



- Low Profile for Building Automation
- 5V to 24V Outputs
- Wide Range AC Input
- -25 to +71°C Operation
- Convection Cooled
- UL1310 Class 2
- Class II Double Insulation

DSP Series

7.5W to 100W Low Profile
Din Rail Mount Power Supplies

Key Market Segments & Applications

Building Services Automation: Alarms and Security, Access and Fire Safety Systems, Lighting and Environment Control Systems.

DSP Features and Benefits

Features

- Low 56mm Profile
- Wide Range AC
- Convection cooled

Benefits

- Fits into wall mounted cabinets
- Global use with no input selector switches
- No system fan required

Specifications

| ITEMS | MODEL | DSP10 | | | | DSP30 | | | | DSP60 | | | | DSP100 | | | |
|-------------------------------|-------|---|--|-------|--|-----------------|--|--------|--|----------------|--|-------|--|----------------|--|--------|--|
| | | DSP10 | | DSP30 | | DSP60 | | DSP100 | | DSP10 | | DSP30 | | DSP60 | | DSP100 | |
| AC Input Voltage range | VAC | 90 - 264VAC, Class II double insulated (No ground connection required) | | | | | | | | | | | | | | | |
| Input Frequency | Hz | 47 - 63Hz | | | | | | | | | | | | | | | |
| DC Input Voltage range | VDC | 120 - 370VDC | | | | | | | | | | | | | | | |
| Inrush Current (115 / 230VAC) | A | 15 / 30A | | | | 25 / 50A | | | | 30 / 60A | | | | 30 / 60A | | | |
| Power Factor | | Meets EN61000-3-2, EN61000-3-3 | | | | | | | | | | | | | | | |
| Output Voltage Accuracy | % | ±1% of Nominal | | | | | | | | | | | | | | | |
| Line Regulation | % | 1% | | | | | | | | | | | | | | | |
| Load Regulation | % | 1% | | | | | | | | | | | | | | | |
| Ripple and Noise (20MHz BW) | mV | 50mV ⁽¹⁾ | | | | | | | | | | | | | | | |
| Overcurrent Protection (Typ) | - | 110 - 160%, fold forward under short circuit (DSP100-24/C2 102-108%) | | | | | | | | | | | | | | | |
| Overvoltage Protection | V | 120 - 145% | | | | | | | | | | | | | | | |
| Hold Up Time (115VAC input) | ms | See Model Selector | | | | | | | | | | | | | | | |
| LED Indicators | - | Green LED = On, Red LED = DC Output Low | | | | | | | | | | | | | | | |
| Operating Temperature | - | -25 to +71°C (Derate linearly 2.5%/°C from 55 to 71°C) | | | | | | | | | | | | | | | |
| Temperature Coefficient | %/°C | ±0.02%/°C | | | | | | | | | | | | | | | |
| Storage Temperature | - | -25 to +85°C | | | | | | | | | | | | | | | |
| Operating Humidity | - | 20 - 95% RH (non condensing) | | | | | | | | | | | | | | | |
| Cooling | - | Convection | | | | | | | | | | | | | | | |
| Withstand Voltage | - | Input to Output 3kVAC for 1 min. | | | | | | | | | | | | | | | |
| Isolation Resistance | - | >100M at 25C & 70%RH, Input to Ground 500VDC | | | | | | | | | | | | | | | |
| Vibration (Operating) | | IEC60068-2-6 (Mounting by rail: Random wave, 100-500Hz, 2G, ea. along X, Y, Z axes 10min/cycle, 60 min) | | | | | | | | | | | | | | | |
| Shock (Operating) | | IEC60068-2-27 (Half sine wave, 4G, 22ms, 3 axes, 6 faces, 3 times for each face) | | | | | | | | | | | | | | | |
| Safety Agency Approvals | - | UL1310 Class 2 ⁽²⁾ , UL508 Listed, UL60950-1, EN60950-1, CE | | | | | | | | | | | | | | | |
| Immunity | - | EN61000-4-2, -3, -4, -5, -6, -8 & -11 | | | | | | | | | | | | | | | |
| Conducted & Radiated EMI | - | EN55022 class B | | | | EN55022 class A | | | | | | | | | | | |
| Weight (Typ) | g | 60 | | | | 200 | | | | 250 | | | | 320 | | | |
| Size (WxHxD) | mm | 18 x 91 x 55.6 | | | | 53 x 91 x 55.6 | | | | 71 x 91 x 55.6 | | | | 90 x 91 x 56.8 | | | |
| Case material | - | Plastic | | | | | | | | | | | | | | | |
| Warranty | yrs | 2 years | | | | | | | | | | | | | | | |

Note 1: For DSP100-24/C2 Ripple & Noise measured with Vin 115- 230 Vac

Note 2: Excludes Models: DSP60-5, DSP60-12, DSP100-12, DSP100-15, DSP100-24

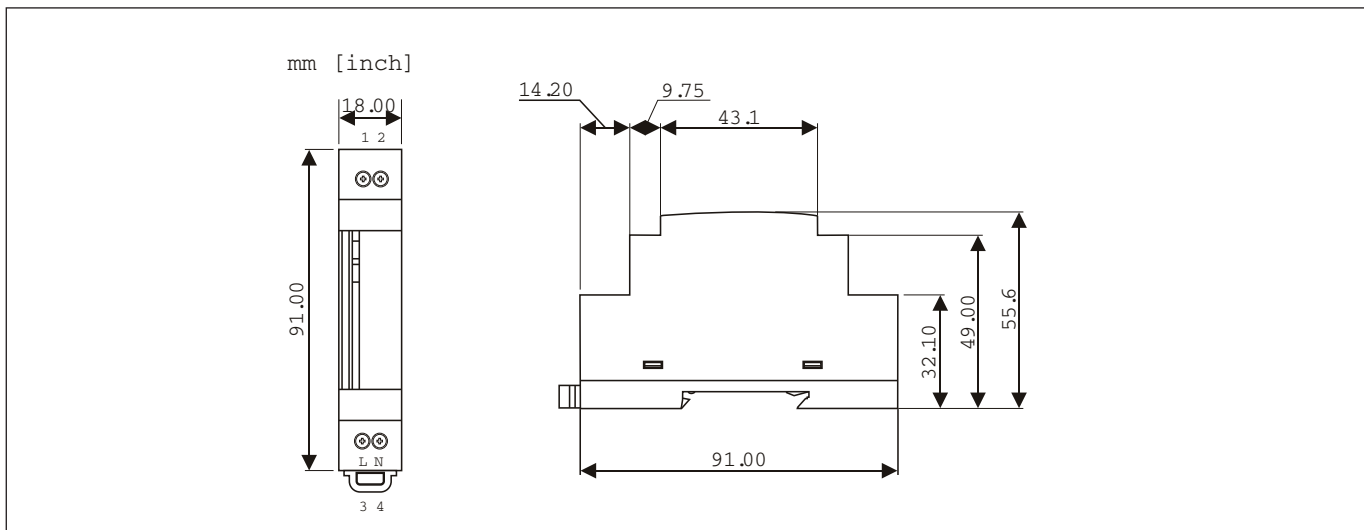


Model Selector

| Model | Voltage (V) | Voltage Adjust (V) | Current (A) | Power (W) | Efficiency (Typ %) | HoldUp Time 115VAC in (ms) |
|--------------|-------------|--------------------|-------------|-----------|--------------------|----------------------------|
| DSP10-5 | 5 | None | 1.5 | 7.5 | 74 | 10 |
| DSP30-5 | 5 | 5 - 5.5 | 3.0 | 15.0 | 74 | 25 |
| DSP60-5 | 5 | 5 - 5.5 | 7.0 | 35.0 | 80 | 16 |
| DSP10-12 | 12 | None | 0.83 | 10.0 | 78 | 10 |
| DSP30-12 | 12 | 12 - 14 | 2.1 | 25.2 | 82 | 25 |
| DSP60-12 | 12 | 12 - 14 | 4.5 | 54.0 | 84 | 16 |
| DSP100-12 | 12 | 12 - 14 | 6.0 | 72.0 | 82 | 16 |
| DSP10-15 | 15 | None | 0.67 | 10.1 | 78 | 60 |
| DSP30-15 | 15 | 13.5 - 16.5 | 2.0 | 30.0 | 83 | 25 |
| DSP60-15 | 15 | 13.5 - 16.5 | 4.0 | 60.0 | 85 | 12 |
| DSP100-15 | 15 | 13.5 - 16.5 | 5.0 | 75.0 | 85 | 16 |
| DSP10-24 | 24 | None | 0.42 | 10.1 | 80 | 60 |
| DSP30-24 | 24 | 24 - 28 | 1.3 | 31.2 | 83 | 25 |
| DSP60-24 | 24 | 24 - 28 | 2.5 | 60.0 | 86 | 12 |
| DSP100-24/C2 | 24 | 20 -24.2 | 3.8 | 91.2 | 89 | 10 |
| DSP100-24 | 24 | 24 - 28 | 4.2 | 100.8 | 85 | 10 |

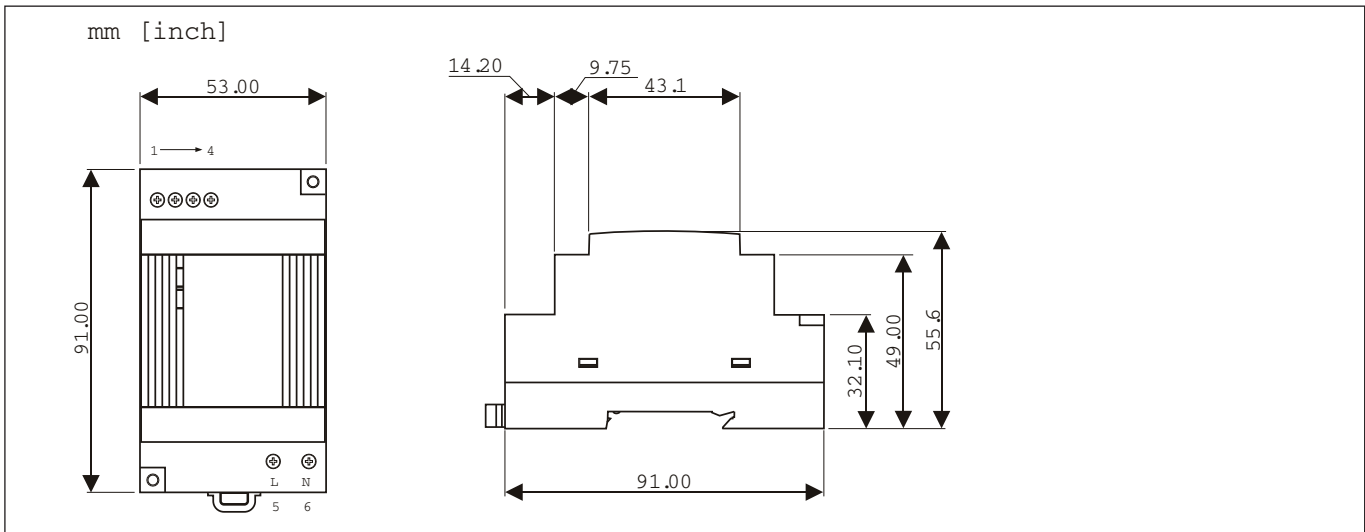
For full data and drawings please visit www.emea.tdk-lambda.com/www/dsp

Outline Drawing DSP10 Series

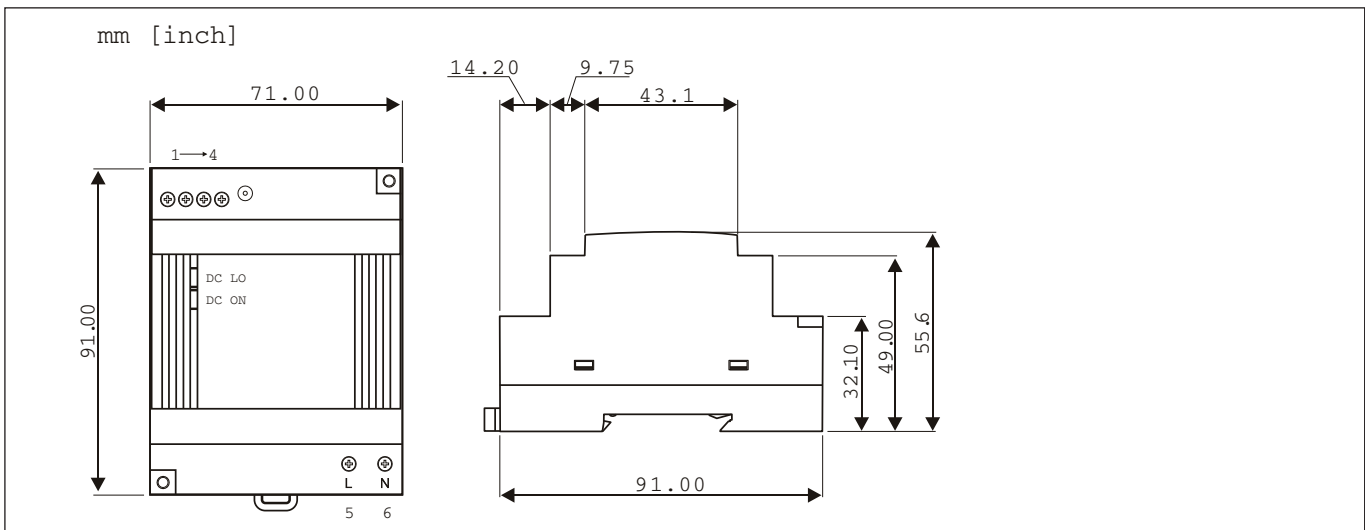




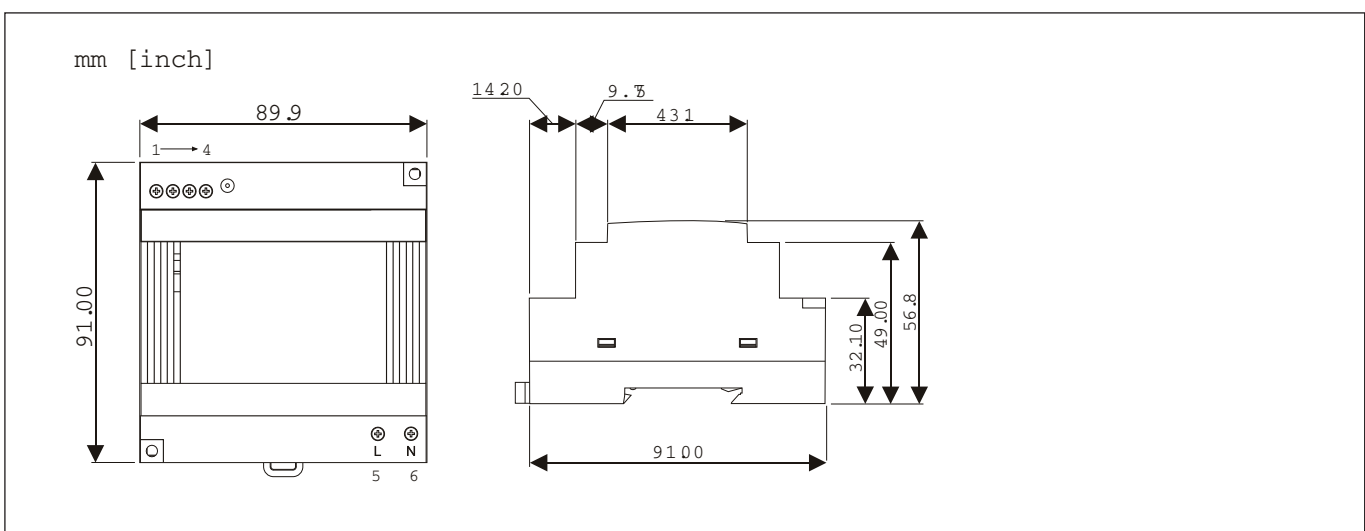
Outline Drawing DSP30 Series



Outline Drawing DSP60 Series



Outline Drawing DSP100 Series





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