

120-480W, 24V Output DIN Rail Mount Power Supplies

Features

- ◆ Very Compact Size
- ◆ High Efficiency (Up to 94%)
- ◆ 150% Peak Power Capability for 4s
- ◆ ErP Compliant Design
- ◆ Low Standby Power Draw
- ◆ Remote On/Off
- ◆ Remote Voltage Adjustment
- ◆ Hazardous Location Option (/HL)



Key Market Segments & Applications



| Specifications | | DRF120 | DRF240 | DRF480 |
|--|-----|--|--------------------|--------------------|
| AC Input Voltage range | VAC | 85 - 264VAC (Withstands 300VAC for 5 seconds) | | |
| Input Frequency | Hz | 47 - 63Hz | | |
| Inrush Current (typ) (Cold Start) | A | 20 | 20 | 40 |
| Power Factor (115/230VAC) (Meets EN61000-3-2) | - | 0.98 / 0.95 | 0.98 / 0.95 | 0.98 / 0.92 |
| Input Current (115/230VAC) | A | 1.2 / 0.6 | 2.4 / 1.2 | 4.7 / 2.5 |
| Line Regulation | mV | <96mV | | |
| Load Regulation | mV | <240mV | | |
| Ripple & Noise (1) | mV | <240mV | | |
| Overcurrent Protection | - | >105% of peak current rating. Shutdown after 4 seconds | | |
| Overvoltage Protection | - | 30 - 35.5V. Cycle input voltage or remote on/off to reset | | |
| Hold Up Time (230VAC input) | ms | > 20ms | | |
| Efficiency (115 / 230VAC) | % | 89 / 91 | 92.5 / 94 | 92.5 / 94 |
| Standby Power Draw | W | <0.5W | <0.5W | <0.75W |
| LED Indicators | - | Green LED = DC is OK (>80% Nom). Red LED = Peak Load Operation | | |
| DC OK relay | - | Relay contact 30V/1A | | |
| Remote On / Off | - | When signal is low, the output is On | | |
| Remote Voltage Adjust | - | See Installation Manual | | |
| Operating Temperature | °C | -25 to +70°C. (Derate linearly to 75% load above 60°C) | | |
| Storage Temperature | °C | -40 to +85°C | | |
| Operating Humidity (non condensing) | %RH | 5 - 95%RH | | |
| Parallel Operation | - | Droop Mode - Refer to Installation Manual | | |
| Series Operation | - | Possible | | |
| Cooling | - | Convection | | |
| Withstand Voltage (For 1 minute) | VAC | Input to Output 3kVAC, Input to GND 1.5kVAC, Output to GND 500VAC | | |
| Isolation Resistance | MΩ | >100MΩ at 25°C, 70%RH & 500VDC | | |
| Vibration (Non operating) | - | 10-55Hz (sweep for 1 min); 19.6m/s ² (2G) Constant; X,Y,Z each 1 hour | | |
| Shock | - | <196m/s ² | | |
| Safety Agency Certifications (2) | - | UL508 Listed, IEC/UL/EN60950-1, CE Mark ATEX, IEC Ex, GL, Class 1 Div 2, Group A, B, C, D | | |
| Conducted & Radiated EMI | - | EN55022-B Radiated & Conducted | | |
| Immunity | - | EN61000-4-2 (contact lvl 2, air lvl 3) , -3 (lvl 3), -4 (lvl 3) -5 (norm mode lvl 3, com mode lvl 4), -6 (lvl 3), -8 (lvl 4), -11 | | |
| Weight (Typ) | g | 600 | 900 | 1300 |
| Size (WxHxD) | in | 1.44 x 4.86 x 4.53 | 1.93 x 4.86 x 4.53 | 3.23 x 4.86 x 4.53 |
| | mm | 36.5 x 123.4 x 115 | 49 x 123.4 x 115 | 82 x 123.4 x 115 |
| Case material | - | Metal | | |
| Warranty | yrs | Five years | | |

(1) See installation manual

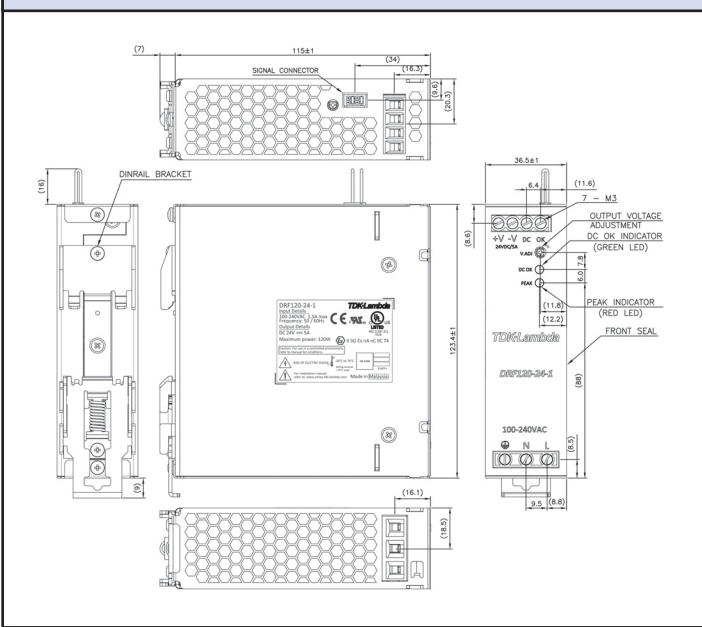
(2) See options table

(3) Operating period at peak output current is 4 sec, max duty cycle <35% & < rated output power

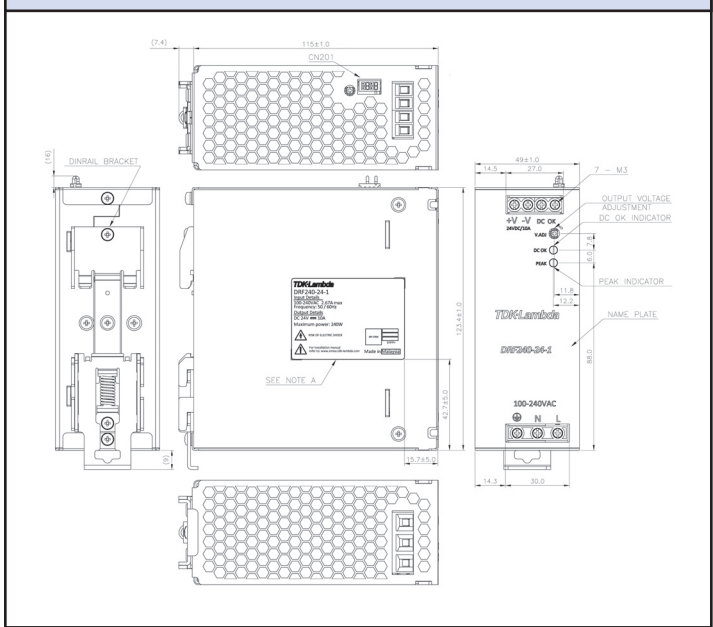
Model Selector

| Model | Output Voltage | Adjust Range | Max Current | Max Power | Peak Output Current (3) | Peak Output Power (3) |
|-------------|----------------|--------------|-------------|-----------|-------------------------|-----------------------|
| DRF120-24-1 | 24V | 24 - 28V | 5A | 120W | 7.5A | 180W |
| DRF240-24-1 | 24V | 24 - 28V | 10A | 240W | 15A | 360W |
| DRF480-24-1 | 24V | 24 - 28V | 20A | 480W | 30A | 720W |

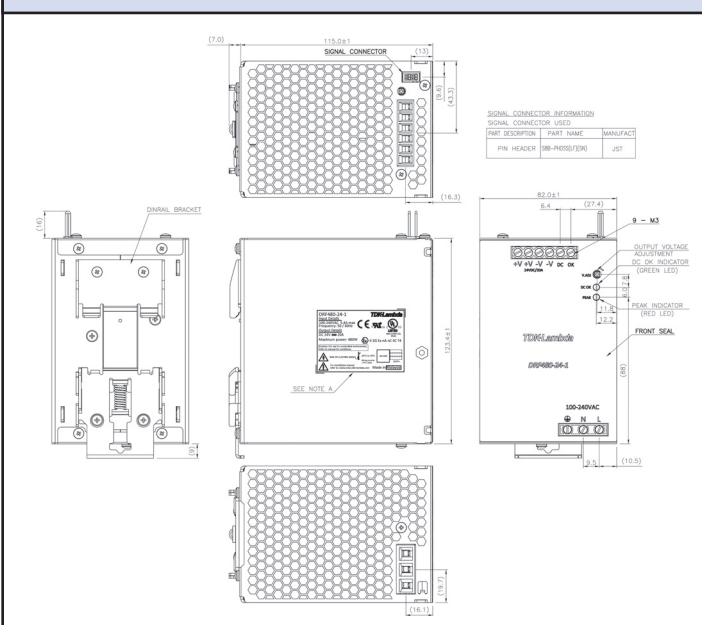
Outline DRF120-24-1



Outline DRF240-24-1



Outline DRF480-24-1



Options

| Suffix | Description |
|--------|--|
| /HL | ATEX, IEC EX, GL Certification (Incl pcb coating) Class 1 Div 2, Group A, B, C, D |

For Additional Information, please visit us.tdk-lambda.com/lp/products/dr-f-series.htm

