

ATQ150 SERIES 9-75VDC INPUT / 150W OUTPUT (8:1 ISOLATED DC-DC CONVERTER)



RAILWAY



BOAT



DATAKOM



IPC



TELECOM



INDUSTRY



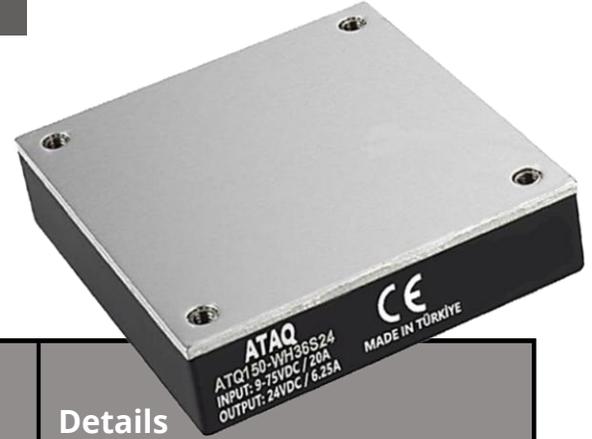
AUTOMATION



MEASUREMENT



AUTOMOBILE



"Achieve Total Assurance and Quality in Power."

FEATURES TABLE

| Feature | Specification | Details |
|---|--|---|
| Ultra-Wide Input Voltage: Input Surge Voltage: Efficiency: Switching Frequency: Output Regulation: Remote On/Off: Protection: Isolation Voltage: Operating Case Temp.: Safety Approval: EMI: | 9 – 75 VDC 100VDC@100ms max. Up to 90% Fixed, 200kHz Regulated Outputs Yes Fully (OTP/OCV/OVP/UVLO) 1500VDC I/O Isolation -40°C to +100°C UL60950-1 (2nd Edition) Meets EN55032 (Class A) (with external filter) | <ul style="list-style-type: none"> <input type="checkbox"/> Over-Temperature, Over-Current, Short-Circuit, Over-Voltage, Under-Voltage Lockout protection. <input type="checkbox"/> Turned-off by the ON/OFF input. <input type="checkbox"/> Output voltage trim range of $\pm 10\%$. <input type="checkbox"/> Remote sense for the output voltage. <input type="checkbox"/> Complies with safety standards for reliable operation. <input type="checkbox"/> <u>Half Brick Size</u> : 2.40" L x 2.28" W x 0.50" H (61.0mm L x 57.9mm W x 12.7mm H) |

| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | | INPUT CURRENT | | % EFF. | CAPACITOR LOAD MAX. |
|----------------|---------------|----------------|----------------|---------|---------------|-----------|---------------------|-----------------------------|
| | | | MIN. | MAX. | NO LOAD | FULL LOAD | | |
| ATQ150-WH36S24 | 9-75 VDC | 24 VDC | 0 mA | 6.25 A | 60 mA | 4.66 A | 89.1 ⁽¹⁾ | 2000 μ F ⁽²⁾ |
| ATQ150-WH36S28 | 9-75 VDC | 28 VDC | 0 mA | 5.35 A | 60 mA | 4.63 A | 89.5 ⁽¹⁾ | 1500 μ F ⁽²⁾ |
| ATQ150-WH36S12 | 9-75 VDC | 12 VDC | 0 mA | 12.50 A | 60 mA | 4.66 A | 89.5 ⁽¹⁾ | 5000 μ F ⁽²⁾ |
| ATQ150-WH36S15 | 9-75 VDC | 15 VDC | 0 mA | 10.00 A | 60 mA | 4.63 A | 90 ⁽¹⁾ | 5000 μ F ⁽²⁾ |
| ATQ150-WH36S48 | 9-75 VDC | 48 VDC | 0 mA | 3.13 A | 60 mA | 4.63 A | 90 ⁽¹⁾ | 1000 μ F ⁽²⁾ |
| ATQ150-WH36S51 | 9-75 VDC | 51 VDC | 0 mA | 2.94 A | 60 mA | 4.63 A | 90 ⁽¹⁾ | 1000 μ F ⁽²⁾ |

(1) The output terminal of 24Vout/ 28Vout models required a minimum capacitor 100uF to maintain specified regulation

(2) The input external capacitor recommends to parallel with 330uF ESR<0.5 Ω to reduce the input ripple voltage

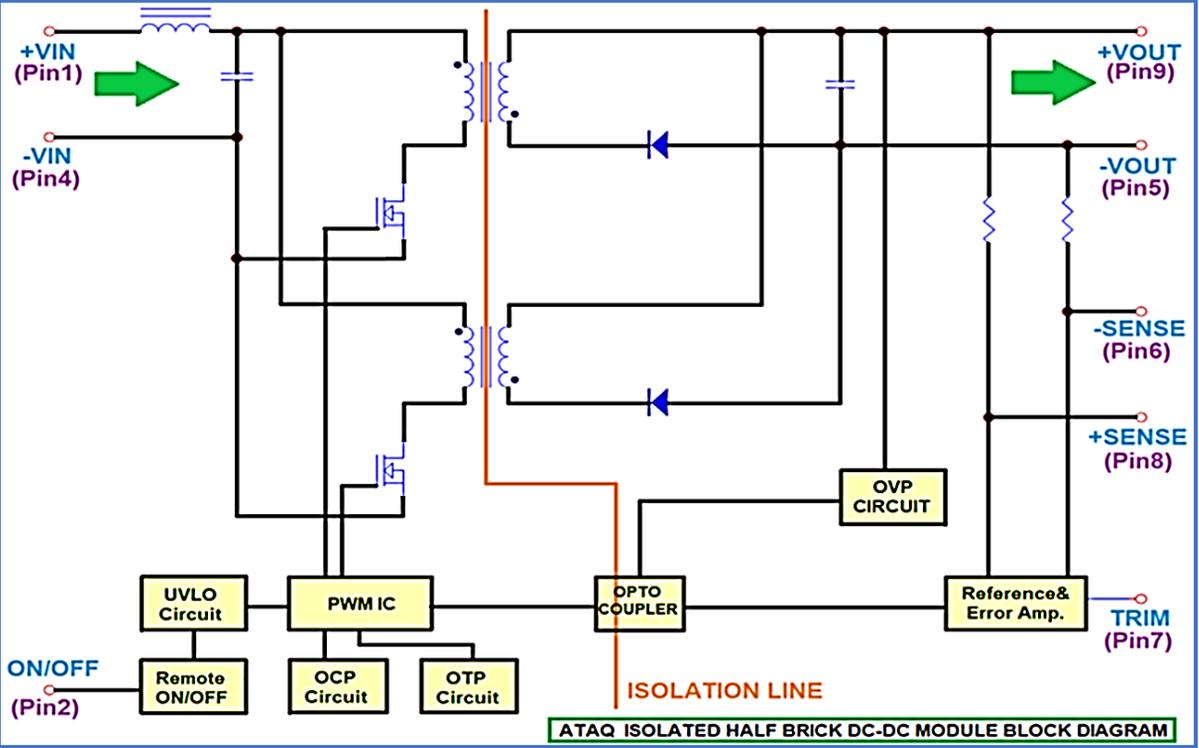
The ATQ150 Series provides a high-performance solution for demanding power conversion applications. With its 150-Watt output power, 9 - 75VDC input voltage and 8:1 input voltage range, this isolated DC-DC converter ensures reliable operation and high efficiency. It is engineered for robustness supports a wide operating temperature range and complies with industrial standards.

I. Compliant with MIL-STD-1275^(*) with external components

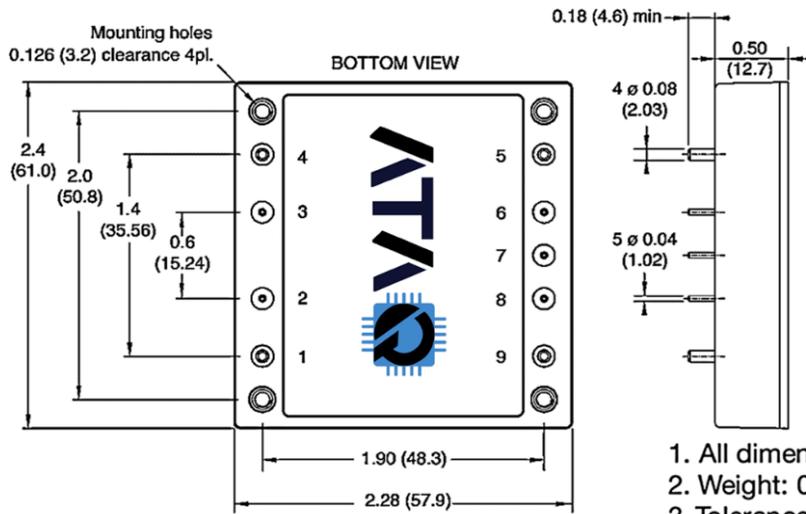
II. Compliant with MIL-STD-704^(*) with external components

NOTE: (*) Suitable for COTS use. If the product is intended to be used with a military system, it must be tested in the internal structure of a system subject to military tests. ATAQ does not guarantee the use of this product in military and medical products.

ELECTRICAL BLOCK DIAGRAM:



MECHANICAL SPECIFICATION:



| Pin Connections | |
|-----------------|---------------|
| Pin | Single |
| 1 | +Vin |
| 2 | Remote On/Off |
| 3 | Case |
| 4 | -Vin |
| 5 | -Vout |
| 6 | -Sense |
| 7 | Trim |
| 8 | +Sense |
| 9 | +Vout |

1. All dimensions are in inches (mm)
2. Weight: 0.24 lbs (109 g) approx.
3. Tolerance: x.xx = ±0.02 (x.x = ±0.5)
x.xxx = ±0.01 (x.xx = ±0.25)

NOTE: The product information and specifications may be subject to changes even without prior written notice. The product has been designed for various applications; its suitability lies in the responsibility of each customer. The products are not authorized for use in safety-critical applications without ATAQ's explicit written consent. A safety-critical application is an application where a failure may reasonably be expected to endanger or cause loss of life, inflict bodily harm, or damage property. The applicant shall indemnify and hold harmless ATAQ, its affiliated companies, and its representatives against any damage claims in connection with the unauthorized use of ATAQ products in such safety-critical applications.

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