

Features

- ◆ For industrial, office and residential environments
- ◆ Meets European ErP directive (green mode), <0.3 W no load power consumption
- ◆ High efficiency across full load range
- ◆ Compact plastic casing
- ◆ Reliable snap-on mounting on DIN-rails or with wall mounting bracket (not included)
- ◆ Universal input 85–264 VAC, 47–63 Hz
- ◆ Models with 5, 12, 24 & 48 VDC output
- ◆ Output voltage adjustable
- ◆ Power good signal
- ◆ Low ripple and noise
- ◆ Overload and short-circuit protection
- ◆ Optional module for parallel and redundant operation
- ◆ Worldwide safety approval package
- ◆ 3-year product warranty



The TRACOPOWER TPC series is a family of lightweight DIN-rail power supplies with an excellent price/performance ratio. They consume sparse standby power, and operate with high efficiency to comply with the requirements of the European Ecodesign directive. They have universal input of 85-264VAC or 90-375VDC and are designed for class I operation in industrial and residential environments. With the optional active current sharing redundancy module, these power supplies provide a very reliable true redundant DC supply. For further details see page 3.

Models

| Order Code | Input Voltage Ranges | Output Power max. | Output Voltage nominal / adj. range | Output Current max. |
|-------------|---|-------------------|-------------------------------------|---------------------|
| TPC 030-105 | 85 – 264 VAC Universal Input 47/63 Hz 90 – 375 VDC | 20 W | 5.0 VDC / 5.0–6.0 VDC | 4.0 A |
| TPC 030-112 | | 26 W | 12 VDC / 12–15 VDC | 2.2 A |
| TPC 030-124 | | 30 W | 24 VDC / 24–28.8 VDC | 1.25 A |
| TPC 030-148 | | 30 W | 48 VDC / 48–56 VDC | 0.6 A |
| TPC 055-112 | | 42 W | 12 VDC / 12–15 VDC | 3.5 A |
| TPC 055-124 | | 55 W | 24 VDC / 24–28.8 VDC | 2.3 A |
| TPC 055-148 | | 55 W | 48 VDC / 48–56 VDC | 1.15 A |
| TPC 080-112 | | 72 W | 12 VDC / 12–15 VDC | 6.0 A |
| TPC 080-124 | | 80 W | 24 VDC / 24–28.8 VDC | 3.3 A |
| TPC 080-148 | | 80 W | 48 VDC / 48–56 VDC | 1.7 A |
| TPC 120-112 | | 96 W | 12 VDC / 12–15 VDC | 8.0 A |
| TPC 120-124 | | 120 W | 24 VDC / 24–28.8 VDC | 5.0 A |
| TPC 120-148 | | 120 W | 48 VDC / 48–56 VDC | 2.5 A |

Input Specifications

| | | |
|---|--|--|
| Input voltage range | <ul style="list-style-type: none"> – AC nominal rated – AC range (designed for) – DC nominal rated – DC range (designed for) | 110 – 240 VAC, 50-60 Hz 85 – 264 VAC, 47-63 Hz 130 – 300 VDC 90 – 375 VDC |
| Output derating | <ul style="list-style-type: none"> – at operation <100 VAC – at operation <130 VDC | –2.5% /V –1.0% /VDC |
| Standby power consumption | TPC 030 and 055 models: TPC 080 and 120 models: | < 0.3 W < 0.5 W |
| Harmonic limits | | EN 61000-3-2, Class A |
| Recommended circuit breaker, characteristic C | | 6.0 – 16.0 A |

Output Specifications

| | | |
|--|--|--|
| Output voltage adjustable range (potentiometer on frontpanel) | 5 VDC model: 12 VDC models: 24 VDC models: 48 VDC models: | 5.0 – 6.0 VDC 12 – 15 VDC 24 – 28.8 VDC 48 – 56 VDC |
| Regulation | <ul style="list-style-type: none"> – Input variation – Load variation (0–100 %) 5 VDC models: other models: | 0.5 % max. 0.75 % max. 0.5 % max. |
| Ripple and noise (20MHz bandwidth) | | 100 mVpk-pk max. |
| Short circuit protection | | <200 % of Iout nom. |
| Overvoltage protection (% of max. adjustable voltage) | 5 VDC model: 12 VDC models: 24 VDC models: 48 VDC models: | <180 % <170 % <160 % <107 % |
| Power back immunity | | 125 % of nominal Vout |
| Start-up time | | 2 sec. max. |
| Hold-up time (115 VAC / 230 VAC) | | min. 15 ms / min. 40 ms |
| Power OK signal | <ul style="list-style-type: none"> – trigger – PNP open collector max. current 48 VDC models: other models: | 80 – 95 % 5 mA 10 mA |

General Specifications

| | | |
|--|--|--|
| Temperature ranges | <ul style="list-style-type: none"> – Operating – Storage (non operating) | –25°C to +70°C max. –25°C to +85°C |
| Temperature derating | | 2.5 %/K above 50°C |
| Humidity (non condensing) | | 95 % rel. H max. |
| Temperature coefficient | | 0.02 %/K |
| Remote On/Off | | 10 mA current source |
| Efficiency (average at power consumption 25-100%) | TPC 030-105: other 30 Watt models: other models: | 79 % 84 % 87 % |
| Reliability, calculated MTBF at +25°C (according to IEC-1709) | TPC 030 models: TPC 055 models: TPC 080 models: TPC 120 models: | >2.2 Mio h >1.7 Mio h >1.5 Mio h >1.3 Mio h |
| Isolation voltage (60 s) | – Input / Output | 3000 VAC |
| Altitude during operation | | 2'000 m max. |

General Specifications

| | | |
|--------------------------|---------------------------------|--|
| Safety standards | – CB test certificate | IEC 60950-1:2005 2nd Ed, Am 1:2009 IEC/EN 61010-1, IEC 61010-2-201 EN 60950-1 :2006 + Am 1 :2010 + Am 11 :2009 + Am 12:2011 IEC/EN 61010-1, IEC/EN 61010-2-201 UL 60950-1-2nd Ed CSA 60950-1-07-2nd Ed UL 508, CSA C22.2 No.107.1-01 EN 60204-1:2006 + A1:2009, EN 61558-2-8:2010, EN 61558-2-16:2009, EN 50178:1997 |
| | – SIQ type approved | |
| | – CSA certificate of compliance | |
| | – UL certificate of compliance | |
| | – SIQ type approved | |
| | – Certification documents | www.tracopower.com/overview/tpc |
| Environmental compliance | – Reach declaration document | www.tracopower.com/info/reach-declaration.pdf |
| | – RoHS | RoHS directive 2011/65/EU |
| EMC | – emissions | IEC 61000-6-3 (residential environment) |
| | – immunity | IEC 61000-6-2 (industrial environment) SEMI F47 |
| Class of protection | | class I (earth connection needed) |
| Case protection | | IP 20 (IEC 60529) |
| Enclosure material | | Makrolon 2405 (UL 94V-0 rated) |
| Mounting | | DIN-rails as per EN 50022-35x15/7.5 (snap-on with self-locking spring) wall mounting bracket optional (not included) |

Supporting documents: www.tracopower.com/overview/tpc

TPC-REM240-24 Redundancy Module

| Order Code | Nominal Input Voltage | Max Power per Input | Output Voltage adjustable | Output Current max. |
|---------------|-----------------------|---------------------|---------------------------|---------------------|
| TPC-REM240-24 | 24 VDC | 120 W | 24 – 27 VDC | 10 A |
| TPC-REM240-48 | 48 VDC | | 48 – 55 VDC | 5 A |

These modules are external units for operation with two TPC power supplies with output voltage of 24 VDC or 48 VDC and of same type and power. The modules allow to connect two outputs of TPC power supplies together in order to achieve a reliable DC supply. In normal operation the module achieves equal current share for both power supplies connected. During the redundancy operation, if one of the power supplies fails, the output power will be provided in full by the remaining operating power supply. The redundancy of the DC system is monitored by a DC-OK signal.



Specifications

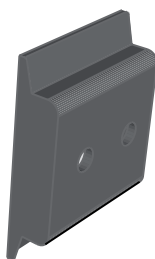
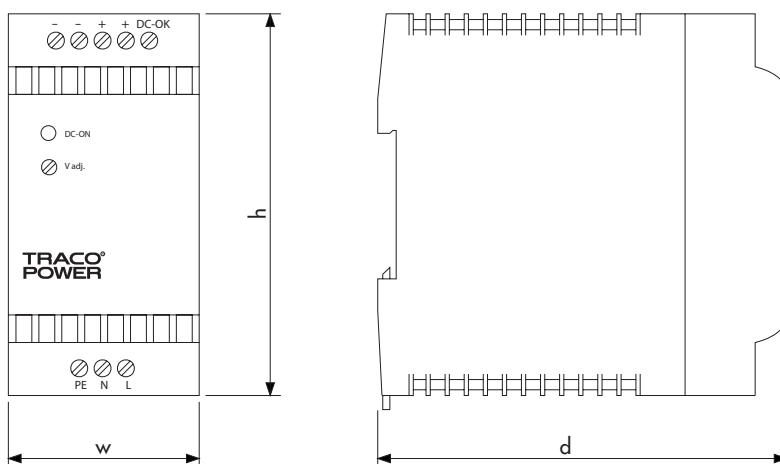
| | | |
|-------------------------------|-------------------------|--|
| Operating temperature | | –25°C to +70°C max. (with derating) |
| Electromagnetic compatibility | | in correspondence to connected units (no internal switching device) |
| Dimensions | | same as model TPC 055 (see page 4) |
| Connection | | screw terminal block |
| Installation instructions | – installation document | www.tracopower.com/overview/tpc |

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Case Dimensions

| Model | Width (W) | Height | Depth d | Weight |
|----------------|-------------|-----------|--------------|--------|
| TPC 030 | 26.5 (1.04) | 90 (3.54) | 96.5 (3.80) | 160 g |
| TPC 055 | 45.0 (1.77) | 90 (3.54) | 96.5 (3.80) | 260 g |
| TPC-REM 240-24 | 45.0 (1.77) | 90 (3.54) | 96.5 (3.80) | 160 g |
| TPC 080 | 63.0 (2.48) | 90 (3.54) | 96.5 (3.80) | 360 g |
| TPC 120 | 72.0 (2.83) | 90 (3.54) | 110.0 (4.33) | 440 g |

Dimensions in [mm], () = Inch
 Tolerances: ± 0.5 mm (± 0.02)



Snap-on bracket for wall mounting (black plastic)

Wall Mounting Bracket (accessories not included)

| Order Code | For Models | Dimensions |
|------------|-------------------------------|-----------------|
| TPC-WMK1 | TPC 030-xx | 26.0 x 35 x 7.5 |
| TPC-WMK2 | TPC 055-xx, TPC-REM 240-24 | 42.7 x 35 x 7.5 |
| TPC-WMK3 | TPC 080-xx | 60.7 x 35 x 7.5 |
| TPC-WMK4 | TPC 120-xx | 69.7 x 35 x 7.5 |

Mouser Electronics

Authorized Distributor

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[TPC-REM240-24](#) [TPC-REM240-48](#)