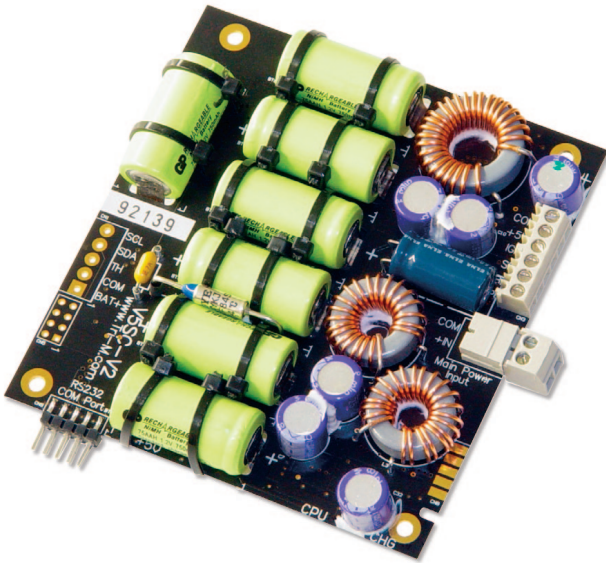


⚡ V5SC-SER[-UPS]t

PC/104 Uninterruptable Power Supply (UPS)

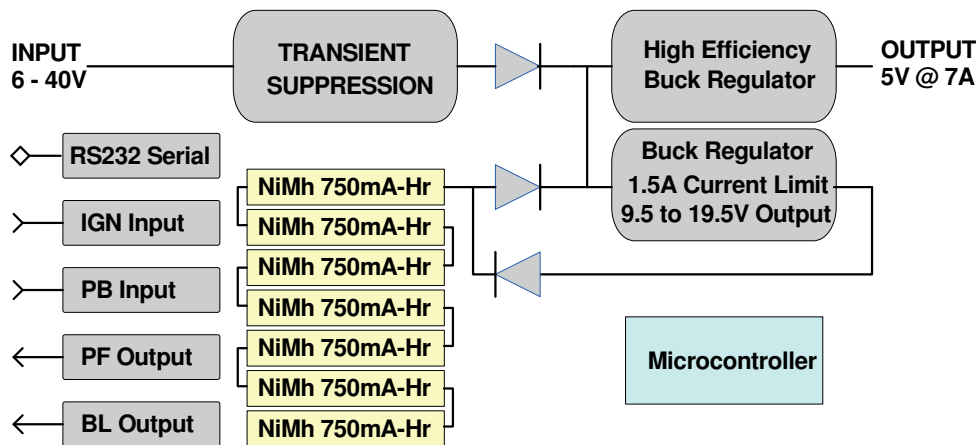
POWER OS TRI-M
TECHNOLOGIES INC.

Rugged Power, 5V @ 7A Output



The V5SC-SER-UPS is a smart 35 Watt DC to DC UPS with a 5VDC output. A microcontroller provides advanced power management, smart battery charging and an RS232 communication command and monitoring port. The V5SC-SER-UPS handles rugged environments, has a wide input range of 6-40V and is ideal for battery or unregulated input applications. The V5SC-SER (without on-board batteries) permit greater backup energy and/or the benefits of a different backup energy chemistry when mated with one of Tri-M's backup power modules.

Block Diagram



Key Specifications

- PC/104 footprint and height compatible
- Output Power
+5V@7A Max
- Wide Input Voltage
+6V to +40V DC
- 6000W Transient Suppression
- Integrated NiMh backup batteries
6.3 watt-hr @ 8.4V (nominal)
- Operating Temperature Range
V5SC-SER: -40°C to 85°C
V5SC-SER-UPS: -20°C to 50°C
(limited by on-board NiMh batteries)
- RS232 communications port

Advantages

- Space efficient single board PC/104 UPS module (V5SC-SER-UPS)
- Smart charging handles any chemistry
- Serial port permits monitoring of voltage, current & temperature of system
- Real time clock provides accurate timed start-up

Applications

- Military & Civil Vehicles
- Aerospace & Defence
- Industrial Automation
- Telecommunications
- Undersea & Marine

Specifications

Electrical

Input Voltage Range	+6V to +40V DC
Output Power	5V @ 7A, 35W.
Backup Power Type	7 NiMh @ 750mAh
Total Backup Energy	6.3 watt-hr (22680 joules)
Efficiency	Up to 90%

Mechanical

Dimensions	PC/104 footprint, 90mm x 96mm x 14mm
	(3.55" x 3.775" x 0.55")
Weight	172g (6oz)

Environment

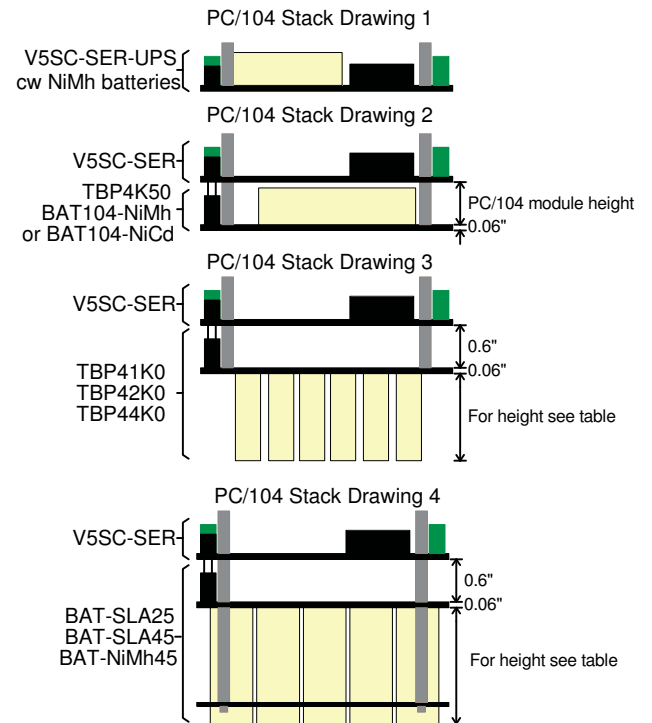
V5SC-SER-UPS Operating Temperature	
Charging	0°C to 45°C (32°F to 113°F)
Discharging	-20°C to 50°C (-4°F to 122°F)
Thermal Protection Battery Fuse	84°C (183°F)
V5SC-SER Operating Temperature	-40°C to 85°C (-40°F to 185°F)
MTBF	64,444 Hours

Certifications



Manufactured in
ISO 9001:2008, ISO 14001:2004 & ANSI/ESD S20.20
 Environments

V5SC-SER[-UPS] Backup Options



	Backup Energy			Size							
	Chemistry	Watt-hr	Joules	Width		Depth		Height (in addition to one PC/104 height when mated with V5SC-SER)		"PC/104 Stack Drawing	
				Inches	MM	Inches	MM	Inches	MM		
V5SC-SER-UPS	NiMh	6.3	22600	3.55	90	3.775	96	~	~	1	
V5SC-SER mated with:	TBP4K50	Ultra capacitor	0.14	500	3.55	90	3.775	96	0	0	2
	TBP41K0	Ultra capacitor	0.27	1000	3.55	90	3.775	96	1.57	40	3
	TBP42K0	Ultra capacitor	0.55	2000	3.55	90	3.775	96	2.36	60	3
	TBP44K0	Ultra capacitor	1.11	4000	3.55	90	3.775	96	2.36	60	3
	BAT104-NiCd	NiCd	5.04	18100	3.55	90	3.775	96	0	0	2
	BAT104-NiMh	NiMh	22.7	81600	3.55	90	3.775	96	0	0	2
	BAT-SLA25	SLA	25	90000	3.55	90	3.775	96	2.42	61.5	4
	BAT-NiMh45	NiMh	37.8	136000	3.55	90	3.775	96	1.5	38	4
	BAT-SLA45	SLA	45	162000	3.55	90	3.775	96	3.78	96	4

Note: For detailed dimension, connector, and pin spacing information, please see the User Guide.

Ordering Information

Models V5SC-SER[-UPS][-Cy]-PBF

where [-UPS] specifies inclusion of the NiMh backup batteries.

- ex: V5SC-SER-UPS-PBF; 5V output, NiMh backup, RoHs.
- ex: V5SC-SER-PBF; 5V output, no backup batteries, RoHs.

Note: For ordering of external backup modules refer to specific product data sheets.

Options

where [-Cy] is the optional conformal coating selection

- “-CS” is silicon conformal coating
- “-CU” is urethane conformal coating
- “-CH” is HumiSeal conformal coating
- ex: V5SC-UPS-CU-PBF; 5V output, NiMh backup, urethane conformal coating, RoHs