

## CWRS-4150A

### Product Features:

- 8KW Power Shelf; 2RU Height
- Fits 19", 21", 23" Racks; Front- to Mid- Mounts
- 54VDC, 148A Output (4 x 37A Rectifier Modules)
- (3) 80A Load Breakers; (2) 100A Battery Breakers
- Battery Banks protected with (2) LVDs, (2) 100A Breakers
- Rear-Access Wiring for Dual AC Inputs, (4) DC Outputs, (2) Battery Banks, (4) Dry Relay Alarms
- Control Module for Full Alarms and Monitoring
- Battery Charging; Monitors: Battery Cell, Shelf Temp, Rack Temp
- Communication via Ethernet, SNMP, and RS232 Interfaces
- International Safety Approvals, EMI/EMC, GR-63-CORE, C-Tick



### Input Specifications:

VOLTAGE	90VAC to 254VAC (Full Power above 180VAC; see Derating Curve for <176VAC)
FREQUENCY	47-63Hz
INRUSH CURRENT	≤ 30A @ 240VAC per AC feed (max, Cold Start)
OPERATING CURRENT	≤ 11.85A per module (max, continuous)
LEAKAGE	< 3.5mA @ 254VAC, per module
HOLD-UP	≥ 16 ms (240 VAC & Full Load)
EFFICIENCY	>92% typical
HARMONICS	EN61000-3-2 Class D Compliant (>0.97 PF)

### Output Specifications:

OUTPUT VOLTAGE	-54VDC (typical, software-adjustable)
OUTPUT CURRENT	148A, max-continuous; (0A min.)
ADJUSTMENT RANGE	-46VDC to -58VDC
BATTERY CURRENT	200A Rated; Protected by (2) 100A Circuit Breakers
LINE REGULATION	±0.5% max, across full input range
LOAD REGULATION	±1% max, across full load range
RIPPLE	≤ 250mVp-p; 20mV rms (20MHz BW)
EXCURSION	±3% max, 10-100% Step Load
RECOVERY	100ms max
OVER CURRENT	105-120% (Auto-Recovery)
OVER VOLTAGE PROTECTION	-59VDC (recycle input to reset)
LOAD CAPACITANCE	10,000uF (max) per Rectifier Module

### Safety Standards:

UL / CUL	60950-1
CB	EN60950-1 / IEC60950-1
CE MARK	Low Voltage Directive
NEDS	Telcordia GR-63-CORE; Seismic Zone 4
C-TICK	Certification Mark (AUS & NZ)

### General Specifications:

OPERATING TEMP	-40°C to +70°C (>+51°C, see Derating Curve)
OPERATING HUMIDITY	5% - 90% (non-condensing)
STORAGE	-55°C to +85°C; 5% to 95% (non-condensing)
COOLING	Intelligent Fans (each Rectifier)
ALTITUDE	Up to 2000 meters
VIBRATION	10-55Hz, 2G, 3Min Period, / 60 min each (3 axes)
SHOCK	20G Peak Acceleration
RELIABILITY	>100,000 Hours (Per Mil STD 217) 100% Load 25C
SIZE(W×D×H)	With Mounting Brackets for 19in Shelf: 445mm x 461mm x 88.1mm (19.0in x 18.15in x 3.47in)
WEIGHT	17.97 kg (39.6 lbs), fully configured shelf

### Electromagnetic Compatibility:

EMISSIONS	FCC Part 15, Level A (Conducted)
ELECTROSTATIC DISCHARGE	EN61000-4-2, 8kV Contact / 15kV Air
RADIATED SUSCEPTIBILITY	EN61000-4-3, 26MHz-2000MHz, 10V/m, 80%AM
EFT/BURSTS	EN61000-4-4, 2KV
SURGE	EN61000-4-5, 2kV Earth, 2kV Line-Line
CONDUCTED IMMUNITY	EN61000-4-6, 150KHz-80MHz, 10Vrms, 80%AM
VOLTAGE DIPS	EN61000-4-10, 95% Dip & 10ms, 30% Dip & 500ms
VOLTAGE INTERRUPTIONS	EN61000-4-11, 95% reduction, 5ms
FLUCTUATIONS & FLICKER	EN61000-3-3

### Status & Control Specifications:

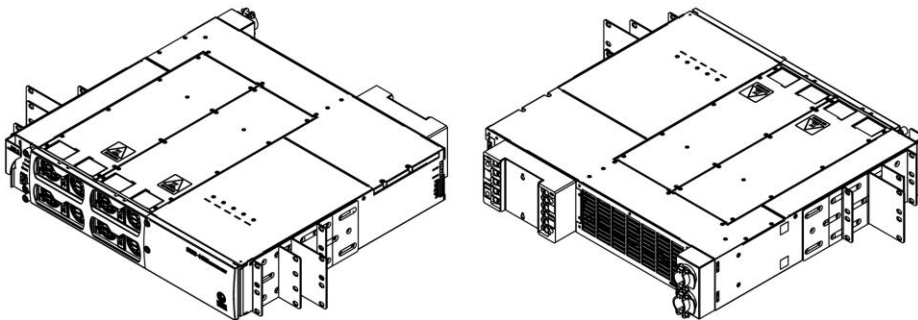
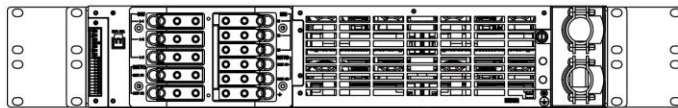
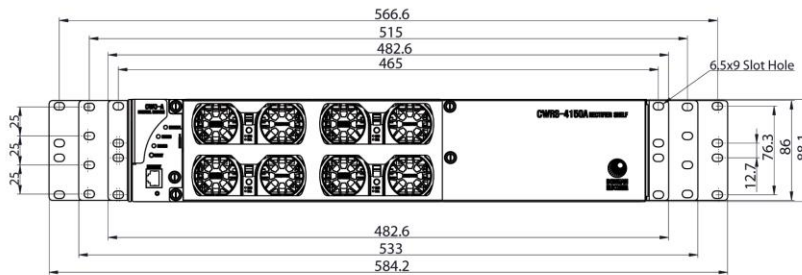
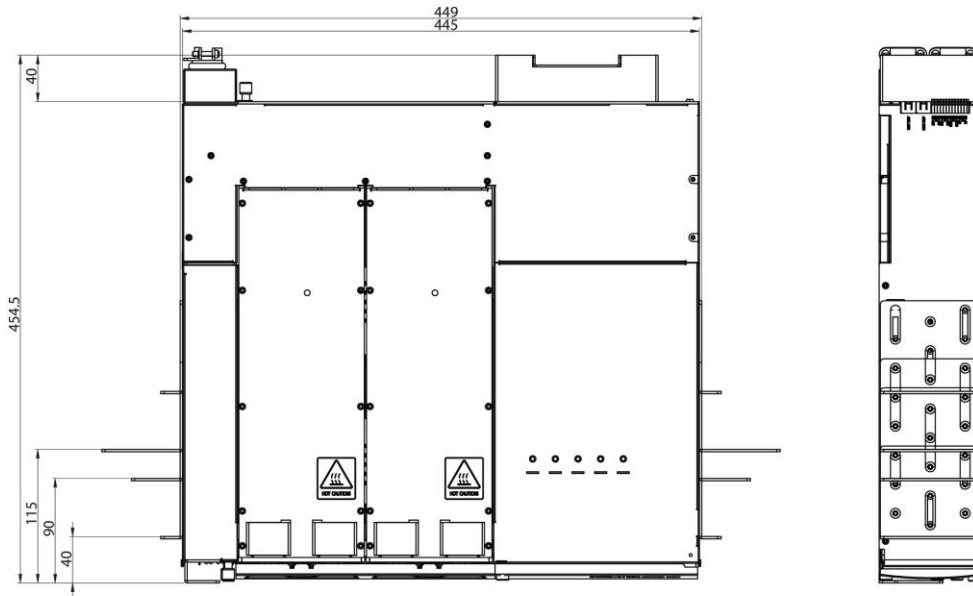
AC INPUT GOOD	Alarm via Communications Interface
DC OUTPUT GOOD	Alarm via Communications Interface
BATTERY CONDITIONS	Alarm via Communications Interface
COMM	Ethernet SNMP RS232



## CWRS-4150A

Outline Drawing:

For Additional Information, refer to CWRS-4150A Operation Manual



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### De-Rating Curves:

ITE / EMBEDDED POWER SUPPLY

