

# C&D TECHNOLOGIES

## Power Solutions

### SM48 7.5 RACK MOUNT SWITCHMODE RECTIFIER

Powercom Division  
Telecommunications Power Systems



#### FEATURES AND BENEFITS

- -48Vdc, 7.5 Amp, 450 Watt
- -40 to +65 C Operation
- Near Unity power Factor
- High Efficiency
- Wide Range AC Input (106 to 264 Vac)
- Input Current Limiting to Prevent AC Service Circuit Breaker Trip During Extreme AC Brown-Out
- Output Current Limit down to Zero Volts without Operating Protection Devices
- Output Voltage and Current Meters
- 19" or 23" Relay Rack mount
- Designed to BELLCORE Standards
- LED Indicators: RFA, Equalize, Power Good and Remote Operation
- Form C Relay Contacts: RFA
- Rectifier Current Test Jacks
- Forced Load Sharing
- Thermal Shutdown Protection
- High Voltage Shutdown Protection
- Supports Remote High Voltage Shutdown and Restart
- Individual Potentiometers for Float and Equalize Settings
- Supports Battery Temperature Compensation via a Remote Controller
- Nine Coded LED Messages for Alarms, Status and Troubleshooting

#### DESCRIPTION

The C&D Technologies SM48 7.5 Rectifier is ideally suited for PBX, Microwave, Outside Plant and Customer Premise applications where space is limited and system reliability is mandatory. The SM48 7.5 can be used in battery or non-battery systems and with its advanced features can be configured using C&D power board panels to solve virtually any custom application requiring up to 7.5 Amps of -48 Vdc power.

# RECTIFIER SPECIFICATIONS (SM48 7.5)

PHYSICAL SPECIFICATIONS	
HEIGHT	3.5" (12.7cm)-2 Rack Spaces
WIDTH	19" or 23" Relay Rack Mount
DEPTH	13.12" (33.32cm)
WEIGHT	10.5 lbs. (1.4 kgm)

ENVIRONMENTAL SPECIFICATIONS	
OPERATING TEMPERATURE	-40 C to +65 C (-40 F to +149 F)
STORAGE TEMPERATURE	-40 C to +85 C (-40 F to + 185 F)
HUMIDITY	0 to 95 % Non-Condensing
ALTITUDE	7,000 ft. (2,133 m)
HEAT DISSIPATION	244 BTU/Hr. Maximum @ 7.5 Amps and 54 Vdc
COOLING	Forced Air
SEISMIC	BELLCORE Zone 4
AUDIBLE NOISE	<62 dBa @ 2 ft. in Front of Plant

ELECTRICAL SPECIFICATIONS	
EMI	FCC Part 15, Subpart J for Class A Equipment
LIGHTNING	ANSI/IEEE C62.41C Class B3
ELECTRICAL NOISE: VOICE BAND	32 dbrnc
ELECTRICAL NOISE: WIDE BAND	40mv rms: DC to 20Mhz
ELECTRICAL NOISE: Peak to Peak	250mv Peak to Peak @ 20 Mhz Band Width
CONNECTIONS	DC Connections are at Rear of Unit. AC Connections via Standard line Cord.

AGENCY APPROVALS	
	UL / CSA / VDE / CE / ISO 9001

POWER SPECIFICATIONS	
INPUT VOLTAGE	106-264 Vac, Single Phase, 45-65 Hz: Auto Ranging with Input Current Limiting to Prevent AC Service Circuit Breaker Trip at Extreme AC Line Brown Outs (110 Vac or 208/240 Vac Inputs)
INPUT CURRENT	4.4 Amps @ 120 Vac: @ Full Load, 60Vdc 2.6 Amps @ 208 Vac: @ Full Load, 60Vdc 2.3 Amps @ 240 Vac: @ Full Load, 60Vdc
OUTPUT VOLTAGE	Float: 48 to 56 Vdc Equalize: 48 to 60 Vdc
OUTPUT REGULATION	+/- 0.5% for 0 to 100% of Full Load within the Specified Input Voltage and Frequency Range
OUTPUT CURRENT	7.5 Amps Max.
OUTPUT MAX. POWER	450 watts: 7.5 Amps @ -60 Vdc
CURRENT LIMIT	Fixed at 100% Full Load
LOAD SHARE	+/- 10% from 10% to 100% of Full Load Rating
POWER FACTOR	> .99
EFFICIENCY	> 84%

PROTECTION	
INPUT PROTECTION	Fuse in Each AC Input Circuit
OUTPUT PROTECTION	Diode
OUTPUT OVERVOLTAGE SHUTDOWN	Fixed at 60 Vdc
TURN-ON	Soft-Start

CODED LED MESSAGES	
	Low Current, Over Voltage, AC Line Low, Over Temperature, Remote Float Control Out-of-Range, Load Share Out-of-Range, Thermal Shut-Down, Air Flow Low, External High Voltage Shut-Down

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