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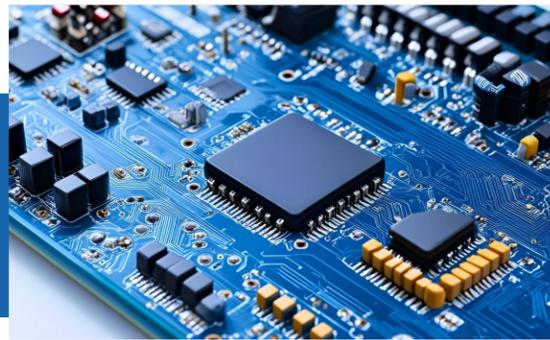
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Military Power Supply Selection Guide

AMCHARD

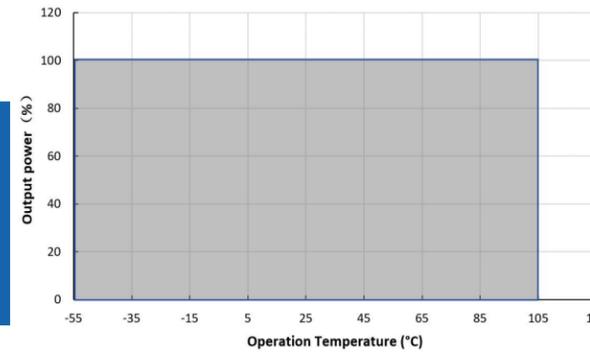
Core technology advantage system



Automotive-grade



Aligned with MIL-PRF-38534



Operating temperature: -55~105°C

AMCHARD-POWER collaborates with internationally accredited laboratories, integrating cutting-edge power supply technologies. Through rigorous testing across 32 major categories for efficient and high-quality verification, supported by comprehensive application scenario reliability validation, we have established ourselves as the preferred power solution provider for specialized fields.



Quality Control



Testing Equipment



Major test categories

Environmental Reliability | Safety Compliance | Electrochemical Testing | Electromagnetic Compatibility
Failure Analysis | Semiconductor Reliability

| Routine Self-Test Items | Laboratory Test Items |
|---|--|
| Low Temperature Storage Test | Rain Test |
| Low Temperature Operating Test | Combustion Test |
| High Temperature Storage Test | Mechanical Shock |
| High Temperature Operating Test | Electrostatic Discharge (HBM, MM) |
| Aging Test | Wind Tunnel Test Chamber |
| Constant Damp Heat Test | Temperature-Humidity-Vibration Combined Test |
| Alternating Damp Heat Test | Drop Test |
| Simulated Transport Vibration Test | Simulated Mechanical Shock Test |
| Salt Spray Test | Sine Vibration Test |
| Temperature Cycling Test | Random Vibration Test |
| Thermal Shock Test | Low Pressure Test |
| Constant Damp Heat (Component Accelerated Test) | Low Temperature/Low Pressure Combined Test |
| Partial Discharge Test | High Temperature/Low Pressure Combined Test |
| Conducted Emission Test (CE) | Pressure Cooker Test (PCT) |
| Electrostatic Discharge Immunity Test (ESD) | Harmonic Current Test |
| Electrical Fast Transient Immunity Test (EFT) | |
| Surge Immunity Test (Surge) | |

Catalog

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- Pre-packaging visual inspection
- Temperature cycl
- Shock or steady-state acceleration
- Burn-in Testing@100°C 96h

Custom Power Module

- Support for specialized customization
- Customized package、interface
- Special output voltage、multiple output combination
- EMC adapted to the scene,such as anti-irradiation
- High anti-irradiation

For military industrial customers to provide military industrial grade power supply, custom eye-catching accounted for 40%, not only more comprehensive, but also fast response delivery.

Typical Customization

| Application Scenarios | Custom Component Series | Input voltage (V) | Output voltage (V) | Power (W) | Efficiency (%) | Model |
|-----------------------|-------------------------|-------------------|--------------------|-----------|----------------|------------------|
| Satellite Power | | 36-48 | 28 | 102 | 88 | X42C28D06N102ZPT |
| Satellite Power | | 36-48 | 20 | 204 | 88 | X42C20T05N204ZPT |
| Airborne Power | | 18-36 | 28 | 170 | 91 | D28C28M170ZNT |

11.6mm×6.0mm Isolated DC-DC

- Sip package: 11.60*6.00*10.16(mm)
- Fixed voltage input, single output
- Output power 1W
- Output short circuit protection
- Operating temperature range -55°C to 105°C
- Isolation Voltage: 3000VDC
- High reliability, aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|-------------------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|------------|
| Fixed Voltage Input 5V | 4.75-5.25 | 3.3 | 303 | 70 | -55~105 | -55~125 | D05S3R3M1P |
| | | 5 | 200 | 78 | -55~105 | -55~125 | D05S0501P |
| | | 9 | 111 | 79 | -55~105 | -55~125 | D05S09M1P |
| | | 12 | 84 | 79 | -55~105 | -55~125 | D05S12M1P |
| | | 15 | 67 | 79 | -55~105 | -55~125 | D05S15M1P |
| | | 24 | 42 | 81 | -55~105 | -55~125 | D05S24M1P |
| Fixed Voltage Input 12V | 11.4-12.6 | 3.3 | 303 | 71 | -55~105 | -55~125 | D12S3R3M1P |
| | | 5 | 200 | 76 | -55~105 | -55~125 | D12S05M1P |
| | | 9 | 111 | 76 | -55~105 | -55~125 | D12S09M1P |
| | | 12 | 83 | 76 | -55~105 | -55~125 | D12S12M1P |
| | | 15 | 67 | 77 | -55~105 | -55~125 | D12S15M1P |
| | | 24 | 42 | 77 | -55~105 | -55~125 | D12S24M1P |
| Fixed Voltage Input 24V | 22.8-25.2 | 3.3 | 303 | 69 | -55~105 | -55~125 | D24S3R3M1P |
| | | 5 | 200 | 73 | -55~105 | -55~125 | D24S05M1P |
| | | 9 | 111 | 74 | -55~105 | -55~125 | D24S09M1P |
| | | 12 | 84 | 75 | -55~105 | -55~125 | D24S12M1P |
| | | 15 | 67 | 75 | -55~105 | -55~125 | D24S15M1P |
| | | 24 | 42 | 75 | -55~105 | -55~125 | D24S24M1P |

Standard 1/2 Brick Isolated DC-DC

- Standard 1/2 Brick Isolated DC-DC
- Different packaging forms such as through-hole, flange, threaded hole
- Wide input voltage range of 140V to 400V
- Protection: undervoltage, overvoltage, overcurrent, shortcircuit, overtemperature
- Isolation Voltage: 2250VDC
- Enable selectable positive logic or negative logic
- High reliability, aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|-------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|----------------|
| 500W Output | 140-400 | 3.3 | 90.9 | 91 | -55~105 | -55~125 | D24E3R3M500HPH |
| | | 5 | 80 | 92 | -55~105 | -55~125 | D24E05M500HPH |
| | | 12 | 42 | 92 | -55~105 | -55~125 | D24E12M500HPH |
| | | 15 | 33.3 | 93 | -55~105 | -55~125 | D24E15M500HPH |
| | | 28 | 18 | 93 | -55~105 | -55~125 | D24E28M500HPH |
| | | 48 | 10.5 | 93 | -55~105 | -55~125 | D24E48M500HPH |

Standard 1/4 Brick Isolated DC-DC

- Standard 1/4 Brick Isolated DC-DC
- Different packaging forms such as through-hole, flange, threaded hole
- Wide input voltage range of 16V to 40V
- Protection: undervoltage, overvoltage, overcurrent, shortcircuit, overtemperature
- Enable selectable positive logic or negative logic
- Isolation Voltage: 1500VDC
- High reliability, aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|-------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|---------------|
| 300W Output | 16-40 | 5 | 60 | 92 | -55~105 | -55~125 | D28C05M300QNH |
| | | 12 | 25 | 93 | -55~105 | -55~125 | D28C12M300QNH |
| | | 15 | 20 | 93 | -55~105 | -55~125 | D28C15M300QNH |
| | | 19 | 15.8 | 93 | -55~105 | -55~125 | D28C19M300QNH |
| | | 24 | 12.5 | 93 | -55~105 | -55~125 | D28C24M300QNH |
| | | 28 | 10.7 | 94 | -55~105 | -55~125 | D28C28M300QNH |

Standard 1/8 Brick Isolated DC-DC

- Standard 1/8 Brick Isolated DC-DC
- Different packaging forms such as through-hole, flange, threaded hole
- Wide input voltage range of 9V to 36V、16V to 40V
- Maximum power:200W
- Protection:undervoltage,overvoltage,overcurrent,shortcircuit,overtemperature
- Enable selectable positive logic or negative logic
- Isolation Voltage: 1500VDC
- High reliability, aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|-------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|--------------|
| 100W Output | 9-36 | 3.3 | 24.3 | 90 | -55~105 | -55~125 | D24C3R3M80EN |
| | | 5 | 20 | 91 | -55~105 | -55~125 | D24C05M100EN |
| | | 12 | 8.4 | 92 | -55~105 | -55~125 | D24C12M100EN |
| | | 15 | 6.7 | 92 | -55~105 | -55~125 | D24C15M100EN |
| | | 19 | 5.3 | 92 | -55~105 | -55~125 | D24C19M100EN |
| | | 24 | 6.3 | 91 | -55~105 | -55~125 | D24C24M150EN |
| | | 28 | 5.4 | 91 | -55~105 | -55~125 | D24C28M150EN |
| 200W Output | 16-40 | 5 | 40 | 92 | -55~105 | -55~125 | D28C05M200EN |
| | | 6 | 16.7 | 89 | -55~105 | -55~125 | D28C06M100EN |
| | | 12 | 16.7 | 92 | -55~105 | -55~125 | D28C12M200EN |
| | | 15 | 13.4 | 92 | -55~105 | -55~125 | D28C15M200EN |
| | | 19 | 10.6 | 92 | -55~105 | -55~125 | D28C19M200EN |
| | | 24 | 8.4 | 94 | -55~105 | -55~125 | D28C24M200EN |
| | | 28 | 7.2 | 94 | -55~105 | -55~125 | D28C28M200EN |

Standard 1/16 Brick Isolated DC-DC

- Standard 1/16 Brick Isolated DC-DC
- Different packaging forms such as through-hole, flange, threaded hole
- Maximum power:100W
- Protection:undervoltage,overvoltage,overcurrent,shortcircuit,overtemperature
- Enable selectable positive logic or negative logic
- Isolation Voltage: 1500VDC
- Wide input voltage range of 9V to 36V、16V to 40V
- High reliability, aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|-------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|---------------|
| 50W Output | 9-36 | 3.3 | 15.2 | 88 | -55~105 | -55~125 | D28E3R3M50SN |
| | | 5 | 10 | 89 | -55~105 | -55~125 | D28E05M50SN |
| | | 12 | 4.2 | 89 | -55~105 | -55~125 | D28E12M50SN |
| | | 15 | 3.3 | 90 | -55~105 | -55~125 | D28E15M50SN |
| | | 28 | 1.8 | 91 | -55~105 | -55~125 | D28E28M50SN |
| 100W Output | 16-40 | 3.3 | 22.7 | 89 | -55~105 | -55~125 | D28C3R3M100SN |
| | | 5 | 20 | 89 | -55~105 | -55~125 | D28C05M100SN |
| | | 12 | 8.3 | 90 | -55~105 | -55~125 | D28C12M100SN |
| | | 15 | 6.7 | 90 | -55~105 | -55~125 | D28C15M100SN |
| | | 28 | 3.6 | 90 | -55~105 | -55~125 | D28C28M100SN |

Standard 1/32 Brick Isolated DC-DC

- Standard 1/32 Brick Isolated DC-DC
- Maximum power:50W
- Protection:undervoltage,overvoltage,overcurrent,shortcircuit,overtemperature
- Enable selectable positive logic or negative logic
- Isolation Voltage: 1500VDC
- Wide input voltage range of 9V to 36V、16V to 40V
- High reliability, aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|--------------|
| 40W Output | 9-36 | 3.3 | 12.2 | 87 | -55~105 | -55~125 | D24E3R3M40TN |
| | | 5 | 8 | 87 | -55~105 | -55~125 | D24E05M40TN |
| | | 12 | 3.4 | 87 | -55~105 | -55~125 | D24E12M40TN |
| | | 15 | 2.7 | 88 | -55~105 | -55~125 | D24E15M40TN |
| | | 28 | 1.43 | 89 | -55~105 | -55~125 | D24E28M40TN |
| 50W Output | 16-40 | 3.3 | 15.2 | 89 | -55~105 | -55~125 | D28C3R3M50TN |
| | | 5 | 10 | 89 | -55~105 | -55~125 | D28C05M50TN |
| | | 12 | 4.2 | 91 | -55~105 | -55~125 | D28C12M50TN |
| | | 15 | 3.4 | 91 | -55~105 | -55~125 | D28C15M50TN |
| | | 28 | 1.8 | 91 | -55~105 | -55~125 | D28C28M50TN |

2x1 inches Isolated DC-DC

- 2x1 inches Isolated DC-DC
- Different packaging forms such as through-hole, flange, threaded hole
- Maximum power:50W
- Protection:undervoltage,overvoltage,overcurrent,shortcircuit,overtemperature
- Isolation Voltage: 1500VDC
- Enable control, adjustable output
- High reliability, aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|--------------|
| 20W Output | 9-36 | 3.3 | 6.1 | 86 | -55~105 | -55~125 | D24E3R3M20KN |
| | | 5 | 4 | 86 | -55~105 | -55~125 | D24E05M20KN |
| | | 12 | 1.7 | 87 | -55~105 | -55~125 | D24E12M20KN |
| | | 15 | 1.34 | 87 | -55~105 | -55~125 | D24E15M20KN |
| 50W Output | 16-40 | 28 | 0.72 | 87 | -55~105 | -55~125 | D24E28M20KN |
| | | 3.3 | 9.1 | 87 | -55~105 | -55~125 | D28C3R3M30KN |
| | | 5 | 8 | 87 | -55~105 | -55~125 | D28C05M40KN |
| | | 12 | 4.2 | 88 | -55~105 | -55~125 | D28C12M50KN |
| | | 15 | 3.4 | 88 | -55~105 | -55~125 | D28C15M50KN |
| 40W Output | 18-75 | 28 | 1.8 | 88 | -55~105 | -55~125 | D28C28M50KN |
| | | 3.3 | 9.1 | 87 | -55~105 | -55~125 | D48E3R3M30KN |
| | | 5 | 8 | 87 | -55~105 | -55~125 | D48E05M40KN |
| | | 12 | 3.34 | 88 | -55~105 | -55~125 | D48E12M40KN |
| | | 15 | 2.7 | 88 | -55~105 | -55~125 | D48E15M40KN |
| | | 28 | 1.43 | 89 | -55~105 | -55~125 | D48E28M40KN |

1x1 inches Isolated DC-DC

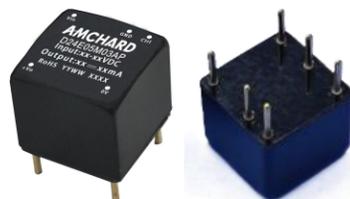
- 1x1 inches Isolated DC-DC
- Maximum power:50W
- Protection:undervoltage,overvoltage,overcurrent,shortcircuit,overtemperature
- Isolation Voltage: 1500VDC
- Enable control, adjustable output
- High reliability,aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|--------------|
| 20W Output | 9-36 | 5 | 4 | 84 | -55~105 | -55~125 | D18E05M20JP |
| | | 7 | 2.85 | 84 | -55~105 | -55~125 | D24E07M20JP |
| | | 12 | 1.67 | 84 | -55~105 | -55~125 | D18E12M20JP |
| | | 15 | 1.33 | 84 | -55~105 | -55~125 | D24E15M20JP |
| | | 24 | 0.83 | 85 | -55~105 | -55~125 | D24E24M20JP |
| | | 28 | 0.71 | 85 | -55~105 | -55~125 | D24E28M20JP |
| | | ±5 | 2 | 84 | -55~105 | -55~125 | D24E05DM20JP |
| | | ±12 | 0.83 | 86 | -55~105 | -55~125 | D24E12DM20JP |
| 30W Output | 9-36 | ±15 | 0.67 | 86 | -55~105 | -55~125 | D24E15DM20JP |
| | | 5 | 6 | 89 | -55~105 | -55~125 | D24E05M30JP |
| 40W Output | 9-36 | 5 | 8 | 89 | -55~105 | -55~125 | D24E05M40JP |
| | | 12 | 3.33 | 88 | -55~105 | -55~125 | D18E12M40JP |
| 30W Output | 16-40 | 5 | 6 | 84 | -55~105 | -55~125 | D28C05M30JP |
| | | 12 | 2.5 | 85 | -55~105 | -55~125 | D28C12M30JP |
| | | 5 | 10 | 89 | -55~105 | -55~125 | D28C05M50JP |
| 50W Output | 16-40 | 12 | 4.2 | 90 | -55~105 | -55~125 | D28C12M50JP |

0.5x0.5 inches Isolated DC-DC

- 0.5x0.5 inches Isolated DC-DC
- Maximum power:3W
- Protection:undervoltage,overvoltage,overcurrent,shortcircuit,overtemperature
- Adjustable output
- Isolation Voltage: 500VDC
- High reliability, aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|-----------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|--------------|
| 3W Output | 9-36 | 3.3 | 0.91 | 73 | -55~105 | -55~125 | D24E3R3M03AP |
| | | 5 | 0.6 | 78 | -55~105 | -55~125 | D24E05M03AP |
| | | 6 | 0.5 | 78 | -55~105 | -55~125 | D24E06M03AP |
| | | 12 | 0.25 | 81 | -55~105 | -55~125 | D24E12M03AP |
| | | 15 | 0.2 | 81 | -55~105 | -55~125 | D24E15M03AP |
| | | 24 | 0.125 | 83 | -55~105 | -55~125 | D24E24M03AP |
| | | 28 | 0.11 | 83 | -55~105 | -55~125 | D24E28M03AP |
| 3W Output | 16-40 | 3.3 | 0.91 | 78 | -55~105 | -55~125 | D28C3R3M03AP |
| | | 5 | 0.6 | 78 | -55~105 | -55~125 | D28C05M03AP |
| | | 6 | 0.5 | 81 | -55~105 | -55~125 | D28C06M03AP |
| | | 12 | 0.25 | 82 | -55~105 | -55~125 | D28C12M03AP |
| | | 15 | 0.2 | 79 | -55~105 | -55~125 | D28C15M03AP |
| | | 24 | 0.125 | 82 | -55~105 | -55~125 | D28C24M03AP |
| | | 28 | 0.11 | 83 | -55~105 | -55~125 | D28C28M03AP |

1x0.5 inches Isolated DC-DC

- 1x0.5 inches Isolated DC-DC
- Maximum power:15W
- Protection:undervoltage,overvoltage,overcurrent,shortcircuit,overtemperature
- Adjustable output
- Isolation Voltage: 500VDC
- High reliability,aligned with MIL-PRF-38534



| Series | Input Voltage(V) | Output Voltage(V) | Maximum Output Current(mA) | Efficiency (%) | Operating Ambient Temperature (°C) | Storage Temperature (°C) | Model |
|------------|------------------|-------------------|----------------------------|----------------|------------------------------------|--------------------------|---------------|
| 10W Output | 9-36 | 5 | 2 | 85 | -55~105 | -55~125 | D24E05M10BPW |
| | | 6 | 1.67 | 85 | -55~105 | -55~125 | D24E06M10BPW |
| | | 9 | 1.1 | 84 | -55~105 | -55~125 | D24E09M10BPW |
| | | 12 | 0.83 | 86 | -55~105 | -55~125 | D24E12M10BPW |
| | | 15 | 0.67 | 86 | -55~105 | -55~125 | D24E15M10BPW |
| | | 24 | 0.42 | 89 | -55~105 | -55~125 | D24E24M10BPW |
| | | 28 | 0.36 | 89 | -55~105 | -55~125 | D24E28M10BPW |
| | | 15W Output | 16-40 | 5 | 3 | 84 | -55~105 |
| 6 | 2.5 | | | 84 | -55~105 | -55~125 | D28C06M15BPW |
| 9 | 1.67 | | | 83 | -55~105 | -55~125 | D28C09M15BPW |
| 12 | 1.25 | | | 84 | -55~105 | -55~125 | D28C12M15BPW |
| 15 | 1 | | | 84 | -55~105 | -55~125 | D28C15M15BPW |
| 24 | 0.63 | | | 87 | -55~105 | -55~125 | D28C24M15BPW |
| 28 | 0.54 | | | 87 | -55~105 | -55~125 | D28C28M15BPW |
| ±10 | 0.75 | | | 83 | -55~105 | -55~125 | D28C10DM15BPW |
| ±12 | 0.63 | | | 85 | -55~105 | -55~125 | D28C12DM15BPW |
| ±15 | 0.5 | | | 87 | -55~105 | -55~125 | D28C15DM15BPW |