

PAQ Series

Quarter Brick
DC-DC Converters

- Low Voltage Outputs (1.2-5.0V)
- High Power Density up to 90.4W/in³
- Industry Standard Footprint & Pinouts
- Safety Agency Approvals (UL1950, CSA22.2, CE, TUV)
- Constant Current Limit (Auto Restarting)
- Remote On / Off (Positive/Negative Logic Available)
- ASIC Design to Reduce Component Count

Key Market Segments & Applications

| | |
|---------------------|---|
| Central Office: | ATM, Sonet, DSL, ISDN, Frame Relay, WDM |
| Broadband: | Switching Equipment, Routers |
| Wireless/Cellular: | Micro Cells (larger in size/10 sq. mi.) Pico Cells (smaller in size/1 to 2 sq. mi.) |
| Remote Electronics: | Fixed Local Loop, Fiber Optic Transmission, Microwave Transmission, Wireless Local Loop |
| Customer Premise: | PBX, PABX, Datacomm, Voice Systems, Video Conferencing |
| Industrial: | ATE Test Equipment & Semi-Fab |

PAQ Features and Benefits

Features

- Industry Standard footprint/pinout
- ASIC Design
- Wide Range Operating Temperature (-40 to 100°C)
- High Efficiency at 3.3V, 88% (PAQ50), 89% (PAQ100)

Benefits

- Allows for multi-sourcing
- Reduces number of components
- Supports Harsh Wireless Operating Environment
- Reduce footprint area/Operation without heatsink

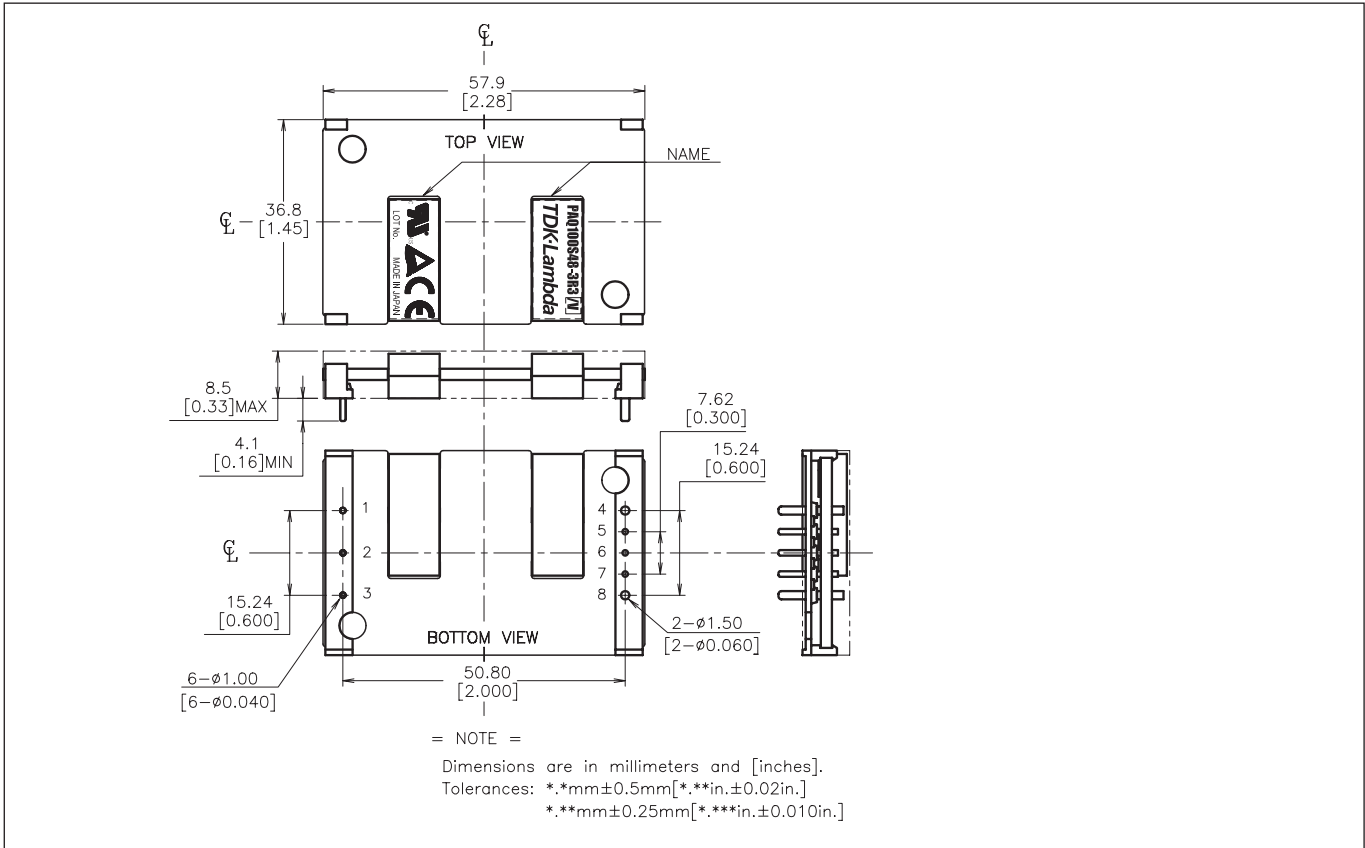
Specifications

| ITEMS | MODEL | PAQ50S48-1R2 | PAQ50S48-1R8 | PAQ50S48-2R5 | PAQ50S48-3R3 | PAQ50S48-5 |
|-------------------------|--------|---|---------------|---------------|---------------|-------------|
| | | PAQ100S48-1R2 | PAQ100S48-1R8 | PAQ100S48-2R5 | PAQ100S48-3R3 | PAQ100S48-5 |
| Nominal Output Voltage | V | 1.2 | 1.8 | 2.5 | 3.3 | 5 |
| Max Output Current | A | 12 / 25 | 12 / 25 | 12 / 25 | 12 / 25 | 10 / 20 |
| Max Output Power | W | 14.4 / 30 | 21.6 / 45 | 30 / 62.5 | 39.6 / 82.5 | 50 / 100 |
| Efficiency (Typ.) | (1) % | 78 / 80 | 83 / 84 | 85 / 86 | 88 / 89 | 90 |
| Input Voltage Range | - | 36-76 VDC | | | | |
| Input Current (Typ.) | (1) A | 0.39 / 0.8 | 0.56 / 1.14 | 0.75 / 1.55 | 0.96 / 1.98 | 1.18 / 2.37 |
| Output Voltage Accuracy | (1) % | ± 1% | | | | |
| Output Voltage Range | (6) - | -20%, +10% | | | ±15% | |
| Max Ripple & Noise | (6) mV | 100 | | | | |
| Max Line Regulation | (2) mV | 10 | | | | |
| Max Load Regulation | (3) mV | 10 | | | | |
| Over Current Protection | - | PAQ50: 105-150%; PAQ100 105-140%; (self-Recovering /V option) | | | | |
| Over Voltage Protection | (4) - | 120% - 140% (Self-Recovering /V option) | | | | |
| Remote ON/OFF Control | - | Low=On, Open =Off (/P option: Low=Off, Open=On) | | | | |
| Operating Temperature | (5) °C | Ta=-40 to +85° (100°C /B Option PAQ100 only) | | | | |
| Cooling | (5) - | Convection Cooled / Forced Air Cooled | | | | |
| Isolation Voltage | - | Input-Output: 1.5kVDC for 1 min. | | | | |
| Shock | - | 196.1m/s ² | | | | |
| Weight | g | 50 | | | | |
| Vibration | - | Non Operating, 10-55Hz (Sweep for 1 min.) Amplitude 0.825mm Constant (Maximum 49.0n/s ²) X, Y, Z 1 hour each | | | | |
| Size (W x H x D) | in | 1.45" x .33" x 2.3"; 0.5" height (/B option PAQ100 only) | | | | |
| Warranty | - | 2 Years | | | | |

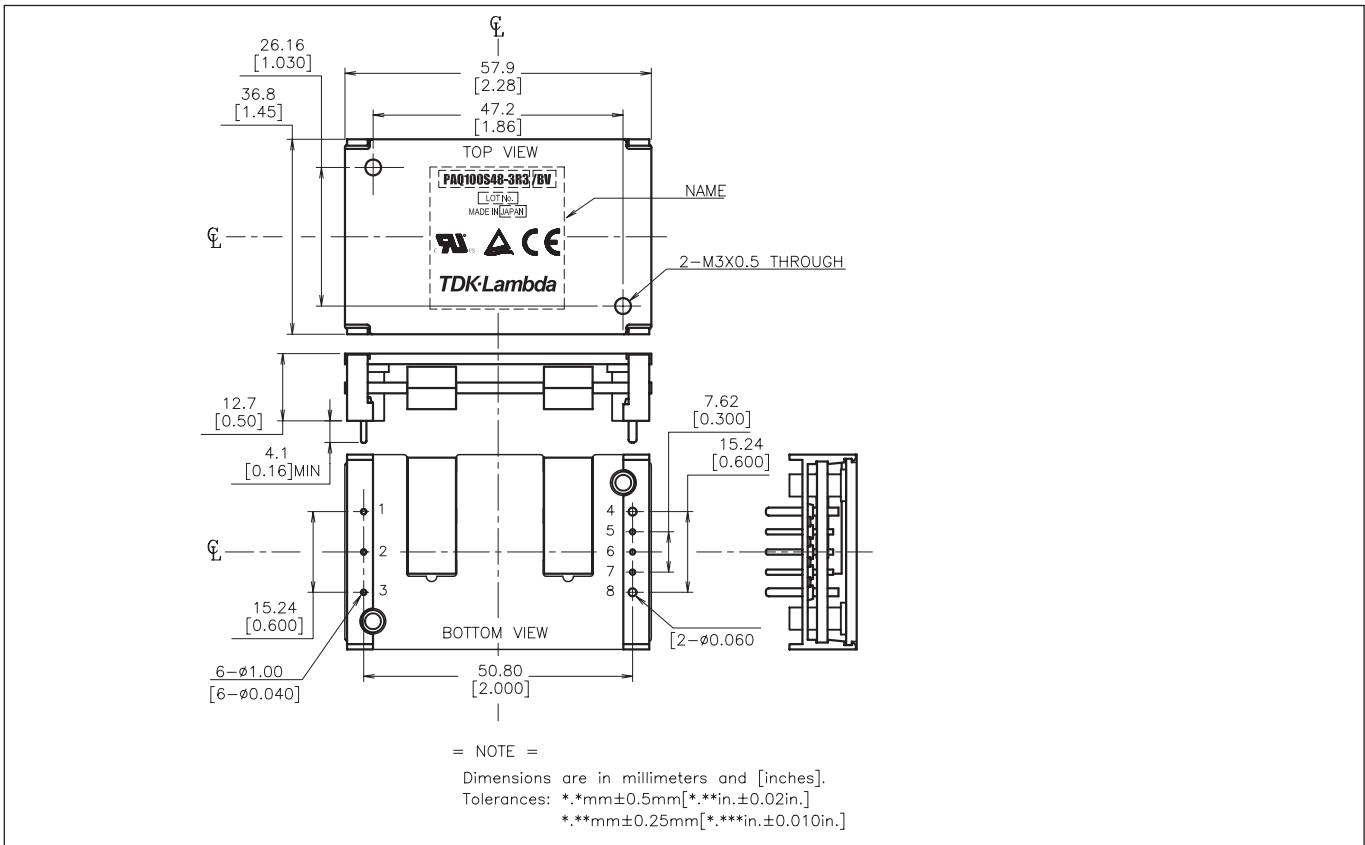
Notes:

1. At 48VDC, maximum output current, Air Velocity = 2m/s and Ta = +25°C.
2. 36 - 76VDC, constant load.
3. No load - Full load, constant input voltage.
4. Inverter shutdown method, manual reset. Auto restart option available.
5. Refer to installation manual (website).
6. External components are needed for operation.

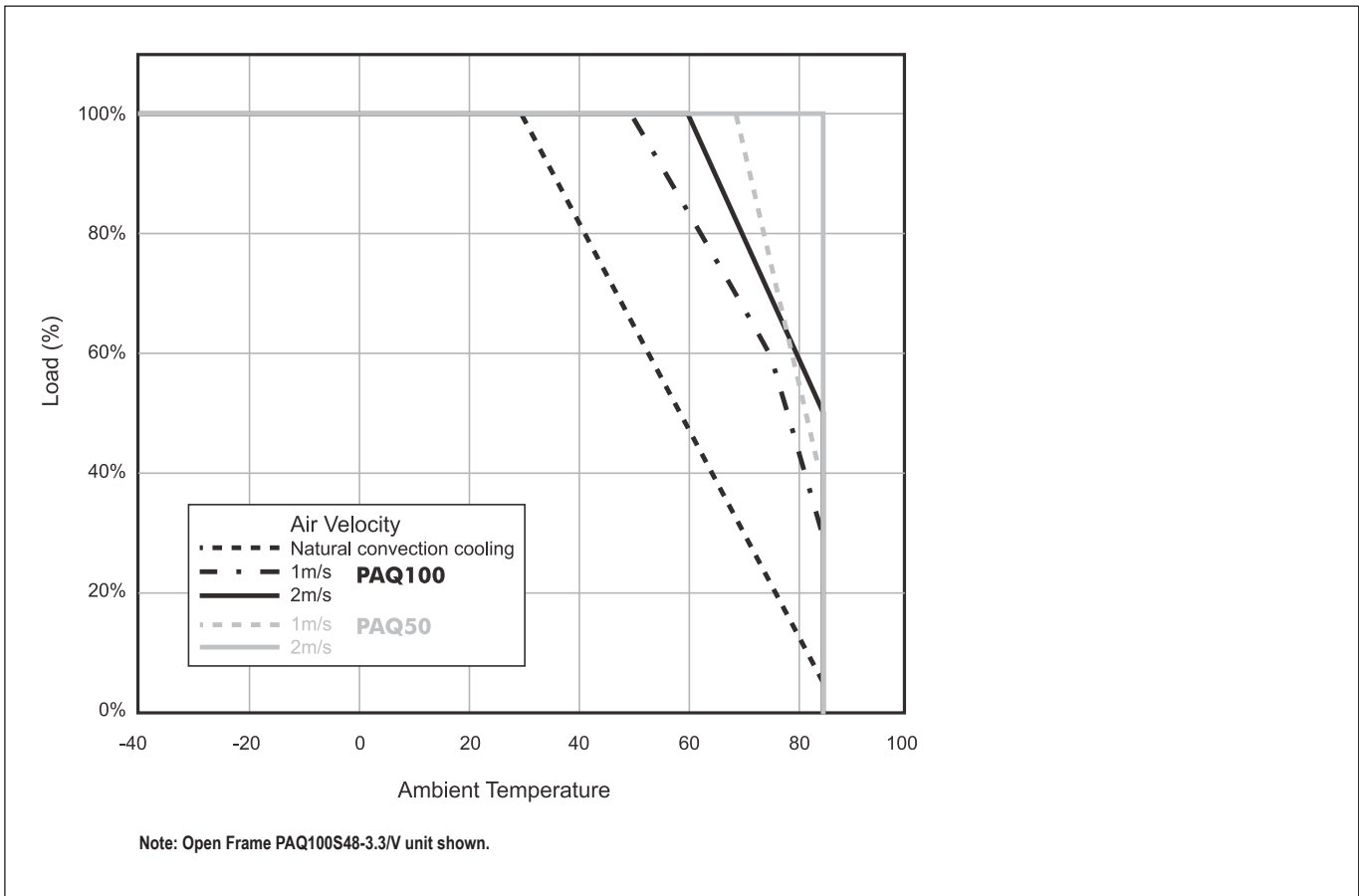
Openframe Drawing PAQ50/100



Baseplate Drawing PAQ100



Derating Curve PAQ



| Series Output PAQ | | |
|-------------------|-------|------------------------------------|
| PIN# | Label | Function |
| 1 | -Vin | Negative Input Terminal |
| 2 | CNT | ON/OFF Control Terminal |
| 3 | +Vin | Positive Input Terminal |
| 4 | -V | Negative Output Terminal |
| 5 | -S | Negative Remote Sensing |
| 6 | TRM | Output Voltage Adjustment Terminal |
| 7 | +S | Positive Remote Sensing |
| 8 | +V | Positive Output Terminal |

| Series Options PAQ | |
|--------------------|--|
| Suffix | Description |
| Blank | Manual Reset after OVP or OCP condition |
| /V | Auto Reset after OVP or OCP condition |
| /P | Positive Logic Remote On/Off |
| /B | Baseplate version |
| /C | Additional 1.5mm height clearance from PCB |

/V, /PV, /BV, /BPV are preferred items.

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