



RSM 48/10 & 24/18



RSM 48/10 & RSM 24/18 Modular Switched Mode Rectifier Systems

The RSM 48/10 (24/18) is a compact, state-of-the-art rectifier system designed for today's space-restricted communications applications.

Flexible modular design RSM rectifier systems are designed to provide the ultimate in flexibility and modularity. Each self-contained rectifier system can accommodate up to five power modules, an optional supervisory module and distribution module in only 3 rack units of space. A second shelf can be added to double the capacity.

Front access, hot plug-in modules In addition to allowing hot plug-in modules, the system provides front access to wiring and termination connections for ease of installation, maintenance and upgrading.

Compact, lightweight cabinet The RSM is ideal for PCS, fibre and other communications applications where space and accessibility are restricted; such as in roadside cabinets. Maximum power is delivered in the minimum of rack space.

Feature-packed The RSM has a comprehensive range of standard features that allow it to fulfill a variety of powering needs. These features include: input/output terminations, current limit, power limit, over voltage protection, test points and over temperature protection. Optional features include: low/high voltage alarm, adjustable over voltage protection, A & B distribution fuses/circuit breakers, low voltage disconnect, automatic temperature compensation and an on-board system CPU.

Complete power system up to 5 modules

Dual shelf capability

Provides unity power factor

Features unique power limiting control

Extended temperature range

Unique power limiting feature The RSM 48/10 includes a unique power limiting feature which is designed to restrict each power module's output to their 550W rating. This allows each rectifier to supply more current — up to a maximum of 12.5A — at lower voltages to decrease battery recharge time. For example, at 46 VDC, current output is extended to 12A. RSM 24/18 performs similarly.

Industry leading specifications The technical specifications of the RSM lead the industry. In addition to minimizing acoustic and electrical noise, the system provides significant improvements in power conversion efficiency, which reduces your utility power costs. Plus the RSM meets international EMC and safety standards, including CE, UL and CSA.

High quality products backed by a solid warranty In addition to being ISO 9000 registered, Argus' manufacturing center employs a rigorous quality control program to ensure all units meet the highest quality standards. Each product is designed with premium grade electronic components and is backed by a comprehensive factory parts and service warranty.



RSM Series Modular Switched Mode Rectifier Systems

Power Module(s)

The main power module which plugs into the rectifier cabinet. Multiple modules may be utilized to provide additional capacity.

Electrical

Input voltage: 96 to 132 VAC, 47 to 63Hz (120VAC models)
187 to 264 VAC, 47 to 63Hz (208-240VAC models)

Output voltage: 42 to 58V (48/10)
21 to 29V (24/18)

Output current: 12.5A max. per 48V mod.
23A max. per 24V mod.

Output power: 550W max. per 48V mod.
500W max. per 24V mod.

Power factor: >.99 true (100% load)
>.98 true (50% load)

Efficiency: 89% @ 100% load (48/10)
88% @ 100% load (24/18)
1% loss for 120VAC mod.

Regulation:
Static: -1% load (w/slope) \pm 0.1%
<0.04% line
Dynamic: 50 to 100% load step:
<1% deviation for 48V
<2% deviation for 24V

Response time: <2msec to 0.1% of output
 \leq 2msec to 0.2% (24/18)

Temp. coeff.: <100ppm/ °C

Noise:
Voice band: <22 dB_{BrnC} with batteries
Wide band: <10mV RMS (to 10MHz)
<150mV pk to pk (10kHz to 100MHz)
Acoustic: <45dBa at 1m (3 ft)

Mechanical

Weight: 1.9 kg (4.1 lb.)

Environmental

Temperature: -40° to 50°C (-40° to 122°F)
To 65°C (149°F) w/ fan tray

Humidity: 0 to 95% R.H. non-condensing

Elevation: -500 to 2800m (-1640 to 9186 ft)

Features

Protection: Input and output fuses
Input transient
Input inrush current limiting
Over temperature
Output current limiting
and short circuit protection
Power limiting

Indicators: Power on
Bar graph ammeter with
current limit

Alarms: Rectifier fail/over voltage
shutdown/OVP fail

Supervisory Module

The system's monitoring and control center.

Features

Built in test supply

Alarms/ Indicators: Temperature compensation
System over voltage
protection alarm
System high voltage alarm†
System low voltage alarm†
Low voltage disconnect alarm†
Test mode
Fuse/circuit breaker fail alarm†
AC mains fail alarm†
*Rectifier minor alarm†
*Rectifier major alarm†
Supervisory fail alarm†

Selectors: Test/normal
Temp. compensator on/off

† Jumper selectable form A/B contacts
* No indicator

Distribution Modules

The system's termination and protection center for loads.

Electrical

Fuse module: 2x8 position, up to 10A GMT
fuses (each 8 position fuse
block has a 20A capacity & is
e/w load disconnect contactor)

Circuit breaker
module: 4 circuit breakers;
+1 battery breaker
Optional battery or load
disconnect contactor

Mechanical

Weight: 0.5 kg (1 lb.) Fuse
1.4 kg (3 lb.) Circuit breaker

Connections

Fuse: Terminal block
0.55 to 1.5mm²
(#20 to #16 AWG)

Circuit
breaker: Two 1/4" studs on
5/8" centers

Cabinets

The system's outer shelf which encloses the various slide-in modules.

Mechanical

Connections:

Input: Terminal block 1.5 to 4mm²
(#16 to #12 AWG)

Output
battery: Two 1/4" studs on 5/8" centers

Alarm/
control: Terminal block .75 to 1.5mm²
(#20 to #16 AWG)

Dimensions in mm (inches):

19" rack: 133 H x 432 W x 267 D
(5.25" H x 17" W x 10.5" D)

23" rack: 133 H x 533 W x 267 D
(5.25" H x 21" W x 10.5" D)

Weight: 3.8 kg (8.3 lb.)

Standards

The RSM 48/10 (24/18) is designed to meet the following specifications:

CSA: C22.2; -107; -220; -1402

CSA-NRTL/C: C22.2; #950; M93

EMI: FCC Part 15, Subpart B Class B
EN55022 (CISPR22) Class B
(208-240VAC models)

ANSI/IEEE: C62.41 Cat B Power Line Surge
EN: EN61000-4;-2;-3;-4;-5 Class 4

Accessories

Please consult the factory for detailed ordering information.

Fan module: CE approved
Line cord options

Supervisory: For expansion system

Due to continuing product improvements, Argus reserves the right to change specifications without notice.