



FEATURES:

- RoHS compliant
- 4 Pin SIP Package
- Low ripple and noise
- High efficiency up to 81%
- Operating temperature -40°C to + 85°C
- Input / Output isolation 1000 and 3000VDC
- Pin compatible with multiple manufacturers



Models
Single output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Isolation (VDC) | Efficiency (%) |
|------------------|-------------------|--------------------|-------------------------|-----------------|----------------|
| AM1S-0505S-NZ | 4.5-5.5 | 5 | 200 | 1000 | 78 |
| AM1S-0515S-NZ | 4.5-5.5 | 15 | 67 | 1000 | 78 |
| AM1S-1205S-NZ | 10.8-13.2 | 5 | 200 | 1000 | 78 |
| AM1S-1212S-NZ | 10.8-13.2 | 12 | 83 | 1000 | 81 |
| AM1S-2405S-NZ | 21.6-26.4 | 5 | 200 | 1000 | 79 |
| AM1S-0505SH30-NZ | 4.5-5.5 | 5 | 200 | 3000 | 70 |

Input Specifications

| Parameters | Nominal | Typical | Maximum | Units |
|---------------|-----------|-----------|---------|-------|
| Voltage range | 5 | 4.5-5.5 | | VDC |
| | 12 | 10.8-13.2 | | |
| | 24 | 21.6-26.4 | | |
| Filter | Capacitor | | | |

Isolation Specifications

| Parameters | Conditions | Typical | Rated | Units |
|--------------------|------------|---------|--------------|-------|
| Tested I/O voltage | 60 sec | | 1000 or 3000 | VDC |
| Resistance | | > 1000 | | MOhm |
| Capacitance | | 60 | | pF |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|----------------------------------|---------------------|---------|---------|--------|
| Voltage accuracy | See tolerance graph | | | |
| Short Circuit protection | Momentary (1 sec) | | | |
| Line voltage regulation (Single) | For 1.0% of Vin | ±1.2 | | % |
| Load voltage regulation (Single) | Load 10 – 100% | 10 | | % |
| Temperature coefficient | | ±0.03 | | %/°C |
| Ripple & Noise | At 20MHz Bandwidth | 75 | | mV p-p |

General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|------------------------|--|-----------------|---------|-------|
| Switching frequency | 100% load | 150 | | KHz |
| Operating temperature | Without derating | -40 to +85 | | °C |
| Storage temperature | | -55 to +125 | | °C |
| Max Case temperature | | | 90 | °C |
| Cooling | Free air convection | | | |
| Humidity | | | 90 | % |
| Case material | | Plastic UL94-VO | | |
| Weight | | 1.8 | | g |
| Dimensions (L x W x H) | 0.46 x 0.24 x 0.37 inches 11.70 x 6.00 x 9.50 mm | | | |
| MTBF | >1 000 000 hrs(MIL-HDBK -217F, Ground Benign, t=+25°C) | | | |

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified

Safety Specifications

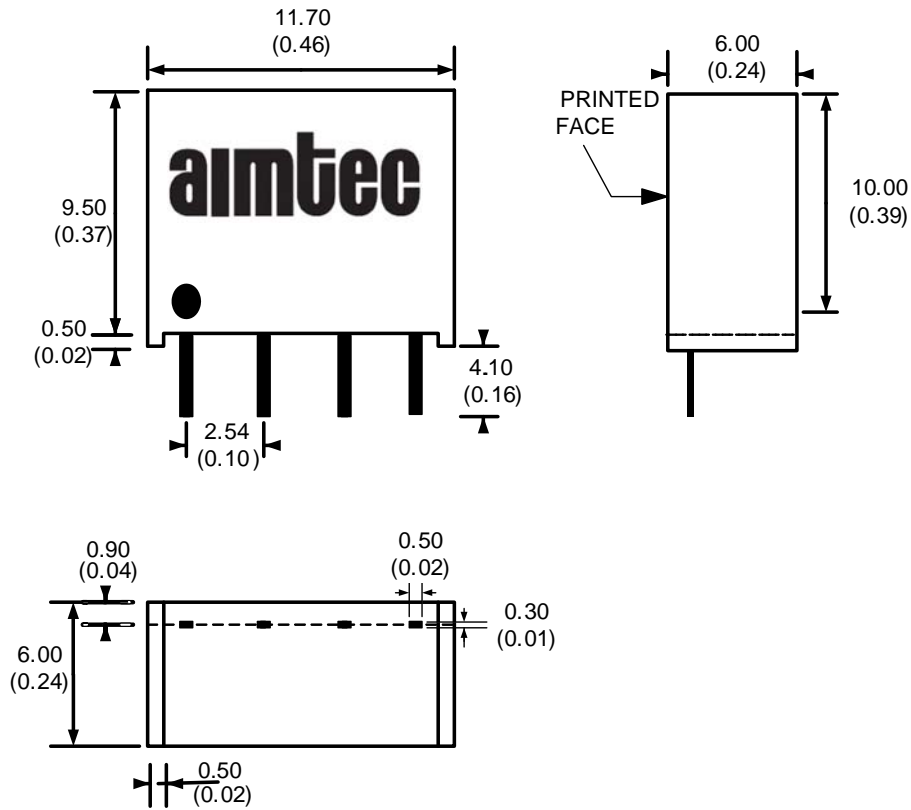
Parameters

| | |
|------------------|------------------------------|
| Standards | IEC60950-1 :2001 |
| Agency approvals | UL and CE for 1000VDC models |

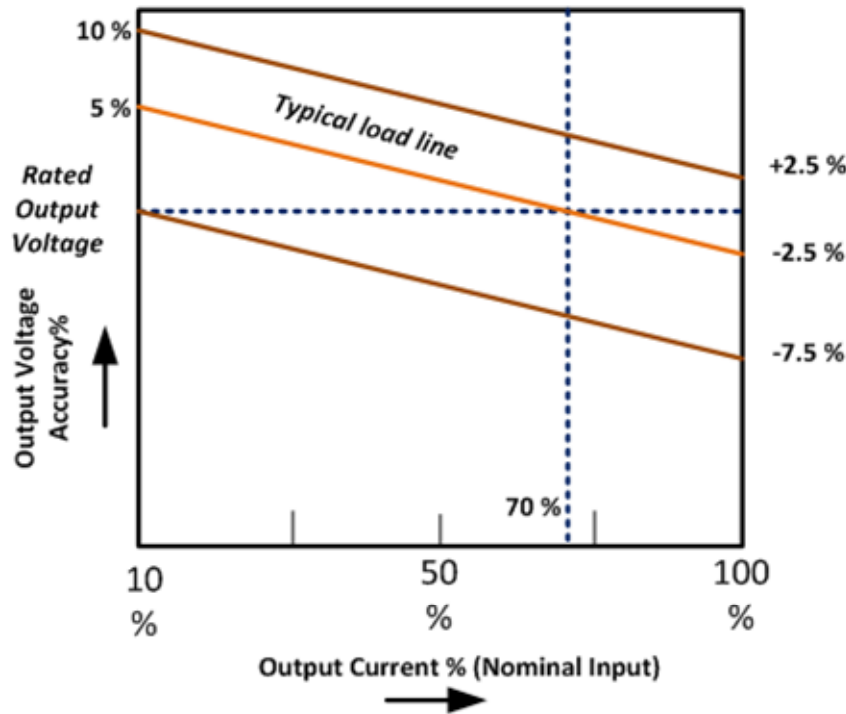
Pin Out Specifications

| Pin | Single |
|-----|-----------|
| 1 | - V Input |
| 2 | +V Input |
| 3 | -V Output |
| 4 | +V Output |

Dimensions



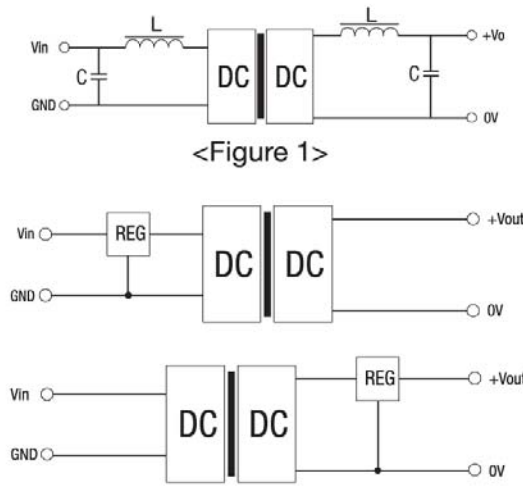
Typical Characteristics



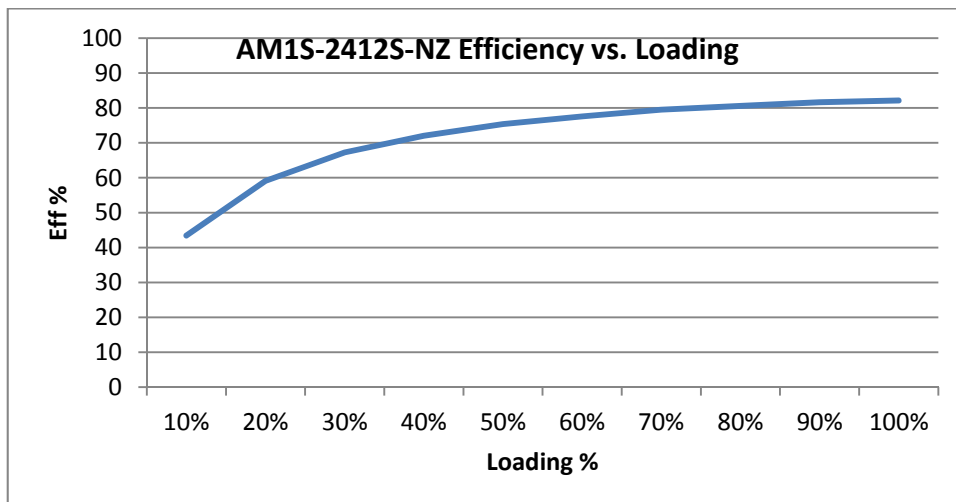
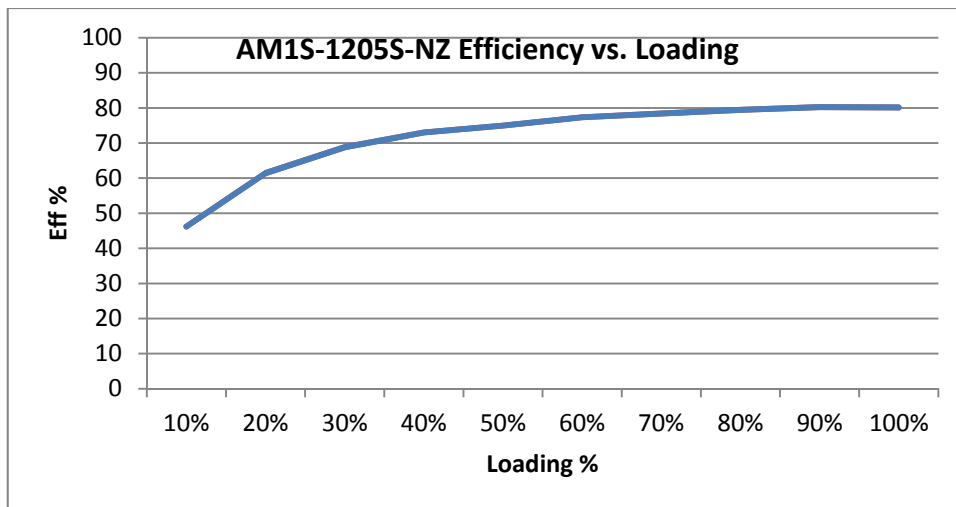
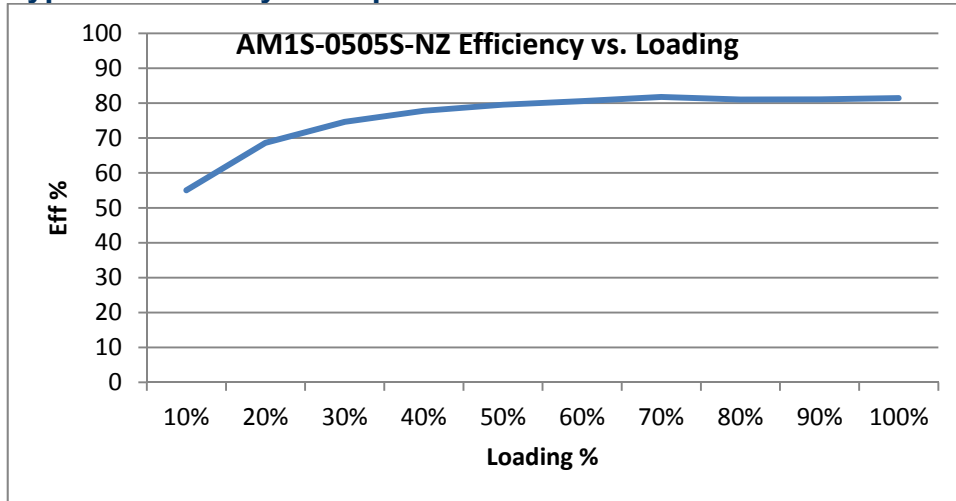
External capacitor

| V _{in} (VDC) | External capacitor (µF) | V _{out} (VDC) | External capacitor (µF) |
|-----------------------|-------------------------|------------------------|-------------------------|
| 5 | 4.7 | 5 | 10 |
| 12 | 2.2 | 9 | 4.7 |
| 24 | 1 | 12 | 2.2 |
| - | - | 15 | 1 |

Filtering



Typical Efficiency Example Charts



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