



AC - DC DIN RAIL MOUNTABLE
18W CLASS 2 POWER SUPPLY
INDUSTRIAL CONTROL EQUIPMENT

FEATURES

- UL / cUL / TUV / CE
- UNIVERSAL INPUT 90~265VAC
- HIGH EFFICIENCY UP TO 77%
- SHORT CIRCUIT PROTECTION
- INTERNAL INPUT FILTER
- 2 YEARS WARRANTY

MODEL LIST

| MODEL NO. | INPUT VOLTAGE | OUTPUT WATTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | EFF. (typ.) | EFF. (min.) |
|-----------------------------|---------------|----------------|----------------|----------------|-------------|-------------|
| Single Output Models | | | | | | |
| DRA18-05 | 90~265 VAC | 15 WATTS | + 5 VDC | 3000 mA | 75% | 73% |
| DRA18-12 | 90~265 VAC | 18 WATTS | + 12 VDC | 1500 mA | 77% | 75% |
| DRA18-15 | 90~265 VAC | 18 WATTS | + 15 VDC | 1200 mA | 77% | 75% |
| DRA18-24 | 90~265 VAC | 18 WATTS | + 24 VDC | 750 mA | 77% | 75% |

SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

| GENERAL | | | | | | |
|----------------------|-----------------------------------|-------|---------|------|--------|--|
| Characteristics | Conditions | min. | typ. | max. | unit | |
| Switching frequency | Vi nom, Io nom | 100 | | | KHz | |
| Isolation voltage | Input / Output | 3,000 | | | VAC | |
| Isolation resistance | Input / Output, @ 500VDC | 100 | | | MΩ | |
| Ambient temperature | Operating at Vinom, Io 70%...100% | -10 | | + 50 | °C | |
| Derating | Vi nom, Io nom +5I to +71°C | | | 2 | % / °C | |
| Storage temperature | Non operational | -25 | | + 85 | °C | |
| M.T.B.F. | According to MIL-HDBK-217F, GF40 | | 195,000 | | Hrs | |
| Relative humidity | Vi nom, Io nom | 20 | | 95 | % RH | |
| Dimension | L90 x W22.5 x D115 | | | | mm | |
| Cooling | Free air convection | | | | | |
| Case material | Plastic | | | | | |

| INPUT SPECIFICATIONS | | | | | | |
|----------------------|------------------------------|-------------|------|------|------|--|
| Characteristics | Conditions | min. | typ. | max. | unit | |
| Rated input voltage | Io nom | 100 | | 240 | VAC | |
| Input voltage range | Ta min ... Ta max, Io nom | AC in | 90 | 265 | VAC | |
| | | DC in | 120 | 370 | VDC | |
| Line frequency | Vi nom, Io nom | 47 | | 63 | Hz | |
| Inrush current | Io nom | Vi : 115VAC | | 10 | A | |
| | | Vi : 230VAC | | 18 | A | |



SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

OUTPUT SPECIFICATIONS

| Characteristics | Conditions | min. | typ. | max. | unit |
|---|----------------------------|---------------------------|-------|--------|--------|
| Output voltage accuracy | Vi nom, lo min ...lo nom | | | ± 1 | % |
| Minimum load | Vi nom | 0 | | | % |
| Line regulation | lo nom, Vi min ...Vi max | | | ± 1 | % |
| Load regulation | Vi nom, lo min ...lo nom | | | ± 2 | % |
| Transient recovery time | 50% load step changed | | 300 | | µ S |
| Temperature coefficient | Vi nom, lo min | | | ± 0.02 | % / °C |
| Ripple & noise | Vi nom, lo nom, BW = 20MHz | | | 50 | mV |
| Hold up time | lo nom | Vi = 115VAC | 20 | | ms |
| | | Vi = 230VAC | 75 | | ms |
| Voltage trim range | Vi nom, lo nom | 5V ...15V models | - 10 | + 15 | % |
| | | 24V model | - 10 | + 20 | % |
| DC ON indicator threshold at start up | Vi nom, lo nom | 5V model | 4.5 | | VDC |
| | | 12V model | 10.8 | | VDC |
| | | 15V model | 13.5 | | VDC |
| | | 24V model | 21.6 | | VDC |
| DC LOW indicator threshold after start up | Vi nom, lo nom | 5V model | 3.75 | 4.5 | VDC |
| | | 12V model | 9 | 10.8 | VDC |
| | | 15V model | 11.25 | 13.5 | VDC |
| | | 24V model | 18 | 21.6 | VDC |
| Efficiency | Vi nom, lo nom, Po / Pi | Up to 77%, See model list | | | |

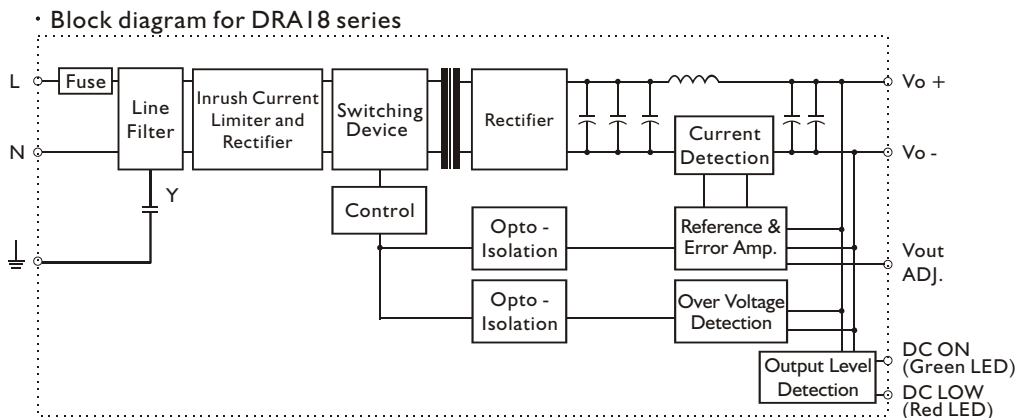
CONTROL AND PROTECTION

| Characteristics | Conditions | min. | typ. | max. | unit |
|----------------------------|----------------|-----------------------|------|------|------|
| Input fuse | | T2A / 250VAC internal | | | |
| Rated over load protection | Vi nom | 110 | | 135 | % |
| Over voltage protection | Vi nom, lo nom | 125 | | 145 | % |
| Output short circuit | Vi nom, lo nom | Hiccup mode | | | |

APPROVALS AND STANDARDS

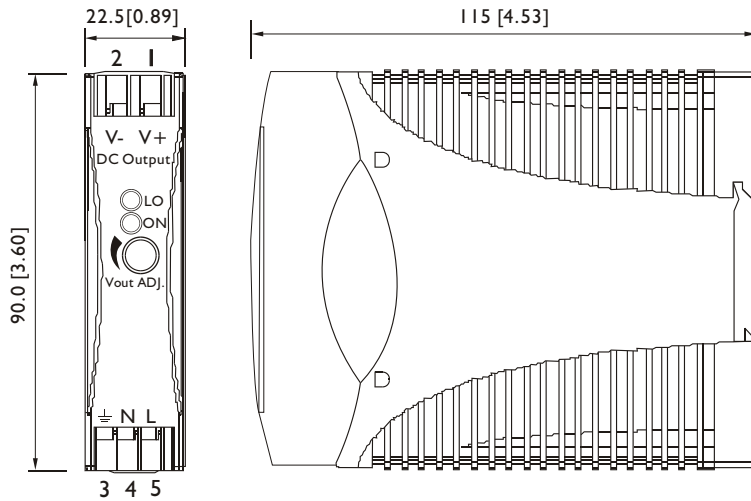
| | |
|----------|--|
| UL / cUL | UL508 / UL1310 Listed, Class 2 Power Supply |
| TUV | EN60950 |
| CE | EN50081-1 / EN55022 for EMI EN50082-1 / EN55024 for EMS |
| FCC | Class B |

CIRCUIT SCHEMATIC



MECHANISM & PIN CONFIGURATION

mm [inch]



CONSTRUCTION

Easy snap-on mounting onto the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail; no tools required even to remove

INSTALLATION

Ventilation / Cooling
Normal convection
Above/below 25m/m free space
For cooling recommended
Connector size range
Solid:0.2-2.0mm²(AWG24-14)
(use copper conductors only)

PHYSICAL CHARACTERISTICS

| | |
|---------------|---|
| CASE SIZE | 90 x 22.5 x 115 mm 3.6 x 0.89 x 4.53 inches |
| CASE MATERIAL | Plastic |
| WEIGHT | 150 g |

PIN ASSIGNMENT

| PIN NO. | | Designation | Description |
|---------|-------|-------------|--|
| 1 | OUT | V + | Positive output terminal |
| 2 | | V - | Negative output terminal |
| 3 | IN | ⊥ | Ground this terminal to minimize high-frequency emissions |
| 4 | | N | Input terminals (neutral conductor, no polarity at DC input) |
| 5 | OTHER | L | Input terminals (phase conductor, no polarity at DC input) |
| | | ON | Operation indicator LED |
| | | LO | DC LOW indicator LED |
| | | Vout ADJ. | Trimmer-potentiometer for Vout adjustment |

DERATING

