

TPSi1075 *PC/104-Plus* Power Solution

Isolated 75W DC/DC Power Converter

Overview

Tri-M's TPSi1075 is an isolated *PC/104-Plus* power solution, designed for embedded applications requiring isolation and clean power in rugged environments.



With wide-range input voltages, transient suppression, galvanic isolation, and quick-disconnect terminal mating plugs, this rugged design is ideal for any industrial application.

Designed for harsh environments, including military standards, shock, vibration and extended temperature, the TPSi1075 is well suited for transportation, defence, and aerospace industries. For reliable protection and high performance, the TPSi1075 is the perfect solution for isolated DC power.

Key Specifications

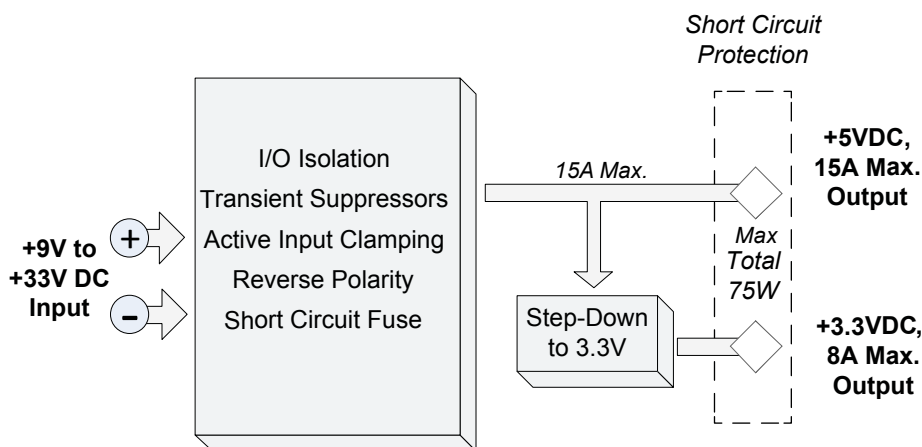
- **Enhanced Protection**
2250V Input/Output Isolation
6000W Transient Suppression
Active Input Voltage Clamping
Reverse Polarity, Short Circuit
- **Wide Input Voltages**
Ranges from +9V to +33V DC
- **Standard Outputs**
+3.3V@8A Max. & +5V@15A Max.
75W Combined Total
- **High Performance**
Up to 94% Efficiency
- **Extended Temperature**
-40°C to +85°C / -40°F to +185°F

Applications

- Military & Civil Vehicles
- Aerospace & Defence
- Industrial Automation
- Telecommunications
- Undersea & Marine

Advantages

- **Rugged Design**
Designed to Meet MIL Standards
- **Galvanic Isolation**
Reliable System Protection
- **Simple Installation**
Terminal Socket Mating Plugs
- **Space-Efficient Solution**
High Density *PC/104-Plus* Module
- **Low Cost of Ownership**
Cost-Effective Power Solution



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TRI-M

TECHNOLOGIES

Specifications

Electrical

Input Voltage Range	+9V to +33V DC
+3.3V Output	8A Max.
+5V Output	15A Max.
Maximum Combined Power	75W Total*
Efficiency	Up to 94%*
Isolation Voltage	2250V Max.
Output Ripple/Noise**	80mVp-p to 125mVp-p
Line Regulation**	±0.25% Max.
Load Regulation**	±0.125% Max.
Switching Frequency**	215kHz to 250kHz
Current Limiting Fuse	Onboard 15A
Quiescent current	48ma (LEDs & Outputs Off)

Mechanical

Dimensions	PC/104 compliant, 90mm x 96mm x 15mm (3.55" x 3.775" x 0.6")
Weight	83.4g (2.94oz)

Environment

Operating Temperature*	-40°C to +85°C (-40°F to 185°F)
Thermal Protection/Shutdown	+120°C (248°F)

Certifications



Manufactured in
ISO 9001:2008,
ISO 14001:2004 &
ANSI/ESD S20.20
Environments

* Maximum power may be derated due to temperature which effects the efficiency. Please see the Technical Notes section of the User Guide for more on efficiency and temperature derating.

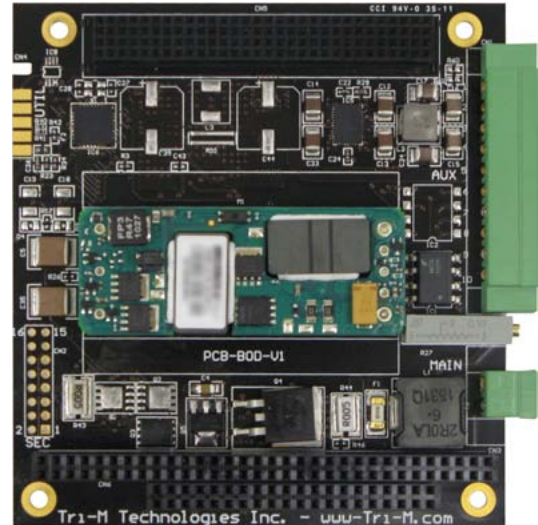
** 5V Output

MODELS

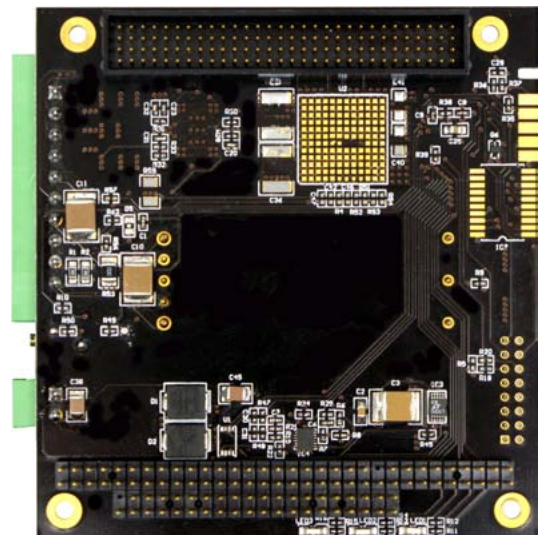
TPSi1075	+3.3V,+5V, Combined Total 75W
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OPTIONS

Conformal Coating
Non-Stackthrough



Top View



Bottom View



Note

For detailed dimension, connector, and pin spacing information, please see the [User Guide](#)

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