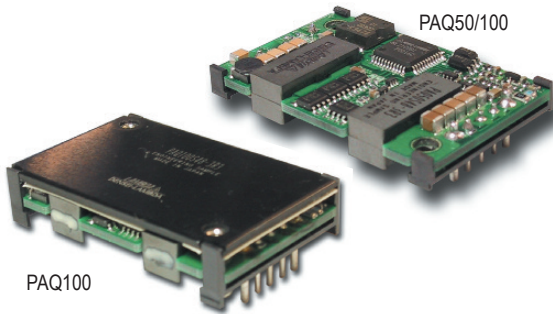




**THE DATASHEET OF  
PAQ50S481R8**





## PAQ Series

Quarter Brick  
DC-DC Converters

- Low Voltage Outputs (1.2-5.0V)
- High Power Density up to 90.4W/in<sup>3</sup>
- 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

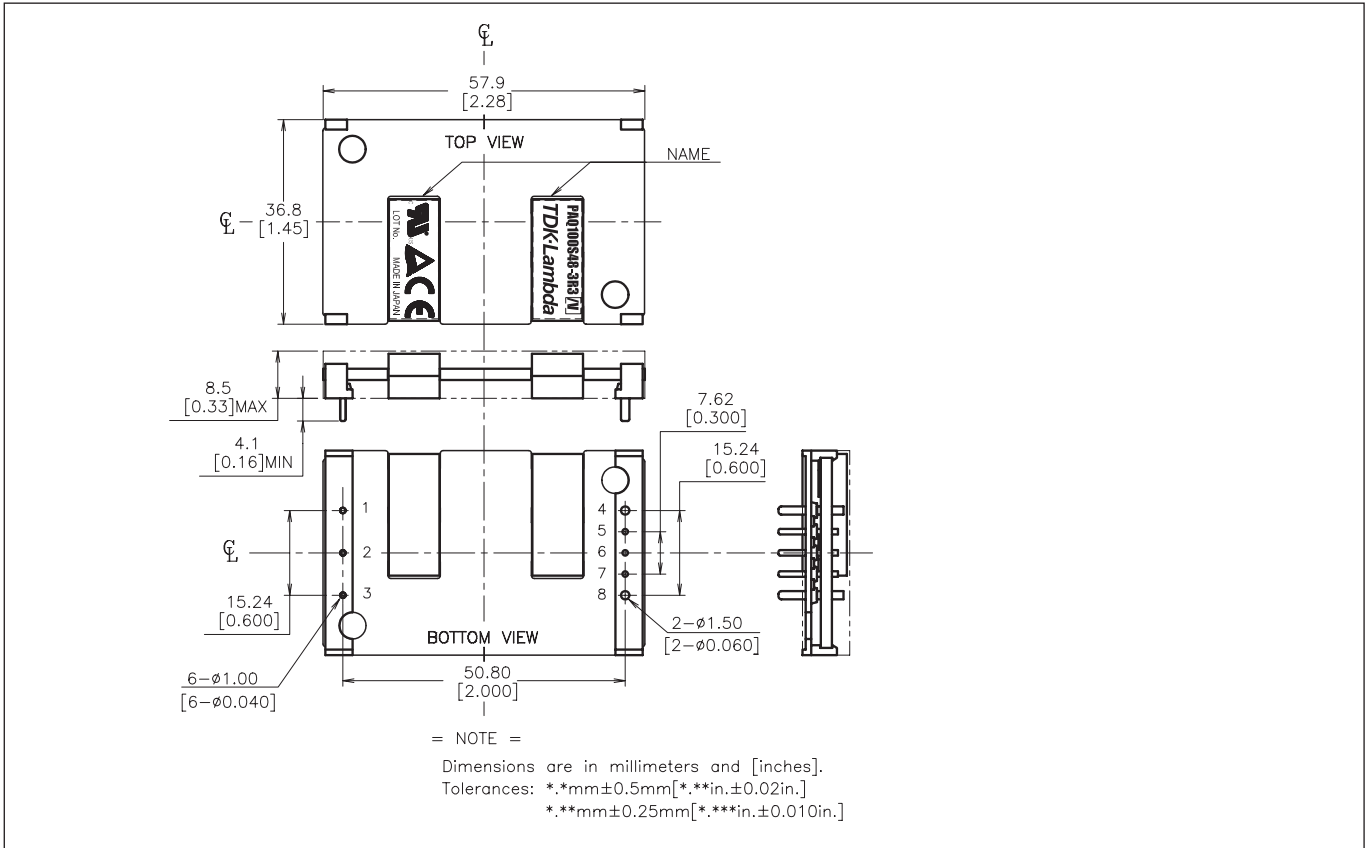
### Specifications

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 <sup>2</sup>				
Weight		g	50				
Vibration		-	Non Operating, 10-55Hz (Sweep for 1 min.) Amplitude 0.825mm Constant (Maximum 49.0n/s <sup>2</sup> ) 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				

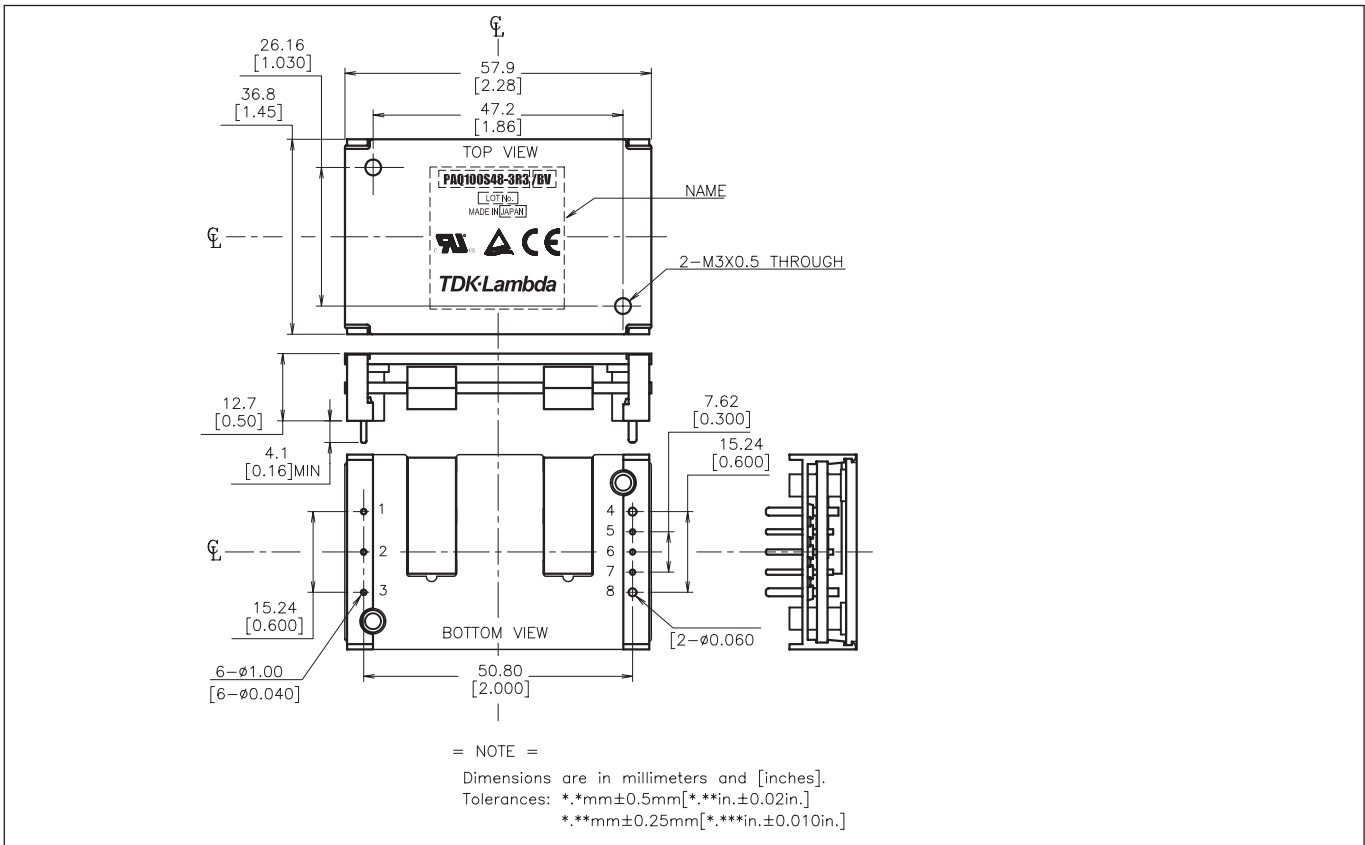
#### Notes:

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.

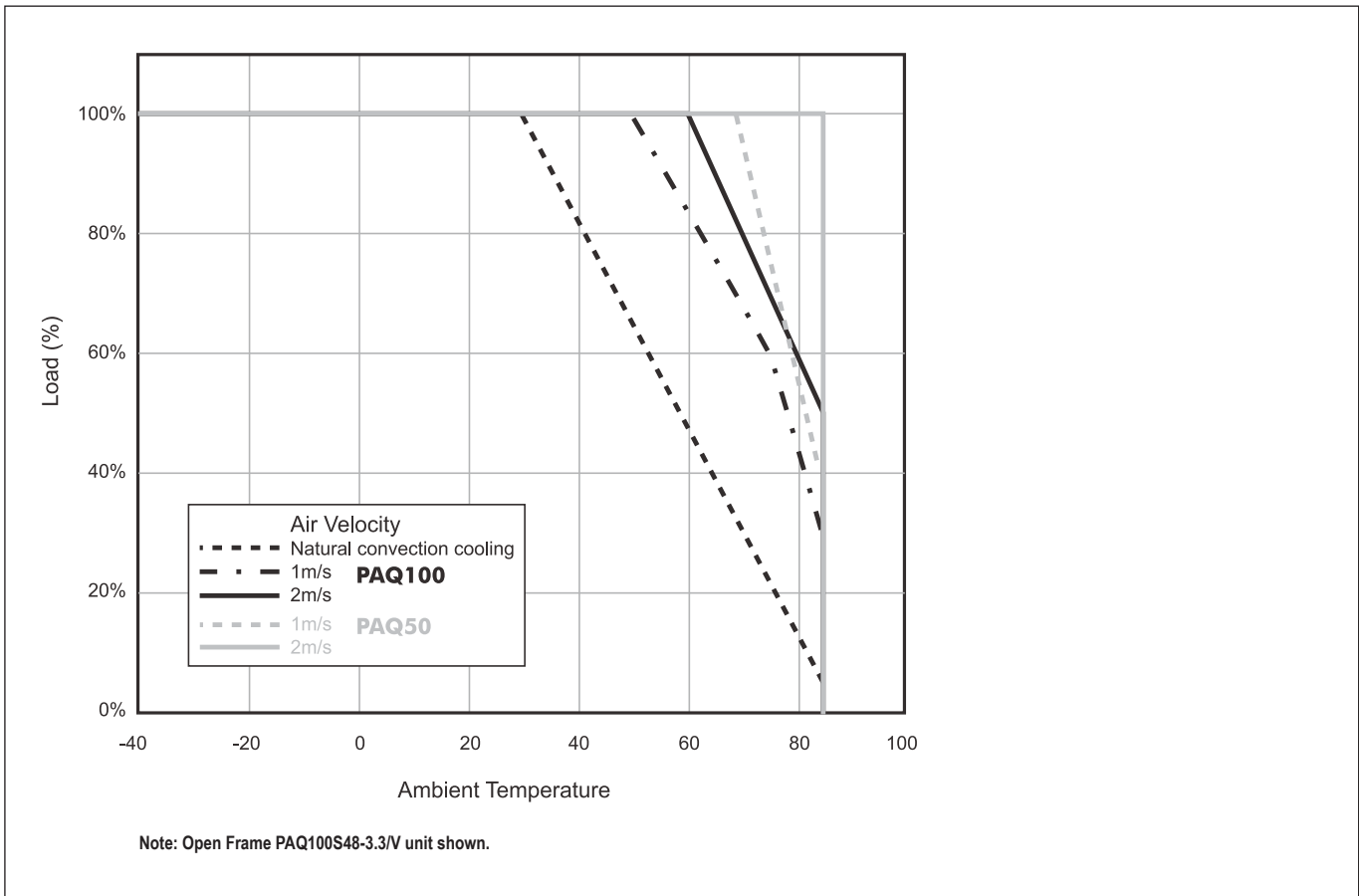
Openframe Drawing PAQ50/100



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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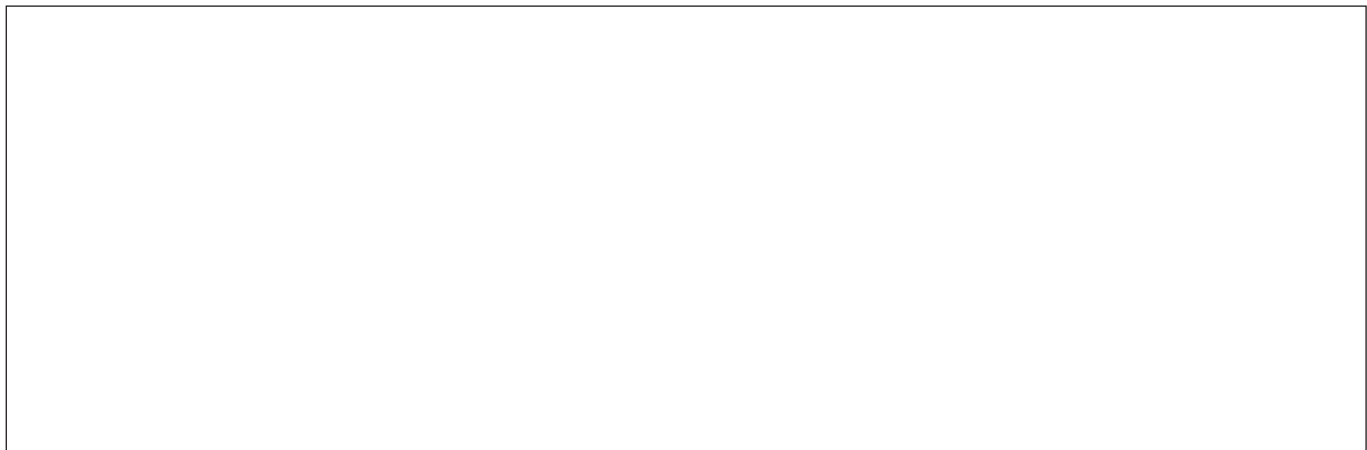
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