

2500W 1U Industrial Power Supplies

<https://product.tdk.com/en/power/rfe>
www.emea.lambda.tdk.com/uk/products/rfe



Industrial

COTS

Test

COMM

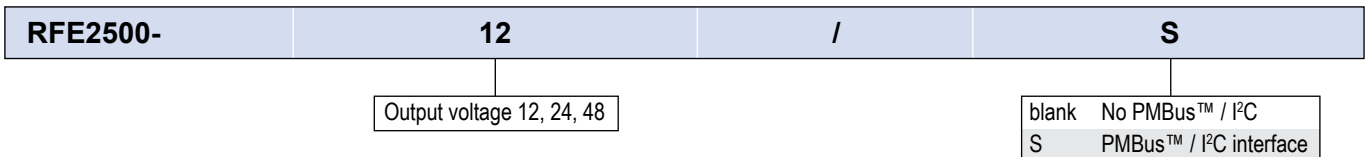
Broadcast



The RFE2500 AC-DC industrial power supplies are high efficiency and 1U in height. They have internal ORing MOSFETs and current share for parallel operation. Communication is possible with the power supplies using the optional isolated PMBus™ (I²C) interface. AC fail, DC good, remote output adjust, remote on/off and a 12V auxiliary output are fitted as standard.

| Features | Benefits |
|---|--|
| • Internal ORing FETs and Current Share | • Suitable For N+1 Redundancy |
| • Up to 2500W in 1U Height | • Utilizes Less System Space |
| • Full Array of Signals Available | • Easy Remote Monitoring |
| • PMBus™ (I ² C) and LAN options | • Industry Standard Communication Interfaces |
| • Analog Output Adjustment | • Simple External Resistance or Voltage Connection |

| Model Selector | | | | | | |
|----------------|--------------------|-------------------------------------|--|--|--|--|
| Model | Output Voltage (V) | Adjustment Range (V) ⁽¹⁾ | Max Current (A) (V _{in} >180Vac) ⁽²⁾ | Max Power (W) (V _{in} >180Vac) ⁽²⁾ | Max Current (A) (100<V _{in} <170Vac) ⁽²⁾ | Max Power (W) (100<V _{in} <170Vac) ⁽²⁾ |
| RFE2500-12 | 12 | 9.6 - 13.2 | 200 | 2400 | 125 | 1500 |
| RFE2500-24 | 24 | 19.2 - 29 | 96 | 2304 | 62.5 | 1500 |
| RFE2500-48 | 48 | 38.4 - 58 | 52 | 2496 | 31.25 | 1500 |



| Specifications | | | | |
|----------------------------------|-----|--|------------|------------|
| Model | | RFE2500-12 | RFE2500-24 | RFE2500-48 |
| Input | | | | |
| Input Voltage Range | Vac | 85 - 265Vac. See model selector for power derating(2) | | |
| Input Frequency | Hz | 47 - 63 | | |
| Input Current (Max) (110/230Vac) | A | 15 / 12 | | |
| Inrush Current | A | <50 | | |
| Leakage Current | mA | Less than 0.8 / 1.6mA at 115/230Vac, 60Hz | | |
| Power Factor Correction | - | Meets EN61000-3-2, PF >0.98 at full load | | |
| Harmonic Compliance | - | Meets IEC61000-3-2 | | |
| Hold Up Time | ms | >10ms, 100/230Vac Input, 80% loading | | |
| Efficiency | % | 90 / 92 | 90 / 92 | 91 / 93 |
| Conducted EMI | - | Built to meet EN55032 Class B, FCC part 15 Class-B, VCCI Class-B | | |
| Radiated EMI | - | Built to meet EN55032 Class A, FCC part 15 Class-A, VCCI Class-A | | |
| Immunity | - | See immunity section | | |
| Safety Agency Certifications | - | IEC/UL/CSA/EN62368-1, 60950-1, CE Mark | | |

| Immunity | | | | |
|---------------------------------|--------------|-------------------------|----------|-------|
| Test | Standard | Test Level | Criteria | Notes |
| ESD | EN61000-4-2 | 2,3 | B | - |
| Radiated Susceptibility | EN61000-4-3 | 2 | A | - |
| Electrical Fast Transient Burst | EN61000-4-4 | 2 | B | - |
| Surge | EN61000-4-5 | 3,4 | B | - |
| Conducted Susceptibility | EN61000-4-6 | 2 | A | - |
| Magnetic Fields | EN61000-4-8 | 4 | A | - |
| Voltage Dips / Interruptions | EN61000-4-11 | >95% for 0.5 cycles | B | - |
| | | 30% for 25/30 cycles | C | - |
| | | >95% for 250/300 cycles | C | - |

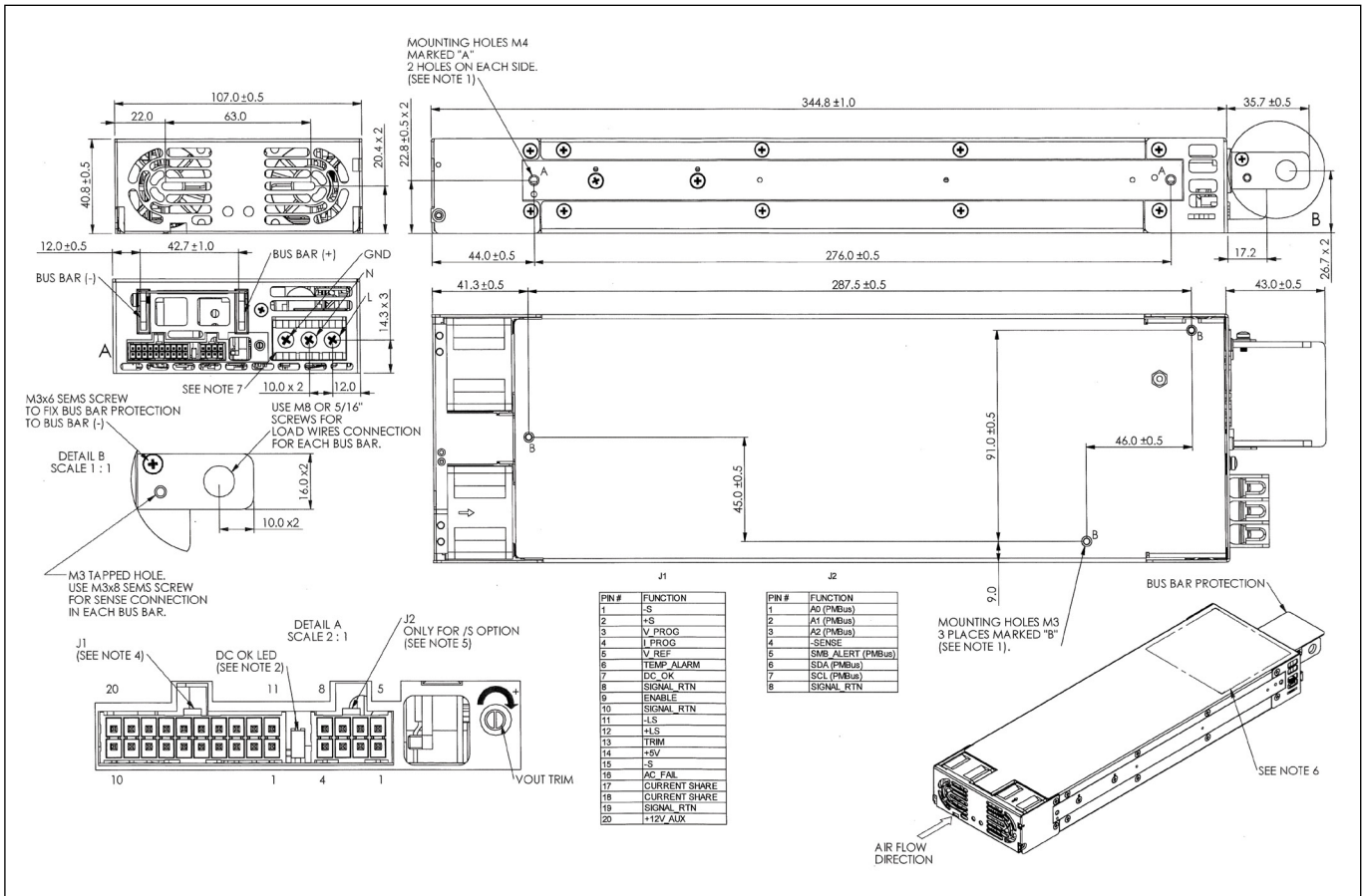
| Specifications | | | | |
|----------------------------|--------|---|------------|------------|
| Model | | RFE2500-12 | RFE2500-24 | RFE2500-48 |
| Output | | | | |
| Line Regulation | mV | 30 | 60 | 120 |
| Load Regulation | mV | 60 | 120 | 240 |
| External Load Capacitance | uF/A | 1000 | | |
| Ripple & Noise | mV | 240 | 240 | 480 |
| Temperature Coefficient | %/°C | <0.02 | | |
| Minimum Load | - | No minimum load required | | |
| Overcurrent Protection | % | 115Vac:>110%; 230Vac: 105 - 120% | | |
| Overvoltage Protection (1) | % | 110% (Tracking). Cycle AC to reset or utilize Remote On/Off | | |
| Overtemperature Protection | - | Shutdown with automatic reset. Warning signal provided (1) | | |
| Remote Sense Compensation | V/wire | 0.25 | 0.5 | 1.0 |
| Remote On/Off | - | Yes, inhibit & enable | | |
| AC Fail Signal | - | Open Collector, ON when AC is within 85-270Vac | | |
| DC Good Signal | - | Open Collector, ON when output is above 85 to 95% of setpoint (tracking) | | |
| Communication | - | Optional isolated PMBus™ (I ² C) interface (/S suffix) or plug-in LAN module. See model selectors | | |
| Auxiliary Output | - | 11.2 - 12.5V, 0.5A, 240mV ripple and noise | | |
| Indicators | - | AC OK: Green LED, DC OK / Fail: Green / Red LED | | |
| Parallel Operation | - | Yes, single wire current share, 5% accuracy of max current, up to 8 units | | |
| Series Operation (1) | - | Two units maximum (external diodes required) | | |

| Specifications | | RFE2500-12 | RFE2500-24 | RFE2500-48 |
|---|--------|--|------------|---------------|
| Environmental | | | | |
| Operating Temperature | °C | -10 to +50: 100% load; +50 to +60 derate: 2%/°C of load; +60 to +70 derate: 2.5%/°C of load. For models with reverse air contact factory. | | |
| Storage Temperature | °C | -30 to +85 | | |
| Humidity (non condensing) | %RH | Operating: 10 - 90, Storage: 10 - 95 | | |
| Cooling | - | Internal variable speed fans. Airflow enters from the front. Contact factory for reverse airflow option. | | |
| Altitude | m | 3000 max. Derate output current 2%/100m above 2000m. | | |
| Withstand Voltage (For 1 minute) | - | Input to Output 3kVac, Input to Ground 2kVac, Output to Ground: | | |
| | | 500Vac | 500Vac | 2250Vdc (POE) |
| Isolation Resistance | MΩ | >100 at 25°C, 70%RH & Output to Ground 500Vdc | | |
| Vibration (Non-operating) | - | Meets IEC61068-2-64 (Basic Transportation) | | |
| Shock (Non-operating) | - | Meets IEC61068-2-27 (Basic Transportation) | | |
| Other | | | | |
| Weight (Typ) | g | 2,500 | | |
| Size (LxWxH) | mm | 345 x 107 x 41 | | |
| Size (LxWxH) | Inches | 13.6 x 4.21 x 1.61 | | |
| PMBus™ / I ² C Interface (1) | - | Isolated from output, Add suffix /S, PMBus™ compatible | | |
| MTBF - Telcordia | Hours | 208,356 | | |
| Warranty | Years | 3 | | |

Notes

- (1) See website for detailed specifications, test methods and installation manual
- (2) Derate 1.3%/Vac from 100Vac to 85Vac input

Outline Drawing RFE2500





TDK-Lambda France SAS

Tel: +33 1 60 12 71 65
france@fr.tdk-lambda.com
www.emea.lambda.tdk.com/fr



Italy Sales Office

Tel: +39 02 61 29 38 63
info.italia@it.tdk-lambda.com
www.emea.lambda.tdk.com/it



Netherlands

info@nl.tdk-lambda.com
www.emea.lambda.tdk.com/nl



TDK-Lambda Germany GmbH

Tel: +49 7841 666 0
info.germany@de.tdk-lambda.com
www.emea.lambda.tdk.com/de



Austria Sales Office

Tel: +43 2256 655 84
info@at.tdk-lambda.com
www.emea.lambda.tdk.com/at



Switzerland Sales Office

Tel: +41 44 850 53 53
info@ch.tdk-lambda.com
www.emea.lambda.tdk.com/ch



Nordic Sales Office

Tel: +45 8853 8086
info@dk.tdk-lambda.com
www.emea.lambda.tdk.com/dk



TDK-Lambda UK Ltd.

Tel: +44 (0) 12 71 85 66 66
info@uk.tdk-lambda.com
www.emea.lambda.tdk.com/uk



TDK-Lambda Ltd.

Tel: +9 723 902 4333
info@tdk-lambda.co.il
www.emea.lambda.tdk.com/il



C.I.S.

Commercial Support:

Tel: +7 (495) 665 2627

Technical Support:

Tel: +7 (812) 658 0463

info@tdk-lambda.ru

www.emea.lambda.tdk.com/ru



TDK-Lambda Americas

Tel: +1 800-LAMBDA-4 or 1-800-526-2324
powersolutions@us.tdk-lambda.com
www.us.lambda.tdk.com



TDK Electronics do Brasil Ltda

Tel: +55 11 3289-9599
sales.br@tdk-electronics.tdk.com
www.tdk-electronics.tdk.com/en



TDK-Lambda Corporation

Tel: +81-3-6778-1113
www.jp.lambda.tdk.com



TDK-Lambda (China) Electronics Co. Ltd.

Tel: +86 21 6485-0777
powersolutions@cn.tdk-lambda.com
www.lambda.tdk.com.cn



TDK-Lambda Singapore Pte Ltd.

Tel: +65 6251 7211
tis.mkt@sg.tdk-lambda.com
www.sg.lambda.tdk.com



TDK India Private Limited, Power Supply Division

Tel: +91 80 4039-0660
mathew.philip@in.tdk-lambda.com
www.sg.lambda.tdk.com



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Rack Mount Power Supplies](#) category:

Click to view products by [TDK-Lambda](#) manufacturer:

Other Similar products are found below :

[HFE2500BP](#) [PET1300-12-054NAE](#) [HFE1600BP](#) [73-311-0001](#) [73-317-0148](#) [73-495-0233](#) [750-1016](#) [SFP450-S101G](#) [FUP550SNRPS](#)
[VRA.00335.0](#) [VRA.00334.0](#) [VRA.00333.0](#) [HFE1600-KIT](#) [CC109146503](#) [RKP-1UI](#) [PFE1100-12-054ND](#) [FND300-1012G](#) [73-951-0001T](#)
[73-954-0001C](#) [DS550DC-3](#) [DRP-3200-48](#) [RCP-2000-24](#) [TSR10](#) [TET2000-12-086NA](#) [PET2000-12-074RA](#) [RCP-MU](#) [RCP-3K1UI-12](#) [605-](#)
[10144-2AC](#) [6609006-5](#) [D1U54P-W-1200-12-HC4PC](#) [DS450DC-3](#) [DS650DC-3](#) [HPR12K-00-001](#) [LCM1500L-T-4](#) [LCM300Q-T](#) [LCM300W-](#)
[T-4](#) [LCM600N-T-4-A](#) [FNP600-48G](#) [FNR-3-48G](#) [FNR-5-12G](#) [PFS1200-12-054RAH](#) [PFS1200-12-054RD](#) [SPSPFE3-05G](#)
[TET3200-12-069RA](#) [IEC-A-1](#) [FXX1600PCRPS](#) [915606](#) [DHP-1UT-A](#) [DRP-3200-24](#) [RCP-1000-12](#) [RCP-1000-12-C](#)