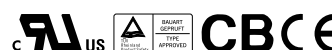




■ Features :

- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- Isolation class II
- LED indicator for power on
- No load power consumption < 0.5W
- 100% full load burn-in test
- 3 years warranty

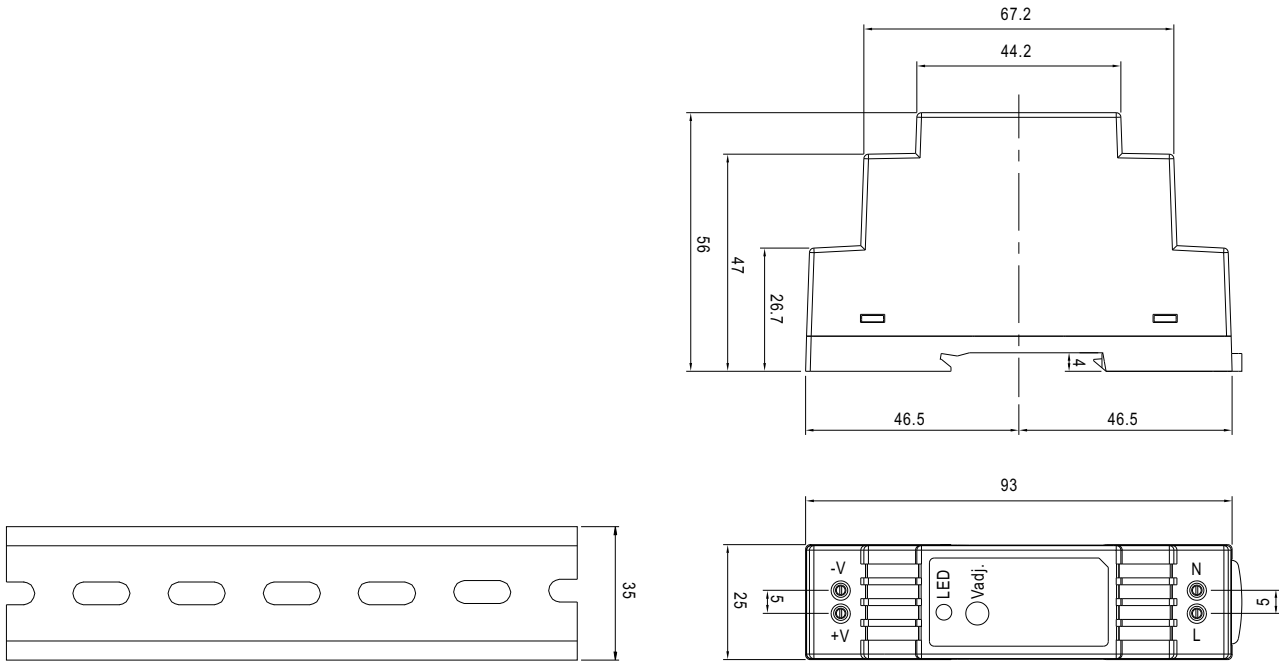


SPECIFICATION

| MODEL | DR-15-5 | DR-15-12 | DR-15-15 | DR-15-24 | |
|-----------------------|---|---|--------------|----------------|--------------|
| OUTPUT | DC VOLTAGE | 5V | 12V | 15V | 24V |
| | RATED CURRENT | 2.4A | 1.25A | 1A | 0.63A |
| | CURRENT RANGE | 0 ~ 2.4A | 0 ~ 1.25A | 0 ~ 1A | 0 ~ 0.63A |
| | RATED POWER | 12W | 15W | 15W | 15.2W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 120mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | 4.75 ~ 5.5V | 10.8 ~ 13.2V | 13.5 ~ 16.5V | 21.6 ~ 26.4V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 1000ms, 50ms/230VAC 1000ms, 50ms/115VAC at full load | | | |
| HOLD UP TIME (Typ.) | 70ms/230VAC 16ms/115VAC at full load | | | | |
| INPUT | VOLTAGE RANGE | 85 ~ 264VAC 120 ~ 370VDC | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | EFFICIENCY (Typ.) | 77% | 84% | 83.5% | 85% |
| | AC CURRENT (Typ.) | 0.88A/115VAC 0.48A/230VAC | | | |
| | INRUSH CURRENT (Typ.) | COLD START 35A/115VAC 65A/230VAC | | | |
| PROTECTION | OVERLOAD Note.5 | 105 ~ 160% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | |
| | OVER VOLTAGE | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +60°C (Refer to "Derating Curve") | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6 | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 approved, design refer to EN50178 | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC | | | |
| | ISOLATION RESISTANCE | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH | | | |
| | EMC EMISSION | Compliance to EN55011, EN55022 (CISPR22), EN61204-3 Class B, EN61000-3-2,-3 | | | |
| OTHERS | EMC IMMUNITY | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A | | | |
| | MTBF | 1172.3K hrs min. MIL-HDBK-217F (25°C) | | | |
| | DIMENSION | 25*93*56mm (W*H*D) | | | |
| NOTE | PACKING: 0.1Kg; 140pcs/15Kg/0.92CUFT | | | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Constant current operation region is within 60% ~100% rated output voltage. Protection type for short circuit is hiccup mode and will recover automatically after fault condition is removed. | | | | |

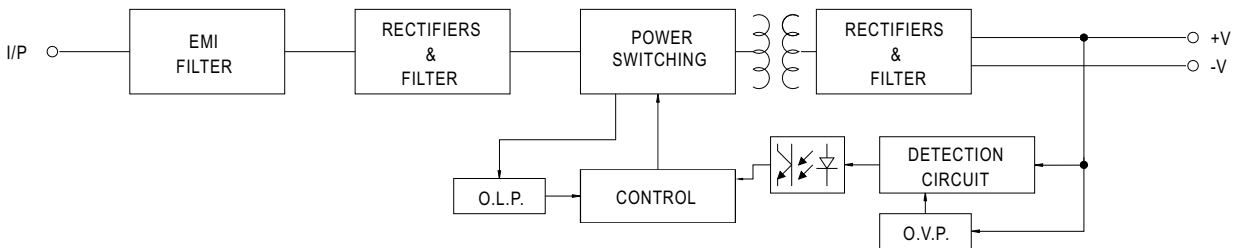
■ Mechanical Specification

Case No.985A Unit:mm

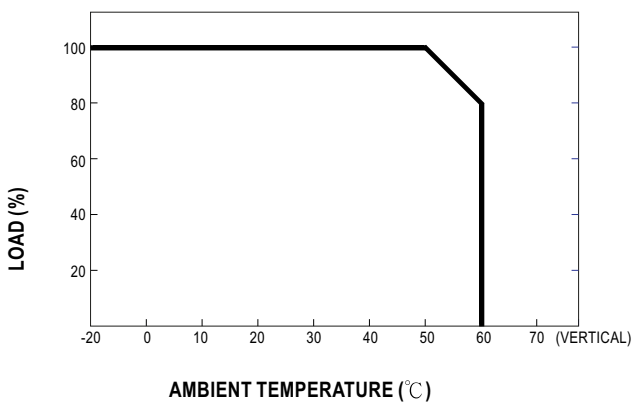


ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15

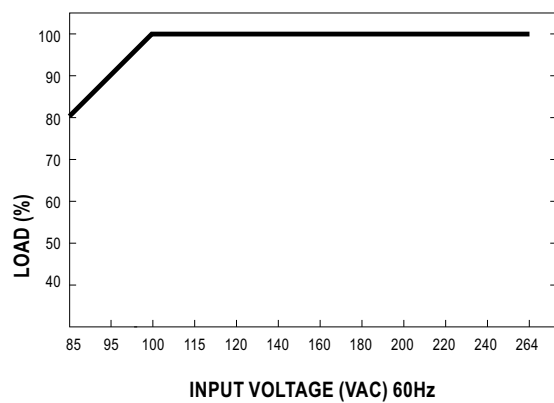
■ Block Diagram



■ Derating Curve



■ Output Derating VS Input Voltage





■ Features :

- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- Isolation class II
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty



SPECIFICATION

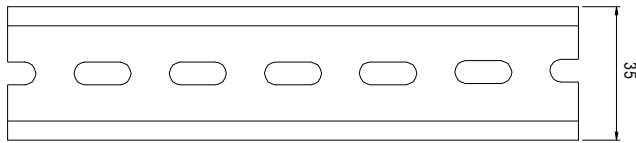
| MODEL | DR-30-5 | DR-30-12 | DR-30-15 | DR-30-24 | |
|-----------------------|---------------------------------------|---|--------------|----------------|--------------|
| OUTPUT | DC VOLTAGE | 5V | 12V | 15V | 24V |
| | RATED CURRENT | 3A | 2A | 2A | 1.5A |
| | CURRENT RANGE | 0 ~ 3A | 0 ~ 2A | 0 ~ 2A | 0 ~ 1.5A |
| | RATED POWER | 15W | 24W | 30W | 36W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 120mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | 4.75 ~ 5.5V | 10.8 ~ 13.2V | 13.5 ~ 16.5V | 21.6 ~ 26.4V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 100ms, 30ms/230VAC 100ms, 30ms/115VAC at full load | | | |
| HOLD UP TIME (Typ.) | 100ms/230VAC 21ms/115VAC at full load | | | | |
| INPUT | VOLTAGE RANGE | 85 ~ 264VAC 120 ~ 370VDC | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | EFFICIENCY (Typ.) | 74% | 81% | 82% | 83% |
| | AC CURRENT (Typ.) | 0.88A/115VAC 0.48A/230VAC | | | |
| | INRUSH CURRENT (Typ.) | COLD START 15A/115VAC 30A/230VAC | | | |
| PROTECTION | OVERLOAD | 105 ~ 160% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | |
| | OVER VOLTAGE | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +60°C (Refer to "Derating Curve") | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6 | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 approved, Design refer to EN50178 | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC | | | |
| | ISOLATION RESISTANCE | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH | | | |
| | EMC EMISSION | Compliance to EN55011, EN55022 (CISPR22) Class B, EN61000-3-2,-3 | | | |
| OTHERS | EMC IMMUNITY | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A | | | |
| | MTBF | 441.5K hrs min. MIL-HDBK-217F (25°C) | | | |
| | DIMENSION | 78*93*56mm (W*H*D) | | | |
| NOTE | PACKING | 0.27Kg; 48pcs/14Kg/1.02CUFT | | | |
| | | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. | | | |

■ Mechanical Specification

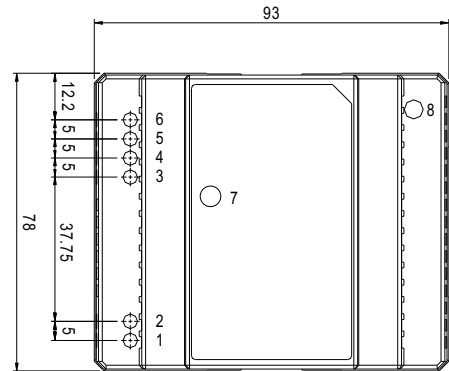
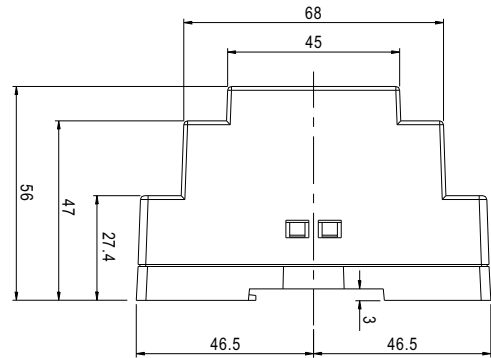
Case No. 918B Unit:mm

Terminal Pin No. Assignment

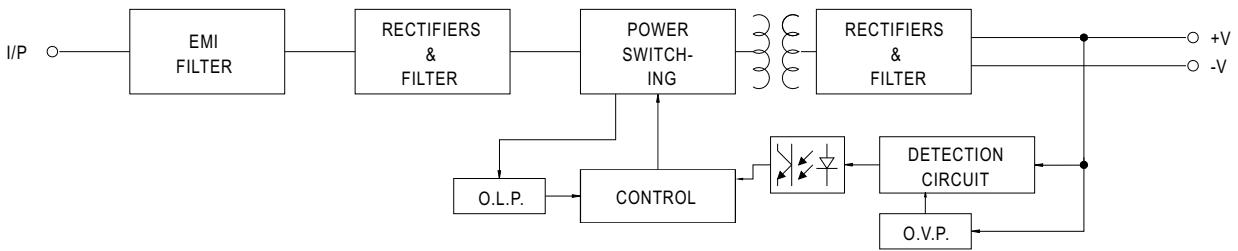
| Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|------------|
| 1 | AC/N | 5,6 | -V |
| 2 | AC/L | 7 | LED |
| 3,4 | +V | 8 | +V ADJ. |



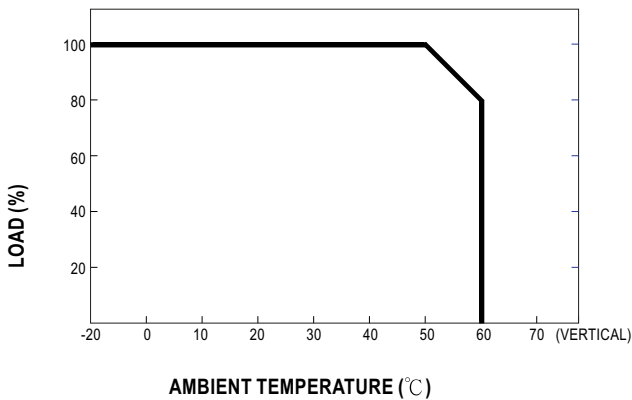
ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15



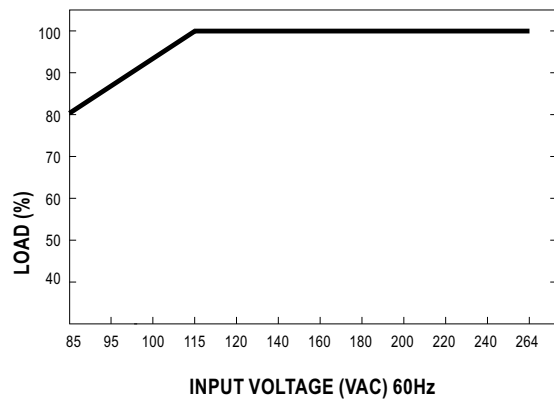
■ Block Diagram



■ Derating Curve



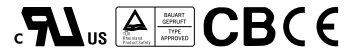
■ Output Derating VS Input Voltage





■ Features :

- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508(industrial control equipment)approved
- Isolation class II
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty



SPECIFICATION

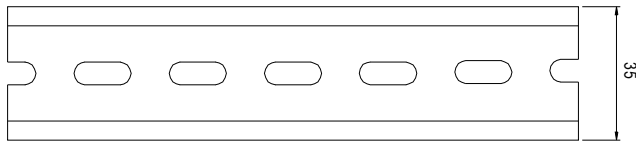
| MODEL | DR-60-5 | DR-60-12 | DR-60-15 | DR-60-24 | |
|-----------------------|--|---|--------------|----------------|--------------|
| OUTPUT | DC VOLTAGE | 5V | 12V | 15V | 24V |
| | RATED CURRENT | 6.5A | 4.5A | 4A | 2.5A |
| | CURRENT RANGE | 0 ~ 6.5A | 0 ~ 4.5A | 0 ~ 4A | 0 ~ 2.5A |
| | RATED POWER | 32.5W | 54W | 60W | 60W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 120mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | 4.75 ~ 5.5V | 11.1 ~ 13.2V | 13.5 ~ 16.5V | 21.6 ~ 26.4V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 100ms, 30ms/230VAC 200ms, 30ms/115VAC at full load | | | |
| HOLD UP TIME (Typ.) | 100ms/230VAC 23ms/115VAC at full load | | | | |
| INPUT | VOLTAGE RANGE | 88 ~ 264VAC 124 ~ 370VDC | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | EFFICIENCY (Typ.) | 76% | 82% | 83% | 84% |
| | AC CURRENT (Typ.) | 1.2A/115VAC 0.8A/230VAC | | | |
| | INRUSH CURRENT (Typ.) | COLD START 18A/115VAC 36A/230VAC | | | |
| PROTECTION | OVERLOAD | 105 ~ 160% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | |
| | OVER VOLTAGE | 5.75 ~ 6.9V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +60°C (Refer to "Derating Curve") | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6 | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 approved, Design refer to EN50178 | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC | | | |
| | ISOLATION RESISTANCE | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH | | | |
| | EMC EMISSION | Compliance to EN55011, EN55022 (CISPR22) Class B, EN61000-3-2,-3 | | | |
| OTHERS | EMC IMMUNITY | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A | | | |
| | MTBF | 216.2K hrs min. MIL-HDBK-217F (25°C) | | | |
| | DIMENSION | 78*93*56mm (W*H*D) | | | |
| | PACKING | 0.3Kg; 48pcs/15.4Kg/1.02CUFT | | | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</p> | | | | |

■ **Mechanical Specification**

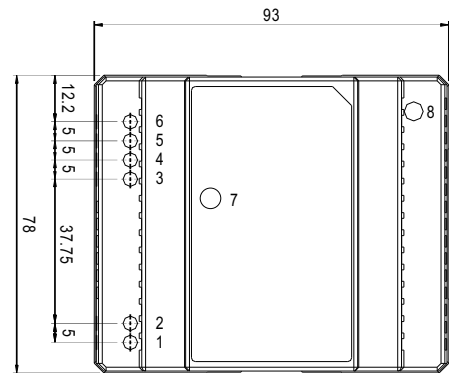
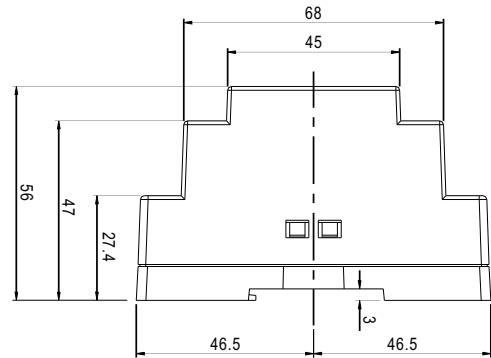
Case No.918B Unit:mm

Terminal Pin No. Assignment

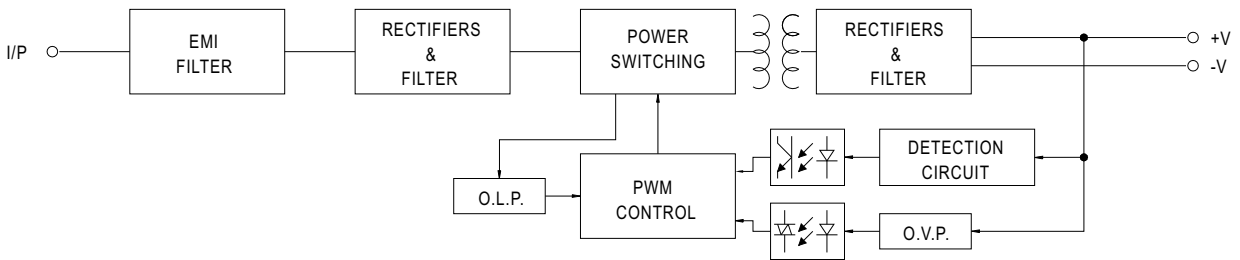
| Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|------------|
| 1 | AC/N | 5,6 | -V |
| 2 | AC/L | 7 | LED |
| 3,4 | +V | 8 | +V ADJ. |



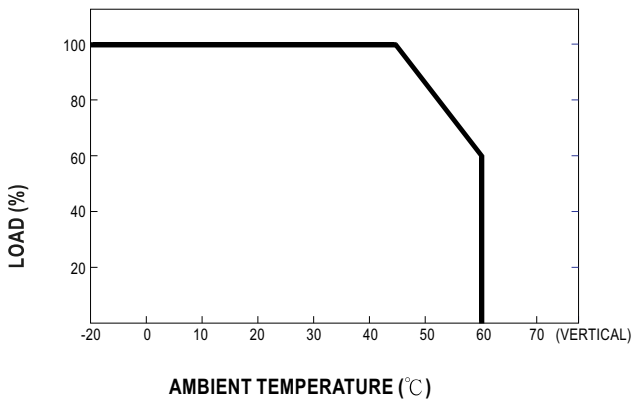
ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15



■ **Block Diagram**



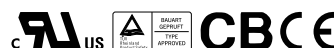
■ **Derating Curve**





■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- Isolation class II
- LED indicator for power on
- No load power consumption < 1W
- 100% full load burn-in test
- 3 years warranty



SPECIFICATION

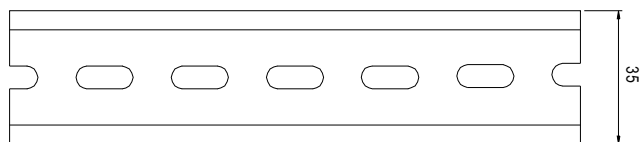
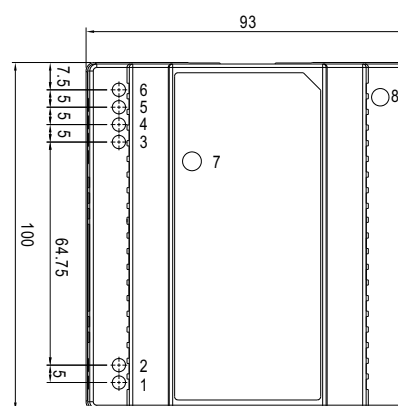
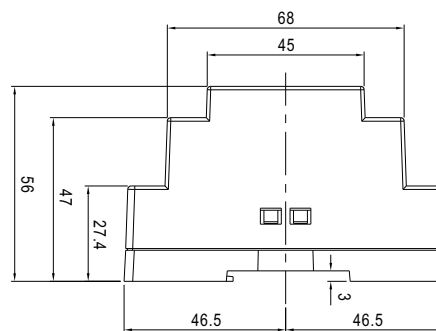
| MODEL | DR-100-12 | DR-100-15 | DR-100-24 | |
|-----------------------|---|---|-----------|----------|
| OUTPUT | DC VOLTAGE | 12V | 15V | 24V |
| | RATED CURRENT | 7.5A | 6.5A | 4.2A |
| | CURRENT RANGE | 0 ~ 7.5A | 0 ~ 6.5A | 0 ~ 4.2A |
| | RATED POWER | 90W | 97.5W | 100.8W |
| | RIPPLE & NOISE (max.) Note.2 | 120mVp-p | 120mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | 12 ~ 15V | 15 ~ 18V | 24 ~ 29V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±1.0% | ±1.0% | ±1.0% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 2700ms, 80ms/230VAC 2700ms, 80ms/115VAC at full load | | |
| HOLD UP TIME (Typ.) | 50ms/230VAC 18ms/115VAC at full load | | | |
| INPUT | VOLTAGE RANGE | 88 ~ 264VAC 124 ~ 370VDC | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | |
| | EFFICIENCY (Typ.) | 87% | 87% | 89% |
| | AC CURRENT (Typ.) | 3A/115VAC 1.6A/230VAC | | |
| | INRUSH CURRENT (Typ.) | COLD START 30A/115VAC 45A/230VAC | | |
| PROTECTION | OVERLOAD Note.6 | 105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | |
| | OVER VOLTAGE | 16 ~ 20V | 19 ~ 23V | 30 ~ 35V |
| | OVER TEMPERATURE | 90°C ±15°C (RTH2) detect on heatsink of power transistor Protection type : Shut down o/p voltage, re-power on to recover | | |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +60°C (Refer to "Derating Curve") | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | |
| | VIBRATION | Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6 | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 approved, design refer to EN50178 | | |
| | WITHSTAND VOLTAGE | I/P-O/P: 3KVAC | | |
| | ISOLATION RESISTANCE | I/P-O/P: >100M Ohms / 500VDC / 25°C / 70% RH | | |
| | EMC EMISSION | Compliance to EN61204-3, EN55022 Class B, EN61000-3-2,-3 | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A | | |
| OTHERS | MTBF | 486K hrs min. MIL-HDBK-217F (25°C) | | |
| | DIMENSION | 100*93*56mm (W*H*D) | | |
| | PACKING | 0.35Kg; 36pcs/13.6Kg/0.89CUFT | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Harmonic current test @ 90% load. 6. Under short circuit or overload >150% conditions, output voltage may shut down for 5 sec. and then go into constant current protection mode. | | | |

Mechanical Specification

Case No.970A Unit:mm

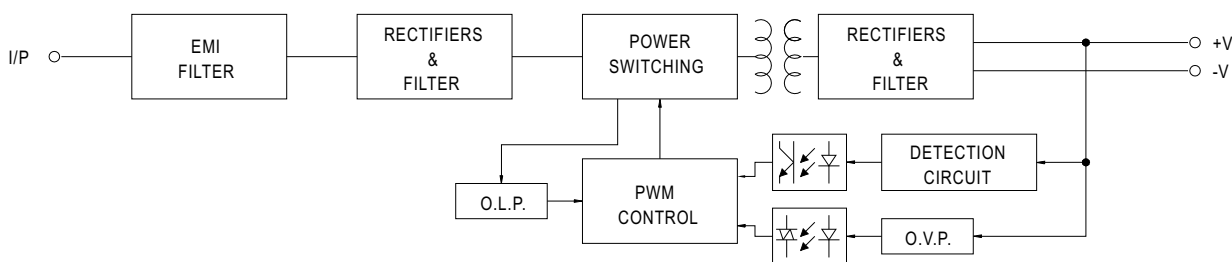
Terminal Pin No. Assignment

| Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|------------|
| 1 | AC/L | 5,6 | -V |
| 2 | AC/N | 7 | LED |
| 3,4 | +V | 8 | +V ADJ. |

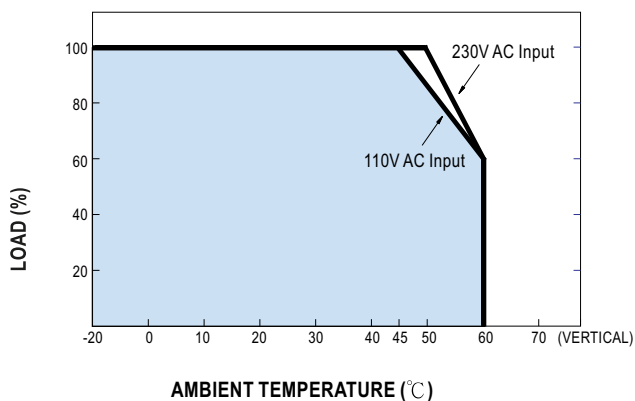


ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

Block Diagram



Derating Curve VS Ambient Temperature



Output Derating VS Input Voltage

