



RST Series Switched Mode Rectifiers



The communications industry's most versatile, durable and reliable rectifiers since 1987.

Field-proven durability Since their debut, RST 48/50 and 24/100 rectifiers have become the communications industry standard, with thousands of units installed in power systems all over the world. Their traditional "all-in-one" monolithic design features a compact metal chassis and natural convection cooling for reliable, long lasting operation.

Easy to install and operate Each RST rectifier is factory preset so installation is quick and simple. All wiring connections and controls, including switches, potentiometers and meters, are easily accessed, which cuts down installation and maintenance time. In addition, units can be vertically stacked with no space between units required, thereby reducing rack space occupied by multiple unit configurations. 19" and 23" rack mounting options are standard.

High power efficiency The RST's compact size and light weight is the result of a remarkably efficient power conversion process. For example: the RST 48/50 achieves efficiencies greater than 92% throughout normal load operation which dramatically reduces energy costs.

Low noise levels The RST series of rectifiers have extremely low electrical noise levels. This allows units to act as battery eliminators and makes them ideal for powering sensitive communications equipment that require clean, stable DC voltage. RST rectifiers meet modern electrical and acoustic noise emission standards. Acoustic noise is so low as to be classified inaudible.

Field proven reliability

Simple installation and operation

Available in 15 to 100A

12, 24 or 48V output

Reduced energy consumption and operating costs

Low noise levels

Maximum thermal protection

Reliable power output The RST Series 48VDC, 24VDC, and 12VDC rectifiers provide continuous, reliable power output using Argus' advanced high frequency switching technology.

Comprehensive features Each Argus RST rectifier incorporates comprehensive features based on in-depth field research with Argus customers. Indicators, alarms and protection devices are standard with every unit including soft start, current limit, input/output breakers and individual mode controls with associated indicators. Optional features include combination volt/ammeter, low voltage disconnect, and a paralleling diode for batteryless operation. For further information, please contact an Argus sales representative using the address or phone number on the back page of this datasheet.

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



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Specifications

Electrical

48/15, 48/30, 24/30, 24/50, 12/50, 12/100:

Input voltage: 92 to 132 VAC,
(Jumper 57 to 63Hz
selectable) 184 to 264 VAC,
47 to 63Hz

Output current: 16.5A max (48/15)
33A max (48/30, 24/30)
55A max (24/50, 12/50)
105A max (12/100)

Output power: 675W max (12/50)
850W max (48/15, 24/30)
1700W max (48/30)
1415W max (24/50, 12/100)

Efficiency: (40-100% load)
>89% (48/15), >91% (48/30)
>86% (24/30), >88% (24/50, 12/50, 12/100)

48/50, 48/100, 24/100:

Input voltage: 184 to 264 VAC, 47-63Hz
(208 VAC, 3ø option for 48/100)

Output current: 110A maximum
55A max (48/50)

Output power: 2830W maximum
5660W max (48/100)

Efficiency: (40-100% load)
>92% (48/50), >89% (24/100)
90% (48/100, 1ø), 91% (48/100, 3ø)

All RST:

Output voltage: 42 to 60 VDC (48V units)
21 to 30 VDC (24V units)
10 to 16 VDC (12V units)

Power factor: >.90 (0 to 100% load)
(displacement)
(>.90 true @ 100% load
RST 48/100 3ø)

Regulation
Static: <0.02% line and load
Dynamic: <1% deviation for 50 to
100% load step

Response time: 2msec to 0.1% of output

Temperature coefficient: <100 ppm/°C

Soft start: 33% per second

Noise

Voiceband: <22 dBrnC with batteries
Wideband: <10mV RMS
(10kHz to 10MHz)
<150mV pk to pk
(10kHz to 100MHz)
EMI: FCC Class A compliant
Acoustic: 45dBa at 1m (3 ft)

Mechanical

All units are equipped with reversible
rack brackets to enable 19" or 23" center
or flush rack mounting. Consult factory
for wall mount brackets.

Height:
133mm (5.25") 48/15, 24/30
178mm (7") 48/30, 24/50, 12/50
222mm (8.75") 48/50, 24/100, 12/100
445mm (17.5") 48/100

Connections:

Input: Box type compression
Terminal Block (48/15)
Chassis ground: Mechanical lug
Output: 3/8" studs on 1" centers
or 1/4" studs on 5/8"
centers
Alarms/control: Terminal block
0.55mm² to 1.5mm²
(#20 to #16 AWG)

Environmental

Temperature: 0° to 50°C (32° to 122°F)
RST 24/100 0° to 40°C (32° to 104°F)

Humidity: 0 to 90% R.H.
non-condensing

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

Features

Selectors: Float/equalize
Test/normal
Amps/volts

Remote controls: Equalize
Shutdown
Sensing

Indicators/alarms:

Power on
Float mode
Equalize mode
Test mode
Current limit alarm†
Rectifier fail alarm†
Low voltage alarm†
Over voltage shutdown
Digital ammeter/ voltmeter
Voltage test points

† Form C contacts

Adjustments: Float
Equalize
Test
Current limit
Output slope
(load sharing)
Over voltage protection
Low voltage alarm
Start delay 0 to 90 sec.

Cooling: Natural convection,
front to back

Standards

The RST Series is designed to meet the fol-
lowing specifications.

CSA: 22.2, -107, -220, 1402
UL: 1236
FCC: Part 15, Class A
ANSI/IEEE: C62.41 Cat B power
line surge

Ordering Information

Please consult factory for detailed ordering
information.

Model #	Part #
RST 48/15	010-015-20
RST 48/30	010-006-20
RST 48/50	010-002-20
RST 48/100	010-008-20
RST 24/30	010-020-20
RST 24/50	010-007-20
RST 24/100	010-013-20
RST 12/50	010-016-20
RST 12/100	010-019-20

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

