



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

<p><b>Power Module(s)</b> The main power module which plugs into the rectifier cabinet. Multiple modules may be utilized to provide additional capacity.</p>	<p><b>Features</b> Protection: Input and output fuses Input transient Input inrush current limiting Over temperature Output current limiting and short circuit protection Power limiting</p> <p>Indicators: Power on Bar graph ammeter with current limit</p> <p>Alarms: Rectifier fail/over voltage shutdown/OVP fail</p>	<p><b>Mechanical</b> Weight: 0.5 kg (1 lb.) Fuse 1.4 kg (3 lb.) Circuit breaker</p> <p>Connections Fuse: Terminal block 0.55 to 1.5mm<sup>2</sup> (#20 to #16 AWG)</p> <p>Circuit breaker: Two 1/4" studs on 5/8" centers</p>
<p><b>Electrical</b> Input voltage: 96 to 132 VAC, 47 to 63Hz (120VAC models) 187 to 264 VAC, 47 to 63Hz (208-240VAC models)</p> <p>Output voltage: 42 to 58V (48/10) 21 to 29V (24/18)</p> <p>Output current: 12.5A max. per 48V mod. 23A max. per 24V mod.</p> <p>Output power: 550W max. per 48V mod. 500W max. per 24V mod.</p> <p>Power factor: &gt;.99 true (100% load) &gt;.98 true (50% load)</p> <p>Efficiency: 89% @ 100% load (48/10) 88% @ 100% load (24/18) 1% loss for 120VAC mod.</p> <p>Regulation: Static: -1% load (w/slope) ±0.1% &lt;0.04% line Dynamic: 50 to 100% load step: &lt;1% deviation for 48V &lt;2% deviation for 24V</p> <p>Response time: &lt;2msec to 0.1% of output ≤2msec to 0.2% (24/18)</p> <p>Temp. coeff.: &lt;100ppm/ °C</p> <p>Noise: Voice band: &lt;22 dBBrnC with batteries Wide band: &lt;10mV RMS (to 10MHz) &lt;150mV pk to pk (10kHz to 100MHz) Acoustic: &lt;45dBa at 1m (3 ft)</p>	<p><b>Supervisory Module</b> The system's monitoring and control center.</p> <p><b>Features</b> Built in test supply</p> <p>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†</p> <p>Selectors: Test/normal Temp. compensator on/off</p> <p>† Jumper selectable form A/B contacts * No indicator</p>	<p><b>Cabinets</b> The system's outer shelf which encloses the various slide-in modules.</p> <p><b>Mechanical</b> Connections: Input: Terminal block 1.5 to 4mm<sup>2</sup> (#16 to #12 AWG)</p> <p>Output battery: Two 1/4" studs on 5/8" centers</p> <p>Alarm/control: Terminal block .75 to 1.5mm<sup>2</sup> (#20 to #16 AWG)</p> <p>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)</p> <p>Weight: 3.8 kg (8.3 lb.)</p>
<p><b>Mechanical</b> Weight: 1.9 kg (4.1 lb.)</p>	<p><b>Distribution Modules</b> The system's termination and protection center for loads.</p>	<p><b>Standards</b> The RSM 48/10 (24/18) is designed to meet the following specifications:</p> <p>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</p>
<p><b>Environmental</b> Temperature: -40° to 50°C (-40° to 122°F) To 65°C (149°F) w/ fan tray</p> <p>Humidity: 0 to 95% R.H. non-condensing</p> <p>Elevation: -500 to 2800m (-1640 to 9186 ft)</p>	<p><b>Electrical</b> Fuse module: 2x8 position, up to 10A GMT fuses (each 8 position fuse block has a 20A capacity &amp; is e/w load disconnect contactor)</p> <p>Circuit breaker module: 4 circuit breakers; +1 battery breaker Optional battery or load disconnect contactor</p>	<p><b>Accessories</b> Please consult the factory for detailed ordering information.</p> <p>Fan module: CE approved Line cord options</p> <p>Supervisory: For expansion system</p>

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

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