

# Power

## ACE186RT.K48N

High Power 6 x 1800W Energy System



ACE186RT.K48N energy system

- › Up to 10800W constant output power
- › Compatible with 1500W and 1800W rectifiers
- › Easy parallel mounting for more power
- › Wide AC input range for worldwide installation requirements
- › Full open interface, ETSI ES 202 336 compliant
- › Ethernet and USB interface, optional LCD display

This shelf is the perfect answer to all redundant power requirements in the 1500W to 9000W range and above. It encompasses locations for six hot pluggable rectifiers CAR1548TN or CAR1848TN. To reduce space and costs the rack is equipped with a comp@s based embedded monitoring unit offering all essential functions with a great opportunity for extended control of sites.

Supporting reduced operational expenses is a major objective in the design of our solutions. Remote monitoring and control of all variables is the first obvious benefit to reduce unnecessary visits without knowledge of the status before hand. The solution goes far more than this first step. The controller supports functions such as statistical data recording and analysis, energy consumption reduction, automatic testing routines, all in the purpose to reduce network operation expenses. It also features SNMP and XML standard open architecture. Web based services enable to easily send each piece of information directly to the appropriate people (security, power, access, etc) in relation with the network operation organisation.

The units are perfect solutions to both indoor and outdoor applications and offer a wide range of features to improve control of the system. Beyond the traditional voltage programming, AC and DC fault control, the rectifier is equipped with a smart de-rating of the power in regards to internal temperature. Signals include thermal shutdown, AC mains range detection (low or high) over voltage and module missing.

The rectifiers are designed to work in parallel. They feature a universal input with active PFC and are certified against all major worldwide requirements: UL, CSA and CE marking. Active single wire sharing secures a perfect load share among units. Redundancy diode on the output allows for hot swap fault tolerant insertion.

# ACE186RT.K48N 48V High Power Energy System

Part number:

ACE186RTWK48N: Bare shelf for 6 rectifiers

ACE186RTMK48N: Basic power system, including monitoring and control unit

ACE186RTIK48N: Power system including monitoring and control unit and Comp@s advanced monitoring software

## Electrical

### Input Voltage:

Standard: ..... 100 to 285Vac

Maximum: ..... 300Vac

Input Frequency: ..... 47 to 63Hz

Number of input: ..... 3

### Input Current

(per module): ..... 26A per input @ 180Vac (1800W output)

26A per input @ 90Vac (1000W output)

Efficiency: ..... 90% typical

### Power output\*:

\* Constant output power between -43 and -57Vdc

(per module): ..... 1800W @ high mains

1000W @ low mains (power derating)

(maximum): ..... 10800W @ high mains

6000W @ low mains (power derating)

### Current output

(per module): ..... 33A @ -54Vdc (high mains)

19A @ -54Vdc (low mains)

## Mechanical

### Dimensions:

mm: ..... 133H (3U) x 448W x 380D

inches: ..... 5.2H x 17.6W x 15D

Mounting: ..... 19" brackets

### Weight:

Shelf: ..... 5.95kg (13.12lb)

Rectifier: ..... 3.2kg (7.05lb)

## Connections

Load: ..... 2 x M8 per bus bar

Earth: ..... M5 Stud

AC Input: ..... Spring cage terminal block (3 x 2 poles)  
4mm<sup>2</sup> stranded - 6mm<sup>2</sup> solid wire

Alarms relay interface: ..... Male Sub D15

Paralleling: ..... RJ45

## Environmental

### Temperature:

Standard: ..... -25 to 55°C (-13 to 131°F)

Extended\*: ..... -40 to 70°C (-40 to 158°F)

\* de-rated output power

Storage: ..... -40 to 85°C (-40 to 185°F)

### Humidity:

Operating: ..... 30 to 80% RH non-condensing

Storage: ..... 10 to 95% RH non-condensing

Elevation: ..... Up to 2250m (7382ft)

Cooling: ..... Fan cooled (front to rear)

## Related Components

### Rectifiers:

CAR1848TN: ..... CAR 1800W 48Vdc rectifier

CAR1548TN: ..... CAR 1500W 48Vdc rectifier

### Supervisory:

MCU1848M6: ..... Monitoring and control unit

Comp@s: ..... Advanced embedded monitoring software

## Standards

Safety: ..... CE marked

EN60950

IEC60950

UL60950 (designed to meet)

Environment: ..... RoHS compliant

EMC\*: ..... ETSI EN 300 386

\* see specifications sheet for more details



Rear view: ACE186RT.K48N energy system