

# PoE Injector / DC to DC Converter

9-60Vdc input, 24, 48Vdc or 56VPoE Output

## Product Description

The VE PoE power injector series provides IEEE802.3af and IEEE802.3at compliant PoE outputs from a 12 or 24V dc source. The units include an integrated PoE injector to apply the output power to a CAT5 cable.

The output voltage is regulated 24, 48 or 48-56Vdc from an input voltage between 9 and 60Vdc. The units feature isolated inputs for connecting two power sources to allow for primary and back-up power.

For industrial applications, a metal enclosure is available. Please contact KBC for details.

The KBC-VE-DC/DC-1248HP and KBC-VE-DC/DC-2448HP accept Gigabit data to a shielded RJ45 output supplying power on the unused Ethernet pins 4,5(V+) and 7,8(V-)



## Product Features

- IEEE802.3af & IEEE802.3at compliant
- Integrated 10/100Mbps and 1000Mbps Gigabit PoE inserters
- Wide operating temperature range
- Short-circuit, over current & reverse/over voltage protection

## Part Numbers

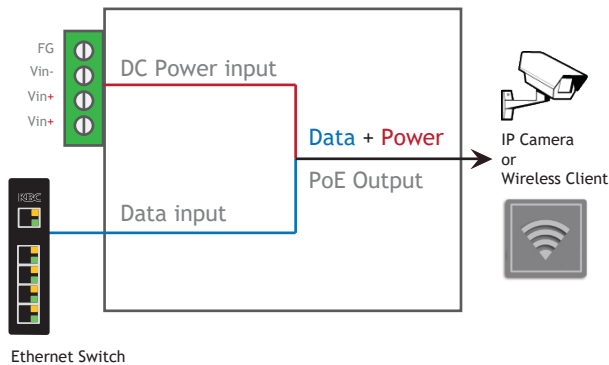
| Part Number           | Input (Vdc) | Output (Vdc)      | Description                                           |
|-----------------------|-------------|-------------------|-------------------------------------------------------|
| KBC-VE-DC/DC-24G      | 9-36        | 24                | 19W dc to dc converter / PoE inserter                 |
| KBC-VE-DC/DC-48M      | 9-36        | 48                | 24W dc to dc converter / PoE inserter with metal case |
| KBC-VE-DC/DC-1248HP   | 10-15       | 56 IEEE802.3af/at | 35W dc to dc converter / PoE inserter                 |
| KBC-VE-DC/DC-2448HP   | 18-36       | 56 IEEE802.3af/at | 35W dc to dc converter / PoE inserter                 |
| KBC-VE-DC/DC-1256P-70 | 10-60       | 56 IEEE802.3af/at | 70W dc to dc converter / PoE inserter                 |
| KBC-VE-DC/DC-2456P-70 | 18-36       | 56 IEEE802.3af/at | 70W dc to dc converter / PoE inserter                 |

## Specifications

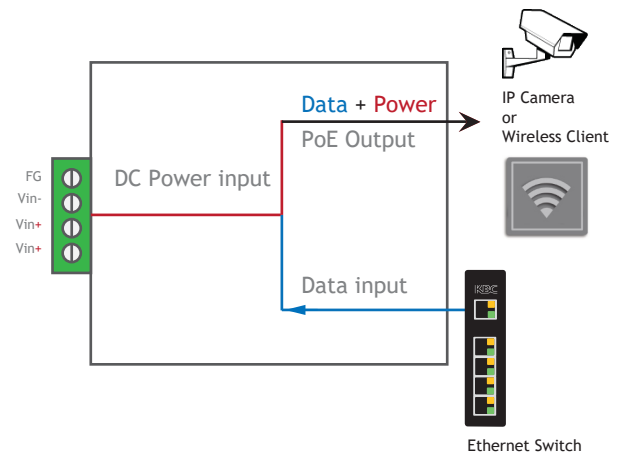
|                               | KBC-VE-DC/DC-24G                                              | KBC-VE-DC/DC-48M | KBC-VE-DC/DC-1248HP              | KBC-VE-DC/DC-2448HP         | KBC-VE-DC/DC-1256P-70W                 | KBC-VE-DC/DC-2456P-70W |
|-------------------------------|---------------------------------------------------------------|------------------|----------------------------------|-----------------------------|----------------------------------------|------------------------|
| Power                         |                                                               |                  |                                  |                             |                                        |                        |
| DC Voltage input (Vdc)        | 9-36                                                          |                  | 10-15                            | 18-36                       | 10-60                                  | 18-36                  |
| DC Voltage output (Vdc ±2.5%) | 24                                                            | 48 compliant     | 56 IEEE802.3af/at compliant      | 56 IEEE802.3af/at compliant |                                        |                        |
| Output current/power (max)    | 0.8A/19W                                                      | 0.5A/24W         | 0.625A/35W                       | 0.625A/35W                  | 0.624A/35W per PoE channel = 70W Total |                        |
| Data                          |                                                               |                  |                                  |                             |                                        |                        |
| Transfer rate                 | 10/100Mbps                                                    |                  | 10/100/1000Mbps                  |                             |                                        |                        |
| Environmental                 |                                                               |                  |                                  |                             |                                        |                        |
| Operating Temperature         | -30°C ~ +60°C / -22°F ~ +140°F                                |                  |                                  |                             |                                        |                        |
| Humidity                      | 5% ~ 90% RH                                                   |                  |                                  |                             |                                        |                        |
| Storage Temperature           | -40°C ~ +80°C / -40°F ~ +176°F                                |                  |                                  |                             |                                        |                        |
| Efficiency (min)              | 75% minimum                                                   |                  |                                  |                             |                                        |                        |
| Self consumption power        | 1w                                                            |                  |                                  |                             | 2w                                     |                        |
| Line/Load regulation          | 1% / 5%                                                       |                  |                                  |                             |                                        |                        |
| Ripple/Noise                  | 1%                                                            |                  |                                  |                             |                                        |                        |
| EMC Safety Standards          | FCC Class B, NE55022 Class B / UL 1950, CSA22.2 & TUV EN60950 |                  |                                  |                             |                                        |                        |
| Mechanical                    |                                                               |                  |                                  |                             |                                        |                        |
| Dimensions (L x W x H)        | 85 x 76 x 36mm / 3.4 x 3 x 1.4"                               |                  | 125 x 75 x 38mm / 4.9 x 3 x 1.5" |                             |                                        |                        |
| Weight                        | 134g / 4.7oz                                                  |                  | 300g / 10.6oz                    |                             |                                        |                        |
| Connectors                    |                                                               |                  |                                  |                             |                                        |                        |
| Dc Input                      | Removable screw terminal, 12AWG max                           |                  |                                  |                             |                                        |                        |
| Data in & data / PoE out      | Shielded RJ45                                                 |                  |                                  |                             |                                        |                        |

## PoE Diagrams

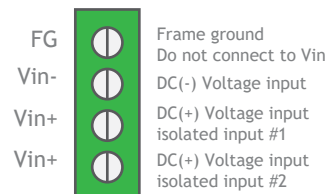
KBC-VE-DC/DC-24G & KBC-VE-DC/DC-48M



KBC-VE-DC/DC-1248HP & KBC-VE-DC/DC-2448HP  
KBC-VE-DC/DC-1256P-70 & KBC-VE-DC/DC-2456P-70



## DC Input Connector



Peak sun hours map and table courtesy of Vorp Energy

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