

⚡ HE104

60 Watt High Efficiency Power Converter

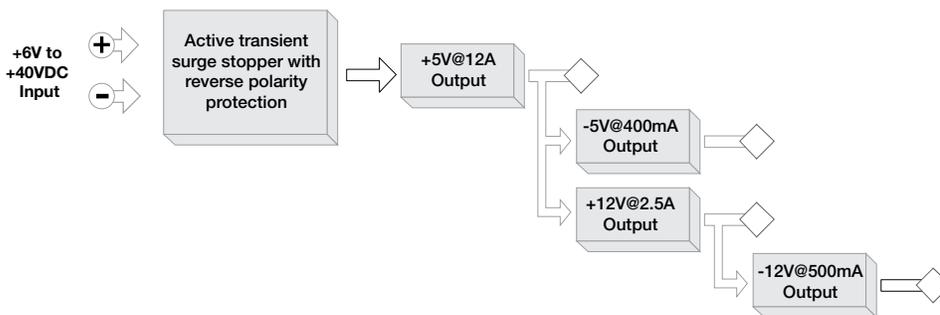
POWER OS TRI-M
TECHNOLOGIES INC.

PC/104 Power Solution



The HE104 is a high efficiency, high performance DC to DC 60 watt converter with an ultra-wide input range of 6-40V and supplies 5V, 12V and optionally -5V and -12V. The HE104 is specifically designed for rugged and hostile vehicular applications. The three stage input protection circuit includes an input filter, 10,000W heavy duty transient suppressors and an active Mosfet and controller surge stopper. The HE104 has an opto-coupled 6 to 40V input for remote On/Off control.

Block Diagram



Key Specifications

- DC to DC converter for embedded applications
- Three stage with active transient surge stopper suppression on input power supply
- Operates from 6VDC to 40VDC input
- 60W power supply output
- PC/104 compliant
- Extended Temperature -40°C to +85°C
- Opto-coupled 6 to 40V input for remote On/Off control
- Reverse Polarity Protected

Advantages

- Rugged design for hostile environments
- Input Transient Protection protects system components
- PC/104 format integrates with other modules for COTS solution
- High efficiency generates low heat improving MTBF

Our Capabilities

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

Specifications

Electrical Specifications

Main Outputs

5V Output

12A

12V Output

2.5A

-5V Output

400mA

-12V Output

500mA

Input Voltage

6V to 40V DC

Mechanical/Environmental

Dimensions

90 × 96 × 15mm (3.55 × 3.75 × 0.55")

Weight

118.2g/4.17oz

Environmental

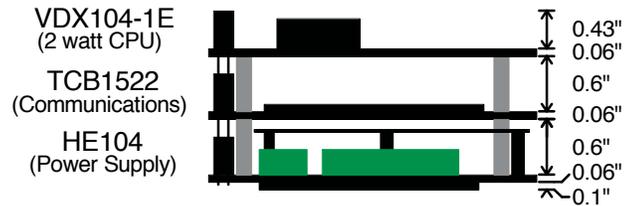
Temperature Range

-40°C to +85°C (-40°F to +185°F)

Hostile Environment Controller Solution - HECS

The HECS is a sub 5W controller for monitoring and data concentrating providing isolated RS232, RS485, CANbus and Ethernet ports with options for WiFi and GPS. Tri-M's CanTainer provides a rugged enclosure for hostile environments.

PC/104 Controller Stack with HE104



Ordering Information

Models HE104-512[-x][-negV][-T][-Cy]-PBF

where [-x] is the optional bus configuration

"-x" is "-16" is stack through PC/104 bus

ex: HE104-512-16-PBF, 60W PC/104 power supply, stack through PC/104 bus.

"-x" is "-N", no PC/104 bus

ex: HE104-512-N-PBF, 60W Smart Charger PC/104 power supply, no PC/104 bus.

"-x" is "-NS", non-stack through PC/104 bus

ex: HE104-512-NS-PBF, 60W Smart Charger PC/104 power supply, non-stack through PC/104 bus.

Options

where [-negV] is the optional -5 and -12V configuration

"-negV" is "-5H" is for optional -5V output

"-negV" is "-12H" is for optional -12V output

"-negV" is "-512H" is for optional -5V and -12V outputs

ex: HE104-512-16-512H-PBF, 60W PC/104 power supply, 5V, 12V, -5V & -12V outputs, stack through PC/104 bus.

where [-T] is optional AC PC/104 bus termination

ex: HE104-512-16-T-PBF, 60W PC/104 power supply, AC bus termination, stack through PC/104 bus.

where [-Cy] is the optional conformal coating selection

"-CS" is silicon conformal coating

"-CU" is urethane conformal coating

"-CH" is HumiSeal conformal coating

ex: HE104-512-16-CH-PBF; 60W Smart Charger PC/104 power supply, stack through PC/104 bus HumiSeal conformal coating.