

POWER SUPPLIES

Power Supplies



- Designed for vehicle applications
- Multi-output DC power for PC/104 systems
- Battery charger capability
- Power management feature
- Output power on PC/104 bus
- Auxiliary power out on screw terminals

DESCRIPTION

These power supplies accept a DC input voltage from a vehicle power system, battery, or other power source and provide clean output power for PC/104 systems. Input power is provided on a detachable screw terminal block. Output power is provided directly on the PC/104 bus connectors and/or on a separate screw terminal block. LEDs provide indications of output power status, and load dump protection prevents potential damage to the embedded system.

The HESC104 and HESC-SER models provide four output voltages: +/-5VDC and +/-12VDC. They include built-in power management and smart battery charging features. They can be programmed to turn on and off at user-defined intervals, for example to take measurements or report data. This feature dramatically lowers total power consumption because the system is only powered on when needed. The battery chargers on these units can work with NiCd, NiMH, and sealed lead acid (SLA) batteries. Software is provided to define battery charging curves as well as control shutdown timing. Configuration settings are stored in an on-board EEPROM.

SPECIFICATIONS

POWER SUPPLIES					
Model	HESC-104	HESC-SER	HE104-DX	HE104+DX	HE-HP
POWER					
Input voltage	40VDC 6	6-40VDC	6-40VDC	6-40VDC	6-40VDC
Max output power	60W	60W	60W	60W	100W
Max +3.3V output				10A	
Max +5V output	12A	12A	12A	12A	
Max +12V output	2.5A	2.5A	2.5A	2.5A	2.5A
Max -5V output	0.4A	0.4A	0.4A		
Max -12V output	0.5A	0.5A	0.5A	0.5A	
Max efficiency	95%	95%	95%	95%	95%
Soft start	10ms on +5V output	10ms on +5V output			
Opto inputs	0	8	20		
Input Voltage	N/A	3V-28VDC	3V-24V DC or AC		
Input impedance	N/A	1.8KΩ min	2.8KΩ		
MECHANICAL					
Size			3.550" x 3.775" (90mm x 96mm)		
Weight	6.6oz / 186g	7.3oz / 207g	6.1oz / 173g	6.1oz / 173g	6.1oz / 173g
Operating temp.	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
PC/104 connector	?		?	?	
PC/104-Plus connector				?	
BATTERY CHARGER					
Max charge current	4.0A	4.0A			
Charge voltage	9.5-19.5V	10-35V			
Charger control	PC/104 bus	Serial port			

The HE104-DX provides 60 watts of power on both the PC/104 bus and screw terminals. The HE104+DX provides 108W output power adding 3.3V output on the PC/104+ PCI connector for PC104-Plus and PCI-104 CPUs.

The HE104 offers +5V and +12V outputs, while the low-cost V104 provides single +5V or dual +5V/+12V output. These economically priced supplies are available with additional output voltages according to your application needs. See ordering guide below for model numbers.

The HE-HP provides 100 watts of output power for systems with heavy load requirements. Power input and output are accessed via screw terminals.

BACKUP BATTERIES				
Model	BAT104-NICD	BAT104-NIMH	BAT104-SLA25	BAT104-SLA45
Configuration	Nickel-Cadmium	Nickel Metal Hydride	Sealed Lead Acid	Sealed Lead Acid
Max output voltage	7 x AA	7 x AA	5 x D	5 x DD
Capacity	8.4V	8.4V	10V	10V
Length x width	600mAh	2.3Ah	2.5Ah	4.5Ah
Height	3.55" x 3.775"	3.55" x 3.775"	3.55" x 3.775"	3.55" x 3.775"
Weight	0.59"	0.59"	2.80"	4.15"
Temperature range	-20 to +60°C	-10 to +65°C discharge, 0 to 45°C charge	-65 to +65°C	-65 to +65°C

ORDERING INFORMATION

Part No.	Description
HESC-104	60W DC/DC PS, smart charger, power management, PC/104 bus
HESC-SER	60W DC/DC PS, smart charger, power management, serial interface
HE104-DX	60W DC/DC power supply, quad outputs, PC/104
HE104+DX	60W DC/DC power supply, quad outputs, PC/104-Plus
HE-HP	100W DC/DC power supply, discrete wire I/O

FOR MORE INFORMATION

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