ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

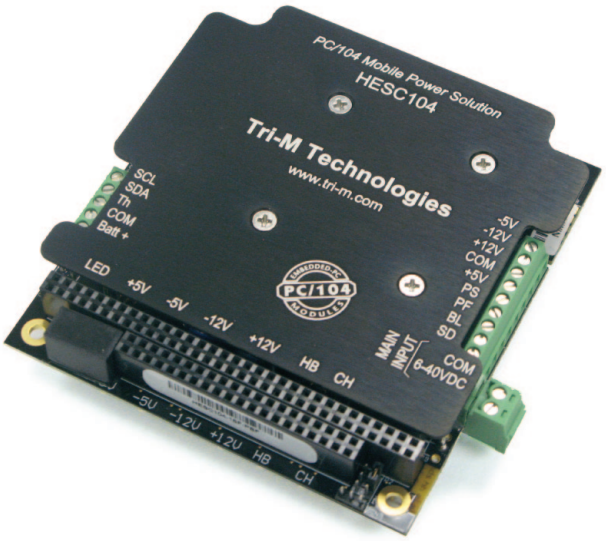
Find the *Tri-M Engineering HESC104-18F-PBF* at our website: *Click HERE*

HESC104

60 Watt High Efficiency Power Converter
with Smart Charging

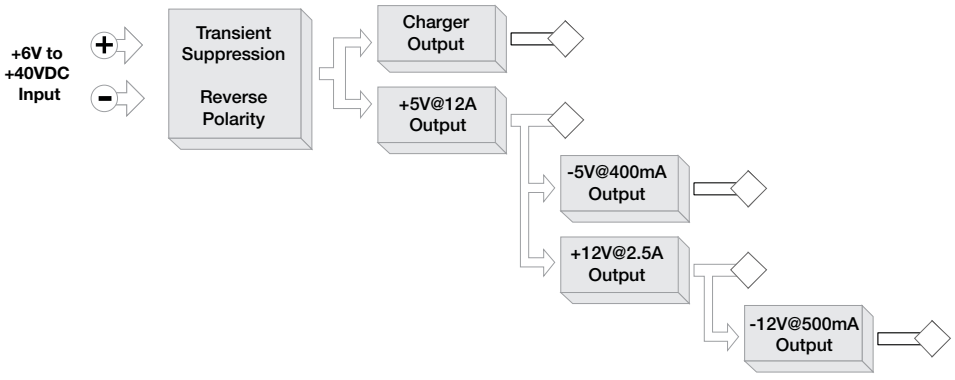
POWER TRI-M TECHNOLOGIES INC.

PC/104 Power Solution



The HESC104 when mated with a Tri-M backup power module creates a complete uninterruptable power solution (UPS) in a PC/104 footprint. An on-board microcontroller provides advanced power management, smart backup power charging and command/ monitoring over the PC/104 bus. The HESC104 has a 6 to 40V wide input range and is designed for hostile environments of extreme temperatures and vibration. The universal smart charger can handle any backup power chemistry including NiCd, NiMh, SLA, Li-Ion, SMBus batteries and ultra capacitors.

Block Diagram



Key Specifications

- **PC/104 Compliant**
- **Multi-stage Charging of:**
  Ultra Capacitors,
  SLA batteries
  NiCd batteries
  NiMh batteries
  Li-Ion batteries
  SMBus batteries
- **5000W Transient Suppression**
- **Wide Input Voltage Range**
  6V to 40V DC
- **Outputs Power:**
  5V @ 12A
  12V @ 2.5A
  - 5V @ 400mA
  - 12V @ 500mA
- **PC/104 I/O port permits command and monitoring of HESC104 functions including voltage, current & temperature**
- **Extended Temperature**
  -40°C to +85°C

Advantages

- **Rugged Design**
  Designed to meet MIL standards
- **Complete UPS solution when mated with backup power module**
- **Smart charging supports any backup chemistry**
- **The power management is configurable for all systems**

Our Capabilities

- **Application Engineering**
- **Rapid Development**
- **Engineered Systems**
- **Custom Software**
- **Industry Standards & Certification**
- **Exceptional Customer Experience**

POWER TRI-M TECHNOLOGIES INC

Toll Free 800.665.5600 (North America)
Direct 604.814.5069

sales@tri-m.com
www.tri-m.com

Specifications

Electrical Specifications

Main Outputs	
5V Output1	12A
12V Output	2.5A
-5V Output	400mA
-12V Output	500mA
Input Voltage	6V to 40V DC

Charger Rating

Current	0A to 4A
Voltage	9.5V to 19.5V

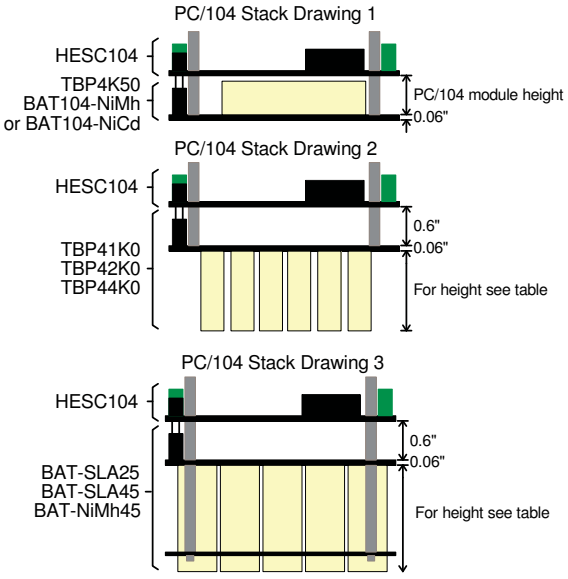
Mechanical/Environmental

Dimensions	90 × 96 × 15mm (3.55 × 3.75 × 0.55”)
Weight	185.92g / 6.56oz

Environmental

Temperature Range	-40°C to +85°C (-40°F to +185°F)
MTBF	155,000 hours

HESC104 Stack Arrangement



HESC104 mated with	Backup Energy			Size						
	Chemistry	Watt-hr	Joules	Width		Depth		Height (in addition to one PC/104 height when mated with HESC104)		PC/104 Stack Drawing
				Inches	MM	Inches	MM	Inches	MM	
TBP4K50	Ultra capacitor	0.14	500	3.55	90	3.775	96	0	0	1
TBP41K0	Ultra capacitor	0.27	1000	3.55	90	3.775	96	1.57	40	2
TBP42K0	Ultra capacitor	0.55	2000	3.55	90	3.775	96	2.36	60	2
TBP44K0	Ultra capacitor	1.11	4000	3.55	90	3.775	96	2.36	60	2
BAT104-NiCd	NiCd	5.04	18100	3.55	90	3.775	96	0	0	1
BAT104-NiMh	NiMh	22.7	81600	3.55	90	3.775	96	0	0	1
BAT-SLA25	SLA	25	90000	3.55	90	3.775	96	2.42	61.5	3
BAT-NiMh45	NiMh	37.8	136000	3.55	90	3.775	96	1.5	38	3
BAT-SLA45	SLA	45	162000	3.55	90	3.775	96	3.78	96	3

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

Ordering Information

Models HESC104-18F[-x][-Cy]-PBF

where [-x] is the optional bus configuration

“-x” is blank, stack through PC/104 bus
ex: HESC104-18F-PBF, 60W Smart Charger PC/104 power supply, stack through PC/104 bus.

“-x” is “-N”, no PC/104 bus
ex: HESC104-18F-N-PBF, 60W Smart Charger PC/104 power supply, no PC/104 bus.

“-x” is “-NS”, non-stack through PC/104 bus
ex: HESC104-18F-NS-PBF, 60W Smart Charger PC/104 power supply, non-stack through PC/104 bus.

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: HESC104-18F-CH-PBF; 60W Smart Charger PC/104 power supply, stack through PC/104 bus HumiSeal conformal coating.

POWER OS TRI-M TECHNOLOGIES INC

Toll Free 800.665.5600 (North America)
Direct 604.814.5069

sales@tri-m.com
www.tri-m.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP