VTK-SCAP



VTK-SCAP-M

Main Features

- SuperCap UPS for in-vehicle/Railway application
- High power density EDLC (Electric Double Layer Capacitor)
 technology
- Over 500,000 cycle life (charging/discharging)



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- Operating Temperature: -35~80°C
- SDK for software development
- RS232 for communication
- Max. expansion 1 x master + 3 x slave

Product Overview

The VTK-SCAP is a high-performance rechargeable UPS designed for NEXCOM vehicle and railway computers. It offers uninterrupted power and a sophisticated power management system. With enhanced charge/discharge efficiency and an RS232 interface for status monitoring, VTK-SCAP provides reliable backup power. It can deliver a maximum output power of 200W. In expansion mode (1 x VTK-SCAP-M + 3 x VTK-SCAP-S), VTK-SCAP can support a 60W system for up to 6 minutes. Leveraging supercapacitor technology, VTK-SCAP is suitable for extreme environments, operating reliably from -35°C to 80°C.

Specifications

Power Input

- 9~60VDC
- **Power Output**

24VDC

Composition

• 3.0V, 500F supercapacitor

Capacity

- Approx. 90 seconds endurance for 60W @ 55°C, Approx. 36 seconds endurance for 60W @ 80°C
- Maximum output power of 200W

SuperCap UPS Status Information

- Input voltage
- UPS health (Good/Error)
- UPS status (Full/Charging/Discharging)
- UPS temperature
- UPS capacity
- Ignition status/Ignition delay on timer

I/O Interface-Front

- VTK-SCAP-M (In-vehicle)
 - 8-LEDs for power source, slave power, temp, power in
 - RS232 for UART
 - 1 x 5-pin terminal block DC input
 - 1 x 6-pin terminal block DC output

- VTK-SCAP-AR-M (Railway)
 - 8-LEDs for power source, slave power, temp, power in
 - RS232 for UART
 - 1 x 2-pin terminal block for IGN
 - 1 x M12 K-code male DC input
 - 1 x M12 A-code female DC output

I/O Interface-Rear

- VTK-SCAP-M (In-vehicle) & VTK-SCAP-AR-M (Railway)
 3 x [2 x 5 pin] connector for backup power expansion
- (slave power box)
- VTK-SCAP-S (Slave for expansion)
 1 x [2 x 5 pin] connector to link to master power box

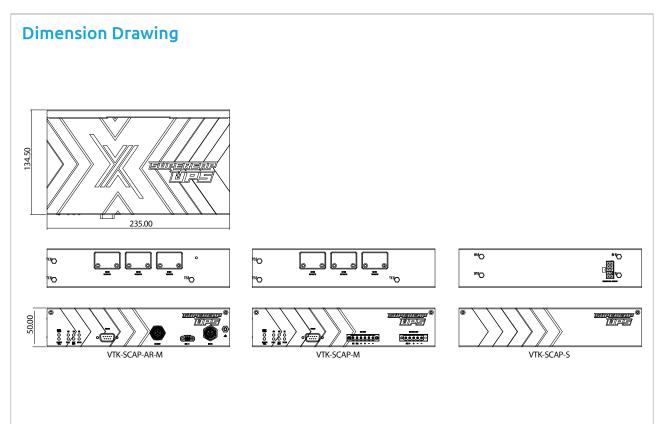
Dimensions

- VTK-SCAP-M, VTK-SCAP-AR-M, 235mm (W) x 134.5mm (D) x 50mm (H)
- VTK-SCAP-S, 235mm (W) x 134.5mm (D) x 50mm (H)

Environment

- Operation temperature:
 - Charging: -35~80°C
 - Discharging: -35~80°C (max. 60W), -35~70°C (max. 200W)
- Storage temperature
- 40~85°CVibration
- IEC 60068-2-64, 2G
- Operating: MIL-STD-810H, 514.8C Procedure 1, Category 4
- Storage: MIL-STD-810H, 514.8E Procedure 1, Category 24





- Shock
 - MIL-STD-810H, 516.8 Procedure I, trucks and semi-trailers=40g
 Non-operating: MIL-STD-810H, Method 516.8, Procedure V, crash
 - hazard shock test=75g

Certifications

- CE/FCC class A (VTK-SCAP-M, VTK-SCAP-AR-M, VTK-SCAP-S)
- E13 mark (VTK-SCAP-M & VTK-SCAP-S)
- EN50155 (VTK-SCAP-AR-M & VTK-SCAP-S)

UPS Capability Table

Power Consumption	60W	100W	200W
DC Output 24V			
1 x master	1m25s	53s	25s
1 x master + 1 x slave	2m55s	1m46s	56s
1 x master + 2 x slave	4m25s	2m45s	1m27s
1 x master + 3 x slave	6m04s	3m44s	1m49s

*(Test temperature: 25°C)

Ordering Information

- VTK-SCAP-M (PN: 10VK0SCAP00X0) SuperCap UPS for in-vehicle, master
- VTK- SCAP-AR-M (PN: 10VK0SCAP01X0) SuperCap UPS for railway, master
- VTK- SCAP-S (PN: 10VK0SCAP02X0) SuperCap UPS for expansion, slave

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