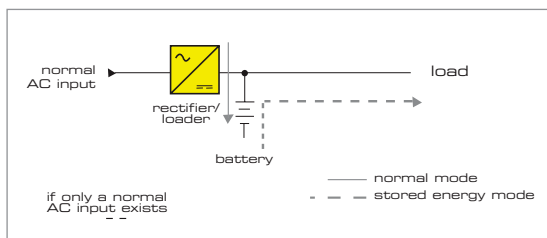
- 1- Type of loads (AC/DC)
- 2 Available power supply (Mains, genset,etc ...)
- 3 Available space and if outdoor or indoor
- 4 Climatic conditions

The telecom division of ElectrYS Power Solutions, delivers a steady stream of innovative products and services tuned to customers' changing needs. We offer a full range of Optimum DC systems for telecom and power supplies designed to meet the challenges of an increasingly environmentally conscious world.



CE

Operating principle



In normal mode of operation, the load is continuously supplied by the converter (AC/DC) combination & charging the batteries i.e. a.c.-d.c.

When the a.c. input supply is out, the rectifier enters stored energy mode of operation where the battery continues to support the load for the duration of the stored energy time until the a.c. input returns.

Main Features

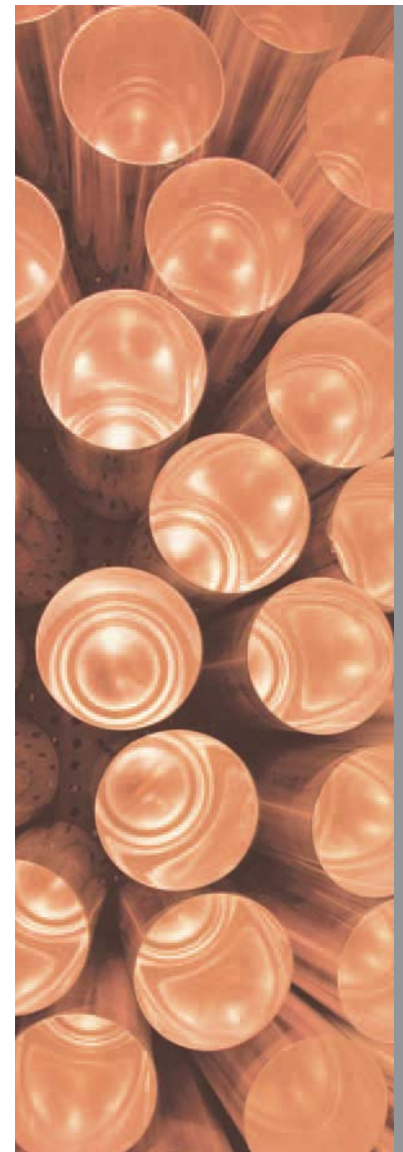
- High frequency rectifier technology
- Cooling (DC Fans)
- Dry contact for fault, under, over voltage alarms
- Wide input range
- VRLA or AGM batteries
- High efficiency
- Overload and short circuit protection
- Over and under voltage output protection
- Optimized for use with generators
- IP 45 outdoor cabinet

Applications

- Telecommunication equipment (BTS)
- Industrial processes

Optional

- Long duration batteries and related chargers
- Indoor and outdoor cabinets
- Dry contact for alarm signaling



Switching Mode Rectifier

ES1948 Series (48V / 39.6A)



Input

Voltage:

- Wide Input Range: 90 to 275Vac
(90~185Vac at de-rated output power)

Frequency:

- 44~66 Hz

Input Protection:

- 13A HRC fuses at input of SMR
(line and neutral); power circuit is turned off if the AC voltage exceeds 275Vac or falls to less than 90Vac

Current:

- <12Arms

Power Factor:

- >0.99 at full load; sinusoidal wave shape

THD:

- <5% at full load; meets requirements of EN61000-3-2

Efficiency:

- >91% at nominal main voltage

Output

Voltage:

- Float -Adjustable 48~58 Vdc
- Equalise -Adjustable 50~61 Vdc

Current Limit:

- Adjustable 5~40A

Power (Max):

- 1900W at 48~60Vdc (input >185Vac)
- 900W at 48~60Vdc (input 90~185Vac)

Load Sharing:

- Better than ±5% of full scale with active current sharing from MCSU2048.

Protection:

- Overvoltage: only faulty unit shuts down
- Overcurrent: can sustain short circuit at output terminals indefinitely
- Over-temperature: gradual reduction of current limit if heat-sink temperature exceeds pre-set limit

Static Regulation:

- Line ±0.1%; Load ±1.0%

Dynamic Regulation:

- ±3% for 10~90% or 90~10% load variation
- ±1% for ±25% step change in AC input voltage

Output Noise:

- <2mVrms Psophometric weighting
- <10mVrms 10kHz-100MHz
- <100mV peak to peak 0~30MHz bandwidth

Surge Protection:

- EN 61000-4-5

EMC:

- Emission: EN 61000-6-3, Immunity: EN61000-6-1

Inrush Current:

- <12 Arms peak at nominal mains voltage

Voltage Withstand Test:

- 3.0 kVac--input and output (4.25 kVdc primary-secondary)
- 1.5 kVac--input earth (2.12 kVdc primary-ground)
- 0.75 kVdc--output earth

Alarm and Status LED indications on SMR:

- On (Green): SMR functioning normally
- Alarm (Yellow): Blinking when any SMR alarm is present.
- Shutdown (Red): Stays on when SMR has turned off due to a signal from the MCSU2048 or an internal fault

Environmental

Audible Noise at 1 Meter:

- <55 (dBA)

Operating temperature:

- Operating range -40°C~70°C; derated power at 50°C~70°C

Cooling:

- Two fan cooled, speed controlled and alarmed.

Humidity:

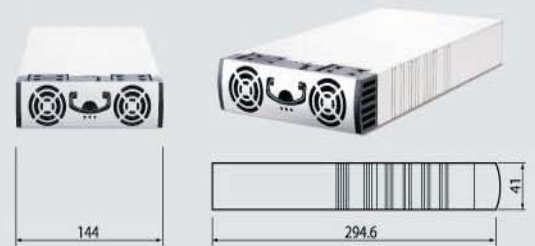
- 0~95%, non-condensing

Dimensions (WxDxH):

- 144 x 294.6 x 41 (mm)

Weight:

- <1.9 (kgs)



Applications

- Telephone Exchanges
- Cellular phone / Radio base stations
- Satellite base stations
- Microwave links remote multiplexes
- Rural Telecommunications
- PABXs
- Railway switching controls
- Transmission and ISDN equipment
- Power Plants
- Airport, Hospital, Banks

Efficiency

