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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



TRACO POWER

AC/DC Medical Power Supply

- High power density power supply (open frame)
- Certification according to IEC/EN/ES 60601-1 3rd edition for 2×MOPP
- Low leakage current <100 µA rated for BF applications
- EMC emission and immunity to IEC 60601-1-2 4th edition
- Risk management process according to ISO 14971 including risk management file
- Acceptance criteria for electronic assemblies according to IPC-A-610 Level 3
- Protection class I and II
- Operating up to 5000m altitude
- Ready to meet ErP directive, no load power consumption
- 5 year product warranty



The TPP 30A-D AC/DC power supplies feature a reinforced double I/O isolation system according to medical safety standards IEC/EN/ES 60601-1 3rd edition for 2 × MOPP approved for an operating altitude of 5000 m. The earth leakage current is below 100 μ A what makes the units suitable for BF (body floating) applications. The excellent efficiency of up to 91.5% offers a high power density in the packaging format 1.36" x 2.74". The full load operating temperature range covers -40°C to +60°C while it goes up to 85°C with 50% load derating. The units operate in compliance to the medical EMC emission and immunity levels according to latest standard IEC 60601-1-2 4th edition.

Models				
Order Code	Output Power	Output Voltage	Output Current	Efficiency
	(max.)		(max.)	(typ.)
TPP 30-103A-D	20 W	3.3 VDC	6'000 mA	84.0 %
TPP 30-105A-D		5.0 VDC	6'000 mA	87.0 %
TPP 30-109A-D		9.0 VDC	3'340 mA	88.0 %
TPP 30-112A-D		12 VDC	2'500 mA	90.5 %
TPP 30-115A-D	30 W	15 VDC	2'000 mA	90.5 %
TPP 30-124A-D		24 VDC	1'250 mA	89.5 %
TPP 30-136A-D		36 VDC	840 mA	90.0 %
TPP 30-148A-D		48 VDC	630 mA	91.5 %

TPP 30A-D Series, 30 Watt

TRACO POWER

- DC range 120 - 370 VDC Input frequency 47 - 63 Hz Input current at full load - at 115 VAC / 230 VAC 0.80 A max. / 0.40 A max. Input protection T1.6 A/250 VAC (internal fuse) Input inrush current - at 230 VAC 40 A max. Zero load power consumption 0.05 W typ. (acc. ErP directive) Output Specifications ±10% Voltage adjustment ±10% Voltage set accuracy ±1% Regulation - Input variation (Vin min. to Vin max.) - Load variation (0 to 100%) 3.3 & 5.0 Vout models: other output models 0.7% max. Minimum load - at 115 VAC 16 ms typ. Start-up time - at 115 VAC 16 ms typ. Start-up time - at 115 VAC 16 ms typ. Rise time 40 ms typ. 200 MVp-p typ. w. cap. 10µF/25V 1206 X7R MLD (20 MHz Bandwidth) 12, 15, 24 & 36 Vout models: 50 mVp-p typ. w. cap. 1µF/50V 1206 X7R MLD	Input Specification	s		
- DC range 120 - 370 VDC Input frequency 47 - 63 Hz Input current at full load - at 115 VAC / 220 VAC 0.80 A max. / 0.40 A max. Input protection T1.6 A / 250 VAC (internal fuse) 40 A max. Input invish current - at 230 VAC 40 A max. Zero load power consumption 0.05 W typ. (acc. EIP directive) Output Specifications ±10% Voltage adjustment ±10% - I cod variation (Vin min: to Vin max.) 0.2% max. - Load variation (Vin min: to Vin max.) 0.2% max. - Load variation (Vin min: to Vin max.) 0.2% max. - Load variation (Vin min: to Vin max.) 0.2% max. - Load variation (Vin min: to Vin max.) 0.2% max. - Load variation (Vin min: to Vin max.) 0.2% max. - Load variation (Vin min: to Vin max.) 0.2% max. - Load variation (Vin min: to Vin max.) 0.2% max. - Load variation (Vin min: to Vin min: to Vin max.) 0.2% max. - More variation 1500 ms max. Minimum load not required Temperature coefficient ±0.02%/K Hold-up time <th>Input voltage range</th> <th>– AC range (universal inpu</th> <th>t)</th> <th>85 – 264 VAC</th>	Input voltage range	– AC range (universal inpu	t)	85 – 264 VAC
Input current at full lead - at 115 V/AC / 230 V/AC 0.80 A max. / 0.40 A max. Input protection 11.6 A/250 VAC (Internal Fuse) Input inrush current - at 230 V/AC 40 A max. Zero lead power consumption 0.05 W typ. (acc E/P directive) Output Specifications Voltage adjustment ±10% Voltage adjustment ±10% Regulation - Input variation (Mn min. to Vin max) - Load variation (0 to 100%) 33.8.5.0 Vout models 0.5% max. - Load variation (0 to 100%) 33.8.5.0 Vout models 0.5% max. - Load variation (0 to 100%) 33.8.5.0 Vout models 0.5% max. - Load variation (0 to 100%) 33.8.5.0 Vout models 0.5% max. - Collect cutput models 0.5% max. - Load variation (0 to 100%) 33.8.5.0 Vout models 0.5% max. - Regulation - Input variation (Mn min. to Vin max) - Load variation (0 to 100%) 33.8.5.0 Vout models 0.5% max. - Reparative coefficient 4.0.02% //K Hold-up time at 115 VAC 16 ms typ. Start-up time Rispie and noise 3.3.5.0.8.8.0 Vout models 50 mVp- ptyp. wcap 10(J-F/25V 1206 X/TRML 20.MH/2 Bandwidh) 12, 15, 24.8.38 Vout models 50 mVp- ptyp. wcap 10(J-F/25V 1206 X/TRML 48 Vout models 50 mVp- ptyp. wcap 10(J-F/25V 1206 X/TRML 48 Vout models 50 mVp- ptyp. wcap 10(J-F/25V 1206 X/TRML 20.MH/2 Bandwidh) 125 - 140% of nominal Vout Current limitation at 140% lout typ. Short circuit protection 125 - 140% of nominal Vout Capacitive load 3.3 Vout models 130 µF max. 38 Vout model 12000 µF max. 39 Vout model 12000 µF max. 39 Vout model 130 µF max. 39 Vout model 2056 µF max. 39 Vout model 23 µF max. 39 Vout models 2056 µF max. 30 Vout models 2056 µF max. 30 VF model 2056 µF max. 30 VF max.		– DC range		(derating of 4 %/V below 90 VAC input required 120 – 370 VDC
Input protection T1.6 A/250 VAC (internal tuse) Input insub current - at 230 VAC 40 A max. Zero load power consumption 0.05 W typ. (acc. EFP directive) Output Specifications	Input frequency			47 – 63 Hz
Input Inrush current - at 230 VAC 40 A max. Zero load power consumption 0.05 W typ, tacc. EIP directive) Output Specifications Voltage adjustment ±10% Voltage ad accuracy ±1% Regulation - leput variation (Vin min. to Vin max) - Load variation (Vin Vin min. to Vin max) - Load variation (Vin Vin Vin Vin Vin Vin Vin Vin Vin Vin	Input current at full load	– at 115 VAC / 230 VAC		0.80 A max. / 0.40 A max.
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Output Specifications Voltage adjustment ±10% Voltage set accuracy ±1% Regulation - Input variation (Vin min. to Vin max.) - Load variation (O to 100%) 3.3 & 5.0 Vout models other output models 0.7% max. Output process 0.7% max. 0.5% max. 0.5% max. Minimum load not required 0.7% max. 0.5% max. Minimum load not required 1500 ms max. 0.7% max. Start-up time - at 115 VAC 16 ms typ. 50 mVp-p typ. w cap. 10//725/ 1206 X/R ML (20 MHz Bandwidth) 12, 15, 24 & 36 Vout models 50 mVp-p typ. w cap. 10//725/ 1206 X/R ML 50 mVp-p typ. w cap. 10//725/ 1206 X/R ML (20 MHz Bandwidth) 12, 15, 24 & 36 Vout models 50 mVp-p typ. w cap. 10//725/ 1206 X/R ML 50 mVp-p typ. w cap. 10//725/ 1206 X/R ML (20 MHz Bandwidth) 12, 15, 24 & 36 Vout models 50 mVp-p typ. w cap. 10//725/ 1206 X/R ML 50 mVp-p typ. w cap. 10//725/ 1206 X/R ML (20 MHz Bandwidth) 12, 15, 24 & 36 Vout models 50 mVp-p typ. w cap. 10//725/ 1206 X/R ML 1206 X/R ML (20 translinitation 12 Vout models 50 MJ pr. 500 ms max. 125 vout models 25 Vout mo	Input inrush current	– at 230 VAC		40 A max.
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Voltage adjustment ±10% Voltage set accuracy ±10% Regulation - Input variation (Vin min. to Vin max) - Load variation (0 to 100%) 0.2% max. 0.5% max. Minimum load not required Temperature coefficient ±0.02%/K Hold-up time - at 115 VAC 16 ms typ. Start-up time 1500 ms max. Rise time 40 ms typ. Start-up time 1500 ms max. Rise time 40 ms typ. V20 Mitz Bandwidth) 12, 15, 24 & 38 Vout models 50 mVp-p typ. w cap. 10µF/29V 1206 X7R MLC 20 Mitz Bandwidth) 12, 15, 24 & 38 Vout models 50 mVp-p typ. w cap. 10µF/20V 1206 X7R MLC 20 Mitz Bandwidth) 12, 15, 24 & 38 Vout models 50 mVp-p typ. w cap. 10µF/20V 1206 X7R MLC 20 Mitz Bandwidth) 12, 15, 24 & 38 Vout models 50 mVp-p typ. w cap. 10µF/100V 1206 X7R MLC Current limitation at 140% lout typ. 50 mVp-p typ. w cap. 10µF/100V 1206 X7R MLC Capacitive load 3.3 Vout models 50 Witp. Capacitive load 3.3 Vout models 12000 µF max. 12 Vout models 33 Vout models 330 Vout models 330 Vout models 13 Vout models 1300	Output Specificatio	ons		
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winimum load other output models: 0.5% max. Minimum load not required Temperature coefficient ±0.02%/K Hold-up time – at 115 VAC 16 ms typ. Start-up time 1500 ms max. 1500 ms max. Rise time 40 ms typ. 50 mVp-p typ. w cap. 10/E726V 1206 X7R MLC (20 MHz Bandwidth) 12, 15, 24 & 36 Vout models: 50 mVp-p typ. w cap. 10/E700V 1206 X7R MLC (20 MHz Bandwidth) 12, 15, 24 & 36 Vout models: 50 mVp-p typ. w cap. 10/E700V 1206 X7R MLC Transient response – Peak deviation (25% load step change) 3% max. - Recovery time 500 µs typ. 500 µs typ. Overvoltage protection 125 - 140% of nominal Vout Current limitation at 140% load step change) 3% pmax. Short circuit protection continuous (automatic recovery), hiccup Capacitive load 3.3 Vout model: 12000 µF max. 12 Vout model: 23.9 Vout model: 23.9 UF max. 12 Vout model: 23.9 UF max. 12500 µF max. 14 Vout model: 13.9 UF max. 1250 µF max. 15 Vout model: 23.9 UF max. 1250 µF max. 16 Vou	Regulation	– Input variation (Vin min. 1	to Vin max.)	0.2% max.
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Start-up time 1500 ms max. Rise time 40 ms typ. Ripple and noise 3.3, 50.8.9.0 Vout models 50 mVp-p typ. w cap. 10µF/25V 1206 X7R MLC (20 MHz Bandwidth) 12, 15, 24.8.36 Vout models 50 mVp-p typ. w cap. 01µF/10V 1206 X7R MLC (20 MHz Bandwidth) 48 Vout models 50 mVp-p typ. w cap. 01µF/10V 1206 X7R MLC Transient response - Peak deviation (25% load step change) 3% max. - Recovery time 300 µs typ. Overvoltage protection 125 - 140% of nominal Vout Current limitation at 140% lout typ. Short circuit protection 10'000 µF max. 5 Vout models 10'000 µF max. 12 Vout models 10'000 µF max. 12 Vout models 1350 µF max. 12 Vout models 1350 µF max. 12 Vout models 1350 µF max. 1350 µF max. 1350 µF max. 24 Vout models 1350 µF max. 250 µF max. 1350 µF max. 24 Vout models 1350 µF max. 250 µF max. 1350 µF max. 26 Vout models 136 %/K above +60°C 0 cherating - Temperature 3.3, 5 & 9 Vout models	•			
Rise time 40 ms typ. Ripple and noise 3.3, 5.0.8, 9.0. Vout models: 50 mVp-p typ. w. cap. 10µF/25V 1206 X7R MLC (20 MHz Bandwidth) 12, 15, 24.8, 36 Vout models: 50 mVp-p typ. w. cap. 1µF/50V 1206 X7R MLC Transient response - Peak deviation (25% load step change) 3% max. - Recovery time 300 µs typ. Overvoltage protection 125 - 140% of nominal Vout Current limitation at 140% lout typ. Short circuit protection continuous (automatic recovery), hiccup Capacitive load 3.3 Vout model: 10'000 µF max. 5 Vout model: 12'000 µF max. 12'000 µF max. 12 Vout model: 12'000 µF max. 2085 µF max. 12 Vout model: 13'00 µF max. 200 µF max. 12 Vout model: 13'00 µF max. 200 µF max. 12 Vout model: 13'00 µF max. 200 µF max. 12 Vout model: 13'00 µF max. 200 µF max. 12 Vout model: 13'00 µF max. 200 µF max. 12 Vout model: 13'00 µF max. 200 µF max. 12 Vout model: 13'00 µF max. 200 µF max. 13 Vout model: 13'00 µF max. 200 µF		– at 115 VAC		16 ms typ.
Ripple and noise (20 MHz Bandwidth) 3.3, 5.0.8, 9.0 Vout models: 12, 15, 24.8, 36 Vout models: 48 Vout model: 50 mVp-p typ. w. cap. 10µF/25V 1206 X7R MLC 50 mVp-p typ. w. cap. 01µF/100V 1206 X7R MLC 50 mVp. 1200 µF max. 12 Vout model: 125 max. 12 Vout model: 1370 µF max. 24 Vout model: 136 µF max. 24 Vout model: 136 µF max. 24 Vout model: 130 µF max. 24 Vout model: 130 µF max. 250 µF ma	Start-up time			
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− Recovery time 500 μs typ. Overvoltage protection 125 - 140% of nominal Vout Current limitation at 140% lout typ. Short circuit protection continuous (automatic recovery), hiccup Capacitive load 3.3 Vout model: 5 Vout model: 12'000 μF max. 9 Vout model: 2'085 μF max. 12 Vout model: 2'085 μF max. 15 Vout model: 2'085 μF max. 15 Vout model: 2'085 μF max. 15 Vout model: 2'085 μF max. 15 Vout model: 2'085 μF max. 135 0 μF max. 24 Vout model: 2'35 μF max. 36 Vout model: 2'35 μF max. 36 Vout model: 2'35 μF max. 36 Vout model: 130 μF max. General Specifications - Operating - Storage - 40°C to +85°C - 40°C to +100°C Output power derating - Storage - Operating - Storage - 40°C to +85°C - 40°C to +100°C Output power derating - Low input voltage - Temperature 3.3, 5 & 9 Vout models: other output models: 2.25 %/K above +60°C 3.6 %/K above +75°C - Low input voltage 2.25 %/K above +60°C 3.6 %/K above +75°C - 4.0 %/V below 90 VAC Humidity (non condensing) 5 - 95 % rel. H. Mitude during operation Switching frequency (at 230 VAC) 30 - 60 kHz (pulse width modulation) Isolation voltage - Input / Output (60 s) - Input / Floating (60 s) - Output / Floating (60 s) 4000 VAC (1 × MOPP insulation)			12, 15, 24 & 36 Vout models:	50 mVp-p typ. w. cap. 10μF/25V 1206 X7R MLCC 50 mVp-p typ. w. cap. 1μF/50V 1206 X7R MLCC 50 mVp-p typ. w. cap. 0.1μF/100V 1206 X7R MLCC
Current limitation at 140% lout typ. Short circuit protection continuous (automatic recovery), hiccup Capacitive load 3.3 Yout model: 5 Yout model: 12'000 µF max. 29 Yout model: 12'000 µF max. 210 Yout model: 13'720 µF max. 210 Yout model: 13'720 µF max. 210 Yout model: 20 µF max. 24 Yout model: 235 µF max. 24 Yout model: 130 µF max. General Specifications 235 µF max. 24 Yout model: 130 µF max. Temperature ranges - Operating - Storage -40°C to +85°C -40°C to +85°C -40°C to ±100°C Output power derating - Temperature 3.3,5 & 9 Yout models: other output models: 0 Humidity (non condensing) 2.5 %/K above ±60°C 3.6 %/K above ±75°C - Low input voltage Humidity (non condensing) 5 - 95 % rel. H. 5000 m max. Switching frequency (at 230 VAC) 30 - 60 kHz (pulse width modulation) Isolation voltage - Input / Output (60 s) - Input / Floating (60 s) - Output / Floating (60 s) 4000 VAC (1 × MOPP insulation) 1500 VAC (1 × MOPP insulation)	Transient response			
Short circuit protection continuous (automatic recovery), hiccup Capacitive load 3.3 Vout model: 5 Vout model: 12'000 μF max. 10'000 μF max. 9 Vout model: 12 Vout model: 12 Vout model: 12 Vout model: 1350 μF max. 3'720 μF max. 20 K5 μF max. 3'720 μF max. 15 Vout model: 15 Vout model: 15 Vout model: 1350 μF max. 2'085 μF max. 36 Vout model: 1350 μF max. 235 μF max. 36 Vout model: 1350 μF max. 36 Vout model: 235 μF max. 36 Vout model: 130 μF max. 20 kF max. 36 Vout model: 250 μF max. 36 Vout model: 235 μF max. 36 Vout model: 250 μF max. 36 Vout model: 235 μF max. 36 Vout model: 20 μF max. 36 Vout model: 235 μF max. 36 Vout model: 20 μF max. 36 Vout model: 235 μF max. 36 Vout model: 20 μF max. 36 Vout model: 20 μF max. 37 μF max. 36 Vout model: 20 μF max. 36 Vout model: 20 μF max. 38 Vout model: 20 μF max. 36 Vout model: 20 μF max. 26 Vout model: 20 μF max. 38 Vout model: 20 μF max. 36 Vout model: 20 μF max. 26 Vout model: 20 μF max. 38 Vout model: 20 μF max. 36 Vout model: 20 μF max. 27 Vout Houtel: 20 μF max. 30 - 60 kHz (pulse width modulation) 30 - 60 kHz (pulse width modul	Overvoltage protection			125 – 140% of nominal Vout
Capacitive load 3.3 Vout model: 5 Vout model: 9 Vout model: 12 Vout model: 2008 μF max. 12 Vout model: 2008 μF max. 12 Vout model: 2008 μF max. 13 Vout model: 200 μF max. 24 Vout model: 230 μF max. 24 Vout model: 230 μF max. 24 Vout model: 230 μF max. General Specifications Temperature ranges - Operating - Storage - A0°C to +85°C - A0°C to ±100°C Output power derating - Temperature - Storage -40°C to ±100°C Output power derating - Temperature - Low input voltage 3.3, 5 & 9 Vout models: other output models: 5 - 95 % rel. H. Altitude during operation 5000 m max. Switching frequency (at 230 VAC) 30 - 60 kHz (pulse width modulation) Isolation voltage - Input / Output (60 s) - Input / Floating (60 s) - Output / Floating (60 s) 4000 VAC (2 × MOPP insulation) 1500 VAC (1 × MOPP insulation)	Current limitation			at 140% lout typ.
S Vout model:12'000 µF max. 3'720 µF max. 12 Vout model:9 Vout model:3'720 µF max. 2'085 µF max. 12 Vout model:12 Vout model:2'085 µF max. 1350 µF max. 24 Vout model:15 Vout model:1'350 µF max. 235 µF max. 36 Vout model:36 Vout model:130 µF max. 235 µF max. 310 µF max.General Specifications-40°C to +85°C -40°C to +85°C -40°C to +100°CTemperature ranges- Operating - Storage-40°C to +85°C -40°C to +100°COutput power derating - Durput voltage- Temperature - Low input voltage3.3, 5 & 9 Vout models: other output models: - 40.°C to +100°CNutput power derating - Low input voltage- Temperature - Low input voltage3.3, 5 & 9 Vout models: other output models: - 100°C2.25 %/K above +60°C - 4.0 %/V below 90 VACHumidity (non condensing)- Sorage- 40°C to +85°C - 1.00 m max 4.0 %/V below 90 VACHumidity (non condensing)- Input / Output (60 s) - Low input voltage- 5 - 95 % rel. H.Altitude during operation- 5000 m max.Switching frequency (at 230 VAC)- 1000 VAC (2 × MOPP insulation) - 1000 VAC (2 × MOPP insulation)Isolation voltage- Input / Output (60 s) - Input / Floating (60 s) - Output / Floating (60 s)4000 VAC (1 × MOPP insulation) 1500 VAC (1 × MOPP insulation)	Short circuit protection			continuous (automatic recovery), hiccup
Temperature ranges- Operating - Storage-40°C to +85°C -40°C to +100°COutput power derating- Temperature3.3, 5 & 9 Vout models: other output models: other output models:2.25 %/K above +60°C 3.6 %/K above +75°C 4.0 %/V below 90 VACHumidity (non condensing)- Low input voltage5 - 95 % rel. H.Altitude during operation5000 m max.Switching frequency (at 230 VAC)30 - 60 kHz (pulse width modulation)Isolation voltage- Input / Output (60 s) - Input / Floating (60 s)4000 VAC (2 × MOPP insulation) 1500 VAC (1 × MOPP insulation)	Capacitive load		5 Vout model: 9 Vout model: 12 Vout model: 15 Vout model: 24 Vout model: 36 Vout model:	12'000 μF max. 3'720 μF max. 2'085 μF max. 1'350 μF max. 520 μF max. 235 μF max.
Temperature ranges- Operating - Storage-40°C to +85°C -40°C to +100°COutput power derating- Temperature3.3, 5 & 9 Vout models: other output models: other output models:2.25 %/K above +60°C 3.6 %/K above +75°C 4.0 %/V below 90 VACHumidity (non condensing)- Low input voltage5 - 95 % rel. H.Altitude during operation5000 m max.Switching frequency (at 230 VAC)30 - 60 kHz (pulse width modulation)Isolation voltage- Input / Output (60 s) - Input / Floating (60 s)4000 VAC (2 × MOPP insulation) 1500 VAC (1 × MOPP insulation)	General Specificati	ons		
other output models: 3.6 %/K above +75°C 4.0 %/V below 90 VAC Humidity (non condensing) 5 – 95 % rel. H. Altitude during operation 5000 m max. Switching frequency (at 230 VAC) 30 – 60 kHz (pulse width modulation) Isolation voltage – Input / Output (60 s) – Input / Floating (60 s) 4000 VAC (2 × MOPP insulation) 1500 VAC (1 × MOPP insulation) - Output / Floating (60 s) 1500 VAC (1 × MOPP insulation)	-	– Operating		
Humidity (non condensing) 5 – 95 % rel. H. Altitude during operation 5000 m max. Switching frequency (at 230 VAC) 30 – 60 kHz (pulse width modulation) Isolation voltage – Input / Output (60 s) 4000 VAC (2 × MOPP insulation) – Input / Floating (60 s) 1500 VAC (1 × MOPP insulation) – Output / Floating (60 s) 1500 VAC (1 × MOPP insulation)	Output power derating			3.6 %/K above +75°C
Altitude during operation 5000 m max. Switching frequency (at 230 VAC) 30 – 60 kHz (pulse width modulation) Isolation voltage – Input / Output (60 s) 4000 VAC (2 × MOPP insulation) – Input / Floating (60 s) 1500 VAC (1 × MOPP insulation) – Output / Floating (60 s) 1500 VAC (1 × MOPP insulation)	Humidity (non condensing)			5 – 95 % rel. H.
Isolation voltage - Input / Output (60 s) 4000 VAC (2 × MOPP insulation) - Input / Floating (60 s) 1500 VAC (1 × MOPP insulation) - Output / Floating (60 s) 1500 VAC (1 × MOPP insulation)				5000 m max.
- Input / Floating (60 s)1500 VAC (1 × MOPP insulation)- Output / Floating (60 s)1500 VAC (1 × MOPP insulation)	Switching frequency (at 23	O VAC)		30 – 60 kHz (pulse width modulation)
Leakage current (at 264 VAC / 60Hz) 100 µA max.	Isolation voltage	– Input / Floating (60 s)		1500 VAC (1 \times MOPP insulation)
	Leakage current (at 264 VA	.C / 60Hz)		100 μA max.

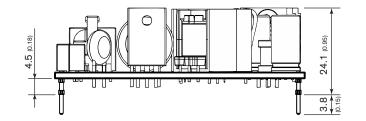
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

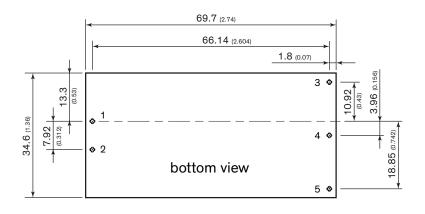
TRACO POWER

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Isolation resistance (at 500 VDC)		100 MOhm min.	
Reliability	– calculated MTBF at +25°C acc. to MIL-HDBK-217F	3'341'000 h	
Weight		58 g (2.05 oz)	
EMI emission	- Conducted & Radiated input suppression	EN 55011 limits to IEC 60601-1-2 4th edition EN 55032 class B (internal filter)	
	– Harmonic current emissions	IEC / EN 61000-3-2, class A	
	– Voltage flicker	IEC / EN 61000-3-3, (class tba.)	
EMC immunity		EN 55024, EN 60601-1-2 4th edition	
	– ESD (electrostatic discharge)	EN 61000-4-2, air ±15 kV, contact ±8 kV, perf. criteria A	
	 Radiated immunity 	EN 61000-4-3, 20 V/m, perf. criteria A	
	– Fast transient	EN 61000-4-4, ±2 kV, perf. criteria A	
	– Surge	EN 61000-4-5, ±1 kV perf. criteria A	
	 Conducted immunity 	EN 61000-4-6, 20 Vrms, perf. criteria A	
	– Magnetic field immunity	EN 61000-4-8, 30 A/m, perf. criteria A	
	 Voltage dip and interruptions 	EN 61000-4-11, 1 cycle perf. cirteria A,	
		250 cycle perf. criteria B	
Safety standards and certification		UL/IEC/EN 60950-1, UL/IEC/EN 62368-1 UL/IEC/EN 60601-1 3rd edition	
		ANSI/AAMI ES60601-1:2005(R)2012	
		IEC/EN 60335-1, IEC/EN 61558	
	 Certification documents 	www.tracopower.com/overview/tpp30a-d	
Shock and vibration		Vibration acc. IEC 60068-2-6 Shock acc. IEC 60068-2-27	
Environmental compliance	e – Reach – RoHS	www.tracopower.com/info/reach-declaration.pdf RoHS directive 2011/65/EU	
Protection class		class II prepared	
Connection		PCB mount	

Outline Dimensions





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TRACO POWER

Print thickness: 1.6 mm (0.06 inch) Pin diameter: 1.0 mm (0.04 inch)

PCB Pinout			
Pin	Single		
1	Neutral		
2	Line		
3	+Vout		
4	–Vout		
5	Trim		

Dimension in mm, () = inch Tolerances: $x.x \pm 0.5 (\pm 0.02)$ $x.xx \pm 0.25 (\pm 0.01)$ Pin pitch tolerance: $\pm 0.25 (\pm 0.010)$ Pin dimension tolerance: $\pm 0.10 (\pm 0.004)$

Specifications can be changed without notice!

www.tracopower.com