

# CSM46

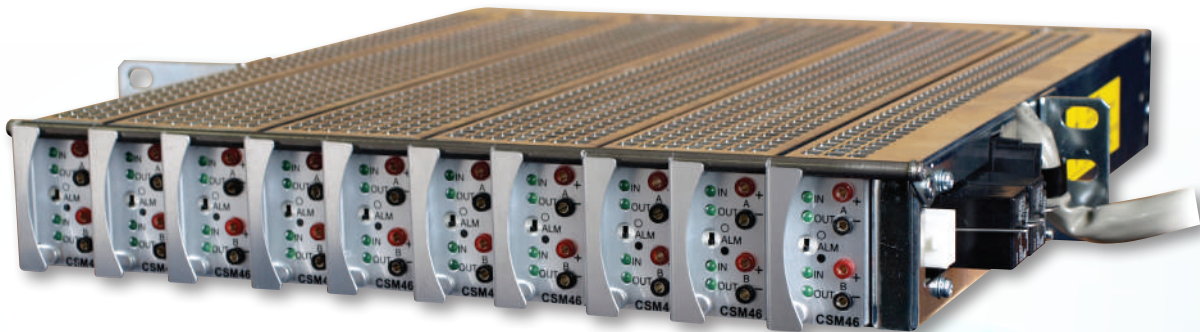
±190Vdc to -48Vdc Converter



Your Power Solutions Partner



- ±190V to 48V DC-DC Down Converter for remote/line powering applications (RFT-V)
- Utilize existing copper pair networks for distributing power
- Reduce truck rolls and operating expenses with no batteries at remote site
- High reliability convection-cooled design and compact 1RU footprint



**The CSM46 is a +/-190V to 48V DC-DC converter system designed for remote sites in network or line powering architectures.** The compact modular design makes the CSM46 ideal for remote applications such as xDSL and FTTx.

Network powering is a perfect solution for applications where AC utility may not be available, battery maintenance would be cost prohibitive, or remote enclosures may not have enough internal space or cooling capacity to accept a traditional rectifier and battery system. The CSM46 works seamlessly with the Alpha CSM36 upconverter to allow for complete end-to-end network powering.

The CSM46 is available in high power density 10-module and 4-module shelves. Standard system features include Form C alarm relays, front access connection points, connectorized cable harness options and front access test points for quick monitoring of incoming line voltage.

The CSM46 is the ultimate network powering solution that blends both high power density capability with extensive features. With over 15 years experience in designing network powering solutions, Alpha high voltage converter solutions also combine industry leading safety and reliability.

# Power



ALPHA  
OUTBACK  
ENERGY

## CSM46 $\pm 190\text{Vdc}$ to $-48\text{Vdc}$ Converter

Part Number: 012-554-20

### ELECTRICAL

Input voltage: ..... 195 to 380Vdc (+/- 97.5 to +/- 190Vdc)  
Input current: ..... 240mA +/- 2%  
Efficiency: ..... >85%  
Output power: ..... Up to 75W  
(de-rates linearly with input voltage)  
Output voltage: ..... -50 to -55Vdc  
Output current: ..... 1.5A max  
(de-rates linearly with input voltage)  
Noise: ..... <500mv p-p to 20MHz  
..... <250mVrms to 20MHz

### PERFORMANCE / FEATURES

#### Indicators:

Converter A: ..... I/P OK (green LED)  
Converter A: ..... O/P OK (green LED)  
Converter B: ..... I/P OK (green LED)  
Converter B: ..... O/P OK (green LED)

#### Test points:

Converter A: ..... I/P voltage  
Converter B: ..... I/P voltage

#### Protection:

Input fuses  
Input current limit  
Input transient protection  
Input high and low voltage shutdown  
Thermal shutdown  
Output parallel diodes  
Output OVP  
Reverse polarity protection

Miscellaneous: ..... Alarm masking switch for disabling shelf level alarming

### MECHANICAL

#### Dimensions:

mm: ..... 42H x 23W x 280D  
in: ..... 1.65H x .9W x 11D

Weight: ..... 0.67kg (1.5lbs)

### ENVIRONMENTAL

Temperature: ..... -40 to 75°C (-40 to 167°F) with external airflow  
Humidity: ..... 0 to 95% NC

### SHELVES

10-Module shelf P/N: 030-831-20

#### > Mechanical

##### Dimensions:

mm: ..... 45H x 273W x 311D  
in: ..... 1.75H x 10.75W x 12.25D  
(excludes connectors and mounting brackets)

Weight: ..... 4.87kg (10.8lbs)

#### > Performance / Features

Access: ..... Front access

##### Connections:

Input: ..... 50-pin amp-champ style connector  
and wireharness  
Output: ..... Anderson SBS50 and molex style options  
and wireharness  
Alarm: ..... Flying leads or molex style connector  
and wireharness  
Chassis gnd: ..... 1/4" studs on 5/8" C

Alarms: ..... Major form C relay

Minor form C relay

Note: Relays are field replaceable

### AGENCY COMPLIANCE

Safety: ..... CSA/UL 60950-1  
CSA/UL 60950-21 (RFT-V circuit)  
CE IEC/EN 60950

EMI: ..... Class A radiated  
GR-1089 issue 3 (applicable sections)



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