

Наличие и актуальные цены на

AM1DS-1215S-NZ

<https://www.icmicro.ru/store/AM1DS-1215S-NZ/>



FEATURES:

- RoHS compliant
- High efficiency up to 82%
- Low profile plastic package
- 7 pin SIP package
- Operating temperature -40°C to + 105°C
- Continuous short circuit protection ‡
- Pin compatible with multiple manufacturers
- Up to 3000VDC Isolation

Models

Single output



| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Isolation (VDC) | Input Current Full Load No Load (mA) | | Max. Capacitive Load (µF) | Efficiency (%) |
|----------------------|-------------------|--------------------|-------------------------|-----------------|--|----|---------------------------|----------------|
| AM1DS-0303S-NZ* | 3.0-3.6 | 3.3 | 303 | 1500 | 415 | 25 | 220 | 78 |
| AM1DS-0305S-NZ* | 3.0-3.6 | 5 | 200 | 1500 | 388 | 25 | 220 | 79 |
| AM1DS-0505S-NZ | 4.5-5.5 | 5 | 200 | 1500 | 250 | 20 | 220 | 80 |
| AM1DS-0505SJZ | 4.5-5.5 | 5 | 200 | 1500 | 250 | 10 | 2400 | 82 |
| AM1DS-0509S-NZ | 4.5-5.5 | 9 | 112 | 1500 | 250 | 20 | 220 | 80 |
| AM1DS-0512S-NZ | 4.5-5.5 | 12 | 83 | 1500 | 248 | 20 | 220 | 81 |
| AM1DS-0515S-NZ | 4.5-5.5 | 15 | 67 | 1500 | 248 | 20 | 220 | 81 |
| AM1DS-0524S-NZ ‡ | 4.5-5.5 | 24 | 42 | 1500 | 248 | 20 | 220 | 81 |
| AM1DS-1205S-NZ | 10.8-13.2 | 5 | 200 | 1500 | 111 | 15 | 220 | 80 |
| AM1DS-1209S-NZ | 10.8-13.2 | 9 | 112 | 1500 | 92 | 15 | 220 | 80 |
| AM1DS-1212S-NZ | 10.8-13.2 | 12 | 83 | 1500 | 92 | 15 | 220 | 81 |
| AM1DS-1215S-NZ | 10.8-13.2 | 15 | 67 | 1500 | 90 | 15 | 220 | 81 |
| AM1DS-1515S-NZ* | 13.5-16.5 | 15 | 67 | 1500 | 84 | 10 | 220 | 80 |
| AM1DS-2403S-NZ* | 21.6-26.4 | 3.3 | 303 | 1500 | 56 | 7 | 220 | 79 |
| AM1DS-2405S-NZ | 21.6-26.4 | 5 | 200 | 1500 | 51 | 7 | 220 | 79 |
| AM1DS-2412S-NZ | 21.6-26.4 | 12 | 83 | 1500 | 52 | 7 | 220 | 81 |
| AM1DS-2415S-NZ | 21.6-26.4 | 15 | 67 | 1500 | 52 | 7 | 220 | 81 |
| AM1DS-2424S-NZ ‡ | 21.6-26.4 | 24 | 42 | 1500 | 52 | 7 | 220 | 82 |
| AM1DS-0305SH30-NZ* | 3.0-3.6 | 5 | 200 | 3000 | 388 | 25 | 220 | 79 |
| AM1DS-0505SH30-NZ | 4.5-5.5 | 5 | 200 | 3000 | 250 | 20 | 220 | 80 |
| AM1DS-0509SH30-NZ | 4.5-5.5 | 9 | 112 | 3000 | 250 | 20 | 220 | 80 |
| AM1DS-0512SH30-NZ | 4.5-5.5 | 12 | 83 | 3000 | 248 | 20 | 220 | 80 |
| AM1DS-0515SH30-NZ | 4.5-5.5 | 15 | 67 | 3000 | 248 | 20 | 220 | 81 |
| AM1DS-0524SH30-NZ ‡ | 4.5-5.5 | 24 | 42 | 3000 | 248 | 20 | 220 | 81 |
| AM1DS-1205SH30-NZ | 10.8-13.2 | 5 | 200 | 3000 | 111 | 15 | 220 | 80 |
| AM1DS-1209SH30-NZ | 10.8-13.2 | 9 | 112 | 3000 | 111 | 15 | 220 | 80 |
| AM1DS-1212SH30-NZ | 10.8-13.2 | 12 | 83 | 3000 | 92 | 15 | 220 | 81 |
| AM1DS-1215SH30-NZ | 10.8-13.2 | 15 | 67 | 3000 | 92 | 15 | 220 | 81 |
| AM1DS-1224SH30-NZ ‡* | 10.8-13.2 | 24 | 42 | 3000 | 92 | 15 | 220 | 80 |
| AM1DS-2405SH30-NZ | 21.6-26.4 | 5 | 200 | 3000 | 51 | 7 | 220 | 79 |
| AM1DS-2409SH30-NZ | 21.6-26.4 | 9 | 112 | 3000 | 51 | 7 | 200 | 80 |
| AM1DS-2412SH30-NZ | 21.6-26.4 | 12 | 83 | 3000 | 52 | 7 | 220 | 81 |
| AM1DS-2415SH30-NZ | 21.6-26.4 | 15 | 67 | 3000 | 52 | 7 | 220 | 81 |
| AM1DS-2424SH30-NZ ‡ | 21.6-26.4 | 24 | 42 | 3000 | 52 | 7 | 220 | 82 |

Models

Dual output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (Ma) | Isolation (VDC) | Input Current Full Load No Load (mA) | | Max. Capacitive Load (µF) | Efficiency (%) |
|-----------------|-------------------|--------------------|-------------------------|-----------------|--|----|---------------------------|----------------|
| AM1DS-0305D-NZ* | 2.97-3.63 | ±5 | ±100 | 1500 | 274 | 20 | 100 | 78 |
| AM1DS-0312D-NZ* | 2.97-3.63 | ±12 | ±42 | 1500 | 248 | 20 | 100 | 78 |
| AM1DS-0505D-NZ | 4.5-5.5 | ±5 | ±100 | 1500 | 274 | 20 | 100 | 80 |
| AM1DS-0509D-NZ | 4.5-5.5 | ±9 | ±56 | 1500 | 250 | 20 | 100 | 80 |
| AM1DS-0512D-NZ | 4.5-5.5 | ±12 | ±42 | 1500 | 248 | 20 | 100 | 80 |
| AM1DS-0515D-NZ | 4.5-5.5 | ±15 | ±34 | 1500 | 248 | 20 | 100 | 81 |

| | | | | | | | | |
|--------------------------|-----------|-----|------|------|-----|----|-----|----|
| AM1DS-0524D-NZ ‡ | 4.5-5.5 | ±24 | ±21 | 1500 | 248 | 20 | 100 | 81 |
| AM1DS-1205D-NZ | 10.8-13.2 | ±5 | ±100 | 1500 | 92 | 15 | 100 | 80 |
| AM1DS-1212D-NZ | 10.8-13.2 | ±12 | ±42 | 1500 | 92 | 15 | 100 | 81 |
| AM1DS-1215D-NZ | 10.8-13.2 | ±15 | ±34 | 1500 | 90 | 15 | 100 | 81 |
| AM1DS-1512D-NZ* | 13.5-16.5 | ±12 | ±42 | 1500 | 92 | 15 | 100 | 80 |
| AM1DS-1515D-NZ | 13.5-16.5 | ±15 | ±34 | 1500 | 84 | 10 | 100 | 80 |
| AM1DS-2405D-NZ | 21.6-26.4 | ±5 | ±100 | 1500 | 53 | 7 | 100 | 79 |
| AM1DS-2412D-NZ | 21.6-26.4 | ±12 | ±42 | 1500 | 51 | 7 | 100 | 81 |
| AM1DS-2415D-NZ | 21.6-26.4 | ±15 | ±34 | 1500 | 51 | 7 | 100 | 82 |
| AM1DS-2424D-NZ‡ | 21.6-26.4 | ±24 | ±21 | 1500 | 51 | 7 | 100 | 82 |
| AM1DS-0505DH30-NZ | | | | | | | | |
| AM1DS-0505DH30-NZ | 4.5-5.5 | ±5 | ±100 | 3000 | 274 | 20 | 100 | 80 |
| AM1DS-0509DH30-NZ | 4.5-5.5 | ±9 | ±56 | 3000 | 250 | 20 | 100 | 80 |
| AM1DS-0512DH30-NZ | 4.5-5.5 | ±12 | ±42 | 3000 | 248 | 20 | 100 | 80 |
| AM1DS-0515DH30-NZ | 4.5-5.5 | ±15 | ±34 | 3000 | 250 | 20 | 100 | 81 |
| AM1DS-0524DH30-NZ ‡ | 4.5-5.5 | ±24 | ±21 | 3000 | 250 | 20 | 100 | 81 |
| AM1DS-1205DH30-NZ | 10.8-13.2 | ±5 | ±100 | 3000 | 248 | 20 | 100 | 81 |
| AM1DS-1212DH30-NZ | 10.8-13.2 | ±12 | ±42 | 3000 | 92 | 15 | 100 | 81 |
| AM1DS-1215DH30-NZ | 10.8-13.2 | ±15 | ±34 | 3000 | 90 | 15 | 100 | 79 |
| AM1DS-1224DH30-NZ‡* | 10.8-13.2 | ±24 | ±21 | 3000 | 90 | 15 | 100 | 79 |
| AM1DS-2405DH30-NZ | 21.6-26.4 | ±5 | ±100 | 3000 | 53 | 7 | 100 | 81 |
| AM1DS-2409DH30-NZ | 21.6-26.4 | ±9 | ±56 | 3000 | 53 | 7 | 100 | 81 |
| AM1DS-2412DH30-NZ | 21.6-26.4 | ±12 | ±42 | 3000 | 51 | 7 | 100 | 81 |
| AM1DS-2415DH30-NZ | 21.6-26.4 | ±15 | ±34 | 3000 | 51 | 7 | 100 | 82 |
| AM1DS-2424DH30-NZ‡ | 21.6-26.4 | ±24 | ±21 | 3000 | 51 | 7 | 100 | 82 |

‡ With Momentary short circuit protection of 1 second

* Reference in the Safety Table

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.

Input Specifications

| Parameters | Nominal | Typical | Maximum | Units |
|-------------------------|-----------|----------------------|---------|-------|
| Voltage range | 3.3 | 2.97–3.63 or 3.0-3.6 | | VDC |
| | 5 | 4.5-5.5 | | |
| | 12 | 10.8-13.2 | | |
| | 15 | 13.5-16.5 | | |
| | 24 | 21.6-26.4 | | |
| Filter | Capacitor | | | |
| Absolute Maximum Rating | 3.3 | | 7 | VDC |
| | 5 | | 9 | |
| | 12 | | 18 | |
| | 15 | | 21 | |
| | 24 | | 30 | |
| Peak Input Voltage time | | | 1 | s |
| No Load Input Current | | | 50 | mA |

Isolation Specifications

| Parameters | Conditions | Typical | Rated | Units |
|--------------------|------------|---------|------------|-------|
| Tested I/O voltage | 60 sec | | 1500, 3000 | VDC |
| Resistance | | > 1000 | | MOhm |
| Capacitance | | 20 | | pF |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|--------------------------|----------------------------------|---------|---------|----------|
| Voltage accuracy | | ±5 | | % |
| Short Circuit protection | Continuous, unless marked with ‡ | | | |
| Short circuit restart | Auto recovery | | | |
| Line voltage regulation | For 1.0% change of Vin | ±1.2 | | % of Vin |

| | | | |
|-------------------------|-----------------|---|----------|
| Load voltage regulation | load 10~100% | 15% | % |
| Temperature coefficient | | ±0.03 | %/°C |
| Ripple & Noise | 20MHz Bandwidth | (output 3.3/5/12) 30 (output 15/24) 60 | mV p-p |
| Minimum Load Current | | 10 | % of Max |

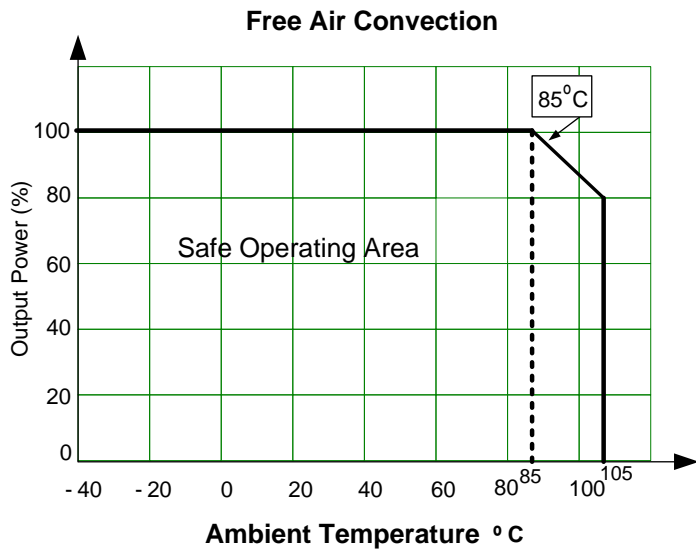
General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|-------------------------------|----------------------------|--|----------------------|-------|
| Switching frequency | 100% load | 100 - 300 | | KHz |
| Operating temperature | With derating above 85°C | -40 to +105 | | °C |
| Storage temperature | | -55 to +125 | | °C |
| Maximum case temperature | | | 100 | °C |
| Derating | | Not-Required | | %/°C |
| Cooling | | Free air convection | | |
| Humidity | | | 95 | % RH |
| Case material | | Non-conductive black plastic (UL94V-0 rated) | | |
| Weight | | 2.3 | | g |
| Dimensions (L x W x H) | | 0.77 x 0.24 x 0.37inches | 19.5 x 6.00 x 9.35mm | |
| MTBF | | >3,500,000hrs (MIL-HDBK -217F, Ground Benign, t=+25°C) | | |
| Maximum soldering temperature | 1.5 mm from case for 10sec | | 300 | °C |

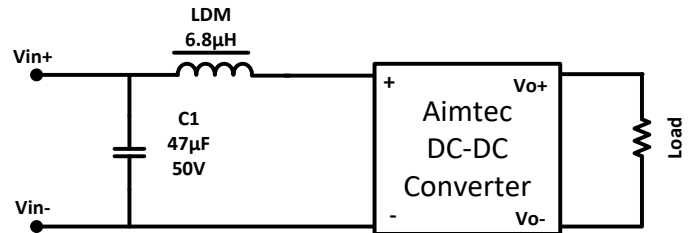
Safety Specifications

| Parameters | |
|------------------|---|
| Agency approvals | cULus (except the models marked with *) |
| Standards | UL 60950-1 |

Derating



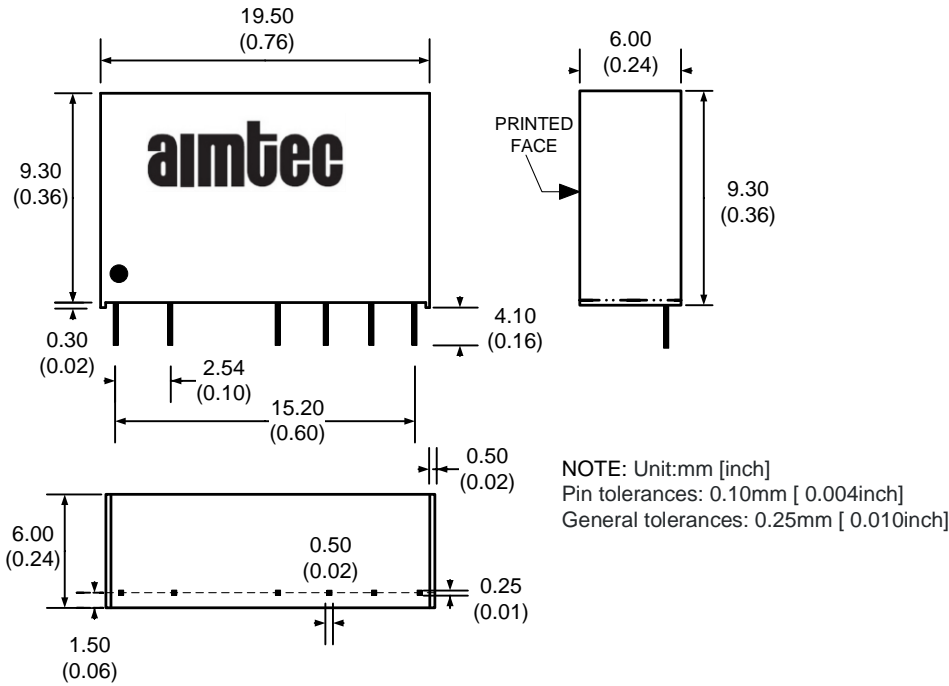
EMI Recommended Circuit (Class B)



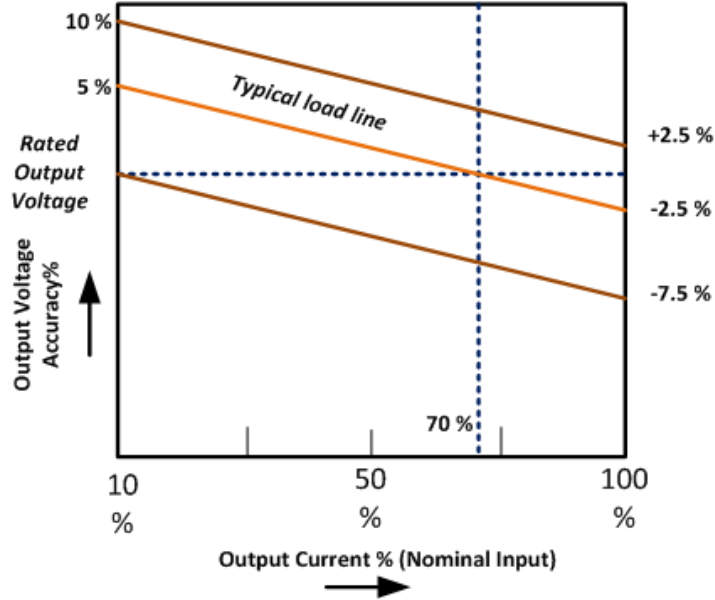
Pin Out Specifications

| Pin | 1500 VDC | | 3000VDC | |
|-----|------------|------------|------------|------------|
| | Single | Dual | Single | Dual |
| 1 | + V Input | + V Input | + V Input | + V Input |
| 2 | - V Input | - V Input | - V Input | - V Input |
| 4 | - V Output | - V Output | No pin | No pin |
| 5 | No pin | Common | - V Output | - V Output |
| 6 | + V Output | + V Output | No pin | Common |
| 7 | No pin | No pin | + V Output | + V Output |

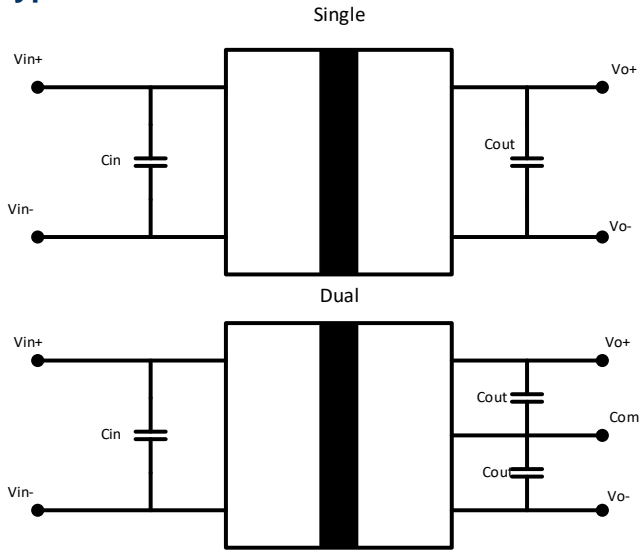
Dimensions



Load Accuracy Tolerance Graph

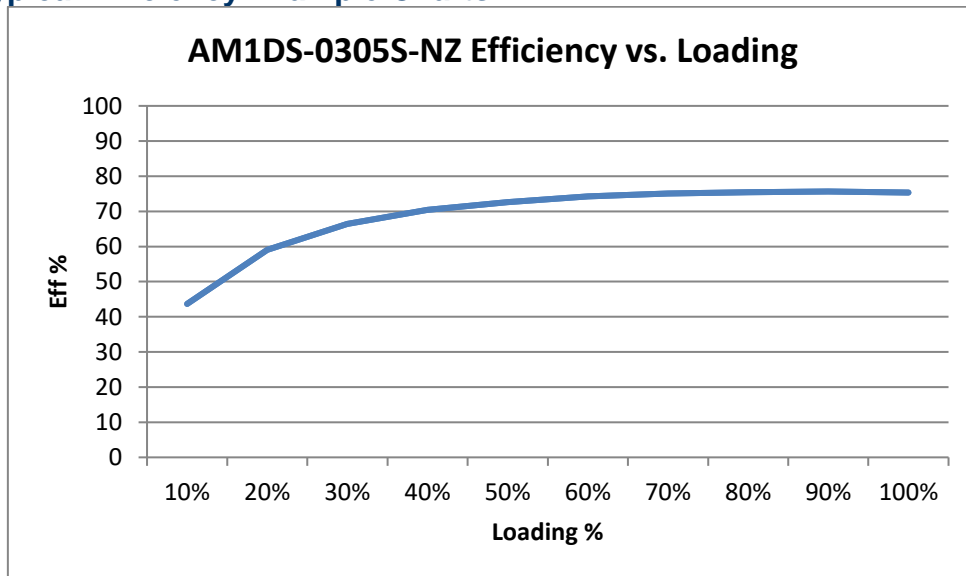


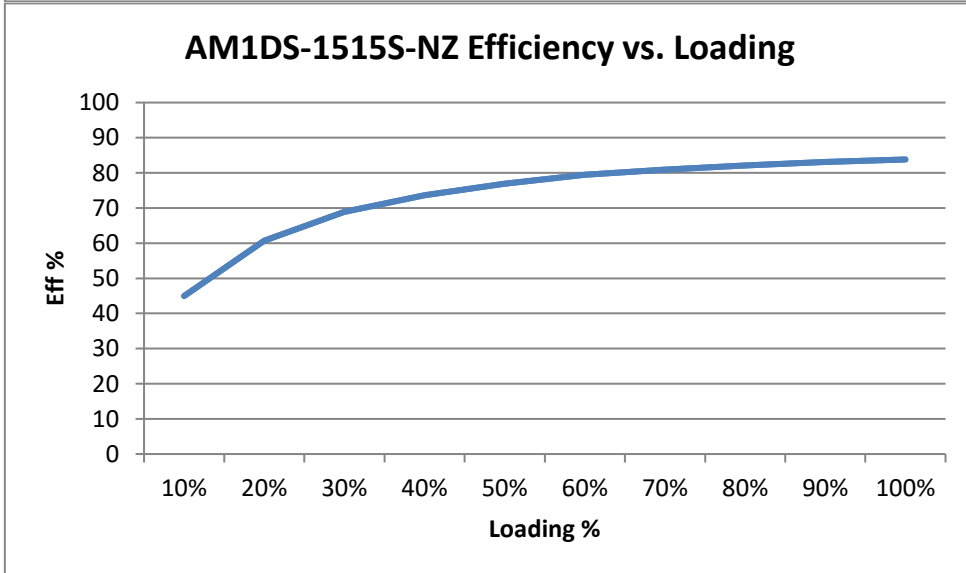
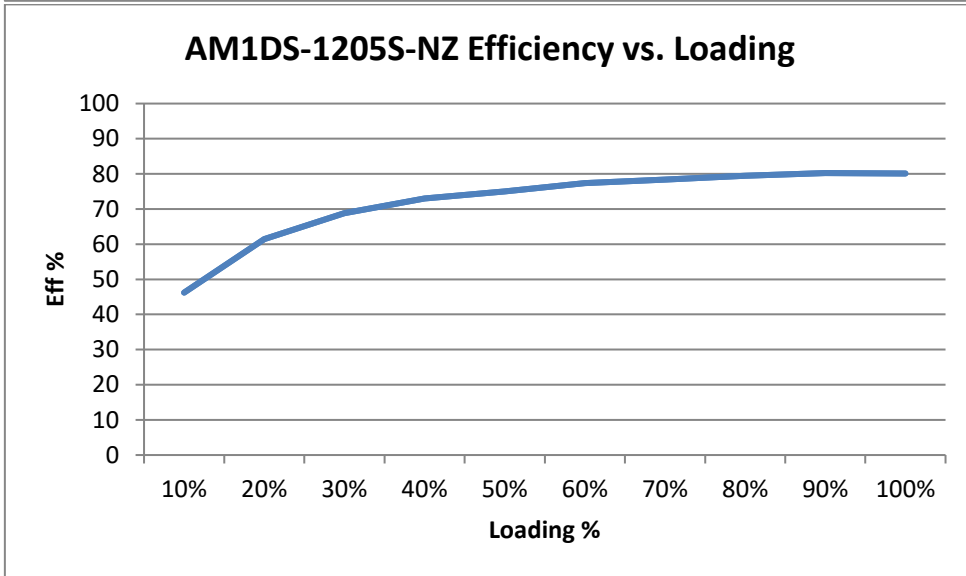
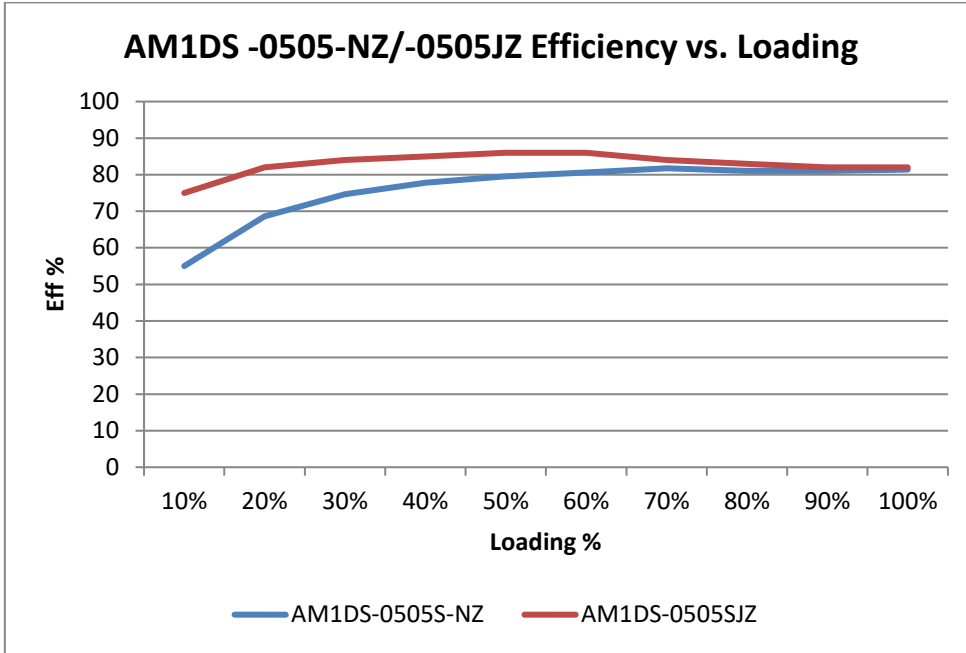
Typical Recommended Circuit

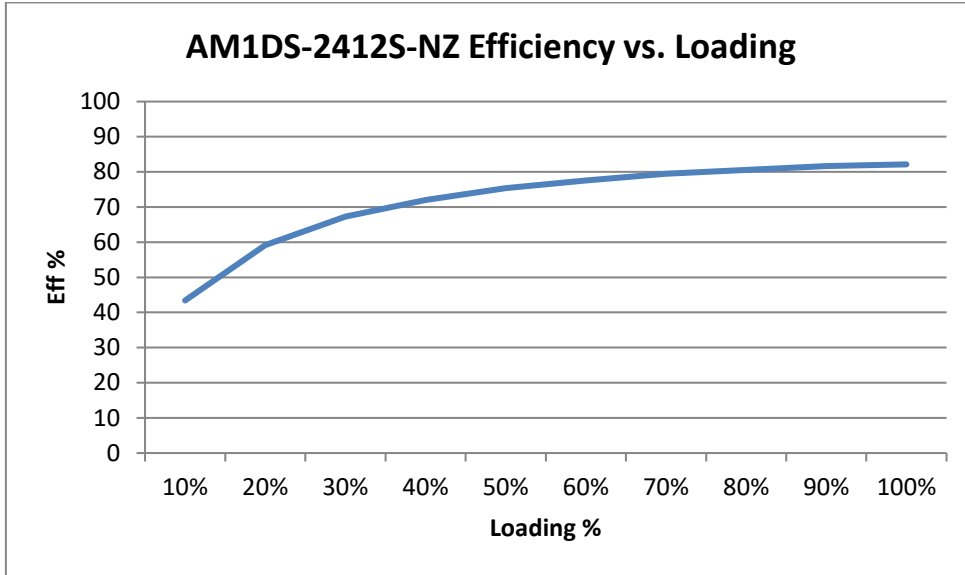


| Vin | Cin | Vout | Cout | Vout (Dual) | Cout (Dual) |
|-----------|-----|-----------|-------------|-----------------------|--------------|
| 3.3 & 5 V | 4.7 | 3.3 & 5 V | 10 μ F | \pm 3.3 & \pm 5 V | 4.7 μ F |
| 12 V | 2.2 | 12 V | 2.2 μ F | \pm 12 V | 1 μ F |
| 15 V | 2.2 | 15 & 24 V | 1 μ F | \pm 15 & \pm 24 V | 0.47 μ F |
| 24 V | 1 | - | - | | |

Typical Efficiency Example Charts







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