

PEQ-S Series 50W/100W/125W Quarter Brick Single Output DC/DC Converter

Features

- Industry standard footprint:
2.28"x1.45"x0.37"(57.9 x 36.8 x 9.3mm³)
- Typical efficiency: 90%
- 2:1 wide input voltage range:
36-75V,18-75V(for 12Vout)
- Single output:
1.2V,1.5V,1.8V,2.5V,3.3V,5V,12V
- Remote control ;Trim and sense function(not commended for 12Vout)
- Input under-voltage shutdown
- Output over-current ,over-voltage, short-circuit protection
- Over-temperature protection
- No minimum load requirement

Environmental

- Operating ambient temperature range:
-40°C to 55°C
- Operating board temperature range:
-40°C to 100°C
- Storage temperature range:
-55°C to 125°C
- Over-temperature protection:
>120°C typical
- Temperature coefficient:
<±0.02%/°C
- MTBF:
>2 million hrs

Electrical Specifications

Input

| | |
|-------------------------------|---------------------------|
| Input range: | 36-75V;18-75V(for 12Vout) |
| Input under-voltage shutdown: | 32-34V;16-18V(for 12Vout) |

Output

| | |
|----------------------------|--|
| Voltage setpoint accuracy: | ±1.0%(±2.0%for 12V)Vo max |
| Voltage adjust: | 90% to 110%Vo |
| Line regulation: | 5mV max |
| Load regulation: | 15mV(0.5%Vo for 12V)max |
| Over-current protection: | >110%Io, auto-recovery (or latch off) |
| Over-voltage protection: | >110%Vo, latch off (or auto-recovery) |
| Short-circuit protection: | Continuous, auto-recovery (or latch off) |
| Ripple and noise: | <100mVpp max (<150mVpp for 12Vout) |
| Transient response: | 200mV max 300mV max(for12Vout) recovery<250us max (25%~50%~25% Iomax) |

di/dt: 1A/10uS

Control

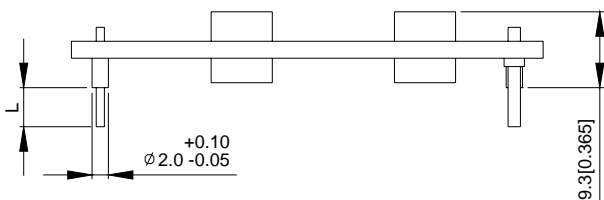
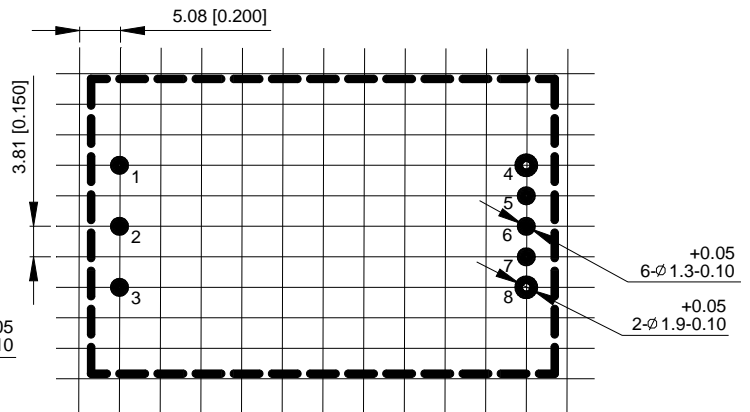
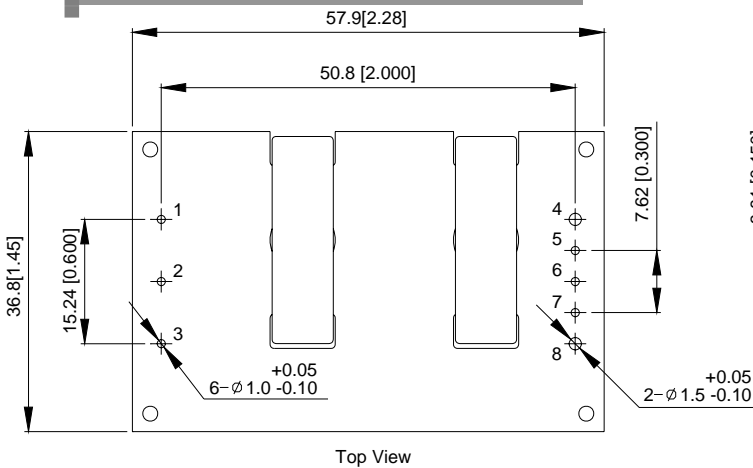
| | |
|-------------------|----------------|
| Control voltage: | |
| Positive logic | |
| High =on | 3.5 to 10Vdc |
| Low=off | -0.7 to 1.5Vdc |
| Negative logic | |
| Low =on | -0.7 to 1.5Vdc |
| High=off | 3.5 to 10Vdc |
| Control current:: | 2mA max |



Ordering Information

| Input Voltage | Output Voltage | Output Current | Efficiency | Model Number |
|---------------|----------------|----------------|------------|-----------------|
| 48V | 1.2V | 30A | 85% | PEQ50-48S1V2-6 |
| 48V | 1.5V | 30A | 87% | PEQ50-48S1V5-6 |
| 48V | 1.8V | 30A | 88% | PEQ50-48S1V8-6 |
| 48V | 3.3V | 10A | 90% | PEQ50-48S3V3-6 |
| 48V | 5V | 10A | 92% | PEQ50-48S05-6 |
| 48V | 2.5V | 25A | 89% | PEQ100-48S2V5-6 |
| 48V | 3.3V | 25A | 90% | PEQ100-48S3V3-6 |
| 48V | 5V | 20A | 92% | PEQ100-48S05-6 |
| 48V | 12V | 8.3A | 89% | PEQ100-48S12-6 |
| 48V | 5V | 25A | 90% | PEQ125-48S05-6 |

Dimensions



TOLERANCES: X.Xmm=+/-0.5mm
X.XXmm=+/-0.25mm

Unit:mm[inch]

Pin Assignments

| | | | |
|---|--------|-------------|------|
| 1 | +Vin | | |
| 2 | CNT | | |
| 3 | -Vin | Pin Length: | |
| 4 | +Vo | 4.8mm | -4 |
| 5 | +Sense | 3.8mm | -6 |
| 6 | Trim | 2.8mm | -8 |
| 7 | -Sense | 5.8mm | None |
| 8 | -Vo | | |

Note: No pin5, pin6, pin7 for PEQ100 48S12, output between pin4(Vout+) and pin8(Vout-)