

# DPQ180E-325 | GAP Power Supply

180W Quasi-Square-Wave Power Supply

MODEL: DPQ180E-325 | CATEGORY: AC-DC | RATED POWER: 180W | FORM: Customized

## PRODUCT OVERVIEW



### Key Product Features

- 180W high performance power supply
- Wide Input Range 40 - 90 Vac
- Output Voltage 5.75V, 12V, 25V
- High Efficiency 90%
- Over-temperature protection
- Over-voltage / under-voltage protection
- Over-current and short-circuit protection
- Reverse-polarity protection
- Auto-restart safety behavior
- IP67 fully sealed enclosure

## PRODUCT DESCRIPTION

The DPQ180E-325 is a wide-range Quasi-Square-Wave power converter with a 40Vac to 90Vac input range and three regulated output voltages: 25Vdc, 12Vdc, and 5.75Vdc.

The converter delivers high-efficiency performance for cable and telecommunication applications. It supports a -40C to 85C baseplate temperature range and is protected against over-temperature, over-voltage, under-voltage, over-current, short-circuit, and reverse-polarity fault conditions.

All safety features support Auto Restart. The DPQ180E-325 meets rigorous standards suitable for harsh operating conditions and complies with GAP ANSI/SCTE 273-1 American National Standard.

### Applications

- 📁 Telecommunications: DOCSIS, PON, and wireless networks  
Cable TV / Broadband infrastructure
- 📁 Edge computing and localized processing systems  
GAP-compliant broadband node housings
- 📁 Harsh-environment network power platforms

## ELECTRICAL SPECIFICATIONS

### Input and Output Specifications

Parameter	Specification	Notes
Input Voltage	40-90 Vrms	Supports quasi-squarewave AC input
Output Voltages	Option A: +5.75V, +12V, +25V Option B: +5.75V, +25V	Preferred option Minimum option
Maximum Output Power	180W	
Efficiency	Typical: 90% at >75W load Minimum: 85% under standard conditions	
Ride-Through Time	200ms (preferred)	80ms (minimum)

### Environmental & Mechanical

Parameter	Specification
Operating Temperature	-40°C to +85°C baseplate.
Maximum Operating Temperature	-40°C to +90°C baseplate (without permanent damage).
Operating Humidity	5% to 95% non-condensing.
Operating Altitude	Up to 4000m above mean sea level (AMSL).
Operational Shock	63g RMS, half-sine wave shock pulse, 2ms duration, 6 pulses total.
Non-Operational Vibration	7Hz to 30Hz swept sine-wave, 5mm excursion, 30 minutes total duration.
Non-Operational Thermal Shock	Three cycles: -40°C to +60°C transition in less than 1 minute, 60-minute soaks at each temperature.
Operational Vibration	6.3g RMS, 5-2000 Hz, 1.5 hours per axis.

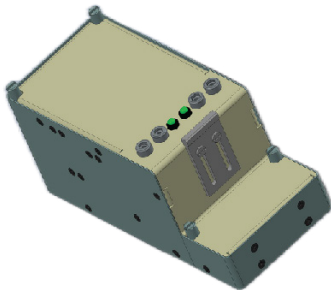
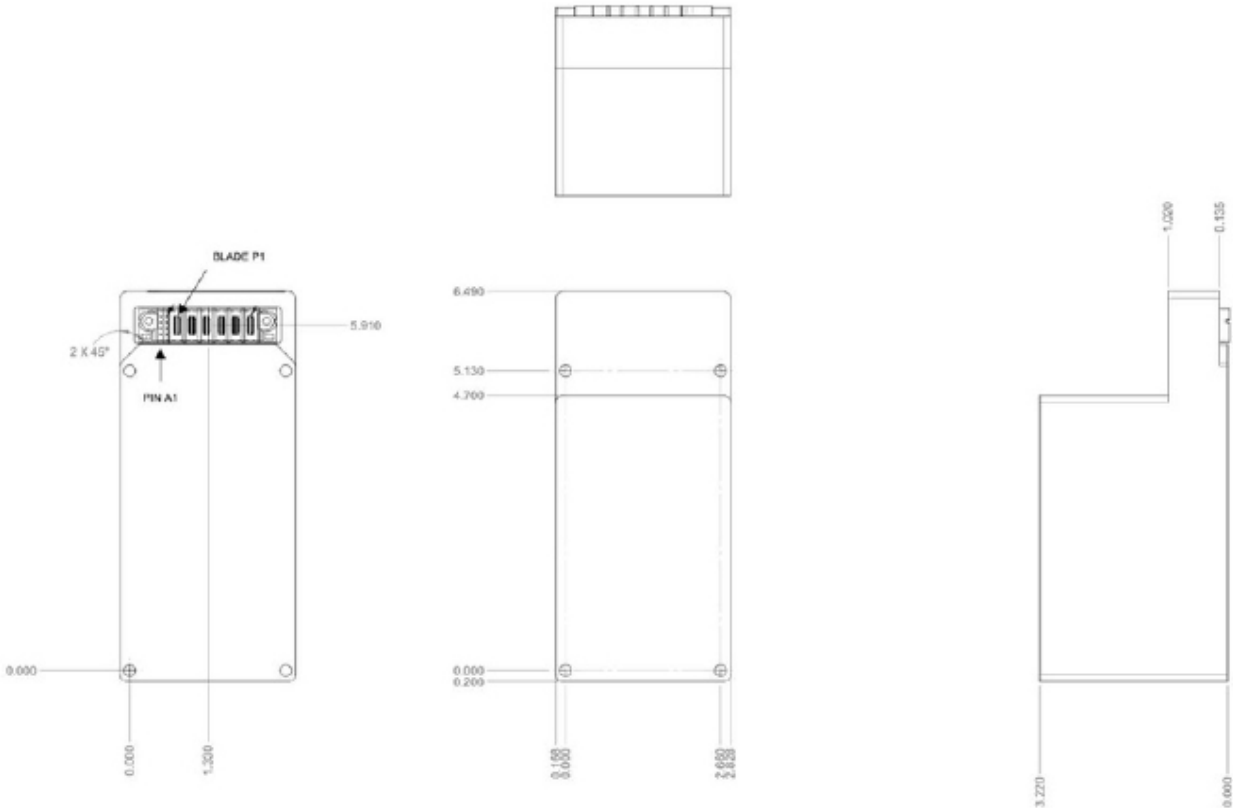
### Compliance and Safety

Standard/Regulation	Compliance Details
Electromagnetic Compatibility	CISPR Class B with a 3dB margin for radiated and conducted emissions.
Electrostatic Discharge (ESD)	IEC61000-4-2 Level 4, Performance Criteria A.
Radiated Susceptibility	IEC61000-4-3, Level 3.
Electrical Fast Transient	IEC61000-4-4, Common Mode.
Surge Immunity	IEC61000-4-5, 6kV.
Conducted RF Immunity	IEC61000-4-6, Level 3.
Safety Compliance	IEC60950-1, EN60950-1, UL60950-1, UL/CSA/IEC 62368-1.
RoHS Compliance	Compliant with RoHS Directive 2015/863.
Material Compliance	Compliant with Waste Framework Directive 2018/851 and EU REACH Directive.
WEEE Compliance	Compliant with WEEE Directive 2012/19/EU.
Conflict Minerals Regulation	Compliant with Conflict Minerals Regulation EU 2017/821.

For quotes and customization requests, contact Digital Power sales at (877) 634-0982 or sales@digipwr.com.

# MECHANICAL SPECIFICATIONS

## Environmental & Mechanical



DPQ180E-325 is typically operating in a still air environment where all cooling is via conduction through the baseplate only inside a GAP-compliant node housing. Internally the supply should use thermally conductive pads to provide good heatsinking of components to the power supply enclosure while externally the power supply enclosure also makes contact with the node housing via a thermal pad.

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