AEGIS Power Systems, Inc.

VICOR CUSTOM AEGIS POWER

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Hybrid Electric Vehicle Power Supply Part Numbering

Example: **M M M W W W W – V V – C A O (HEV 2400 - 01 – 123)**

M M M – Model Number: HEV (Industrial, FCC EMI Compliant), MEV (Military, MIL-STD-461 EMI Compliant).

W W W – Wattage Capablility: 600W, 1200W, 1800W, 2400W, and 3000W.

V V – Voltage Outputs: 01 (13.8VDC), 02 (12.8VDC), 03 (28.0VDC), 04 (24.0VDC), and 05 (48.0VDC).

C A O – CAN Bus/Analog Monitor, Alarm, and Option Selections: (CAN Bus, ISO11898 2.0B, 29 Bit Identifier.)

CAN Bus / Analog Monitoring Selections

0 – No Monitoring: No CAN Bus, No Output Trimming, No Analog Monitoring. No Options Installed.
1 – Can Bus Monitoring at 125Khz.
2 – Can Bus Monitoring at 250Khz.
3 – Can Bus Monitoring at 500Khz.
4 – Future Feature
5 – Can Bus Monitoring at 125Khz plus CAN Bus Output Voltage Trimming.
6 – Can Bus Monitoring at 250Khz plus CAN Bus Output Voltage Trimming.
7 – Can Bus Monitoring at 500Khz plus CAN Bus Output Voltage Trimming.
8 – Future Feature
9 – Analog Monitoring: Vin, Vout, Iin, Iout provided as analog voltages available at input connector.

Alarm Output Selections

0 – No Alarm Options Installed.
1 **– Hi Temp Alarm** (85ºC), (Provides pre-warning of Hi-Temp Shutdown.)
2 – **Power O.K.** (Verification that the Output is within voltage specification.)
3 – Hi Temp Alarm and Power O.K.
4 – **Hi Temp Shutdown Overide.** (Inhibits unit shut down at 90ºC, Shutdown will occur 100-115 ºC.)
5 – Hi Temp Alarm and Hi Temp Shutdown Overide.
6 – Power O.K. and Hi Temp Shutdown Overide.
7 – Hi Temp Alarm, Power O.K., and Hi Temp Shutdown Overide.

Option Selections (Three Options Available or combinations of three.)

0 – No Options Installed.
1 – **Cable Connected Signal** (+5V Signal indicating Power Input Cable is connected.)
2 – **Current Sharing** (Allows parallel connected supplies to share current.)
3 – Cable Connected and Current Sharing.
4 – **Output Inhibit** (Disables the power supply output remotely by user.)
5 – Cable Connected and Output Inhibit.
6 – Current Sharing and Output Inhibit.
7 – Cable Connected, Current Sharing, and Output Inhibit.

Note: Can Bus Monitoring includes all three Alarm Output Selections and the Output Inhibit Option Selection. These selections do not have to be included in the part number due to being included as standard with the CAN Bus. Current sharing and/or Cable Connected selections must be specified if required. They must be reflected in the part number, and the 6 pin input connector will be replaced with a 12 pin input connector.

Analog Monitoring includes Vin, Vout, Iin, Iout as scaled analog voltages at the 12 pin input connector. Alarm and Option Selections are not included as standard with the Analog Monitoring. They must be specified in the part number. Due to connector limitations any combination of four are available. More available as a custom product.

Example Part Numbers:

PART NUMBER: M M M W W W W – V V – C A O
Model, Wattage, Volts Out, Can Bus, Alarms, Options

NOTE: CanBus & Analog Monitoring CANNOT be provided together.
Choose between CAN Bus, Analog, or None, as a Monitoring choice.
Wattage is rounded up, refer to Spec Sheets for exact Wattage capability.

No Monitoring:

HEV1200-**01** Industrial Grade, 1200W, **13.8V Output**, No CAN Bus, No Options.

HEV1800-**02** Industrial Grade, 1800W, **12.8V Output**, No CAN Bus, No Options.

MEV2400-**03** Military Grade, 2400W, **28.0V Output**, No CAN Bus, No Options.

No Monitoring with Options:

MEV1200-**04**-**037** **M**ilitary, 1200W, **24.0V**,
(-0xx) No CAN Bus and No Analog Monitoring.
(-x3x) Hi Temp Alarm and Power O.K.
(-xx7) Cable Connect, Current Share, and Output Inhibit.

HEV1800-**02**-00**2** **I**ndustrial Grade, 1800W, **12.8V Output**, No CAN Bus, No Analog Monitoring, No Alarms.
Has Current Sharing Option Selected.

CAN Bus Monitoring:

HEV1200-01-**100** Industrial Grade, 1200W, 13.8V Output, **125Khz CAN Bus, No Additional Options.**

HEV1800-02-**600** Industrial Grade, 1800W, 12.8V Output, **250Khz CAN Bus with Output Trimming.**

HEV2400-04-**700** Industrial Grade, 1800W, 24.0V Output, **500Khz CAN Bus with Output Trimming.**

MEV3000-03-**302** Military Grade, 2400W, 28.0V Output, **500Khz CAN Bus and Current Sharing.**

Analog Monitoring:

HEV2400-**01**-**902** Industrial, 2400W, **13.8V**, **Analog Monitoring**, No Alarm Selection / Current Sharing.

HEV1800-**02**-**920** Industrial, 1800W, **12.8V**, **Analog Monitoring**, Power O.K. / No Option Selection.

HEV1200-**01**-**914** Industrial, 1200W, **13.8V**, **Analog Monitoring**, Hi Temp Alarm / Output Inhibit.

HEV1200-**01**-**922** Industrial, 1200W, **13.8V**, **Analog Monitoring**, Power O.K. Output / Current Sharing.

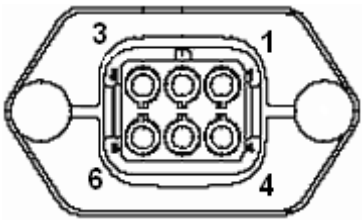
MEV1800-**04**-**935** Military, 1800W, **24.0V**, **Analog Monitoring**, Hi Temp, Power O.K, / Output Inhibit, Cable Detect.

HEV Power Supply Connector Information:

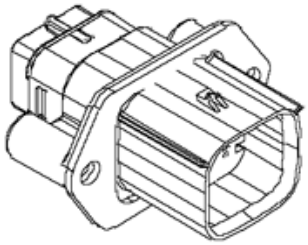
Rev A03 12/21/09

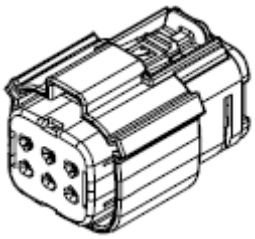
Pin-Out for Standard Series Power Supplies

6 Pin Molex Input Connector
(IP67) (Glass Filled PBT Housing)



Wiring Side (Internal)


Pin Side (External)


Customer Mate

Installed Molex Panel Mount Plug: P/N 019435-0611
Customer Mating Receptacle Connector, Molex P/N19418-0010

Input Connector Pin Out

1. **POS VDC IN**
2. **(CANBUS_Low)**
3. **RTN VDC IN**
4. **POS VDC IN**
5. **(CANBUS_High)**
6. **RTN VDC IN**

(Pins 2 and 5 used for CAN Bus or other Option.)

Single Blue Sea 3/8”-16 Threaded Stud
(IP67) (Reinforced Thermoplastic Housing)
(Tin-Plated Copper Alloy Studs)


Black P/N 2203


Red P/N 2204

Viewed from External Side of Cover

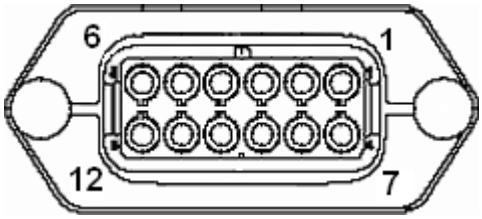
Output Stud Pin Out

Black Stud:
Negative (RTN)

Red Stud:
Positive (POS)

Pin-Out for HEV Series Power Supplies with Analog Monitoring or Options

12 Pin Molex Input Connector
(IP67) (Glass Filled PBT Housing)



Viewed from Wiring Side (Internal)

Installed Molex Panel Mount Plug: P/N 019435-1211
Customer Mating Receptacle: P/N19418-0027

Input Connector Pin Out

1. **POS VDC IN**
2. Analog Monitor Vout
3. Analog Monitor Vin
4. Analog Monitor Iout
5. Analog Monitor Iin
6. **RTN VDC IN**
7. **POS VDC IN**
8. Available for Option
9. Available for Option
10. Available for Option
11. Available for Option
12. **RTN VDC IN**

SUMMARY:

1. Liquid Cooled Supplies with NPT ¼"-18 threaded connections. (¼" Hose Barb Fittings installed).
2. **HEV** (Industrial, meets FCC-A EMI) or **MEV** (Military, meets MIL-STD-461 EMI).
3. Input Voltage: VDC Voltage Range from 250VDC to 425VDC.
4. Wattages Available: 1200, 1800, and 2400 standard. (Other wattages available.)
5. Supplies can be connected in parallel using the sharing option for greater current availability.
6. DC Output Voltages Currently Available: 12.8V, 13.8V, 24.0V, 28.0V, and 48V.
7. Output Safety: Over Current Limit, Over Temp Shutdown, Output Overvoltage Shutdown.
8. CAN Bus Monitoring:
    a. Analog Readings: Vin, Vout, Iin, & Iout
    b. Digital Status: High Temp Alarm (85ºC) & Power O.K.
    c. Digital Controls: Output Inhibit & Temp Shutdown (90ºC) Overide (Shutdown will occur 100-115 ºC).
9. CanBus Output Voltage Trimming capabilities:
    a. CAN Bus must be installed and this selection is added to it.
    b. Output voltage can be trimmed up, down, or combination of up and down.
    c. Trimming is in 8 steps of approximately 0.4V steps, an overall range of 3.2Volts.
10. Analog Monitoring: (No CanBus, Analog Monitoring and CanBus cannot be provided simultaneously.)
    a. Vin, Vout, Iin, and Iout individually available at Power Input Connector as scaled analog voltages.
    b. Any other options must be individually selected from the list below.
11. Other Options Available:
    a. Remote Inhibit – Allows end user to disable the power supply output remotely.
        1. Standard with the CanBus Monitor selection.
        2. Available separately as a discrete function at the input connector.
    b. Power O.K. Status – Output is monitored internally and will detect out of tolerance voltages.
        1. Standard with the CanBus Monitor selection.
        2. Available separately as a discrete function at the input connector.
    c. Temperature Alarm – Provides a signal when base plate temperature reaches 85ºC.
        1. Standard with the CanBus Monitor selection.
        2. Available separately as a discrete function at the input connector.
    d. Temperature Shutdown Overide – Overides the discrete 90ºC shutdown circuit.
        1. Standard with the CanBus Monitor selection.
        2. Available separately as a discrete function at the input connector.
        3. The inherent internal module temperature shutdown of 100-115ºC is still active.
    e. Current Sharing – Allows two power supplies to work in parallel for larger total wattage capability.
    f. Cable Detect – End user can detect if the input connector has been removed from the supply.