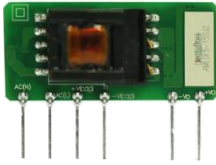


FEATURES:



- Input voltage up to 85-305VAC or 100-430VDC
- Operating temperature up to -40°C to +85°C
- Low power consumption $\leq 0.5W$
- Continuous short circuit protection
- Class II power supply
- I/O Isolation 4000VAC
- Ultra slim open frame SIP
- Over current protection
- Over voltage protection



Models
Single output

| Model | Input Voltage (VAC/Hz) | Input Voltage (VDC) | Full power temperature range (°C) | Output Voltage (V) | Output Current max (mA) | Maximum capacitive load (μF) | Efficiency (%) |
|----------------|------------------------|---------------------|-----------------------------------|--------------------|-------------------------|-------------------------------------|----------------|
| AMEOF5-3.3SJZ | 85-305/47-63 | 100-430 | 0 to +55 | 3.3 | 1000 | 2200 | 67 |
| AMEOF5-5SJZ | 85-305/47-63 | 100-430 | 0 to +55 | 5 | 1000 | 1500 | 74 |
| AMEOF5-9SJZ | 85-305/47-63 | 100-430 | 0 to +55 | 9 | 560 | 680 | 75 |
| AMEOF5-12SJZ | 85-305/47-63 | 100-430 | 0 to +55 | 12 | 420 | 470 | 76 |
| AMEOF5-15SJZ | 85-305/47-63 | 100-430 | 0 to +55 | 15 | 340 | 330 | 77 |
| AMEOF5-24SJZ | 85-305/47-63 | 100-430 | 0 to +55 | 24 | 210 | 100 | 79 |
| AMEOF5-3.3SLJZ | 85-305/47-63 | 100-430 | 0 to +55 | 3.3 | 1000 | 2200 | 67 |
| AMEOF5-5SLJZ | 85-305/47-63 | 100-430 | 0 to +55 | 5 | 1000 | 1500 | 74 |
| AMEOF5-9SLJZ | 85-305/47-63 | 100-430 | 0 to +55 | 9 | 560 | 680 | 75 |
| AMEOF5-12SLJZ | 85-305/47-63 | 100-430 | 0 to +55 | 12 | 420 | 470 | 76 |
| AMEOF5-15SLJZ | 85-305/47-63 | 100-430 | 0 to +55 | 15 | 340 | 330 | 77 |
| AMEOF5-24SLJZ | 85-305/47-63 | 100-430 | 0 to +55 | 24 | 210 | 100 | 79 |

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 | Conditions | Typical | Maximum | Units |
|---------------------|--------------------------------|---------|---------|---------|
| Current | 115VAC | | 200 | mA |
| | 230VAC | | 100 | mA |
| Inrush current <2ms | 115VAC | 5 | | A |
| | 230VAC | 10 | | A |
| External fuse | Recommended slow blow type | 1 | | A |
| Input dissipation | No Load | | 0.5 | W |
| Leakage current | CY(Input to Output) 1nF/400VAC | | 250 | μA |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|--------------------------|--------------------------|---------------|-----------|------------|
| Voltage accuracy | 3.3V output | ± 2 | ± 3 | % |
| | others | ± 1 | ± 2 | % |
| Line regulation | Full load | ± 0.5 | | % |
| Load regulation | 10% - 100% load | ± 1 | ± 1.5 | % |
| Ripple & Noise | 20MHz Bandwidth | 50 | 150 | mV p-p |
| Over current protection | Auto-recovery | ≥ 150 | | % of I out |
| Short circuit protection | | Continuous | | |
| Short circuit restart | | Auto-recovery | | |
| Over Voltage protection | 3.3/5Vout, Voltage clamp | | 7.5 | V |
| | 9Vout, Voltage clamp | | 15 | V |
| | 12/15Vout, Voltage clamp | | 20 | V |
| | 24Vout, Voltage clamp | | 30 | V |
| Hold up time | 115VAC | 15 | | ms |
| | 230VAC | 75 | | ms |

Isolation Specifications

| Parameters | Conditions | Typical | Rated | Units |
|--------------------|-----------------------------|---------|-------|-------|
| Tested I/O voltage | 60 sec, 5mA leakage current | | 4000 | VAC |

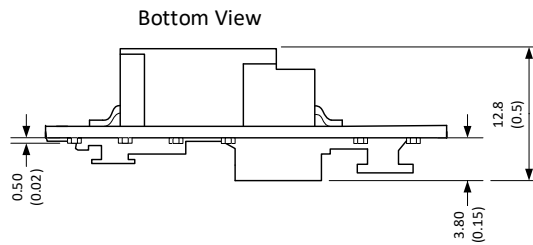
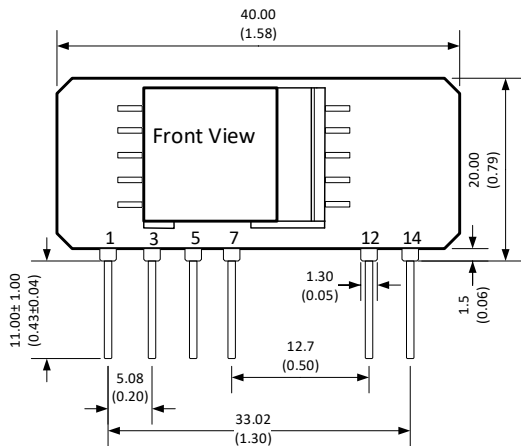
General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|------------------------------|---|-------------|--------------------------|---------|
| Switching frequency | | 65 | | KHz |
| Operating temperature | See derating curve | -40 to +85 | | °C |
| Power derating | -40°C to -25°C | ≥2 | | % / °C |
| | -25°C to 0°C | ≥0.8 | | % / °C |
| | 55°C to 85°C | ≥1.33 | | % / °C |
| | 85VAC to 110VAC | ≥0.8 | | % / VAC |
| | 240VAC to 264VAC | ≥1.67 | | % / VAC |
| | 264VAC to 305VAC | ≥1.0 | | % / VAC |
| Storage temperature | | -40 to +105 | | °C |
| Temperature coefficient | | ±0.02 | | % / °C |
| Wave soldering temperature | Duration 5-10s | 260±5°C | | °C |
| Manual soldering temperature | Duration 3-5s | 360±10°C | | °C |
| Cooling | Free air convection | | | |
| Humidity | | | 85 | % RH |
| Weight | | 7 | | g |
| Dimensions (L x W x H) | 1.58 x 0.50 x 0.79 inches | | 40.00 x 12.80 x 20.00 mm | |
| MTBF | >300,000 hours (MIL-HDBK -217F, Ground Benign, t=+25°C) | | | |

Safety Specifications

| Parameters | | |
|--|---|---|
| Agency approvals | EN/UL60950-1, EN/UL62368-1 | |
| Standards | Design to meet EN60335 (With the EN60335 recommended circuit) | |
| | EMC - Conducted and radiated emission | CISPR32 / EN55032 Class A, (With typical application circuit, EMI Class A circuit) CISPR32 / EN55032 Class B, (With EMI Class B circuit) |
| | Electrostatic Discharge Immunity | IEC 61000-4-2 Contact ±4KV, Criteria B |
| | RF, Electromagnetic Field Immunity | IEC 61000-4-3 10V/m, Criteria A |
| | Electrical Fast Transient/Burst Immunity | IEC 61000-4-4 ±2KV, Criteria B (With typical application circuit, EMS Class III circuit) |
| | | IEC 61000-4-4 ±4KV, Criteria B (With EMS Class IV circuit) |
| | Surge Immunity | IEC 61000-4-5 L-L ±1KV, Criteria B (with typical application circuit, EMS Class III and EMI Class A circuit) |
| | | IEC 61000-4-5 L-L ±2KV, Criteria B (with EMS Class IV and EMI Class A circuit) |
| | | IEC 61000-4-5 L-L ±1KV, L-G ±2KV, Criteria B (with EMS Class III and EMI Class B circuit) |
| | RF, Conducted Disturbance Immunity | IEC 61000-4-5 L-L ±2KV, L-G ±4KV, Criteria B (with EMS Class IV and EMI Class B circuit) |
| RF, Conducted Disturbance Immunity | IEC 61000-4-6 10Vr.m.s, Criteria A | |
| Voltage dips, Short Interruptions Immunity | IEC 61000-4-11 0%, 70%, Criteria B | |

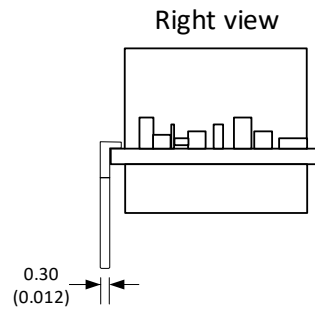
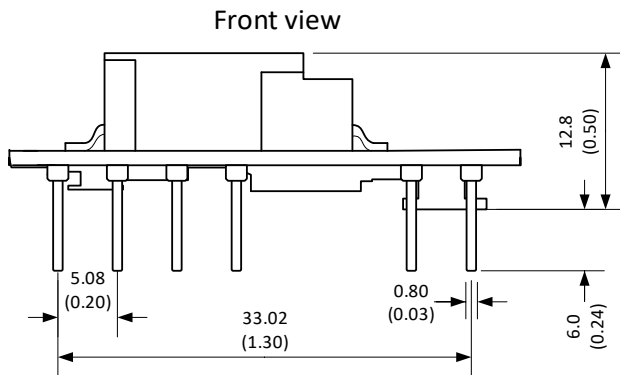
Dimensions



Note:
Unit: mm (inch)
Pin diameter tolerance: ± 0.10 (± 0.004)
Case tolerance: ± 0.50 (± 0.02)

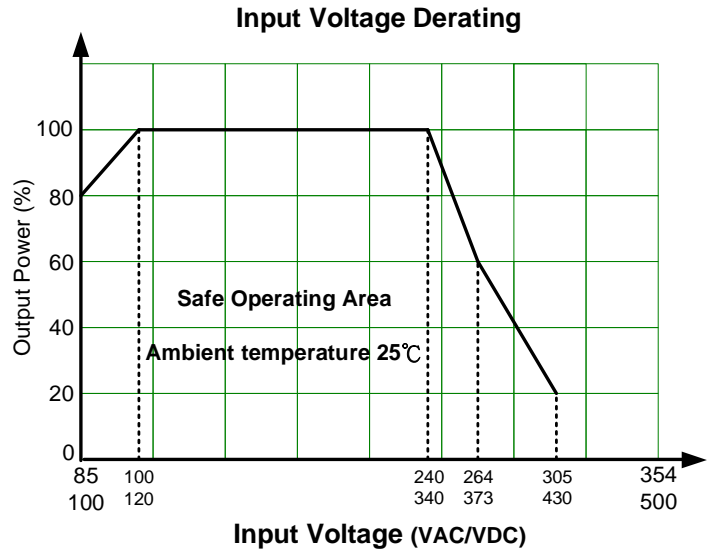
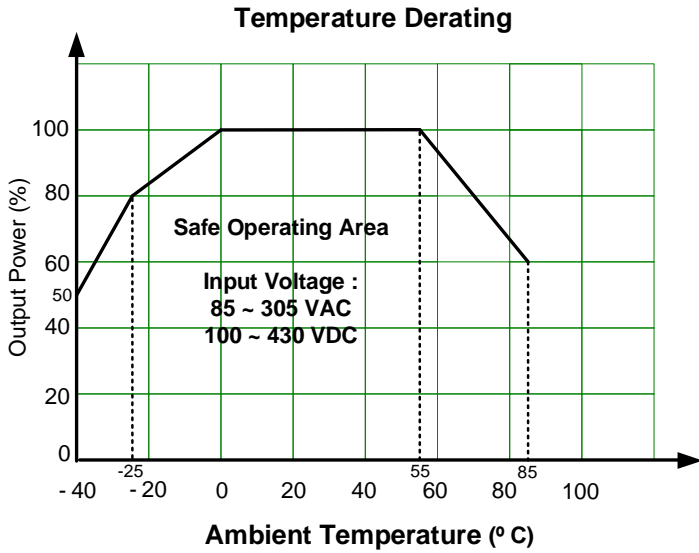
| Pin | Single |
|-----|-----------|
| 1 | AC N |
| 3 | AC L |
| 5 | +V sc |
| 7 | -V sc |
| 12 | -V Output |
| 14 | +V Output |

L models

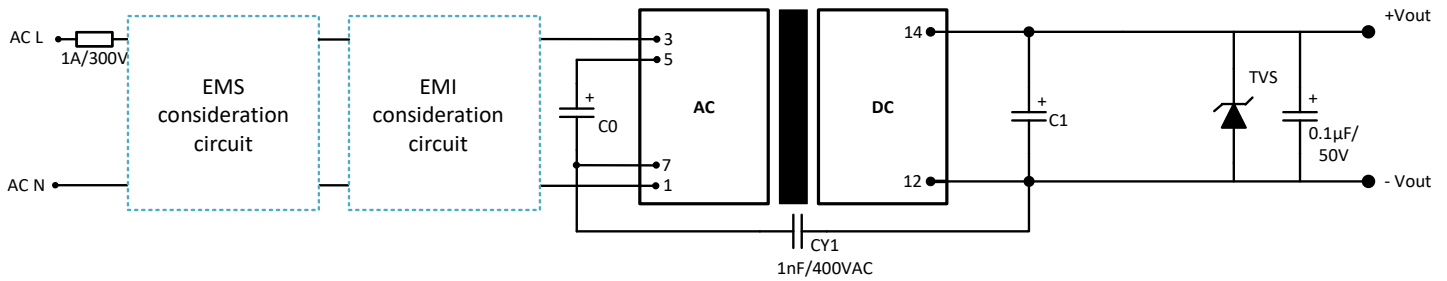


- Note:
1. Capacitor between pin5 and pin7 is necessary.
 2. External circuit on the output side is necessary. Please refer to the recommended circuit.
 3. It is needed to have distance ≥ 6.4 mm for safety between external components in primary circuit and secondary circuit.
 4. The layout of the device is for reference only, please refer to the actual product.

Derating



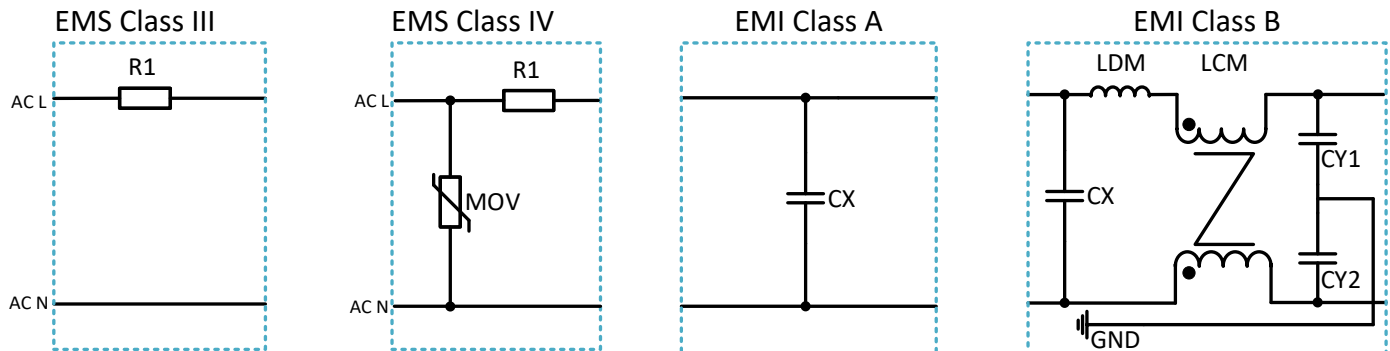
Recommended EMC external circuit



A suppressor diode (TVS) with 1.2 times of the output voltage rating is recommended.

| Model | C0 | C1 |
|----------------|---|--|
| 3.3 VDC output | 10µF/400V (-20°C to +85°C, 85 to 264VAC) | 220µF/35V (-25°C to +85°C), 470µF/35V (-40°C to +85°C) |
| 5 VDC output | 10µF/450V (-20°C to +85°C, 85 to 305VAC) | 220µF/35V (-25°C to +85°C), 470µF/35V (-40°C to +85°C) |
| 9 VDC output | 22µF/450V (-40°C to +85°C) | 220µF/35V (-25°C to +85°C), 470µF/35V (-40°C to +85°C) |
| 12 VDC output | | 150µF/35V (-25°C to +85°C), 470µF/35V (-40°C to +85°C) |
| 15 VDC output | | 150µF/35V (-25°C to +85°C), 470µF/35V (-40°C to +85°C) |
| 24 VDC output | | 150µF/35V (-25°C to +85°C), 470µF/35V (-40°C to +85°C) |

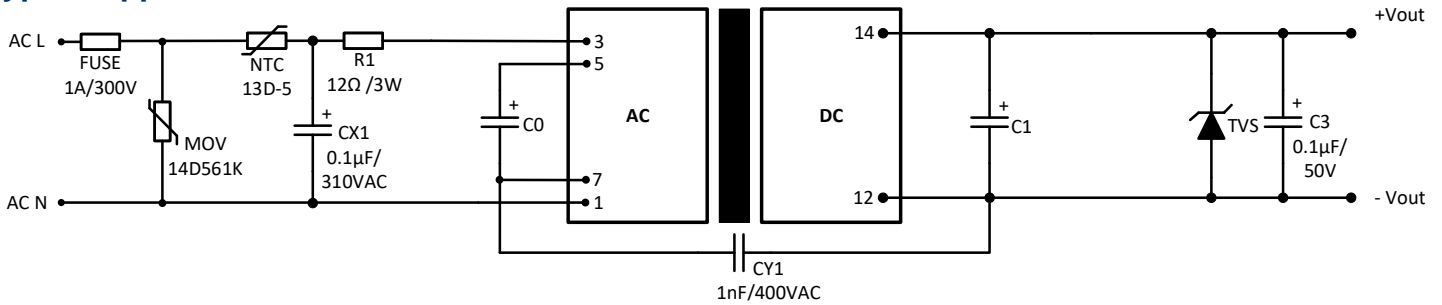
EMI & EMS Recommended Circuit



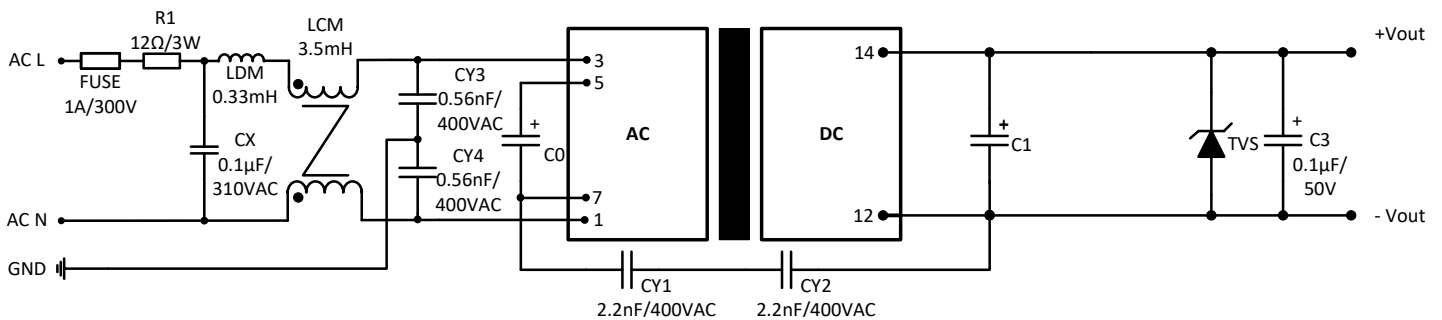
| Component | EMS | | EMI | |
|-----------|-----------|----------|---------|---------|
| | Class III | Class IV | CLASS A | CLASS B |

| | | | | |
|------|---------|---------|--------------|--------------|
| MOV | - | 14D561K | - | - |
| R1 | 12Ω/3W | 12Ω/3W | - | - |
| CX | - | - | 0.1μF/310VAC | 0.1μF/310VAC |
| CY1 | - | - | - | 1nF/400VAC |
| CY2 | - | - | - | 1nF/400VAC |
| LCM | - | - | - | 3.5mH |
| LDM | - | - | - | 0.33mH |
| FUSE | 1A/300V | 1A/300V | 1A/300V | 1A/300V |

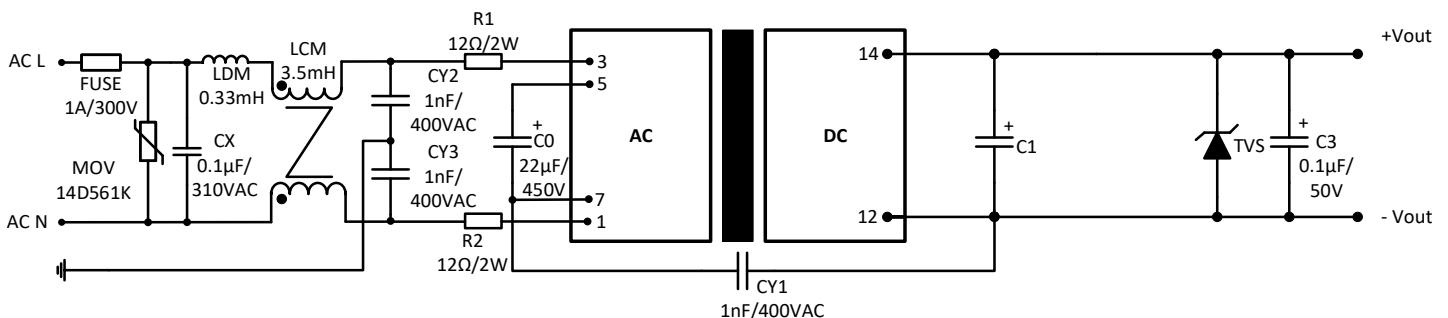
Typical application circuit

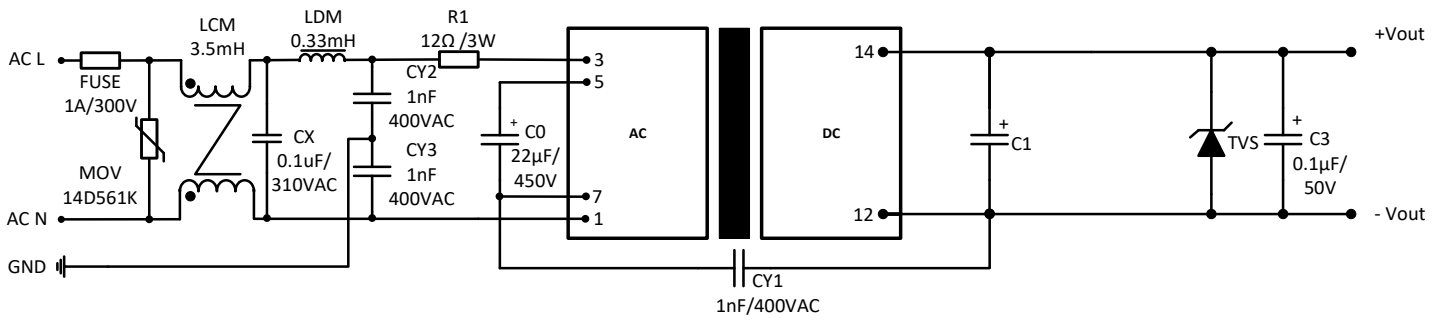


Recommended EMC circuit for EN60335



Recommended EMC circuit for EMS Class IV, EMI Class B





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