



POWER SUPPLIES

DC/DC POWER SUPPLIES

PC/104 DC/DC POWER SUPPLIES

FEATURES

- ◆ Designed for vehicle applications
- ◆ Multi-output DC power for PC/104 systems
- ◆ Wide-range input voltages
- ◆ Battery charger capability
- ◆ Power management feature
- ◆ Output power on PC/104 bus
- ◆ Auxiliary power out on screw terminals
- ◆ -40 to +85°C operation



HESC-104

- ◆ 60 watts output power
- ◆ ±5V, ±12V outputs
- ◆ Built-in smart charger and power management
- ◆ PC/104 bus power output
- ◆ Feature programming via PC/104 bus



HESC-SER

- ◆ 60 watts output power
- ◆ ±5V, ±12V outputs
- ◆ Built-in smart charger and power management
- ◆ Output power on screw terminals
- ◆ Feature programming via serial port



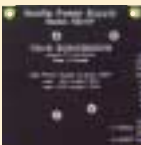
HE104-DX

- ◆ 60 watts output power
- ◆ ±5V, ±12V outputs
- ◆ PC/104 bus power output



HE104+DX

- ◆ 60 watts output power
- ◆ +3.3V, +5V, ±12V outputs
- ◆ PC/104 and PC/104-Plus bus power output



HE-HP

- ◆ 100 watts output power
- ◆ +5V, +12V outputs
- ◆ Output power on screw terminals



HE104

- ◆ 50 watts output power
- ◆ +5V, +12V outputs standard
- ◆ -5V, -12V outputs optional
- ◆ AC termination option



V104

- ◆ 25 watts output power
- ◆ +5V, +12V outputs standard
- ◆ -5V, -12V outputs optional
- ◆ AC termination option
- ◆ Low cost

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 (see page 43). Software is provided to define battery charging curves as well as control shutdown timing. Configuration settings are stored in an on-board EEPROM.

The HE104-DX provides 60 watts of power on both the PC/104 bus and screw terminals. The HE014+DX adds 3.3V output on the PC/104+ PCI connector for PC104-Plus and PCI-104 CPUs.

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

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 on page 43 for model numbers.

SPECIFICATIONS

Model	HESC-104	HESC-SER	HE104-DX	HE104+DX	HE-HP	HE104	V104
POWER							
Input voltage	6-40VDC	6-40VDC	6-40VDC	6-40VDC	6-40VDC	6-40VDC	8-30VDC
Max output power	60W	60W	60W	60W	100W	50W	25W
Max +3.3V output				10A			
Max +5V output	12A	12A	12A	12A	20A	10A	5A
Max +12V output	2.5A	2.5A	2.5A	2.5A	2.5A	2A	1A (opt)
Max -5V output	0.4A	0.4A	0.4A			0.4A (opt)	0.4A (opt)
Max -12V output	0.5A	0.5A	0.5A	0.5A		0.5A (opt)	0.16A (opt)
Max efficiency	95%	95%	95%	95%	95%	95%	85%
Soft start	10ms on +5V output	10ms on +5V output					
MECHANICAL							
Size	3.550" x 3.775"	3.550" x 3.775"	3.550" x 3.775"	3.550" x 3.775"	3.550" x 3.775"	3.550" x 3.775"	3.550" x 3.775"
Weight	6.6oz / 186g	7.3oz / 207g	6.1oz / 173g	6.1oz / 173g	6.1oz / 173g	6.3oz / 178g	5.0oz / 142g
Operating temp.	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	0 to 70°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					

