

DIGITAL INDUSTRIES SOFTWARE

Simcenter SCADAS RS Uninterruptable Power Supply Unit

Simcenter/SCRS-UPS/2024/20240610

Product Information Sheet

Summary

Simcenter SCADAS RS

Uninterruptable Power Supply Unit

The SCRS-UPS is part of the Simcenter SCADAS RS units. It provides stable buffer power to daisy chains of SCADAS RS units from a 9.5-54 VDC input supply and can be activated from button switch or from remote on/off voltage.

BENEFITS

- Power from 9.5-54 VDC
- Stable power to other units
- Uninterruptable power buffer for cranking and safe shutdown
- Insert power as needed
- Remote on/off from external voltage or switch
- 2 connectors for hot-swappable SCADAS RS batteries
- Central on/off switch for entire system
- Wide temperature range from -40 °C (-40 °F) to +65 °C (149 °F)

FEATURES

- Easy mounting and instrumentation
- Easy stacking of units without tools
- Centralized and distributed configurations
- Daisy chaining with single cable for power and data
- Low power
- 100 g Shock and 10 g vibration resistance
- Water and dust tight IP66/IP67 certified
- Standardized connector for analog inputs
- Use with Simcenter Testlab or with the on board App (accessible through any web browser)

Simcenter SCADAS RS

Product Family

Simcenter SCADAS RS is part of the Simcenter SCADAS signal conditioning and data acquisition systems and is designed for demanding test conditions.

Units connect in daisy chain to a Recorder unit for autonomous operation or in combination with a PC, tablet, or smartphone.

Use Simcenter Testlab or the on board Simcenter SCADAS RS Configuration or Recorder App for instrumentation, channel setup, calibration, sensor validation, measurement control, data viewing on-line and after a measurement.

Units are powered from an Uninterruptable Power Supply Unit (UPS) with flexible power distribution across multiple units.

Typical Use

The UPS unit provides stable supply in all circumstances. It will power up to 5 SCADAS RS units (with typical power consumption). Through power management it indicates if it can provide sufficient power to downstream SCADAS RS units under the operational temperature range. If more power is needed, additional UPS units can easily be added to the SCADAS RS configuration



General

Product code	SCRS-UPS
Description	Simcenter SCADAS RS Uninterruptable Power Supply Unit
Connectors	2x daisy chain (only 1 for power to downstream daisy chain(s) of units) 1x DC IN 1x Remote On/Off 2x Battery IN
Dimensions	W255 mm x H85 mm x D90 mm (W10" x H3.34" x D3.54")
Weight	1.8 kg (4 lb) (approximately, without cables)
Power supply	Up to 96 W load for units in downstream daisy chain(s). Battery charging stops above 82 W, and restarts when load drops below 75 W.
Internal power consumption	Up to 13.2 W. Up to 18 W if supplied by < 12 V.
Power buffer	Internal power buffer enables extended periods of insufficient DC power. If available power reaches a critical level, an automatic safe shutdown will be carried out.
Power input	9.5-54 VDC (from external power source or Siemens certified AC/DC adapter). Chassis not grounded from power input.

Unit Feedback

Unit information	<p>Following unit information is reported via LED and to the user interface:</p> <ul style="list-style-type: none"> • Unit status (booting, upgrading, identification, internal error, active) • Shutdown, internal buffer full, charging, discharging, level alarm, power overload
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Unit Mounting

Mounting options	<p>Units can be mounted individually (mounting holes available). Units can be stacked (no tools required). Units can be mounted with tie-down straps using mounting clamp (optional).</p>
Maximum distance	<p>The UPS unit can provide power to units connected with cables of 50 m distance. When using 50 m cables in daisy chains, extra UPS units may be required to compensate for cable losses.</p>

Activation

Power up	<ul style="list-style-type: none">• Button push during 3 s• Remote power on (6.5-60 VDC \pm10 %)• Remote switch closed (only when external DC power is available)• Voltage detected in PWR IN daisy chain connector (activation of an upstream UPS will activate all downstream units, including downstream UPS units)
Boot time	< 5 s
Power down (gracefully)	<ul style="list-style-type: none">• Button push during 3 s• Remote power off (< 4.5 VDC \pm10 %)• Remote switch open
Power down (immediate)	Voltage slope down in PWR IN daisy chain connector. Powering down an upstream UPS will power down all downstream units.

Buffer information

Capacity	58.4 Wh (25% reserved for extreme temperature conditions handling).
Charge	Charging stops < -30 °C Charging restarts > -25 °C (hysteresis)
Discharge	Discharge notes for very low temperatures: <ul style="list-style-type: none">• Not available for: full load < -25 °C, 3/4 load < -30 °C, 1/2 load < -35 °C• Very quick (> 20 s) for: full load < -20 °C, 3/4 load < -25 °C, 1/4 load < -35 °C• Quick (> 2 min) for: full load < -15 °C

Environmental Certification

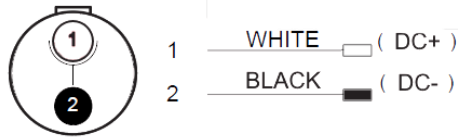
Temperature range	Operating: -40 °C to +65 °C (-40 °F to 149 °F) Storage: -40 °C to +85 °C (-40 °F to 185 °F) Because of internal heating, please exercise caution when touching the housing and connectors and attached accessories at ambient temperatures higher than 40 °C. Ensure proper protection (i.e., gloves) against burns or other injuries.
Ambient pressure	0.5 bar to 1.3 bar. Altitude: -2000 m (mining) to 5000 m (mountains).
Water and dust protection	IP66/IP67
Humidity	Fully protected against humidity. Feet vents equalize internal and external pressure and allow an outgoing path for humidity and moisture, being expelled during warming up and cooling down during normal usage.
Vibration	MIL-STD-810G, method 514.6, procedure I, category 24, 20-2000 Hz, random vibration 10 g (rms), 1 h per axis. NOTE: Tested against more severe conditions than required by MIL-STD-810G (10 instead of 7.7 grms).
Shock	MIL-STD-810G, method 516.6, procedure I, trapezoidal shock, 100 g (peak), 11 ms, three shocks per direction
Drop	MIL-STD-810G method 516.6, Procedure IV – Transit Drop (26 drops from a height of 122 cm on each surface, edge and corner)
Salt protection	Salt spray test according to ISO 12944-2, ISO 12944-2, class C5I, exterior applications, average lifetime (720 h test corresponding to 10 years life)
ESD	EN61000-4-2 level 4 ISO10605
EMC Requirements	IEC 61326-1
Calibration	Compliant with ISO17025. Calibration formally traceable to international measurement standards from our accredited ISO17025:2017 fully compliant laboratory.
Certifications	CE, FCC

Connectors and Pinout

Power connector chassis type YCP-TIA15ACG-02FPRZX-000X

Power connector plug type YCP-TPR15ACX-02MSRHX-066X

Power connector Pinout

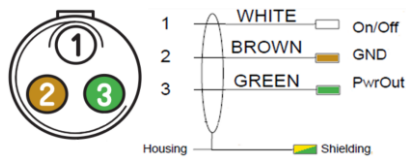


Reverse polarity without damage: <54 VDC

Remote On/Off connector chassis type YCP-TIA09BCG-03FPGZ-18708

Remote On/Off connector plug type YCP-TPR09BCX-03MSGEX-051X

Remote On/Off connector pinout



Remote On/Off functionality Voltage input: external Voltage source can be connected between Remote On/Off and GND pins.
Switch: Remote On/Off and Remote power pins can be connected with a switch.

Battery connector chassis type (tbc)

Battery connector plug type (tbc)

Battery connector pinout (tbc)

Daisy Chain connector chassis type YCP-TIA12FCG-08FPEZX-000X

Daisy Chain connector plug type YCP-TPR12FCX-08MSEEX-065X

Ordering Information

SCRS-UPS

Simcenter SCADAS RS Uninterruptable Power Supply Unit

Options and Accessories

Connectivity	SCRSA-CABD01	Daisy chain cable, 0.4 m
	SCRSA-CABD02	Daisy chain cable, 1 m
	SCRSA-CABD03	Daisy chain cable, 5 m
	SCRSA-CABD04	Daisy chain cable, 10 m
	SCRSA-CABD05	Daisy chain cable, 50 m
	SCRSA-CABN01	Daisy chain cable to RJ45, 5 m
	SCRSA-CAB-ADP2	UTP to USB Ethernet adapter for PC
Mechanic	SCRSA-CAB001	Grounding cable, 3 m
	SCRSA-CASE01	Travel case single unit
	SCRSA-CASE02	Travel case 6 units
	SCRSA-ACC-001	Side clamps (set of 2)
	SCRSA-ACC-002	Brackets (set of 2)
	SCRSA-ACC-005	Stacking tools (set of 4)
	SCRSA-CAP004	Protective caps set UPS
Power	SCRSA-CAB009	Cable DC power IN, 1.5 m
	SCRSA-CAB011	Cable remote power pigtail, 5 m
	SCRSA-ACDC-02	AC/DC adapter UPS