



AC - DC DIN RAIL MOUNTABLE
10W CLASS 2 OUTPUT
INDUSTRIAL CONTROL EQUIPMENT

FEATURES

- AC/DC POWER MODULE
- UNIVERSAL INPUT 90~264VAC
- HIGH EFFICIENCY UP TO 80%
- SHORT CIRCUIT PROTECTION
- INTERNAL INPUT FILTER
- LOW PROFILE FOR BUILDING AUTOMATION

MODEL LIST

| MODEL NO. | INPUT VOLTAGE | OUTPUT WATTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | EFF. (min.) | EFF. (typ.) |
|-----------------------------|---------------|----------------|----------------|----------------|-------------|-------------|
| Single Output Models | | | | | | |
| FDIN I-05 | 90~264 VAC | 7.5 WATTS | + 5 VDC | 1500 mA | 72% | 74% |
| FDIN I-12 | 90~264 VAC | 10 WATTS | + 12 VDC | 830 mA | 76% | 78% |
| FDIN I-15 | 90~264 VAC | 10 WATTS | + 15 VDC | 670 mA | 76% | 78% |
| FDIN I-24 | 90~264 VAC | 10 WATTS | + 24 VDC | 420 mA | 78% | 80% |

SPECIFICATION

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

| GENERAL | | | | | | |
|----------------------|-----------------------------|-------|------|------|--------|--|
| Characteristics | Conditions | min. | typ. | max. | unit | |
| Isolation voltage | Input / Output | 3,000 | | | VAC | |
| Isolation resistance | Input / Output, @ 500VDC | 100 | | | MΩ | |
| Ambient temperature | Operating at Vi nom | -25 | | + 71 | °C | |
| Derating | Vi nom, from +61°C to +71°C | | | 2.5 | % / °C | |
| Storage temperature | Non operational | -25 | | + 85 | °C | |
| Relative humidity | Vi nom, Io nom | | | 90 | % RH | |
| Dimension | L91 x W18 x D56.2 | | | | 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 | 264 | VAC | |
| | | DC in | 120 | 370 | VDC | |
| Line frequency | Vi nom, Io nom | 47 | | 63 | Hz | |
| Inrush current | Io nom | Vi : 115VAC | 10 | 15 | A | |
| | | Vi : 230VAC | 20 | 30 | A | |

<http://www.ukai.com-ukai@ukai.com>

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 | | | ± 1 | % |
| Transient recovery time | 50% load step changed | | 1 | | ms |
| Temperature coefficient | Vi nom, lo min | | | ± 0.02 | % / °C |
| Ripple & noise | Vi nom, lo nom, BW = 20MHz | | | 50 | mV |
| Hold up time | Vi = 115VAC, lo nom | 10 | | | ms |
| | Vi = 230VAC, lo nom | 30 | | | ms |
| DC ON indicator threshold at start up | Vi nom, lo nom | 5V model | 3 | | VDC |
| | | 12V model | 9 | | VDC |
| | | 15V model | 11 | | VDC |
| | | 24V model | 20 | | VDC |
| DC LOW indicator threshold after start up | Vi nom, lo nom | 5V model | 3.2 | 3.7 | VDC |
| | | 12V model | 8.8 | 9.3 | VDC |
| | | 15V model | 12 | 12.5 | VDC |
| | | 24V model | 21.5 | 22 | VDC |
| Efficiency | Vi nom, lo nom, Po / Pi | Up to 80%. See model list | | | |

CONTROL AND PROTECTION

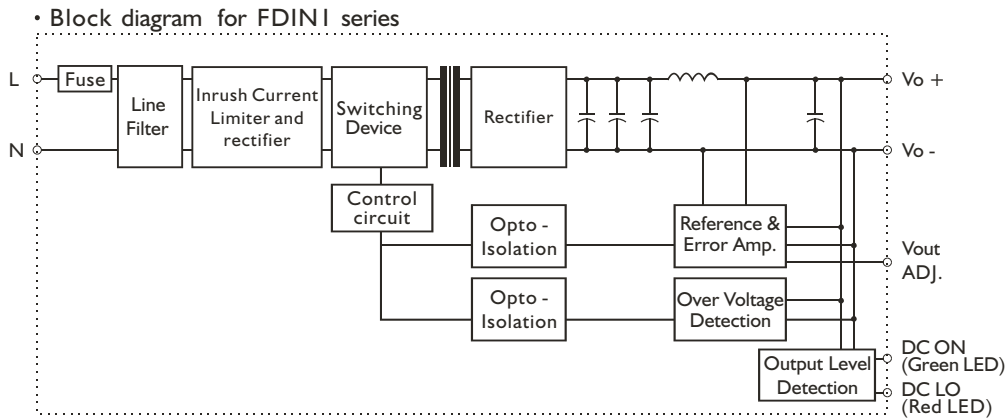
| Characteristics | Conditions | min. | typ. | max. | unit |
|----------------------------|------------|-----------------------|------|------|------|
| Input fuse | | T1A / 250VAC internal | | | |
| Rated over load protection | Vi nom | 110 | | 160 | % |
| Output short circuit | Vi nom | Hiccup mode | | | |

APPROVALS AND STANDARDS

| | |
|----------|--|
| UL / cUL | UL508 Listed UL1310 Class 2 power supply , UL60950-1 Recognized |
| TUV | EN60950-1 |
| CE | EN61000-6-3, EN55022 Class B EN61000-3-2, EN61000-3-3 EN61000-6-2, EN55024, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11 EN61204-3 |

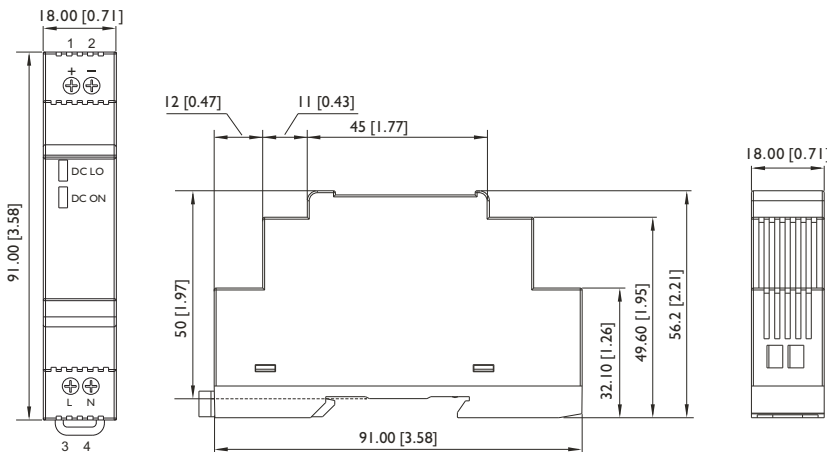
<http://www.ukai.com-ukai@ukai.com>

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

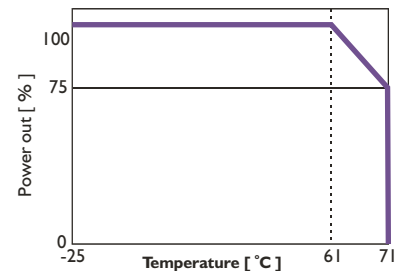
INSTALLATION

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

PIN ASSIGNMENT

| PIN NO | Designation | Description |
|--------|-------------|-------------|
| 1 | OUT | + |
| 2 | | - |
| 3 | IN | L |
| 4 | | N |
| | OTHER | DC ON |
| | | DC LO |

DERATING



PHYSICAL CHARACTERISTICS

| | |
|---------------|---|
| CASE SIZE | 91 x 18 x 56.2 mm (3.58 x 0.71 x 2.21 inches) |
| CASE MATERIAL | Plastic |
| WEIGHT | 60g |

<http://www.ukai.com-ukai@ukai.com>