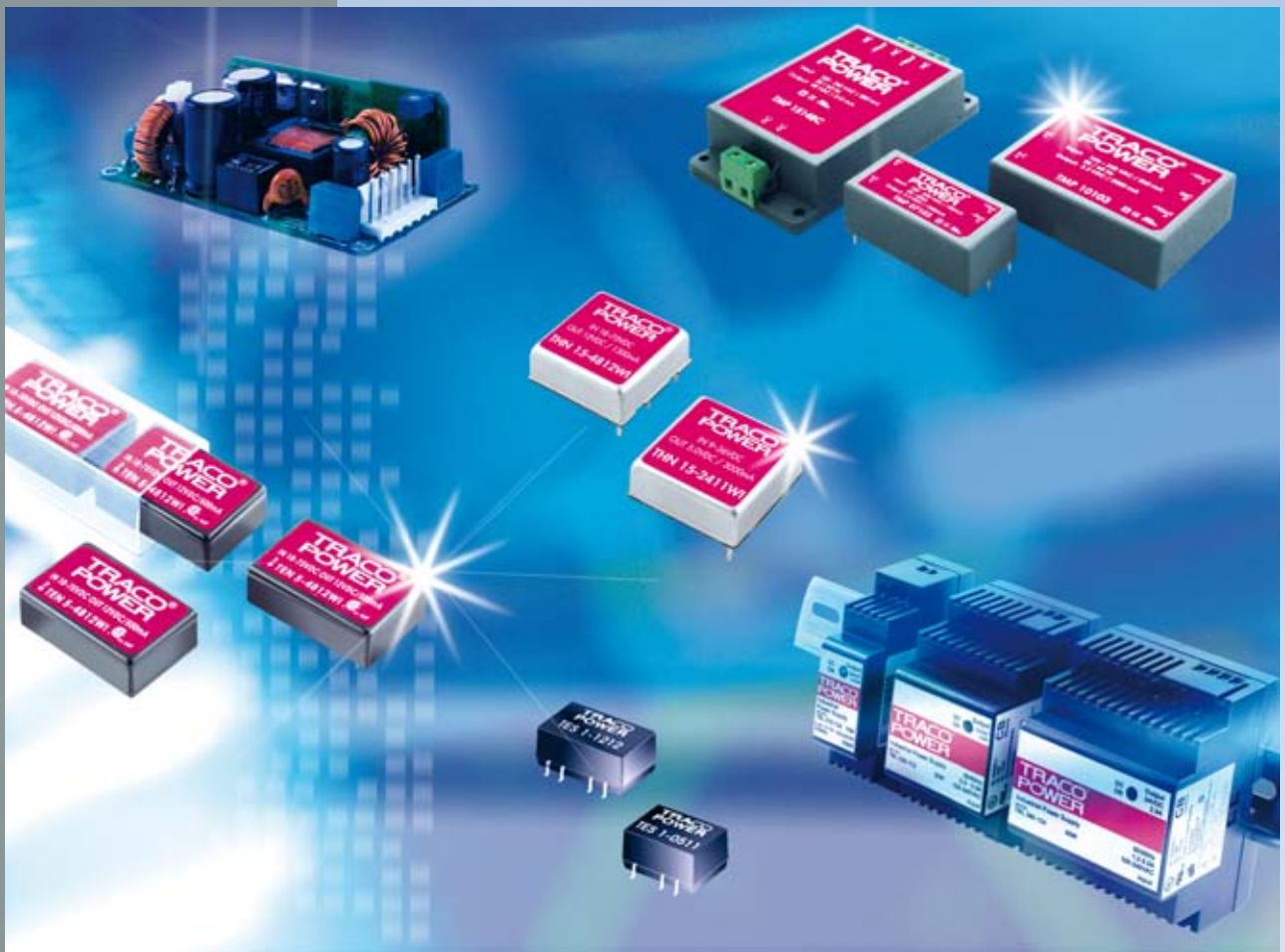




DC/DC CONVERTERS

AC/DC POWER SUPPLIES



www.tracopower.com

Product Portfolio 2009

China Distributor:

Company: Xi'an Haonpower Electronic Technology Co., Ltd.

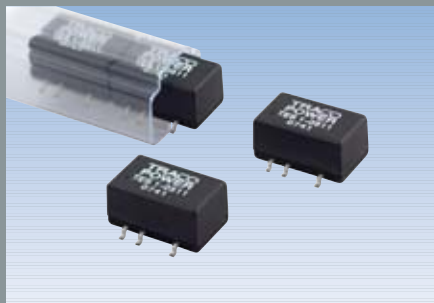
TEL: 029-88231631 88231651

FAX: 029-88231651

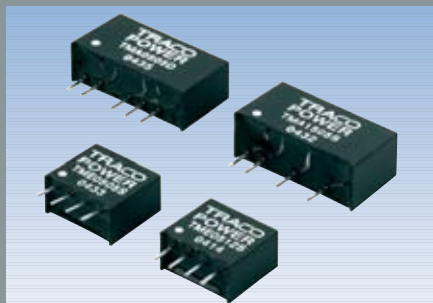
Website: www.haonpower.com www.vicor-power.com

E-mail: info@haonpower.com

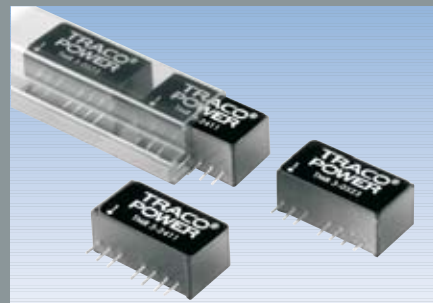
DC/DC CONVERTERS



TES-1 Series



TMA/TME Series



TMR-3 Series

DC/DC Converters 1 to 2 W in SMD-Package

- Models with Single- and Dual-Output
- High Efficiency, 80 % typ.
- Ext. Operating Temperature Range
- Industry Standard Pinout
- All SMD Products qualified for leadfree Reflow Solder Process
- Tape & Reel Package available

Series	TES-1	NEW TES-1V	NEW TES-2H
Output Power	1 W	1 W	2 W
Input Voltages (VDC)	5, 12, 24 (±10 %)	5, 12, 24 (±10 %)	5, 12, 24 (±10 %)
Output Voltages (VDC)	5, 9, 12, 15, ±5, ±12, ±15	5, 12, 15, ±5, ±12, ±15	5, 12, ±5, ±12, ±15
Regulation: -Line	unregulated	unregulated	unregulated
-Load max.	+10 %/-5 %	10 %	10 %
Ripple & Noise max.	120 mVpp	100 mVpp	120 mVpp
I/O-Isolation (VDC)	1500	3000	1000
Operating Temp. Range	-40 to +85 °C	-40 to +85 °C	-40 to +75 °C
Dimensions (mm)	13.7x8x7	15.2x8x6.7	12.7x9.3x8.9

DC/DC Converters 1 to 2 W in SIP-Package

- Models with Single- and Dual-Output
- High Efficiency up to 83 %
- Ext. Operating Temperature Range
- Industry Standard Pinout

Series	TMA	TME	TMV	TMH
Output Power	1 W	1 W	1 W	2 W
Input Voltages (VDC)	5, 12, 15, 24 (±10 %)	5, 12, 24 (±10 %)	5, 12, 24 (±10 %)	5, 12, 24 (±10 %)
Output Voltages (VDC)	5, 12, 15, ±5, ±12, ±15	5, 9, 12, 15, ±5, ±12, ±15	5, 9, 12, 15, ±5, ±12, ±15	5, 12, 15, ±5, ±12, ±15
Regulation: -Line	unregulated	unregulated	unregulated	unregulated
-Load max.	10 %	10 %	10 %	10 %
Ripple & Noise max.	75 mVpp	150 mVpp	100 mVpp	120 mVpp
I/O-Isolation (VDC)	1000	1000	3000	1000
Operating Temp. Range	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +75 °C
Package Style	SIP-7	SIP-4	SIP-7	SIP-7

DC/DC Converters 2 to 3 W in SIP-Package

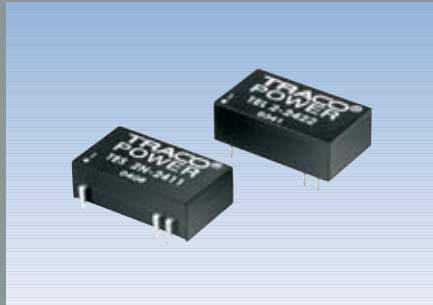
- Wide 2:1 or 4:1 Input Range
- Regulated Output Voltage
- SIP-Package with very small Footprint
- Short Circuit Protection
- High Efficiency up to 85 %
- Low Ripple & Noise
- Remote On/Off
- IEC/EN/UL 60950-1 Approval

Series	TMR-2	TMR-2WI	TMR-3	NEW TMR-3WI
Output Power	2 W	2 W	3 W	3 W
Input Voltage Ranges (VDC)	4.5-9, 9-18, 18-36, 36-75	9-36, 18-75	4.5-9, 9-18, 18-36, 36-75	9-36, 18-75
Output Voltages (VDC)	3.3, 5, 12, ±5, ±12, ±15	3.3, 5, 12, 15, ±5, ±12, ±15	3.3, 5, 12, 15, ±5, ±12, ±15	3.3, 5, 12, 15, ±5, ±12, ±15
Regulation: -Line max.	0.5 %	0.5 %	0.2 %	0.2 %
-Load max. (single)	0.75 %	0.75 %	0.5 %	0.5 %
Ripple & Noise max.	50 mVpp	75 mVpp	75 mVpp	75 mVpp
I/O-Isolation (VDC)	1000	1000	1500	1500
Operating Temp. Range	-40 to +75 °C	-40 to +75 °C	-40 to +75 °C	-40 to +75 °C
Package Style	SIP-8	SIP-9	SIP-8	SIP-8

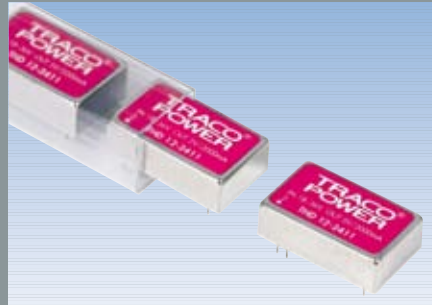
DC/DC Converters 2 to 3 W in DIP-Package

- Wide 2:1 or 4:1 Input Range
- High Efficiency up to 85 %
- Tightly regulated Output Voltage
- Input Filter meets EN 55022A
- Short Circuit Protection
- IEC/EN/UL 60950-1 Approval
- TEN-3/3WI: ext. Operating Temp. Range
- TEL-2/3: Cost optimized Products

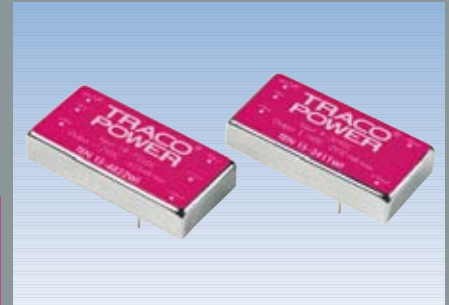
Series	TEL-2	TEL-3	TEN-3	TEN-3WI
Output Power	2 W	3 W	3 W	3 W
Input Voltage Ranges (VDC)	4.5-9, 9-18, 18-36, 36-75	4.5-9, 9-18, 10-30, 18-36, 36-75	4.5-9, 9-18, 18-36, 36-75	9-36, 18-75
Output Voltages (VDC)	3.3, 5, 12, 15, ±5, ±12, ±15	5, 12, 15, ±12, ±15	3.3, 5, 12, 15, ±5, ±12, ±15	3.3, 5, 12, 15, ±12, ±15
Regulation: -Line max.	0.5 %	0.5 %	0.5 %	0.5 %
-Load max. (single)	0.75 %	0.5 %	0.5 %	0.5 %
Ripple & Noise max.	50 mVpp	60 mVpp	50 mVpp	75 mVpp
I/O-Isolation (VDC)	1500	1500	1500	1500
Operating Temp. Range	-40 to +75 °C	-40 to +75 °C	-40 to +85 °C	-40 to +85 °C
Package Style	DIP-16 Plastic	DIP-24 Plastic	DIP-24 Plastic	DIP-24 Plastic



TES-2N/TEL-2 Series



THD-12 Series



TEN-15WI Series

DC/DC Converters 2 to 5 W in SMD-Package

- Wide 2:1 or 4:1 Input Range
- High Efficiency up to 85 %
- Regulated Output
- Input Filter meets EN 55022A
- Short Circuit Protection
- IEC/EN/UL 60950-1 Approval
- All SMD Products qualified for leadfree Reflow Solder Process
- Tape & Reel Package available

Series	TES-2N	TES-3, NEW TES-3WI	TES-5, NEW TES-5WI
Output Power	2 W	3 W	5 W
Input Voltage Ranges (VDC)	4.5-9, 9-18, 18-36, 36-75	9-18, 18-36, 36-75, 9-36, 18-75	9-18, 18-36, 36-75, 9-36, 18-75
Output Voltages (VDC)	3.3, 5, 12, 15, ± 5 , ± 12 , ± 15	3.3, 5, 12, 15, ± 5 , ± 12 , ± 15	3.3, 5, 12, 15, ± 5 , ± 12 , ± 15
Regulation: -Line max.	0.5 %	0.3 %	0.3 %
-Load max. (single)	0.75 %	1.0 %	1.0 %
Ripple & Noise max.	50 mVpp	50 mVpp	85 mVpp
I/O-Isolation (VDC)	1500	1500	1500
Operating Temp. Range	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Package Style	16-Pin SMD	24-Pin SMD	24-Pin SMD

DC/DC Converters 5 to 8 W in DIP-24 Package

- Wide 2:1 or 4:1 Input Range
- High Efficiency up to 88 %
- Ext. Operating Temp. Range*
- Input Filter meets EN 55022A*
- IEC/EN/UL 60950-1 Approval
- Industry Standard Pinout

*except TEL-5

Series	TEL-5	TEN-5, TEN-5WI	TEN-8, TEN-8WI
Output Power	5-6 W	5-6 W	8 W
Input Voltage Ranges (VDC)	9-18, 18-36	4.5-7, 9-18, 9-36, 18-36, 18-75, 36-75	9-18, 9-36, 18-36, 18-75, 36-75
Output Voltages (VDC)	3.3, 5, 12, ± 12 , ± 15	3.3, 5, 12, 15, ± 5 , ± 12 , ± 15	3.3, 5, 12, 15, ± 5 , ± 12 , ± 15
Regulation: -Line max.	0.3 %	0.3 %	0.2 %
-Load max. (single)	1.0 %	1.0 %/2.0 %	0.5 %
Ripple & Noise max.	75 mVpp	50/75 mVpp	50 mVpp
I/O-Isolation (VDC)	1500	1500	1500
Operating Temp. Range	-40 to +75 °C	-40 to +85 °C	-40 to +85 °C
Package Style	DIP-24 Plastic	DIP-24 Metal	DIP-24 Metal

DC/DC Converters 10 to 12 W in DIP-24 Package

- Highest Power Density in DIP-24
- Wide 2:1 or 4:1 Input Range
- Very high Efficiency up to 88 %
- Remote On/Off*
- Short Circuit Protection
- Input Filter meets EN 55022A
- IEC/EN/UL 60950-1 Approval

*except THD-10

Series	THD-10	THD-12	THD-12WI
Output Power	10 W	12 W	12 W
Input Voltage Ranges (VDC)	9-18, 18-36, 36-75	9-18, 18-36, 36-75	9-36, 18-75
Output Voltages (VDC)	3.3, 5.1, 12, ± 12 , ± 15	2.5, 3.3, 5.1, 12, ± 12 , ± 15	3.3, 5.1, 12, 15, ± 5 , ± 12 , ± 15
Regulation: -Line max.	1.0 %	0.5 %	0.5 %
-Load max. (single)	1.2 %	1.0 %	0.5 %
Ripple & Noise max.	85 mVpp	85 mVpp	85 mVpp
I/O-Isolation (VDC)	1500	1500	1500
Operating Temp. Range	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Package Style	DIP-24	DIP-24	DIP-24

DC/DC Converters 15 W in 2 x 1" Package

- Wide 2:1 or 4:1 Input Range
- High Efficiency up to 87 %
- Remote On/Off*
- Input Filter meets EN 55022A*
- Extended Temperature Range*
- IEC/EN/UL 60950-1 Approval
- Industry Standard Pinout
- Shielded Metal Package

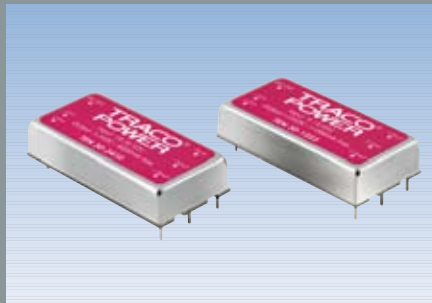
*except TEL-15

Series	TEL-15	TEN-15	TEN-15WI
Output Power	15 W	15 W	15 W
Input Voltage Ranges (VDC)	9-18, 18-36, 36-75	9-18, 18-36, 36-75	9-36, 18-75
Output Voltages (VDC)	3.3, 5.1, 12, 15, ± 12 , ± 15	3.3, 5.1, 12, 15, ± 5 , ± 12 , ± 15	3.3, 5.1, 12, ± 12 , ± 15
Regulation: -Line max.	1.0 %	1.0 %	0.5 %
-Load max. (single)	0.5 %	1.0 %	2.0 %
Ripple & Noise max.	75 mVpp	50 mVpp	80 mVpp
I/O-Isolation (VDC)	1500	1500	1500
Operating Temp. Range	-40 to +71 °C	-40 to +85 °C	-40 to +85 °C
Dimensions (mm)	50.8x25.4x10.2	50.8x25.4x10.2	50.8x25.4x10.2

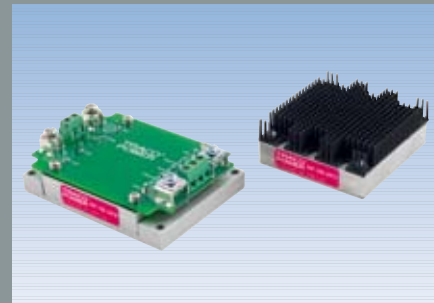
DC/DC CONVERTERS



THN-15WI Series



TEN-30 Series



TEP-75WI, TEP-100 Series

DC/DC Converters 15 W in 1 x 1" Package

- Highest Power Density
- Wide 2:1 or 4:1 Input Range
- Very high Efficiency up to 88 %
- Remote On/Off
- Input Filter meets EN 55022A
- Extended Temperature Range
- IEC/EN/UL 60950-1 Approval
- Industry Standard Pinout
- Shielded Metal Package (THN)
- Also SMD Version (TON-15)

Series	THN-15	NEW THN-15WI	TON-15/TON-15WI
Output Power	15 W	15 W	15 W
Input Voltage Ranges (VDC)	9-18, 18-36, 36-75	9-36, 18-75	18-36, 36-75, 9-36, 18-75
Output Voltages (VDC)	3.3, 5, 12, 15, ±5, ±12, ±15	3.3, 5, 12, 15, ±5, ±12, ±15	3.3, 5, 12, 15
Regulation: -Line max.	0.2 %	0.5 %	0.2 %
-Load max. (single)	0.5 %	0.2 %	0.2 %
Ripple & Noise max.	75 mVpp	75 mVpp	75 mVpp
I/O-Isolation (VDC)	1500	1500	2250
Operating Temp. Range	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Dimensions (mm)	25.4x25.4x9.9	25.4x25.4x9.9	27.9x23.9x8.5
Case Construction	Metal	Metal	Open Frame Design

DC/DC Converters 30 W in 2 x 1" Package, 40 W in 2 x 2" Package

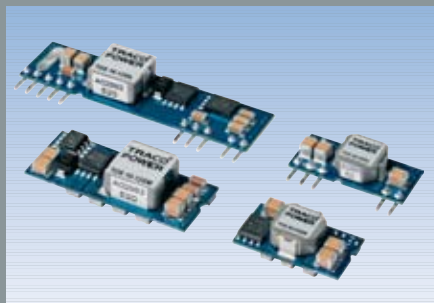
- Highest Power Density
- Wide 2:1 or 4:1 Input Range
- Triple Output Models available
- Very high Efficiency up to 88 %
- Remote On/Off
- Extended Temperature Range
- Heatsinks available
- Input Filter to meet EN 55022A
- Shielded Metal Case
- IEC/EN/UL 60950-1 Approval

Series	NEW TEN-30	NEW TEN-30WIN	TEN-40, TEN-40WI
Output Power	30 W	30 W	40 W
Input Voltage Ranges (VDC)	9-18, 18-36, 36-75	9-36, 18-75	9-18, 18-36, 36-75, 9-36, 18-75
Output Voltages (VDC)	1.5, 2.5, 3.3, 5.1, 12, 15, ±5, ±12, ±15	1.5, 2.5, 3.3, 5.1, 12, 15, ±5, ±12, ±15, 3.3/±12, 5/±12, 3.3/±15, 5/±15	3.3, 5, 12, 15, 3.3/±12, ±15, 3.3/±12, 5/±12, 3.3/±15, 5/±15
Regulation: -Line max.	0.2 %	0.2 %	1.0 %
-Load max. (single)	0.5 %	0.5 %	0.5 %
Ripple & Noise max.	75 mVpp	75 mVpp	75 mVpp
I/O-Isolation (VDC)	1500	1500	1500
Operating Temp. Range	-40 to +85 °C	-40 to +75 °C	-40 to +75 °C
Dimensions (mm)	50.8x25.4x10.2	50.8x25.4x10.2	50.8x50.8x10.2

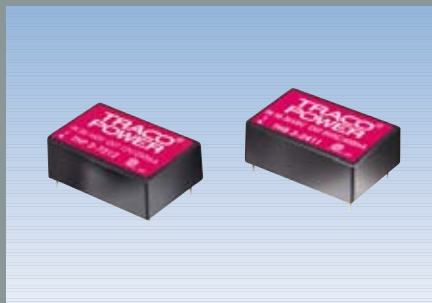
DC/DC Converters 60 to 150 W

- Highest Power Density
- Wide 2:1 or 4:1 Input Range
- Very high Efficiency up to 91 %
- Remote On/Off
- Extended Temperature Range
- Heatsinks available
- Screw Terminal Adapter opt.
- Under Voltage Lockout
- Shielded Metal Case
- IEC/EN/UL 60950-1 Approval

Series	TEN-60	NEW TEP-75WI, TEP-100	NEW TEP-150WI
Output Power	60 W	75 W / 100 W	150 W
Input Voltage Ranges (VDC)	18-36, 36-75	9-36, 18-75 (TEP-75), 18-36, 36-75 (TEP-100)	9-36, 18-75
Output Voltages (VDC)	3.3, 5, 12, 15	5, 12, 15, 24, 28, 48	12, 15, 24, 28, 48
Regulation: -Line max.	0.2 %	0.2 %	0.2 %
-Load max. (single)	0.5 %	0.3 %	0.4 %
Ripple & Noise max.	75 mVpp	75 mVpp	1% of Vout (mVpp)
I/O-Isolation (VDC)	1500	2250	2250
Operating Temp. Range	-40 to +75 °C	-40 to +75 °C	-40 to +75 °C
Dimensions (mm)	50.8x50.8x10.2	61x58x12.7	98x52x17



TOS Series



THB/THP Series



TSC Series

DC/DC Converters with reinforced Insulation, 1 to 2 W

- I/O-Isolation rated for up to 4000 VAC
- I/O-Isolation Test Voltage 6000 V
- Industrial and Medical Safety Approvals to IEC/EN/UL 60950-1 and IEC/EN/UL 60601-1

Series	TMV-EN	NEW THI-2M	NEW TES-2M
Output Power	1 W	2 W	2 W
Input Voltage Ranges (VDC)	5, 12 ($\pm 10\%$)	5, 12, 24 ($\pm 10\%$)	5, 12, 24 ($\pm 10\%$)
Output Voltages (VDC)	5, 12, 15, ± 5 , ± 12 , ± 15	5, 12, 15, ± 12 , ± 15	5, 12, 24, ± 12 , ± 15
Regulation: -Line	unregulated	unregulated	unregulated
-Load max. (single)	10 %	10 %	10 %
Ripple & Noise max.	120 mVpp	150 mVpp	150 mVpp
Rated I/O-Isolation Voltage	3000 VACrms	4000 VACrms	4000 VACrms
I/O-Isolation Test Voltage	6000 Vpk	6000 Vpk	6000 Vpk
Operating Temp. Range	-40 to +85 °C	-25 to +71 °C	-25 to +71 °C
Package Style	SIP-7	DIP-16	16-pin SMD

DC/DC Converters with reinforced Insulation, 3 to 6 W

- Wide Input Voltage Ranges
- Input Voltages up to 160 VDC
- I/O-Isolation rated for 4000 VAC
- I/O-Isolation Test Voltage 6000 V
- Extended Temperature Range
- Industrial and Medical Safety Approvals to IEC/EN/UL 60950-1 and IEC/EN/UL 60601-1

Series	THB-3	THP-3	NEW THB-6
Output Power	3 W	3 W	6 W
Input Voltage Ranges (VDC)	4.5-9, 9-18, 18-36, 36-75	9-40, 18-80, 36-160	9-18, 18-36, 36-75
Output Voltages (VDC)	5, 12, 24, ± 12 , ± 15	5, 12, ± 12 , ± 15	5, 12, ± 12 , ± 15
Regulation: -Line max.	0.5 %	0.5 %	0.5 %
-Load max. (single)	1 %	1 %	1 %
Ripple & Noise max.	150 mVpp	150 mVpp	180 mVpp
Rated I/O-Isolation Voltage	4000 VACrms	4000 VACrms	4000 VACrms
I/O-Isolation Test Voltage	6000 Vpk	6000 Vpk	6000 Vpk
Operating Temp. Range	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Package Style	DIP-24	DIP-24	DIP-24

Non-isolated DC/DC Converters & Switching Regulators up to 30 A

- Models with 1, 6, 10, 16 and 30 A
- Very high Efficiency up to 96 %
- Wide Input Voltage Ranges
- Fast Transit Response
- Programmable Output Voltage
- Remote On/Off
- SIP- or SMD Package Version
- Compliant with DOSA Standard

Series	NEW TSR-1	TOS-6, TOS-10, TOS-16	NEW TOS-30
Output Current (max.)	1 A	6 A, 10 A, 16 A	30 A
Input Voltage Ranges (VDC)	4.75-32	2.4-5.5, 8.3-14	4.5-5.5, 6-14
Output Voltage Range (VDC)	1.5 to 15	0.75 to 5.0	0.8 to 5.5
Regulation: -Line max.	0.2 %	0.3 %	0.5 %
-Load max.	0.4 %	0.4 %	0.5 %
Ripple & Noise max.	50 mVpp	50 mVpp	50 mVpp
Operating Temp. Range	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Dimensions (mm) -SIP-Package	11.5x10.2x7.6	22.9x10.2x6.6 (6 A) 50.8x12.7x8.3 (10 A, 16 A)	50.8x12.7x9.7

DC/DC Converters with High Output Power, up to 22 kW

- Robust mechanical Design for Industrial Applications
- Modular Design allows flexible Input/Output Configuration
- Input Voltages up to 800 VDC
- Standard Output Voltages up to 800 VDC
- Many Standard-Options available
- 19"-Rack or Wall Mount Version

Series	TZL	TSC	TSC-19"
Output Power	60 to 300 W	150 to 5000 W	5 kW to 22 kW
Input Voltage Ranges (VDC)	18-36, 36-72	10-800 (7 ranges)	10-800 (7 ranges)
Output Voltages (VDC)	12, 24	5-800 (13 ranges)	5-800 (13 ranges)
Output Currents up to	25 A	260 A	500 A
Regulation: -Line max.	1.0 %	0.2 %	1.0 %
-Load max.	1.0 %	0.1 %	1.0 %
Ripple & Noise max.	120 mVpp	1.0 % of Vout (mVpp)	0.5 % of Vout (mVpp)
I/O-Isolation (VDC)	1500	2100/3500	2100/3500
Operating Temp. Range	-10 to +60 °C	-20 to +75 °C	-10 to +50 °C
Package Style	Enclosed Case	19"-Plug-in Module	19"-Subrack

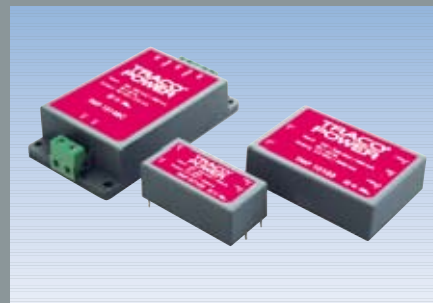
AC/DC POWER SUPPLIES



TMT Series



TMLM Series



TMP Series

Encapsulated AC/DC Power Modules, 10 to 50 W

- Encapsulated Plastic Case
- Single, Dual and Triple Output Models
- Universal Input 85 to 264 VAC
- Models for PCB Mount or Chassis Mount with Screw Terminal Block
- DIN-Rail Mount Adaptor (opt.)
- EMI Suppression meets EN 55022B
- Protection Class II
- IEC/EN/UL 60601-1 Medical Safety
- UL508 Industrial Safety Approval

	NEW		NEW
Series	TMT-10, TMT-15	TMT-30	TMT-50
Output Power	10 W, 15 W	30 W	50 W
Input Voltage Range (VAC)	85 to 264	85 to 264	85 to 264
Output Voltages (VDC)	5, 12, 15, 24,	5, 12, 15, 24,	5, 12, 15, 24, 48
Dual Output	±12, ±15 (not TMT-10)	±12, ±15, 5/12,	
Triple Output		5/±12, 5/±15, 3.3/5/12	
Regulation: -Line max.	0.4 %	0.4 %	0.4 %
-Load max. (single)	1.0 %	1.0 %	1.0 %
Ripple & Noise max.	150 mVpp	150 mVpp	150 mVpp
Operating Temp. Range	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C
Package Style	PCB Mount	PCB Mount	PCB Mount
	Chassis Mount	Chassis Mount	Chassis Mount
Dimensions (PCB-Mount Models)	51x33x22 mm (10 W)	76x51x28 mm	89x64x28 mm
	55x45x24 mm (15 W)	86x58x28 mm (Triple)	

Encapsulated AC/DC Power Modules, 7 to 60 W

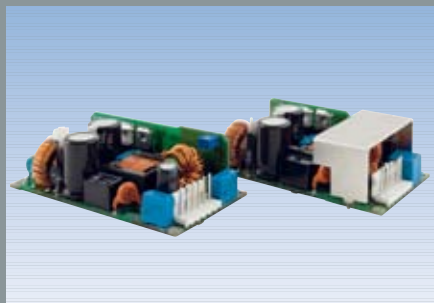
- Encapsulated Plastic Case
- Universal Input 85 to 264 VAC
- Models for PCB Mount or for Chassis Mount with Screw Terminal Block
- DIN-Rail Mount Adaptor (opt.)
- EMI Suppression meets EN 55022B
- Short Circuit Protection
- Protection Class II

	NEW	NEW	NEW
Series	TMP-7, TMP-10	TMP-15, TMP-30	TMP-60
Output Power	7 W, 10 W	15 W, 30 W	60 W
Input Voltage Range (VAC)	85 to 264	85 to 264	85 to 264
Output Voltages (VDC)	3.3, 5, 12, 15, 24,	5, 12, 15, 24, 48,	5.1, 12, 15, 24, 36, 48
Dual Output	±12, ±15	±12, ±15, 5/12,	
Triple Output		5/±12, 5/±15, 3.3/5/12	
Regulation: -Line max.	1 %	1 %	1 %
-Load max. (single)	1 %	1 %	1 %
Ripple & Noise max.	75 mVpp 3.3/5 VDC Outputs 150 mVpp other Outputs	75 mVpp 5 VDC Output 150 mVpp other Outputs	75 mVpp 5.1 VDC Output 150 mVpp other Outputs
Operating Temp. Range	-25 to +60 °C	-25 to +60 °C	-25 to +60 °C
Package Style	PCB Mount	PCB Mount	PCB Mount
		Chassis Mount	Chassis Mount
Dimensions (PCB-Mount Models)	51x25.4x18.3 mm (7 W) 64x45x18 mm (10 W)	74x54x18.3 mm (15 W) 89x63.5x21.5 mm (30 W)	89x67.5x34 mm

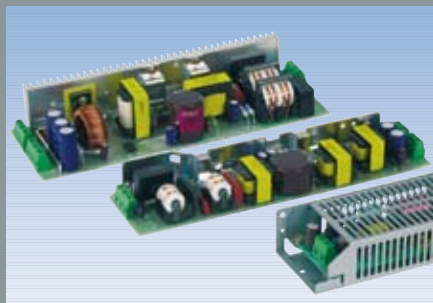
Encapsulated AC/DC Power Modules, 5 to 40 W

- Encapsulated Plastic Case
- Universal Input 85 to 264 VAC
- Models for PCB Mount or for Chassis Mount with Screw Terminal Block
- EMI Suppression meets EN 55022B
- Short Circuit Protection
- Protection Class I (TML-40 Class II)

	NEW	NEW
Series	TMLM-5, TMLM-10	TML-20
Output Power	5 W, 10 W	20 W
Input Voltage Range (VAC)	85 to 264	85 to 264
Output Voltages (VDC)	3.3, 5, 12, 15, 24	5, 12, 15, 24,
Dual Output		±12, ±15,
Triple Output		5/±12, 5/±15
Regulation: -Line max.	0.3 %	0.3 %
-Load max. (single)	0.5 %	1.0 %
Ripple & Noise max.	1 % of Vout (mVpp)	1 % of Vout (mVpp)
Operating Temp. Range	-25 to +60 °C	-25 to +60 °C
Package Style	PCB Mount	PCB Mount
		Chassis Mount
Dimensions (PCB-Mount Models)	51x25.4x15.2 mm (5 W) 52.5x27.3x23 mm (10 W)	70x48x22 mm
		89x63.5x25 mm



TOP-100 Series



TOF Series



TXH Series

Open Frame Power Supplies 20 to 200 W

- Highest Power Density
- Highest Efficiency
- Natural Convection Cooling
- No Cooling Fan necessary
- Universal Input 85 to 264 VAC
- Protection Class I and II Operation
- EMI Suppression meets EN 55022, Class B, FCC level B
- IEC/EN/UL 60950-1 Approval

Series	TOP-20	TOP-100	NEW TOP-200
Output Power	20 W	100 W	200 W
Input Voltage Range (VAC)	85 to 264	85 to 264	85 to 264
Output Voltages (VDC)	3.3, 5, 12, 15, 24	3.3, 5, 12, 15, 24, 48	3.3, 5, 12, 15, 24, 48
Regulation: -Line max.	0.5 %	0.5 %	0.5 %
-Load max.	2.0 %	1.0 %	0.5 %
Ripple & Noise max.	100 mVpp	100 mVpp	100 mVpp
Operating Temp. Range	-10 to +60 °C	-25 to +71 °C	-25 to +71 °C
Connection	Pin Connector	Pin Connector	Pin Connector
Dimension	89x51x20 mm (3.5" x 2" x 0.8")	102x51x32 mm (4" x 2" x 1.25")	127x76x34 mm (5" x 3" x 1.3")

Open Frame Power Supplies, 10 to 150 W

- High Industrial Quality Standard
- Models with Screw Terminals or Pin Connector available
- Universal Input 85 to 264 VAC
- 24 VDC Models with Peak Power
- EMI Suppression meets EN 55022, Class B, FCC level B
- Chassis / Cover as Option available
- IEC/EN/UL 60950-1 Approval

Series	TOF-M	TOF
Output Power	10, 15, 30, 50, 75, 150 W	10, 15, 30, 50, 75, 150 W
Input Voltage Range (VAC)	85 to 264	85 to 264
Output Voltages (VDC)	5, 12, 15, 24, 5/±12, 5/±15 (15/30 W)	5, 12, 15, 24, 5/±12, 5/±15 (15/30 W)
Output Voltage Adjustment	±10 %	±10 %
Regulation: -Line max.	0.5 %	0.5 %
-Load max.	0.5 %	0.5 %
Ripple & Noise max.	1 % of Vout (mVpp)	1 % of Vout (mVpp)
Operating Temp. Range	-10 to +60 °C	-10 to +60 °C
Connection	MOLEX Pin Connector	Screw Terminal Block

Encased Power Supplies 25 to 600 W

- Highest Power Density (TXH)
- Compact Metal Case with Screw Terminal Block
- Dual- and Triple-Output Models with isolated Outputs
- Universal Input 85 to 264 VAC
- Adjustable Output Voltage
- EMI/EMC Compliance to EN 61000-3-2/EN 61000-6-1
- Short Circuit and Overvoltage Protection
- IEC/EN/UL 60950-1 Approval

Series	TXL	NEW TXH
Output Power	15, 25, 35, 50, 60, 70, 100, 120, 150, 220, 300, 600 W	120, 240 W
Input Voltage Range (VAC)	85 to 264	85 to 264
Output Voltages (VDC)	3.3, 5, 12, 15, 24, 48 5/12, 5/12, 5/24, ±12, ±15, 5/±12, 5/±15, 5/+12/-5, 5/12/24	12, 24, 48
Output Voltage Adjustment	±10 %	±10 % (Output 1)
Regulation: -Line max.	1.0 %	1.0 %
-Load max.	2.0 %	1.0 %
Ripple & Noise max.	1 % of Vout (mVpp)	1 % of Vout (mVpp)
Operating Temp. Range	-10 to +60 °C	-10 to +60 °C
Package Style	Metal Case	Metal Case
Dimension	(for Dimensions see Datasheet)	127x82x38 mm (120 W) 150x106x35 mm (240 W)

TRACO ELECTRONIC AG – dedicated to design and produce state-of-art AC/DC and DC/DC power conversion products of high industrial quality. Our mission is to provide customers for their specific application an optimal power supply solution in terms of performance, quality and cost.

Our commitment to quality is supported by a **3 Year Product Warranty** for all products.

TRACOPOWER is the registered trademark under which we are marketing our products worldwide.



TEX-120 Series



TBL Series



TSP Series

Industrial Field Power Supply 120 W

- Designed for Outdoor Application
- Rugged Metal Case with waterproof Connectors
- Case IP67 and NEMA 4X rated
- Ext. Operating Temp. Range -40 °C to +85 °C
- Adjustable Output Voltage
- Shock & Vibration proof Construction
- ATEX and IECEx Certification for HazLoc Application (Class I, Div. II)

Series	NEW TEX-120
Output Power	120 W
Input Voltage Range (VAC)	85 to 264
Output Voltages (VDC)	12, 24
Output Voltage Adjustment	±10 %
Regulation: -Line max.	0.5 %
-Load max.	1.0 %
Ripple & Noise max.	100 mVpp
Operating Temp. Range	-40 to +85 °C
Safety Standards/Approvals	UL 508C listed, IEC/EN/UL 60950-1, EN 50178, CB-Report IEC/UL 60079-15, ATEX94/9/EC
Package Style	Die-cast Aluminium

DIN-Rail Mount Industrial Power Supplies, 15 to 240 W

- Compact Plastic Case
- Adjustable Output Voltage
- Parallel and Redundant Operation
- EMI meets EN 61000-6-3 and EN 61000-6-2
- Protection Class I (TCL) or Class II (TBL)
- Also Models with DC-Input
- Screw Terminals Connection

Series	NEW TBL	NEW TCL
Output Power	15, 30, 60, 90, 150 W	24, 60, 120, 240 W
Input Voltage Range (VAC)	85 to 264	85 to 264
Output Voltages (VDC)	5, 12, 24 (adj. +15 %)	5, 12, 24, 48
Nominal Output Currents (24 VDC)	0.63, 1.25, 2.5, 6.25 A	1.0, 2.5, 5.0, 10 A
Regulation: -Line max.	0.5 %	0.2 %
-Load max.	1.0 %	1.2 %
Ripple & Noise max.	100 mVpp	50 mVpp
Operating Temp. Range	-25 to +70 °C	-10 to +70 °C
Safety Standards/Approvals	UL1310, UL508 listed, IEC/EN/UL 60950-1, CB-Report, EN 50178	UL 508C listed, IEC/EN/UL 60950-1, EN 50178, CB-Report, SEMI F47
Mounting	Snap-on on DIN-Rails or Wall Mount	

DIN-Rail Mount Industrial Power Supplies, 90 to 600 W

- Rugged Metal Case for harsh Industrial Environment
- Ultra-wide Input Voltage Range (TSP-WR)
- Extended Operating Temperature Range
- Overload & Over Temperature Protection
- Power Good Signal and Remote On/Off
- Shock and Vibration proof Construction
- Add-on Function Modules for:
 - Redundant Operation
 - Battery Back-up and Output Buffer
- ATEX, ANSI/ISA and IECEx Certification for HazLoc Applications

Series	TSP	TSP-WR
Output Power	90, 180, 360, 600 W	180, 360, 600 W
Input Voltage Range (Aurorance)	85 to 264 VAC	100 to 550 VAC
Output Voltages (VDC) adjust.	12, 24, 36, 48	24
Nominal Output Currents (24 VDC)	3.75, 7.5, 15, 25 A	7.5, 15, 25 A
Regulation: -Line max.	0.5 %	
-Load max.	0.5 %	
Ripple & Noise max.	150 mVpp	
Operating Temp. Range	-25 to +70 °C	
EMI Suppression	EN 61000-3-2, Class A; EN 55022, Class B	
EMC Immunity	EN 61000-6-2	
Safety Standards/Approvals	IEC/EN 60950-1, CB-Report, EN 50178, EN 60204, EN 61558, IEC/UL 60079-15, UL/cUL 60950-1, UL 508C listed, SEMI F47, ANSI/ISA 12.12.01, ATEX94/9/EC (opt. for TSP Series)	
Mounting	Snap-on on 35 mm DIN-Rail or Wall Mount	

**TRACO[®]
POWER**

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