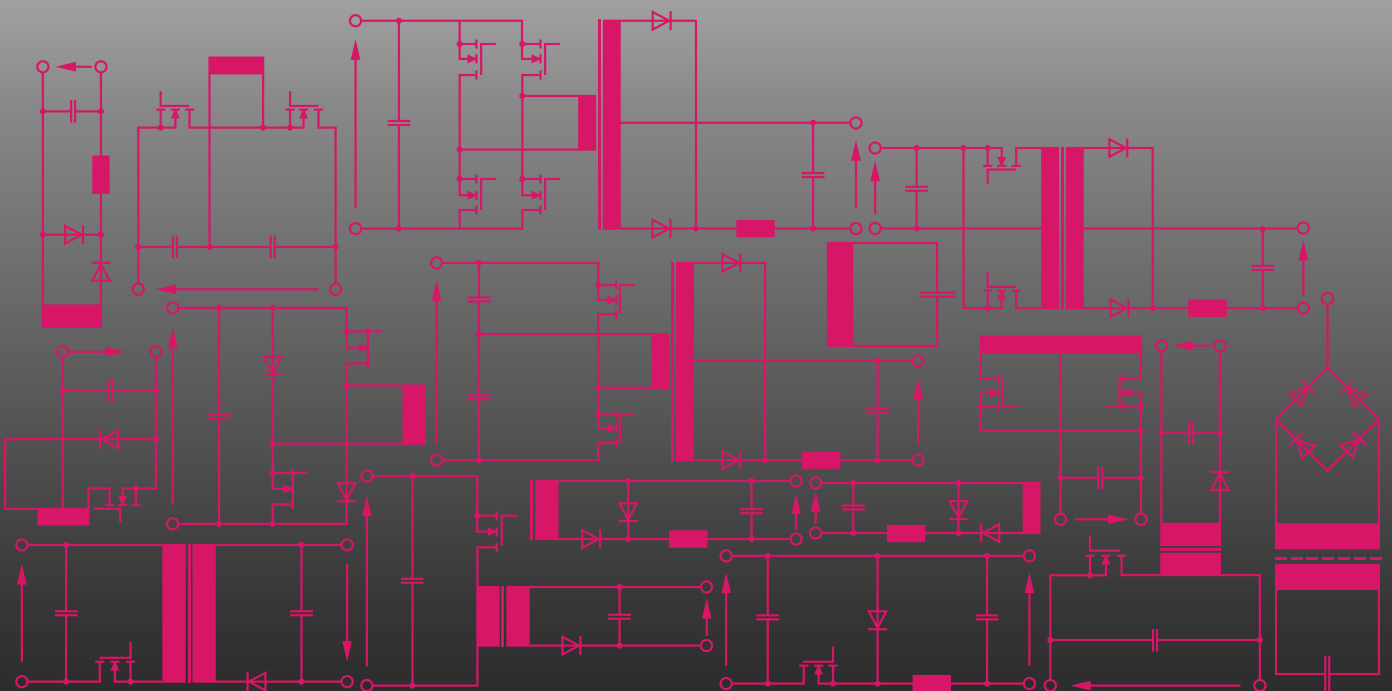


# Product Portfolio 2017








## DC/DC Converters

## AC/DC Power Supplies







## Non-Isolated Step Down DC/DC Converters (POL) SIP Package 0.5 – 30 Amp

- Alternative to linear voltage regulators
- High efficiency up to 97%
- No heat-sink required
- Over-temperature protection
- Excellent line/load regulation
- Operating temperature -40 – +85°C

<p><b>TSR 0.5</b></p> <p><b>0.5 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout</li> <li>• 1.5 to 15 Vout fixed</li> <li>• Input 4.75 – 32 VDC</li> <li>• LM78xx compatible</li> <li>• 11.5 x 7.6 x 10.2mm</li> </ul> 	<p><b>TSR 1</b></p> <p><b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout</li> <li>• 1.5 to 15 Vout fixed</li> <li>• Input 4.6 – 36 VDC</li> <li>• LM78 compatible</li> <li>• 11.7 x 7.6 x 10 mm</li> </ul> 	<p><b>TSN 1</b></p> <p><b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• -Vin /-Vout</li> <li>• -5.0 to -15 Vout fixed</li> <li>• Input -7.0 – 32 VDC</li> <li>• LM79 compatible</li> <li>• 11.7 x 7.5 x 16.5mm</li> </ul> 
<p><b>TSRN 1</b></p> <p><b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout or -Vout</li> <li>• (±)1.5 to 15 Vout fixed</li> <li>• Input 4.6 – 42 VDC</li> <li>• 11.7 x 7.5 x 10.2mm</li> </ul> 	<p><b>TSR 2</b> <b>NEW</b></p> <p><b>2 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout</li> <li>• 1.2 to 15 Vout fixed</li> <li>• Input 3.0 – 36 VDC</li> <li>• LM78 compatible</li> <li>• 14 x 7.5 x 10.1 mm</li> </ul> 	<p><b>TSR 3</b></p> <p><b>3 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout or -Vout</li> <li>• (±) 0.6 to 15 Vout adjust.</li> <li>• Input 2.5 – 30 VDC</li> <li>• Remote On/Off</li> <li>• Open frame</li> </ul> 
<p><b>TOS</b></p> <p><b>6 - 30 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout</li> <li>• 0.75 to 5.5 Vout adjust.</li> <li>• Input 2.4 – 14 VDC</li> <li>• Remote On/Off</li> <li>• Open frame</li> </ul> 		

## Non-Isolated Step Down DC/DC Converters (POL) SMD Package 0.5 – 30 Amp

- Alternative to linear voltage regulators
- High efficiency up to 97%
- No heat-sink required
- Over-temperature protection
- Excellent line/load regulation
- Operating temperature -40 – +85°C

<p><b>TSR 0.5SM</b></p> <p><b>0.5 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout</li> <li>• 1.4 to 15.5 Vout adjust.</li> <li>• Input 4.75 – 32 VDC</li> <li>• Remote On/Off</li> <li>• 15.3 x 9.6 x 9.2mm</li> </ul> 	<p><b>TSR 1SM</b></p> <p><b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout</li> <li>• 1.2 to 15 Vout fixed</li> <li>• Input 3.0 – 36 VDC</li> <li>• 15.2 x 9.3 x 7.6 mm</li> </ul> 	<p><b>TSRN 1SM</b></p> <p><b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout or -Vout</li> <li>• (±)1.2 to 15.5 VDC adjust.</li> <li>• Input 3.0 – 42 VDC</li> <li>• Remote On/Off</li> <li>• 15.2 x 9.3 x 7.3 mm</li> </ul> 
<p><b>TOS</b></p> <p><b>6 - 30 AMP</b></p> <ul style="list-style-type: none"> <li>• +Vin /+Vout</li> <li>• 0.75 to 5.5 VDC adjust.</li> <li>• Input 2.4 – 14 VDC</li> <li>• Remote On/Off</li> <li>• Open frame</li> </ul> 		

## SMD DC/DC Converters 1 - 15 Watt

- MSL Level 2 or better
- Operating temperature -40 – +85°C
- 1500 VDC I/O-isolation (standard)
- Single and dual output models
- Washable models on request
- Available in tape & reel package

<p><b>TES 1</b> <b>1 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC (unregulated)</li> <li>• ±10 % Input 5, 12, 24 VDC</li> <li>• 13.7 x 8.0 x 7.0 mm</li> </ul> 	<p><b>TES 1V</b> <b>1 WATT</b></p> <ul style="list-style-type: none"> <li>• 3000 VDC I/O-isolation</li> <li>• 3.3 to 15 VDC (unregulated)</li> <li>• ±10 % Input 5, 12, 24 VDC</li> <li>• 16.3 x 8.0 x 8.0 mm</li> </ul> 	<p><b>TRN 1SM</b> <b>NEW</b> <b>1 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• IEC/UL 60950-1</li> <li>• 11.9 x 11.3 x 8.0 mm</li> </ul> 
<p><b>TDN 1WISM</b> <b>NEW</b> <b>1 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• 13.2 x 9.1 x 10.2 mm</li> </ul> 	<p><b>TMR 1SM</b> <b>1 WATT</b></p> <ul style="list-style-type: none"> <li>• 5.0 to 24 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• 18.9 x 13.7 x 8.7 mm</li> </ul> 	<p><b>TES 2H</b> <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC (unregulated)</li> <li>• ±10 % Input 5, 12, 24 VDC</li> <li>• 16.3 x 9.3 x 8.9 mm</li> </ul> 
<p><b>TMR 2WISM</b> <b>NEW</b> <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• 5.0 to 15 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 19.0 x 14.9 x 8.7 mm</li> </ul> 	<p><b>TDR 2(WI)SM</b> <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• Epoxy over mold (washable)</li> <li>• 5.0 to 15 VDC</li> <li>• 2:1/4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 18.9 x 12.8 x 8.7 mm</li> </ul> 	<p><b>TES 2N</b> <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• EN 55022 class A filter</li> <li>• 3.3 to 15 VDCxxx</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• IEC/UL 60950-1</li> <li>• 24.0 x 13.7 x 9.3 mm</li> </ul> 
<p><b>TES 2M</b> <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• 4 kVAC I/O-isolation</li> <li>• 5.0 to 15 VDC (unreg.)</li> <li>• ±10 % Input 5, 12, 24 VDC</li> <li>• IEC/UL 60950-1, 60601-1</li> <li>• 24.0 x 13.7 x 9.3 mm</li> </ul> 	<p><b>TRN 3SM</b> <b>NEW</b> <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• IEC/UL 60950-1</li> <li>• 11.9 x 11.3 x 8.0 mm</li> </ul> 	<p><b>TDN 3WISM</b> <b>NEW</b> <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• Compact design</li> <li>• 13.2 x 9.1 x 10.2 mm</li> </ul> 
<p><b>TMR 3WISM</b> <b>NEW</b> <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• 5.0 to 24 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 19.0 x 14.9 x 8.7 mm</li> </ul> 	<p><b>TDR 3(WI)SM</b> <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Epoxy over mold (washable)</li> <li>• 5.0 to 24 VDC</li> <li>• 2:1/4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 18.9 x 12.8 x 8.7 mm</li> </ul> 	<p><b>THL 3 WISM</b> <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• EN 55022 class A filter</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 24.0 x 13.7 x 8.0 mm</li> </ul> 
<p><b>TDN 5WISM</b> <b>NEW</b> <b>5 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• Compact design</li> <li>• 13.2 x 9.1 x 10.2 mm</li> </ul> 	<p><b>THL 6WISM</b> <b>6 WATT</b></p> <ul style="list-style-type: none"> <li>• EN 55022 class A filter</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 22.0 x 20.3 x 10.2 mm</li> </ul> 	<p><b>TON 15(WI)SM</b> <b>15 WATT</b></p> <ul style="list-style-type: none"> <li>• EN 55022 class A filter</li> <li>• 3.3 to 15 VDC adjust.</li> <li>• 2:1/4:1 Inp. 9 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 27.9 x 23.9 mm</li> </ul> 

## SIP DC/DC Converters 1 - 9 Watt

- Single and dual output models (standard)
- Operating temperature -40 – +85°C
- 1500 VDC I/O-isolation (standard)
- IT approval to IEC/EN/UL 60950-1 (for regulated and high isolation converters)

<p><b>TMA</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 5.0 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 24 VDC</li> <li>• 19.5 x 6.1 x 10.2mm</li> </ul> 	<p><b>TME</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• Compact design</li> <li>• 3.3 to 15 VDC (single only)</li> <li>• <math>\pm 10\%</math> Input 3.3 to 24 VDC</li> <li>• 11.5 x 6.1 x 10.2mm</li> </ul> 	<p><b>TRA 1</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Semi regulation (load)</li> <li>• 5.0 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5, 12, 24 VDC</li> <li>• 19.5 x 6.1 x 10.2mm</li> </ul> 
<p><b>TMV</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 3000 VDC I/O-isolation</li> <li>• 5.0 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 24 VDC</li> <li>• 19.5 x 6.1 x 10.2mm</li> </ul> 	<p><b>TMV HI</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 5200 VDC I/O-isolation</li> <li>• 3.3 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 24 VDC</li> <li>• 19.5 x 7.1 x 10.2mm</li> </ul> 	<p><b>TMV-EN</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 3000 VDC reinforced I/O-isolation</li> <li>• 5.0 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 12 VDC</li> <li>• 22.0 x 7.5 x 12.5mm</li> </ul> 
<p><b>TRV 1</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Semi regulation (load)</li> <li>• 3000 VDC I/O-isolation</li> <li>• 5.0 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 24 VDC</li> <li>• 19.5 x 6.1 x 10.2mm</li> </ul> 	<p><b>TRN 1</b> <span style="color: red; font-weight: bold;">NEW</span> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3.3 to 24 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• 11.9 x 7.7 x 11.0mm</li> </ul> 	<p><b>TMR 1</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 5.0 to 24 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• 17.0 x 7.6 x 11.0mm</li> </ul> 
<p><b>TMV 2HI</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 5200 VDC I/O-isolation</li> <li>• 3.3 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 24 VDC</li> <li>• 19.5 x 7.1 x 10.2mm</li> </ul> 	<p><b>TMH</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 5.0 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 24 VDC</li> <li>• 19.5 x 7.5 x 10.2mm</li> </ul> 	<p><b>TMR 2E</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated, cost optimized (I/O-isolation 1000 VDC)</li> <li>• 3.3 to 12 VDC (single only)</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.3 x 11.2mm</li> </ul> 
<p><b>TMR 2</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.2 x 11.1 mm</li> </ul> 	<p><b>TMR 2WIN</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3.3 to 15 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.3 x 11.2 mm</li> </ul> 	<p><b>TRA 3</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Semi regulation (load)</li> <li>• 5.0 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 24 VDC</li> <li>• 19.5 x 7.6 x 10.2mm</li> </ul> 
<p><b>TRN 3</b> <span style="color: red; font-weight: bold;">NEW</span> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3.3 to 24 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• 11.9 x 7.7 x 11.0mm</li> </ul> 	<p><b>TMR 3(WI)E</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated, cost optimized</li> <li>• 3.3 to 15 VDC</li> <li>• 2:1/4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off (min. load required)</li> <li>• 21.8 x 9.3 x 11.2mm</li> </ul> 	<p><b>TMR 3(WI)</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 2:1/4:1 Input 4.5 to 75 VDC</li> <li>• 3.3 to 15 VDC</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.2 x 11.2mm</li> </ul> 

**TMR 3HI****3 WATT**

- Regulated
- 3000 VDC I/O-isolation
- 3.3 to 15 VDC
- 2:1 Input 4.5 to 75 VDC
- Remote On/Off
- 21.8 x 9.2 x 11.2 mm

**TMR 3WIR** **NEW**  **3 WATT**

- Railway approval
- Regulated
- 3000 VDC I/O-isolation
- 3.3 to 24 VDC
- 4:1 Input 9 to 160 VDC
- Low Ripple & Noise
- 21.8 x 9.6 x 11.2 mm

**TMR 6(WI)****6 WATT**

- Regulated
- 3.3 to 15 VDC
- 2:1/4:1 Input 4.5 to 75 VDC
- Remote On/Off
- 21.8 x 9.1 x 11.2 mm

**TMR 6WIR** **NEW**  **6 WATT**

- Railway approval
- Regulated
- 3000 VDC I/O-isolation
- 3.3 to 24 VDC
- 4:1 Input 9 to 160 VDC
- Low Ripple & Noise
- 21.8 x 9.6 x 11.2 mm

**TMR 9(WI)** **NEW** **9 WATT**

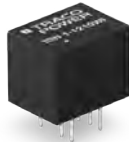
- Regulated
- 3.3 to 24 VDC
- 2:1/4:1 Input 9 to 160 VDC
- Remote On/Off
- 21.8 x 9.6 x 11.2 mm

**High Performance DC/DC Converters 1 - 60 Watt**

- Fully regulated outputs
- Single, dual (and triple) output models
- 1500 VDC I/O-isolation (standard)
- IT approval to IEC/EN/UL 60950-1
- Operating temperature -40 - +85°C
- Opt. heat-sink for most >10 Watt models
- Remote On/Off control

**TDN 1WI** **NEW** **1 WATT**

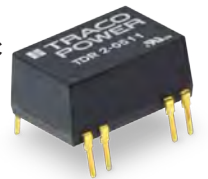
- 3.3 to 24 VDC
- 4:1 Input 4.5 to 75 VDC
- 13.2 x 9.1 x 10.2

**TDL 2** **NEW** **2 WATT**

- Compact design
- 3.3 to 24 VDC
- 2:1 Input 4.5 to 75 VDC
- 14.0 x 14.0 x 8.0

**TDR 2** **2 WATT**

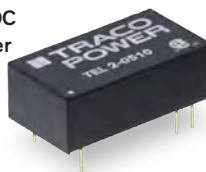
- Epoxy over mold
- 5.0 to 15 VDC
- 2:1 Input 4.5 to 75 VDC
- 18.9 x 12.8 x 8.7 mm

**TDR 2WI** **2 WATT**

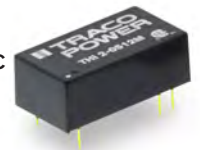
- Epoxy over mold
- 5.0 to 15 VDC
- 4:1 Input 4.5 to 75 VDC
- 18.9 x 12.8 x 8.7 mm

**TEL 2** **2 WATT**

- 3.3 to 15 VDC
- 2:1 Input 4.5 to 75 VDC
- EN 55022 class A filter
- DIP-16 (23.8 x 13.7)

**THI 2M** **2 WATT**

- Unregulated
- 2 x MOOP
- 5.0 to 15 VDC
- ±10 % Input 5 to 24 VDC
- DIP-16 (23.8 x 13.7)

**TDL 3** **NEW** **3 WATT**

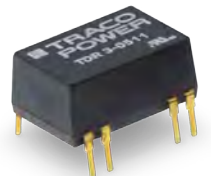
- Compact design
- 3.3 to 24 VDC
- 2:1 Input 4.5 to 75 VDC
- 14.0 x 14.0 x 8.0

**TDN 3WI** **NEW** **3 WATT**

- Compact design
- 3.3 to 24 VDC
- 4:1 Input 4.5 to 75 VDC
- 13.2 x 9.1 x 10.2

**TDR 3** **3 WATT**

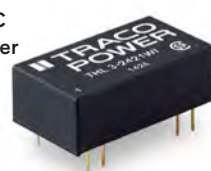
- Compact design
- Epoxy over mold
- 5.0 to 15 VDC
- 2:1 Input 4.5 to 75 VDC
- 18.9 x 12.8 x 8.7

**TDR 3WI** **3 WATT**

- Compact design
- Epoxy over mold
- 5.0 to 15 VDC
- 4:1 Input 4.5 to 75 VDC
- 18.9 x 12.8 x 8.7

**THL 3WI** **3 WATT**

- 3.3 to 24 VDC
- 4:1 Input 9 to 75 VDC
- EN 55022 class A filter
- DIP-16 (23.8 x 13.7)

**TEM 3N** **3 WATT**

- Cost down redesign
- 5.0 to 15 VDC
- ±10 % Input 5 to 24 VDC
- EN 55022 class A filter
- DIP-24 (32 x 20.3)



<p><b>TEL 3</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Cost optimized</li> <li>• 5.0 to 15 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TEN 3N</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Cost down redesign</li> <li>• 3.3 to 24 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TEN 3WIN</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Cost down redesign</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 
<p><b>THI 3</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 2 x MOOP</li> <li>• 5.0 to 15 VDC</li> <li>• ±10 % Input 5 to 24 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>THP 3</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 2 x MOOP</li> <li>• 5.0 to 15 VDC</li> <li>• 4:1 Input 9 to 160 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TDN 5WI</b> <span style="float: right;"><b>NEW</b> <b>5 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Highest power density</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• 13.2 x 9.1 x 10.2</li> </ul> 
<p><b>TVN 5WI</b> <span style="float: right;"><b>5 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Ultra low ripple &amp; noise</li> <li>• 3.3 to 48 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class B filter</li> <li>• Case pin</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TEL 5</b> <span style="float: right;"><b>5 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Cost optimized</li> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 9 to 36 VDC</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TEN 6N</b> <span style="float: right;"><b>6 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 
<p><b>TEN 6WIN</b> <span style="float: right;"><b>6 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TEN 6WIN-HI</b> <span style="float: right;"><b>6 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3000 VDC I/O-isolation</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TEL 8</b> <span style="float: right;"><b>NEW</b> <b>8 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-16 (24.1 x 14)</li> </ul> 
<p><b>TEL 8WI</b> <span style="float: right;"><b>NEW</b> <b>8 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-16 (24.1 x 14)</li> </ul> 	<p><b>TEN 8</b> <span style="float: right;"><b>8 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TEN 8WI</b> <span style="float: right;"> <b>8 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• 3.3 to 15 VDC</li> <li>• 4:1 Input 9 to 160 VDC</li> <li>• Increased EMC immunity</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 
<p><b>THD 10N</b> <span style="float: right;"><b>10 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>THD 10WIN</b> <span style="float: right;"><b>10 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>THL 10</b> <span style="float: right;"><b>10 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 1" x 1"</li> </ul> 
<p><b>THL 10WI</b> <span style="float: right;"><b>10 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 1" x 1"</li> </ul> 	<p><b>THD 12</b> <span style="float: right;"><b>12 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 2.5 to 15 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>THD 12WI</b> <span style="float: right;"><b>12 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 

**THD 15N**

**15 WATT**

- 3.3 to 15 VDC
- 2:1 Input 9 to 75 VDC
- EN 55022 class A filter
- DIP-24 (32 x 20.3)



**THD 15WIN**

**15 WATT**

- 3.3 to 15 VDC
- 4:1 Input 9 to 75 VDC
- EN 55022 class A filter
- DIP-24 (32 x 20.3)



**TEL 15**

**15 WATT**

- Cost optimized
- 3.3 to 15 VDC
- 2:1 Input 9 to 75 VDC
- 2" x 1"



**TON 15(WI)**

**15 WATT**

- 3.3 to 15 VDC adjust.
- 2:1/4:1 Inp. 9 to 75 VDC
- EN 55022 class A filter
- 27.9 x 23.9



**THN 15**

**15 WATT**

- 3.3 to 48 VDC adjust.
- 2:1 Input 9 to 75 VDC
- 1" x 1"



**THN 15WI**

**15 WATT**

- 3.3 to 48 VDC adjust.
- 4:1 Input 9 to 75 VDC
- 1" x 1"



**THN 15WIR NEW**  **15 WATT**

- Railway approval
- EN 55022 class A filter
- 3.3 to 15 VDC adjust.
- 4:1 Input 9 to 160 VDC
- Increased EMC immunity
- 1" x 1"



**THN 20**

**20 WATT**

- 3.3 to 48 VDC adjust.
- 2:1 Input 9 to 75 VDC
- EN 55022 class A filter
- 1" x 1"



**THN 20WI**

**20 WATT**

- 3.3 to 48 VDC adjust.
- 4:1 Input 9 to 75 VDC
- EN 55022 class A filter
- 1" x 1"



**THL 20WI**

**20 WATT**

- 3.3 to 24 VDC adjust.
- 4:1 Input 9 to 75 VDC
- 1" x 1"



**TEN 20**

**20 WATT**

- 3.3 to 15 VDC
- 2:1 Input 9 to 75 VDC
- EN 55022 class A filter
- 2" x 1"



**TEN 20WIN**

**20 WATT**

- 3.3 to 15 VDC adjust.
- 4:1 Input 9 to 75 VDC
- 2" x 1"



**TEN 20WIR**  **20 WATT**

- Railway approval
- EN 55022 class A filter
- 3.3 to 15 VDC adjust.
- 4:1 Input 9 to 160 VDC
- Increased EMC immunity
- 2" x 1"



**TMDC 20**

**20 WATT**

- Chassis/DIN-rail
- Screw terminal connection
- 5.1 to 48 VDC
- 4:1 Input 9 to 75 VDC
- EN 55022 class A filter
- 96 x 54 x 23.3 mm



**TEQ 20WIR NEW**  **20 WATT**

- Railway approval
- EN 55022 class B filter
- 3.3 to 15 VDC adjust.
- 4:1 Input 9 to 160 VDC
- Increased EMC immunity
- Temp. range -40 to 90°C



**THL 25**

**25 WATT**

- 3.3 to 15 VDC adjust.
- 2:1 Input 9 to 75 VDC
- 1" x 1"



**THL 25WI**

**25 WATT**

- 3.3 to 15 VDC adjust.
- 4:1 Input 9 to 75 VDC
- 1" x 1"



**TEN 30**

**30 WATT**

- 1.5 to 15 VDC adjust.
- 2:1 Input 9 to 75 VDC
- 2" x 1"



**TEN 30WIN**

**30 WATT**

- With triple output models
- 1.5 to 15 VDC adjust.
- 4:1 Input 9 to 75 VDC
- 2" x 1"



**THN 30**

**30 WATT**

- 3.3 to 24 VDC adjust.
- 2:1 Input 9 to 75 VDC
- 1" x 1"















**THN 30WI**

**30 WATT**







- 3.3 to 24 VDC adjust.
- 4:1 Input 9 to 75 VDC
- 1" x 1"



<p><b>TEN 40</b></p> <p>40 WATT</p> <ul style="list-style-type: none"> <li>• With triple output models</li> <li>• 3.3 to 15 VDC adjust.</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• Sense lines</li> <li>• 2" x 2"</li> </ul> 	<p><b>TEN 40WI</b></p> <p>40 WATT</p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC adjust.</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• Sense lines</li> <li>• 2" x 2"</li> </ul> 	<p><b>TEN 40N</b></p> <p>40 WATT</p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC adjust.</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• 2" x 1"</li> </ul> 
<p><b>TEN 40WIN</b></p> <p>40 WATT</p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC adjust.</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• 2" x 1"</li> </ul> 	<p><b>TEN 40WIR</b></p> <p>40 WATT</p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• 3.3 to 48 VDC adjust.</li> <li>• 4:1 Input 9 to 160 VDC</li> <li>• Increased EMC immunity</li> <li>• 2" x 1"</li> </ul> 	<p><b>TEQ 40WIR</b> <b>NEW</b></p> <p>40 WATT</p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• EN 55022 class B filter</li> <li>• 3.3 to 48 VDC adjust.</li> <li>• 4:1 Input 9 to 160 VDC</li> <li>• Increased EMC immunity</li> </ul> 
<p><b>TMDC 40</b></p> <p>40 WATT</p> <ul style="list-style-type: none"> <li>• Chassis/DIN-rail</li> <li>• Screw terminal connection</li> <li>• 5.1 to 48 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 112 x 64 x 25.6</li> </ul> 	<p><b>TEN 50</b></p> <p>50 WATT</p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC adjust.</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• 2" x 1"</li> </ul> 	<p><b>TEN 50WI</b></p> <p>50 WATT</p> <ul style="list-style-type: none"> <li>• 3.3 to 24 VDC adjust.</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• (single output models only)</li> <li>• 2" x 1"</li> </ul> 
<p><b>TEN 60N</b></p> <p>60 WATT</p> <ul style="list-style-type: none"> <li>• 5.0 to 24 VDC adjust.</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• 2" x 1"</li> </ul> 	<p><b>TEN 60WIN</b></p> <p>60 WATT</p> <ul style="list-style-type: none"> <li>• 5.0 to 24 VDC adjust.</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• 2" x 1"</li> </ul> 	<p><b>TMDC 60</b></p> <p>60 WATT</p> <ul style="list-style-type: none"> <li>• Chassis/DIN-rail</li> <li>• Screw terminal connection</li> <li>• 5.1 to 48 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 112 x 68 x 38</li> </ul> 

High Power DC/DC Converters 75 - 300 Watt

- Excellent thermal management
- EN 55022 class A (chassis models)
- Increased EMC immunity
- Entire protective structure
- Control functions
- Wide selection of options


<p><b>TEP 75WI</b></p> <p>75 WATT</p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• 5.0 to 48 VDC adjust.</li> <li>• 4:1 Input 9 to 160 VDC</li> <li>• PCB / chassis / DIN-rail</li> <li>• 2.4" x 2.3" x 0.5"</li> </ul> 	<p><b>TEP 100</b></p> <p>100 WATT</p> <ul style="list-style-type: none"> <li>• 3.3 to 48 VDC adjust.</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• PCB mount</li> <li>• 2.4" x 2.3" x 0.5"</li> </ul> 	<p><b>TEP 100WIR</b></p> <p>100 WATT</p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• 12 to 48 VDC adjust.</li> <li>• 4:1 Input 8.5 to 160 VDC</li> <li>• PCB / chassis / DIN-rail</li> <li>• 2.4" x 2.3" x 0.5"</li> </ul> 
<p><b>TEQ 100WIR</b></p> <p>100 WATT</p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• 85°C full load operation</li> <li>• 12 to 48 VDC adjust.</li> <li>• 4:1 Input 8.5 to 160 VDC</li> <li>• UL 508 approval</li> <li>• 3" x 4" x 3.5"</li> </ul> 	<p><b>TEP 150WI</b></p> <p>150 WATT</p> <ul style="list-style-type: none"> <li>• CV / CC for battery charging</li> <li>• Railway approval</li> <li>• 12 to 48 VDC adjust.</li> <li>• 4:1 Input 9 to 160 VDC</li> <li>• EN 55022 class B (opt.)</li> <li>• 90 x 65 x 38 mm</li> </ul> 	<p><b>TEP 160</b></p> <p>160 WATT</p> <ul style="list-style-type: none"> <li>• 12 to 48 VDC adjust.</li> <li>• 2:1 Input 16.5 to 75 VDC</li> <li>• PCB mount</li> <li>• 2.4" x 2.3" x 0.5"</li> </ul> 



**TEP 160WIR**  **160 WATT**

- Railway approval
- 12 to 48 VDC adust.
- 4:1 Input 8.5 to 160 VDC
- PCB mount
- 2.4" x 2.3" x 0.5"



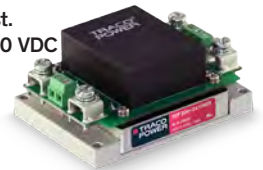
**TEQ 160WIR**  **160 WATT**

- Railway approval
- 75°C full load operation
- 12 to 48 VDC adust.
- 4:1 Input 18 to 160 VDC
- UL 508 approval
- 3" x 4" x 3.5"



**TEP 200WIR**  **200 WATT**

- Railway approval
- 12 to 48 VDC adust.
- 4:1 Input 8.5 to 160 VDC
- Chassis mount
- 2.4" x 3.4" x 1.5"



**TEQ 200WIR**  **200 WATT**

- Railway approval
- 70°C full load operation
- 12 to 48 VDC adust.
- 4:1 Input 18 to 160 VDC
- UL 508 approval
- 3" x 4" x 3.5"



**TEQ 300WIR** **NEW**  **300 WATT**

- CV / CC for battery charging
- Railway approval
- 12 to 48 VDC adust.
- 4:1 Input 18 to 160 VDC
- UL 508 approval
- 6" x 4" x 1.5"



**TZL** **60 - 300 WATT**

- Compact metal casing
- 12 / 24 VDC
- 2:1 Input 18 to 72 VDC
- EN 55022 class B filter

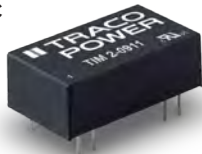


**Medical/Reinforced I/O-Isolation**  **DC/DC Converters 2 - 30 Watt**

- Certification to IEC/ES 60601-1 3rd edition for 2 x MOPP
- I/O isolation 5000 VACrms rated for 250 VACrms working voltage
- Risk management file acc. ISO 14971
- Quality to ISO 13485, IPC-A-610 level 3
- 5-year product warranty

**TIM 2** **NEW** **2 WATT**

- 5.0 to 24 VDC
- 2:1 Input 4.5 to 75 VDC low range 4.5-12 VDC
- DIP-16 (24.3 x 14.4)



**TIM 2SM** **NEW** **2.5 WATT**

- 5.0 to 24 VDC
- 2:1 Input 4.5 to 75 VDC low range 4.5-12 VDC
- SMD-16 (24.3 x 14.4)



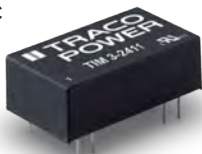
**THM 3(WI)** **3 WATT**

- 3.3 to 24 VDC
- 2:1 or 4:1 Input 4.5 to 75 VDC
- EN 55022 class A filter
- DIP-24 (32 x 20.3)



**TIM 3.5** **NEW** **3.5 WATT**

- 5.0 to 24 VDC
- 2:1 Input 4.5 to 75 VDC low range 4.5-12 VDC
- DIP-16 (24.3 x 14.4)



**TIM 3.5SM** **NEW** **3.5 WATT**

- 5.0 to 24 VDC
- 2:1 Input 4.5 to 75 VDC low range 4.5-12 VDC
- SMD-16 (24.3 x 14.4)



**THM 6(WI)** **6 WATT**

- 3.3 to 24 VDC
- 2:1 or 4:1 Input 4.5 to 75 VDC
- EN 55022 class A filter
- DIP-24 (32 x 20.3)



**THM 10(WI)** **10 WATT**

- 3.3 to 24 VDC
- 2:1 or 4:1 Input 4.5 to 75 VDC
- EN 55022 class A filter
- DIP-24 (32 x 20.3)



**THM 15WI** **NEW** **15 WATT**

- 3.3 to 24 VDC
- 4:1 Input 9 to 75 VDC
- EN 55022 class A filter
- 1.6" x 1"



**THM 20WI** **NEW** **20 WATT**

- 3.3 to 24 VDC
- 4:1 Input 9 to 75 VDC
- EN 55022 class A filter
- 1.6" x 1"







**THM 30WI** **NEW** **30 WATT**

- 5.0 to 24 VDC
- 4:1 Input 9 to 75 VDC
- 2" x 1"





Industrial DIN-Rail Mount DC/DC Converters 20 - 60 Watt

- IEC/EN/UL 60950-1 approvals
- Increased EMC immunity
- Operating temperature -25 – +65°C




<p><b>TCL-DC</b>                      <b>24 - 60 WATT</b></p> <ul style="list-style-type: none"> <li>• Slim plastic casing</li> <li>• UL 508 approval</li> <li>• 5.0 to 24 VDC</li> <li>• 4:1 Input 9.5 to 75 VDC</li> <li>• EN 55022 class B filter</li> <li>• 75 x 100 x 27/45</li> </ul> 	<p><b>TMDC 20</b>                      <b>20 WATT</b></p> <ul style="list-style-type: none"> <li>• Low profile casing</li> <li>• 5.1 to 48 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 96 x 54 x 23.3</li> </ul> 	<p><b>TMDC 40</b>                      <b>40 WATT</b></p> <ul style="list-style-type: none"> <li>• Low profile casing</li> <li>• 5.1 to 48 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 112 x 64 x 25.6</li> </ul> 
<p><b>TMDC 60</b>                      <b>60 WATT</b></p> <ul style="list-style-type: none"> <li>• Low profile casing</li> <li>• 5.1 to 48 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 112 x 68 x 38</li> </ul> 		

High Voltage DC/DC Converters up to 2 kV

- Remote voltage programming 0 - 100%
- Positive or negative polarity
- Very low output ripple
- Excellent output stability
- Low temperature drift








<p><b>THV</b>                                      <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Slim SIP Package</li> <li>• Input 0-2000 VDC</li> <li>• Output 12 VDC</li> <li>• Remote On/Off</li> <li>• Opt. flying lead connect.</li> <li>• 80/110 x 12 x 20</li> </ul> 	<p><b>PHV</b>                                      <b>5 WATT</b></p> <ul style="list-style-type: none"> <li>• Flat DIP package</li> <li>• Input 0-2000 VDC</li> <li>• Output 12 VDC</li> <li>• Excellent voltage stability</li> <li>• 60 x 40 x 15/20 mm</li> </ul> 
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Industrial High Power Converters up to 22 kW

<p><b>TSC</b>                                      <b>150 - 5000 WATT</b></p> <ul style="list-style-type: none"> <li>• 19" plug-in /chassis / DIN</li> <li>• 5 to 400 VDC</li> <li>• 2:1 Input 10 to 800 VDC</li> <li>• Entire protection circuit</li> <li>• Individual power solutions</li> </ul> 	<p><b>TSC 19</b>                                      <b>5 kW - 22 kW</b></p> <ul style="list-style-type: none"> <li>• 19" sub rack</li> <li>• 5 to 800 VDC</li> <li>• 2:1 Input 40 to 800 VDC</li> <li>• Entire protection circuit</li> <li>• Individual power solutions</li> </ul> 	<p><b>TSD</b>                                      <b>200 VA - 30 kVA</b></p> <ul style="list-style-type: none"> <li>• AC output with true sine wave</li> <li>• Single and three phase</li> <li>• 10 to 800 VDC input models</li> <li>• AC input for frequency conversion</li> <li>• Configurable for individual power solutions</li> </ul> 
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

Medical Power Supplies 5 - 150 Watt 








- Certification to IEC/ES 60601-1 3rd edition for 2 x MOPP
- Risk management file acc. ISO 14971
- Quality to ISO 13485, IPC-A-610 level 3
- Low leakage current
- 5-year product warranty

<p><b>TMF</b>      <b>NEW</b>      <b>5 - 30 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB / mount</li> <li>• Fully encapsulated</li> <li>• Highest power density</li> <li>• 5.0 to 48 VDC</li> <li>• Single/dual output</li> </ul> 	<p><b>TPP 15</b>      <b>NEW</b>      <b>15 WATT</b></p> <ul style="list-style-type: none"> <li>• Open frame</li> <li>• Ultra compact</li> <li>• 3.3 to 48 VDC</li> <li>• Pin connection</li> <li>• 66 x 25 x 19 mm</li> </ul> 	<p><b>TPP 30</b>      <b>NEW</b>      <b>30 WATT</b></p> <ul style="list-style-type: none"> <li>• Open frame</li> <li>• Ultra compact</li> <li>• 3.3 to 48 VDC</li> <li>• Pin connection</li> <li>• 85 x 35 x 23 mm</li> </ul> 	
<p><b>TPP 40</b>      <b>40 WATT</b></p> <ul style="list-style-type: none"> <li>• High EMC performance</li> <li>• 5.0 to 24 VDC adjust.</li> <li>• Protection class I &amp; II</li> <li>• 91 x 62 x 39 mm</li> <li>• Opt.: DIN-rail, open frame, Pin connection...</li> </ul> 	<p><b>TPP 65</b>      <b>65 WATT</b></p> <ul style="list-style-type: none"> <li>• High EMC performance</li> <li>• 5.0 to 24 VDC adjust.</li> <li>• Protection class I &amp; II</li> <li>• 91 x 62 x 39 mm</li> <li>• Opt.: DIN-rail, open frame, Pin connection...</li> </ul> 	<p><b>TPP 100</b>      <b>100 WATT</b></p> <ul style="list-style-type: none"> <li>• High EMC performance</li> <li>• 12 to 48 VDC adjust.</li> <li>• Protection class I &amp; II</li> <li>• 91 x 62 x 39 mm</li> <li>• Opt.: DIN-rail, open frame, Pin connection...</li> </ul> 	
<p><b>TPP 150</b>      <b>150 WATT</b></p> <ul style="list-style-type: none"> <li>• High EMC performance</li> <li>• 12 to 48 VDC adjust.</li> <li>• Protection class I &amp; II</li> <li>• 117 x 62 x 49 mm</li> <li>• Opt.: DIN-rail, open frame, Pin connection...</li> </ul> 			

Encapsulated AC/DC Power Modules 2 - 100 Watt










- Universal input
- EN 55022 class B filter
- IEC/EN/UL 60950-1 approvals
- Start-up temperature -40°C for TMM and TMG series

<p><b>TMSB 2</b>      <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• Standby module for ErP directive</li> <li>• EN 60335-1 (household)</li> <li>• Const. power, no current limit</li> <li>• 8 to 24 VDC</li> <li>• 3.3 or 5.0 VDC aux. output</li> <li>• 36.5 x 28.4 x 15 mm</li> </ul> 	<p><b>TMPS 03</b>      <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB mount</li> <li>• EN 60335-1 (household)</li> <li>• 3.3 to 24 VDC</li> <li>• ErP-ready</li> <li>• 1" x 1" (h = 15.3 mm)</li> </ul> 	<p><b>TMPS 05</b>      <b>5 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB mount</li> <li>• EN 60335-1 (household)</li> <li>• 3.3 to 24 VDC</li> <li>• ErP-ready</li> <li>• 1" x 1" (h = 15.3 mm)</li> </ul> 
<p><b>TMPM</b>      <b>4 - 10 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB mount</li> <li>• Ind. EMC immunity</li> <li>• 3.3 to 24 VDC</li> <li>• ErP-ready</li> <li>• Compact design</li> </ul> 	<p><b>TMLM</b>      <b>4 - 20 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB mount</li> <li>• 3.3 to 24 VDC</li> <li>• Single, dual</li> <li>• Compact design</li> </ul> 	<p><b>TIW</b>       <b>4 - 24 WATT</b></p> <ul style="list-style-type: none"> <li>• IP67 casing w. flying leads</li> <li>• Fire safety for furniture</li> <li>• EN 60335-1 (household)</li> <li>• 3.3 to 24 VDC</li> <li>• ErP-ready</li> <li>• Mount. in flash boxes</li> </ul> 

<p><b>TMG</b>      <b>NEW</b>      <b>7 - 50 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB mount</li> <li>• Compact design</li> <li>• 3.3 to 48 VDC</li> <li>• ErP-ready</li> </ul> 	<p><b>TMP</b>      <b>7 - 60 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB mount</li> <li>• Industr. EMC immunity</li> <li>• 3.3 to 48 VDC</li> <li>• Single, dual, triple</li> </ul> 	<p><b>TMP-C</b>      <b>15 - 60 WATT</b></p> <ul style="list-style-type: none"> <li>• Chassis mount</li> <li>• Ind. EMC immunity</li> <li>• 3.3 to 48 VDC</li> <li>• Single, dual, triple</li> <li>• UL 508 approval</li> </ul> 			
<p><b>TML</b>      <b>20 - 40 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB /chassis</li> <li>• Single, dual, triple</li> <li>• 3.3 to 24 VDC</li> </ul> 	<p><b>TMM</b>      <b>24 - 60 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB / mount</li> <li>• Fully encapsulated</li> <li>• Low profile</li> <li>• 5.0 to 48 VDC</li> </ul> 	<p><b>TMM-C</b>      <b>24 - 60 WATT</b></p> <ul style="list-style-type: none"> <li>• Chassis mount</li> <li>• Fully encapsulated</li> <li>• 5.0 to 48 VDC</li> <li>• Low profile</li> <li>• Single / dual output</li> <li>• UL 508 approval</li> </ul> 			
<p><b>TML 100C</b>      <b>100 WATT</b></p> <ul style="list-style-type: none"> <li>• Chassis mount</li> <li>• Active PFC</li> <li>• 12 to 48 VDC</li> <li>• 140 x 62 x 37</li> </ul> 					

**Metal Enclosure and Open Frame Power Supplies**  
15 - 1000 Watt

- Excellent thermal management
- Universal input
- EN 61000-3-2 compliant
- IEC/EN/UL 60950-1 approvals
- EN 55022 class B filter

<p><b>TXM</b>      <b>15 - 150 WATT</b></p> <ul style="list-style-type: none"> <li>• Cost optimized design</li> <li>• 3.3 to 48 VDC adjust.</li> <li>• ErP-ready</li> </ul> 	<p><b>TXL</b>      <b>15 - 1000 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 48 VDC adjust.</li> <li>• Single, dual, triple</li> </ul> 	<p><b>TXH 060</b>      <b>NEW</b>      <b>60 WATT</b></p> <ul style="list-style-type: none"> <li>• 5.0 to 48 VDC</li> <li>• ErP-ready</li> <li>• 3" x 1.7"</li> </ul> 
<p><b>TOP 100</b>      <b>100 WATT</b></p> <ul style="list-style-type: none"> <li>• 5.0 to 48 VDC</li> <li>• Protection class I &amp; II</li> <li>• Adjustable output</li> <li>• Optional with casing</li> <li>• 2" x 4"</li> </ul> 	<p><b>TPI 100</b>      <b>100 WATT</b></p> <ul style="list-style-type: none"> <li>• Highest power density</li> <li>• 12 to 48 VDC</li> <li>• ErP-ready</li> <li>• Protection class I &amp; II</li> <li>• Adjustable Output</li> <li>• 2" x 3" (opt. casing)</li> </ul> 	<p><b>TPI 150</b>      <b>100 WATT</b></p> <ul style="list-style-type: none"> <li>• Highest power density</li> <li>• 12 to 48 VDC</li> <li>• ErP-ready</li> <li>• Protection class I &amp; II</li> <li>• Adjustable output</li> <li>• 2" x 4" (opt. casing)</li> </ul> 
<p><b>TXH</b>      <b>120 - 480 WATT</b></p> <ul style="list-style-type: none"> <li>• 12 to 48 VDC adjust.</li> <li>• Compact low profile</li> </ul> 	<p><b>TOP 200</b>      <b>200 WATT</b></p> <ul style="list-style-type: none"> <li>• 12 to 48 VDC</li> <li>• Protection class I &amp; II</li> <li>• Remote On/Off</li> <li>• Optional with casing</li> <li>• 3" x 5"</li> </ul> 	<p><b>TXH 600</b>      <b>600 WATT</b></p> <ul style="list-style-type: none"> <li>• Universal power supply</li> <li>• Active PFC</li> <li>• 12 to 54 VDC adjust.</li> <li>• Ind. EMC immunity</li> <li>• IEC-C13 line socket</li> <li>• Contr. &amp; monitor signals</li> </ul> 

Outdoor Power Supply

- Rugged power supplies for harsh outdoor environments
- Connection via waterproof I/O plug connectors
- Dust, water (incl. salt water), ice and oil resistant enclosure

TEX

120 WATT

- IP67 and NEMA 4X rated
- 12 / 24 VDC output
- Ind. EMC immunity
- Extensive safety approval package (incl. UL 508 / Atex IEC/EN 61010-1 and more)



DIN-Rail Power Supplies 15 - 960 Watt

- Universal input
- EN 55022 class B filter
- International safety approval package including IEC/EN/UL 60950-1 and UL 508

TMP-C

15 - 60 WATT

- Fully encapsulated
- 3.3 to 48 VDC
- Single, dual, triple
- Low profile



TBL

15 - 150 WATT

- Low profile plastic casing
- 5.0 to 24 VDC
- NEC class II (up to 90 W)
- EN 60335-1 (household)



TBLC

NEW

6 - 90 WATT

- Low profile plastic casing
- 5.0 to 24 VDC
- High efficiency
- ErP-ready
- UL1310 (NEC class II)
- EN 60335-1 (household)



TCL

24 - 240 WATT

- Slim plastic casing
- 5.0 to 48 VDC adjust.
- Screw or spring clamp connection



TPC

30 - 120 WATT

- Robust plastic casing
- 5.0 to 48 VDC adjust.
- EP-ready
- DC-OK signal



TIB

NEW

80 - 480 WATT

- Rugged metal casing
- Cost optimised design
- High efficiency
- Active power factor corr.
- Alternative side mounting



TSPC

50 - 480 WATT

- Rugged metal casing
- 12 to 48 VDC adjust.
- IECEx / Atex
- DC-OK signal



TSP

72 - 600 WATT

- Rugged metal casing
- 12 to 48 VDC adjust.
- Atex (opt.) approval
- Entire control signals



TSP-WR

180 - 600 WATT

- Rugged metal casing
- 24 VDC adjust
- Wide input ranges 100/230-500 VAC
- Entire control signals












TIS

50 - 600 WATT

- Low profile metal casing
- 12 to 72 VDC adjust
- Int. function modules



## UPS Systems and Function Modules

UPS System	<p><b>TSPC 240UPS      240 WATT</b></p> <ul style="list-style-type: none"> <li>• Power Supply with integrated Battery management module</li> <li>• 24 VDC output, tightly reg. also in power fail mode</li> <li>• Use with 12 VDC battery</li> </ul> 	
Battery Controller Modules	<p><b>TSP-BCMU360      360 WATT</b></p> <ul style="list-style-type: none"> <li>• Universal module</li> <li>• For 24 &amp; 48 VDC, tightly reg. also in power fail mode</li> <li>• Use with 12 VDC battery</li> <li>• No remote link to PS</li> <li>• Also for Redundant operation</li> </ul> 	<p><b>TSP-BCM      12 - 48 VDC</b></p> <ul style="list-style-type: none"> <li>• TSP Series access. module</li> <li>• For 12, 24, 48 VDC models</li> </ul> 
Buffer Modul	<p><b>TSP-BFM      600 WATT</b></p> <ul style="list-style-type: none"> <li>• Universal module</li> <li>• For any 24 VDC source</li> <li>• 120 Ws buffer energy</li> <li>• No batteries</li> <li>• No remote link to PS</li> </ul> 	
Battery Pack	<p><b>TSP-BAT</b></p> <ul style="list-style-type: none"> <li>• Battery packs</li> <li>• High quality lead acid</li> <li>• 12 VDC/7.2 Ah</li> <li>• 24 VDC 1.2 to 12 Ah</li> </ul> 	
Decoupling, Redundancy and Current Share Modules	<p><b>TSPC-DCM      600 WATT</b></p> <ul style="list-style-type: none"> <li>• Decouplin module (no signal outputs)</li> <li>• For 5 - 28 VDC</li> <li>• 2 inputs, 25 A max.</li> <li>• No remote link to PS</li> <li>• Rugged metal casing</li> </ul> 	<p><b>TPC-REM      240 WATT</b></p> <ul style="list-style-type: none"> <li>• TPC series access modules</li> <li>• Active current sharing</li> <li>• For 24 or 48 VDC models</li> <li>• 2 Inputs, 240 W</li> <li>• DC-OK signal output</li> <li>• Robust plastic casing</li> </ul> 
	<p><b>TCL-REM      480 WATT</b></p> <ul style="list-style-type: none"> <li>• Redundancy module</li> <li>• For 5 - 60 VDC</li> <li>• 2 x 5 A - 10 A out max.</li> <li>• No remote link to PS (no signal outputs)</li> <li>• Slim plastic casing</li> </ul> 	<p><b>TSP-REM      360 - 600 WATT</b></p> <ul style="list-style-type: none"> <li>• TSP series access modules</li> <li>• Active current sharing</li> <li>• For 24 VDC, 2 inputs</li> <li>• Alarm signal</li> <li>• Remote On/Off</li> <li>• Rugged metal casing</li> </ul> 

# TRACO POWER

## Solutions

*Risk* **Standards**  
*Requirement Audit*  
**Compliance**  
*Performance Regulations*  
*Safety Rules*

With our design house

**TRACO POWER SOLUTIONS Ltd.**

we have the facility to expeditiously design customised power supplies and to manufacture prototypes and pre-series.

Our design engineers have access to fully equipped and modern test laboratories. It gives us the opportunity to provide solutions adjusted to special demands in terms of compliance, cost, performance and functionality. We initiate high volume production for effective pricing with our qualified manufacturing facilities in Asia while we supervise the production quality.

**Our design competence to meet exigence regarding:**

- Safety requirements
- EMI compliance
- Electrical specifications
- Form factor, connection, fastening
- Mechanical robustness
- Thermal resistance
- Control features and functionality (logic boards)
- Cost /performance optimisation

**Our services:**

- Research & design
- Commercial and technical support
- Pre-compliance safety and EMI test.
- Mechanical and thermodynamic tests
- HALT and performance test
- 100% functional testing and burn-in
- Project attendance with external test and certification authorities
- Prototyping and volume production of custom designed power supplies
- Production of OEM and white label power supplies

[www.tracopower-solutions.com](http://www.tracopower-solutions.com)



**TRACO POWER – dedicated to design and production of high quality, state-of-the-art AC/DC & DC/DC power conversion products for Industrial, Medical & Railway applications. Our mission is to provide optimal power supply solutions for specific applications with regard to performance, quality, cost and functionality.**

**TRACO POWER stocks an average of USD 13+ million in available finished goods inventory for immediate shipment through our distribution partners.**

**TRACO POWER offers extended product life-cycles, typically 10+ years, and our products are supported by a 3 or 5 year product warranty.**

**We understand our customers require a high quality solution as well as a diverse product offering, availability from stock, extended life-cycles and a strong commitment to quality in the form of extended warranty to support their business.**

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