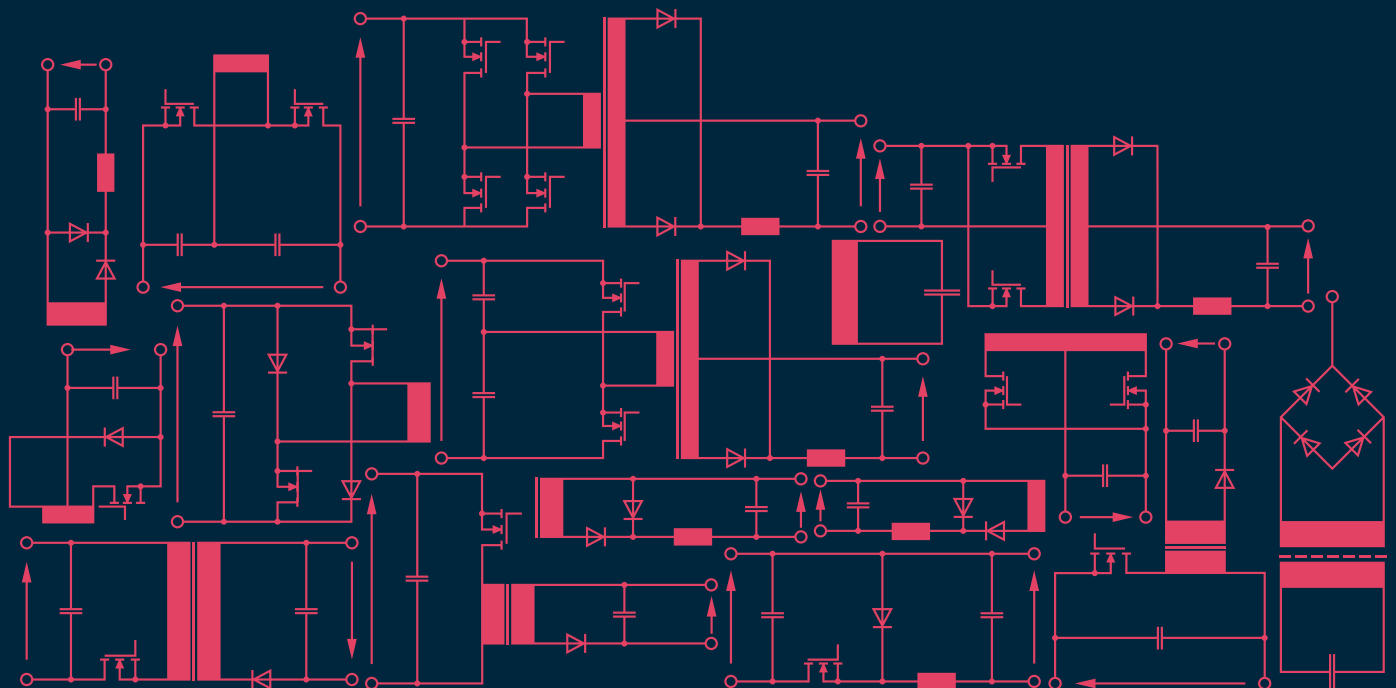


# Product Portfolio 2015/2






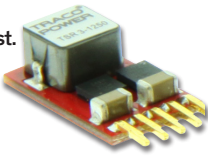
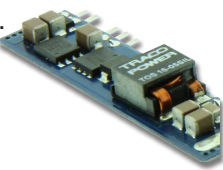
## DC/DC Converters

## AC/DC Power Supplies




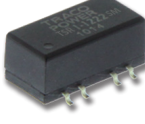

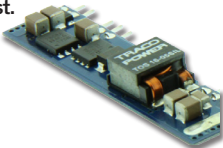
**Non-Isolated Step Down DC/DC Converters  
(POL) SIP Package 0.5 – 30 Amp**

- 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>    <b>NEW</b>    <b>0.5 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos. circuit</li> <li>• 1.5 to 15 VDC fixed</li> <li>• Input 4.6 – 32 VDC</li> <li>• LM78 compatible</li> <li>• 11.5 x 7.6 x 10.2 mm</li> </ul> 	<p><b>TSR 1</b>    <b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos. circuit</li> <li>• 1.5 to 15 VDC fixed</li> <li>• Input 4.6 – 36 VDC</li> <li>• LM78 compatible</li> <li>• 11.7 x 7 x 10 mm</li> </ul> 	<p><b>TSN 1</b>    <b>NEW</b>    <b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• Neg. -neg. circuit</li> <li>• -5.0 to -15 VDC fixed</li> <li>• Input -7.0 – 32 VDC</li> <li>• LM79 compatible</li> <li>• 11.7 x 7.5 x 16.5 mm</li> </ul> 	
<p><b>TSRN 1</b>    <b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos./neg. circuit</li> <li>• (±) 1.5 to 15 VDC fixed</li> <li>• Input 4.6 – 42 VDC</li> <li>• 11.7 x 7.5 x 10.2 mm</li> </ul> 	<p><b>TSR 2</b>    <b>NEW</b>    <b>2 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos. circuit</li> <li>• 1.2 to 15 VDC fixed</li> <li>• Input 3 – 36 VDC</li> <li>• LM78 compatible</li> <li>• 14 x 7.5 x 10.2 mm</li> </ul> 	<p><b>TSR 3</b>    <b>3 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos./neg. circuit</li> <li>• (±) 0.6 to 15 VDC adjust.</li> <li>• Input 2.5 – 30 VDC</li> <li>• Remote On/Off</li> <li>• Open frame</li> </ul> 	
<p><b>TOS</b>    <b>6 – 30 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos. circuit</li> <li>• 0.75 – 5.5 VDC adjust.</li> <li>• Input 2.4 – 14 VDC</li> <li>• Remote On/Off</li> <li>• Open frame</li> </ul> 			





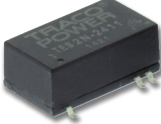


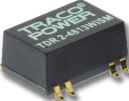




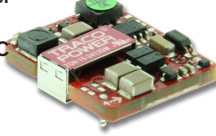
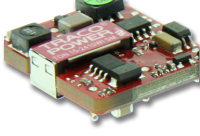
**Non-Isolated Step Down DC/DC Converters  
(POL) SMD Package 0.5 – 30 Amp**

- Alternative to linear 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>    <b>NEW</b>    <b>0.5 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos. circuit</li> <li>• 1.4 to 15.5 VDC adjust.</li> <li>• Input 4.75 – 32 VDC</li> <li>• Remote On/Off</li> <li>• 15.3 x 9.6 x 9.2 mm</li> </ul> 	<p><b>TSR 1SM</b>    <b>NEW</b>    <b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos. circuit</li> <li>• 1.2 to 15 VDC 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>    <b>1 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos./neg. circuit</li> <li>• (±) 1.2 to 15.5 VDC adjust.</li> <li>• Input 3 – 42 VDC</li> <li>• Remote On/Off</li> <li>• 15.2 x 9.3 x 7.3 mm</li> </ul> 	
<p><b>TOS</b>    <b>6 – 30 AMP</b></p> <ul style="list-style-type: none"> <li>• Pos. -pos circuit</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)
- Regulated, single and dual output models
- Available in tape & reel package

<p><b>TES 1</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC (unregulated)</li> <li>• <math>\pm 10\%</math> Input 5, 12, 24 VDC</li> <li>• 13.7 x 8.0 x 7.0 mm</li> </ul> 	<p><b>TES 1V</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3000 VDC I/O-isolation</li> <li>• 3.3 to 15 VDC (unregulated)</li> <li>• <math>\pm 10\%</math> Input 5, 12, 24 VDC</li> <li>• 16.3 x 8.0 x 8.0 mm</li> </ul> 	<p><b>TMR 1SM</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>• 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> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC (unregulated)</li> <li>• <math>\pm 10\%</math> Input 5, 12, 24 VDC</li> <li>• 13.7 x 9.3 x 8.9 mm</li> </ul> 	<p><b>TES 2N</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• EN 55022 class A filter</li> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• IEC/UL 60950-1</li> <li>• 24.0 x 13.7 x 8.3 mm</li> </ul> 	<p><b>TES 2M</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• 4 kVAC I/O-isolation</li> <li>• 5.0 to 15 VDC (unregulated)</li> <li>• <math>\pm 10\%</math> 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>TDR 2SM</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Epoxy over mold (washable)</li> <li>• 5.0 to 15 VDC</li> <li>• 2:1 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>TDR 2WISM</b> <span style="float: right;"><b>2 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Epoxy over mold (washable)</li> <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>• 18.9 x 12.8 x 8.7 mm</li> </ul> 	<p><b>TDR 3SM</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Epoxy over mold (washable)</li> <li>• 5.0 to 15 VDC</li> <li>• 2:1 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>TDR 3WISM</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Epoxy over mold (washable)</li> <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>• 18.9 x 12.8 x 8.7 mm</li> </ul> 	<p><b>THL 3WISM</b> <span style="float: right;"><b>3 WATT</b></span></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 8.3 mm</li> </ul> 	<p><b>THL 6WISM</b> <span style="float: right;"><b>6 WATT</b></span></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 15SM</b> <span style="float: right;"><b>15 WATT</b></span></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 Input 18 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 28.2 x 23.9 mm</li> </ul> 	<p><b>TON 15SWISM</b> <span style="float: right;"><b>15 WATT</b></span></p> <ul style="list-style-type: none"> <li>• EN 55022 class A filter</li> <li>• 3.3 to 15 VDC adjust.</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• Remote On/Off</li> <li>• IEC/UL 60950-1</li> <li>• 28.2 x 23.9 mm</li> </ul> 	

## SIP DC/DC Converters 1 – 9 Watt


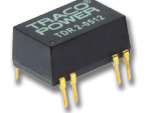










- Single and dual output models (standard)
- Operating temperature -40 – +85°C
- 1500 VDC I/O-isolation (standard)
- IT approval to IEC/EN/UL 60950-1 (for regulated and high isolation converters)






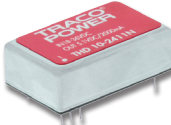







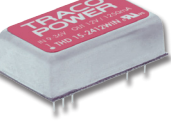

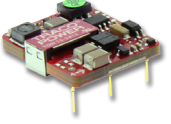


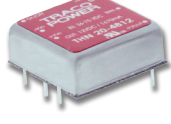
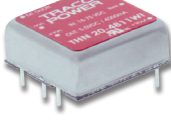

<p><b>TMA</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 5 to 15 VDC</li> <li>• ±10% Input 5 to 24 VDC</li> <li>• 19.5 x 6.1 x 10.2 mm</li> </ul> 	<p><b>TME</b> <span style="float: right;"><b>1 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• Compact design</li> <li>• 3.3 to 15 VDC (single only)</li> <li>• ±10% Input 3.3 to 24 VDC</li> <li>• 11.5 x 6.1 x 10.2 mm</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>• ±10% Input 5 to 24 VDC</li> <li>• 19.5 x 6.1 x 10.2 mm</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>• ±10% Input 5 to 24 VDC</li> <li>• 19.5 x 6.1 x 10.2 mm</li> </ul> 	<p><b>TMV HI</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>• Unregulated</li> <li>• 5200 VDC I/O-isolation</li> <li>• 3.3 to 15 VDC</li> <li>• ±10% Input 5 to 24 VDC</li> <li>• 19.5 x 7.1 x 10.2 mm</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>• ±10% Input 5 to 12 VDC</li> <li>• 22 x 7.5 x 12.5 mm</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 (single only)</li> <li>• ±10% Input 5 to 24 VDC</li> <li>• 19.5 x 6.1 x 10.2 mm</li> </ul> 	<p><b>TMR 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>• 5.0 to 24 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• 17 x 7.6 x 11 mm</li> </ul> 	<p><b>TMV2HI</b> <span style="color: red; font-weight: bold;">NEW</span> <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>• ±10% Input 5 to 24 VDC</li> <li>• 19.5 x 7.1 x 10.2 mm</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>• ±10% Input 5 to 24 VDC</li> <li>• 19.5 x 7.5 x 10.2 mm</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</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>• (I/O-isolation 1000 VDC)</li> <li>• 21.8 x 9.3 x 11.2 mm</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 9.3 x 11.2 mm</li> </ul> 
<p><b>TMR 2WIN</b> <span style="color: red; font-weight: bold;">NEW</span> <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>• ±10% Input 5 to 24 VDC</li> <li>• 19.5 x 7.6 x 10.2 mm</li> </ul> 	<p><b>TMR 3E</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 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• (min. load required)</li> <li>• 21.8 x 9.3 x 11.2 mm</li> </ul> 
<p><b>TMR 3</b> <span style="float: right;"><b>3 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>• EN 55022 class A filter</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.1 x 11.2 mm</li> </ul> 	<p><b>TMR 3HI</b> <span style="float: right;"><b>3 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3000 VDC I/O-isolation</li> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• EN 55022 class A filter</li> <li>• 21.8 x 9.1 x 11.1 mm</li> </ul> 	<p><b>TMR 3WIE</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>• 4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• (min. load required)</li> <li>• 21.8 x 9.1 x 11.2 mm</li> </ul> 














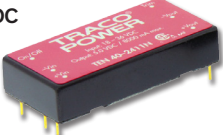





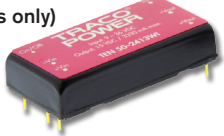



<p><b>TMR 3WI</b>                      <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3.3 to 15 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.1 x 11.2 mm</li> </ul> 	<p><b>TMR 6</b>                              <b>6 WATT</b></p> <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>• Remote On/Off</li> <li>• 21.8 x 9.1 x 11.2 mm</li> </ul> 	<p><b>TMR 6WI</b>      <b>NEW</b>              <b>6 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.1 x 11.2 mm</li> </ul> 
<p><b>TMR 9</b>                      <b>NEW</b>              <b>9 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3.3 to 24 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.6 x 11.2 mm</li> </ul> 	<p><b>TMR 9WI</b>      <b>NEW</b>              <b>9 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• Remote On/Off</li> <li>• 21.8 x 9.6 x 11.2 mm</li> </ul> 	

### High Performance DC/DC Converters 2 – 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
- Remote On/Off control












<p><b>TEL 2</b>                              <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-16 (23.8 x 13.7)</li> </ul> 	<p><b>TDR 2</b>                              <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• Compact design</li> <li>• Epoxy over mold</li> <li>• 5.0 to 15 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• 18.9 x 12.8 x 8.7 mm</li> </ul> 	<p><b>TDR 2WI</b>                      <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• Compact design</li> <li>• Epoxy over mold</li> <li>• 5.0 to 15 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• 18.9 x 12.8 x 8.7 mm</li> </ul> 
<p><b>TEM 3N</b>      <b>NEW</b>              <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Cost down redesign</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>TEL 3</b>                              <b>3 WATT</b></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>      <b>NEW</b>              <b>3 WATT</b></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>      <b>NEW</b>              <b>3 WATT</b></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>THL 3WI</b>                      <b>3 WATT</b></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 (23.8 x 13.7)</li> </ul> 	<p><b>TDR 3</b>                              <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Compact design</li> <li>• Epoxy over mold</li> <li>• 5.0 to 15 VDC</li> <li>• 2:1 Input 4.5 to 75 VDC</li> <li>• 18.9 x 12.8 x 8.7 mm</li> </ul> 
<p><b>TDR 3WI</b>                      <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Compact design</li> <li>• Epoxy over mold</li> <li>• 5.0 to 15 VDC</li> <li>• 4:1 Input 4.5 to 75 VDC</li> <li>• 18.9 x 12.8 x 8.7 mm</li> </ul> 	<p><b>TVN 5WI</b>      <b>NEW</b>              <b>5 WATT</b></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 A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>TEL 5</b>                              <b>5 WATT</b></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> <b>6 WATT</b></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> <b>6 WATT</b></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> <b>6 WATT</b></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>TEN 8</b> <b>8 WATT</b></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> <b>8 WATT</b></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> <b>NEW</b> <b>10 WATT</b></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> <b>NEW</b> <b>10 WATT</b></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> <b>NEW</b> <b>10 WATT</b></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> <b>10 WATT</b></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>TEN 10WIR</b> <b>NEW</b> <b>10 WATT</b></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>delayed</b></p> 	<p><b>THD 12</b> <b>12 WATT</b></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> <b>12 WATT</b></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> 
<p><b>THD 15N</b> <b>15 WATT</b></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 15WIN</b> <b>15 WATT</b></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> 	<p><b>TEL 15</b> <b>15 WATT</b></p> <ul style="list-style-type: none"> <li>• Cost optimized</li> <li>• 3.3 to 15 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• 2" x 1"</li> </ul> 
<p><b>TON 15(WI)</b> <b>15 WATT</b></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>• EN 55022 class A filter</li> <li>• 27.9 x 23.9 mm</li> </ul> 	<p><b>THN 15</b> <b>15 WATT</b></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>• 1" x 1"</li> </ul> 	<p><b>THN 15WI</b> <b>15 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 48 VDC adjust.</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• 1" x 1"</li> </ul> 
<p><b>THN 20</b> <b>20 WATT</b></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>• EN 55022 class A filter</li> <li>• 1" x 1"</li> </ul> 	<p><b>THN 20WI</b> <b>20 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 48 VDC adjust.</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>THL 20WI</b> <b>20 WATT</b></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>• 1" x 1"</li> </ul> 

<p><b>TEN 20</b>                      <b>20 WATT</b></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>• 2" x 1"</li> </ul> 	<p><b>TEN 20WIN</b>                      <b>20 WATT</b></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>• 2" x 1"</li> </ul> 	<p><b>TEN 20WIR</b>                      <b>20 WATT</b></p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• EN 55022 class B filter</li> <li>• 3.3 to 15 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>TMDC 20</b>    <b>NEW</b>                      <b>20 WATT</b></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>• 96 x 54 x 23.3 mm</li> </ul> 	<p><b>THL 25</b>                                      <b>25 WATT</b></p> <ul style="list-style-type: none"> <li>• 3.3 to 15 VDC adjust.</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• 1" x 1"</li> </ul> 	<p><b>THL 25WI</b>    <b>NEW</b>                      <b>25 WATT</b></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>• 1" x 1"</li> </ul> 
<p><b>TEN 30</b>                                      <b>30 WATT</b></p> <ul style="list-style-type: none"> <li>• 1.5 to 15 VDC adjust.</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• 2" x 1"</li> </ul> 	<p><b>TEN 30WIN</b>                      <b>30 WATT</b></p> <ul style="list-style-type: none"> <li>• With triple output models</li> <li>• 1.5 to 15 VDC adjust.</li> <li>• 4:1 Input 9 to 75 VDC</li> <li>• 2" x 1"</li> </ul> 	<p><b>THN 30</b>                                      <b>30 WATT</b></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>• 1" x 1"</li> </ul> 
<p><b>THN 30WI</b>                                      <b>30 WATT</b></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>• 1" x 1"</li> </ul> 	<p><b>TEN 40</b>                                      <b>40 WATT</b></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 line</li> <li>• 2" x 2"</li> </ul> 	<p><b>TEN 40WI</b>                                      <b>40 WATT</b></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 line</li> <li>• 2" x 2"</li> </ul> 
<p><b>TEN 40N</b>                                      <b>40 WATT</b></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>                      <b>40 WATT</b></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>                      <b>40 WATT</b></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>TMDC 40</b>    <b>NEW</b>                      <b>40 WATT</b></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 mm</li> </ul> 	<p><b>TEN 50</b>                                      <b>50 WATT</b></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>                                      <b>50 WATT</b></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>    <b>NEW</b>                      <b>60 WATT</b></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>    <b>NEW</b>                      <b>60 WATT</b></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>    <b>NEW</b>                      <b>60 WATT</b></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 mm</li> </ul> 




High Power DC/DC Converters 75 – 300 W

- 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>                      <b>75 WATT</b></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>                      <b>100 WATT</b></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> <b>NEW</b> <b>100 WATT</b></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> <b>NEW</b> <b>100 WATT</b></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>                      <b>150 WATT</b></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>                      <b>160 WATT</b></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> 
<p><b>TEP 160WIR</b>                      <b>160 WATT</b></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 mount</li> <li>• 2.4" x 2.3" x 0.5"</li> </ul> 	<p><b>TEQ 160WIR</b> <b>NEW</b> <b>160 WATT</b></p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• 75°C full load operation</li> <li>• 12 to 48 VDC adjust.</li> <li>• 4:1 Input 18 to 160 VDC</li> <li>• UL 508 approval</li> <li>• 3" x 4" x 3.5"</li> </ul> 	<p><b>TEP 200WIR</b>                      <b>200 WATT</b></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>• Chassis mount</li> <li>• 2.4" x 3.4" x 1.5"</li> </ul> 
<p><b>TEQ 200WIR</b> <b>NEW</b> <b>200 WATT</b></p> <ul style="list-style-type: none"> <li>• Railway approval</li> <li>• 70°C full load operation</li> <li>• 12 to 48 VDC adjust.</li> <li>• 4:1 Input 18 to 160 VDC</li> <li>• UL 508 approval</li> <li>• 3" x 4" x 3.5"</li> </ul> 	<p><b>TEQ 300WIR</b> <b>NEW</b> <b>300 WATT</b></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 18 to 160 VDC</li> <li>• UL 508 approval</li> <li>• 6" x 4" x 1.5"</li> </ul> 	

**+** Medical/Reinforced I/O-Isolation DC/DC Converters 1 – 15 Watt

- IEC/ES 60601-1 3rd edition and IEC/EN/UL 60950-1 approvals
- I/O-isolation min. 3000 VACrms
- Working voltage 300 VAC or higher
- Operating temperature -40 – +85°C
- EN 55022 class A for regulated models





<p><b>TMV-EN</b>                      <b>1 WATT</b></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 5.0 to 15 VDC</li> <li>• ±10% Input 5 to 12 VDC (no 60601-1 approval)</li> <li>• SIP package</li> <li>• 22 x 7.5 x 12.5 mm</li> </ul> 	<p><b>TES 2M</b>                      <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 5.0 to 15 VDC</li> <li>• ±10% Input 5 to 24 VDC</li> <li>• SMD package</li> <li>• 24.0 x 13.7 x 9.3 mm</li> </ul> 	<p><b>THI 2M</b>                      <b>2 WATT</b></p> <ul style="list-style-type: none"> <li>• Unregulated</li> <li>• 5.0 to 15 VDC</li> <li>• ±10% Input 5 to 24 VDC</li> <li>• 23.8 x 13.7 x 8.6 mm</li> </ul> 
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<p><b>THI 3</b>      <b>NEW</b>      <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 5.0 to 15 VDC</li> <li>• <math>\pm 10\%</math> Input 5 to 24 VDC</li> <li>• EN 55022 class A filter</li> <li>• DIP-24 (32 x 20.3)</li> </ul> 	<p><b>THB 3</b>      <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 1000 Vrms working voltage</li> <li>• 5.0 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>THP 3</b>      <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</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>THM 3WI</b>      <b>NEW</b>      <b>3 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 2 x MOPP</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 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>THB 6</b>      <b>6 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 1000 Vrms working voltage</li> <li>• 5.0 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>THM 6WI</b>      <b>NEW</b>      <b>6 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 2 x MOPP</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 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>THB 10</b>      <b>10 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 5.0 to 15 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 2" x 1"</li> </ul> 	<p><b>THM 10WI</b>      <b>NEW</b>      <b>10 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 2 x MOPP</li> <li>• 3.3 to 24 VDC</li> <li>• 4:1 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>THB 15</b>      <b>NEW</b>      <b>15 WATT</b></p> <ul style="list-style-type: none"> <li>• Regulated</li> <li>• 5.0 to 15 VDC</li> <li>• 2:1 Input 9 to 75 VDC</li> <li>• EN 55022 class A filter</li> <li>• 2 x MOPP</li> <li>• 2" x 1"</li> </ul> 



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

- IEC/EN/UL 60950-1 approvals
- Increased EMC immunity
- Operating temperature -40 – +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 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 mm</li> </ul> 	<p><b>TMDC 20</b>      <b>NEW</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 mm</li> </ul> 	<p><b>TMDC 40</b>      <b>NEW</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 mm</li> </ul> 
<p><b>TMDC 60</b>      <b>NEW</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 mm</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> <span style="float: right;"><b>3 Watt</b></span></p> <ul style="list-style-type: none"> <li>• Slim SIP Package</li> <li>• 0-2000 VDC</li> <li>• 12 VDC</li> <li>• Remote On/Off</li> <li>• Opt. flying lead connect.</li> <li>• 80/110 x 12 x 20 mm</li> </ul> 	<p><b>PHV</b> <span style="float: right;"><b>5 Watt</b></span></p> <ul style="list-style-type: none"> <li>• Flat DIP package</li> <li>• 0-2000 VDC</li> <li>• 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>TZL</b> <span style="float: right;"><b>60 – 300 WATT</b></span></p> <ul style="list-style-type: none"> <li>• Compact metal casing</li> <li>• 12/24 VDC</li> <li>• 2:1 Input 18 to 72 VDC</li> <li>• EN 55022 class B filter</li> </ul> 	<p><b>TSC</b> <span style="float: right;"><b>150 – 5000 WATT</b></span></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> <span style="float: right;"><b>5 kW – 22 kW</b></span></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> 
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DC/AC CONVERTERS

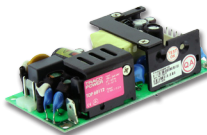
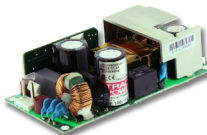
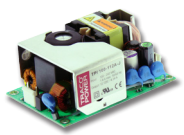

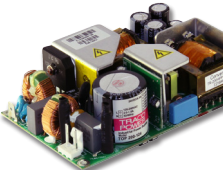
Industrial Inverters

- 19" plug in modules and sub racks
- Single-/three-phase AC outputs
- True sine wave output 40 – 400 Hz

<p><b>TSD</b> <span style="float: right;"><b>200 VA – 30 kVA</b></span></p> <ul style="list-style-type: none"> <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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Open Frame AC/DC Power supplies  
60 – 200 Watt






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

<p><b>TOP 60</b>                      <b>60 WATT</b></p> <ul style="list-style-type: none"> <li>• Single, dual and triple output models</li> <li>• 3.3 to 48 VDC</li> <li>• Protection class I</li> <li>• 2" x 4"</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" (opt. casing)</li> </ul> 	<p><b>TPI 100</b>                      <b>NEW</b>                      <b>100 WATT</b></p> <ul style="list-style-type: none"> <li>• Reinforced isolation</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>NEW</b>                      <b>150 WATT</b></p> <ul style="list-style-type: none"> <li>• Highest power density</li> <li>• Reinforced isolation</li> <li>• 12 to 48 VDC</li> <li>• ErP-ready</li> <li>• Adjustable output</li> <li>• 2" x 4" (opt. casing)</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" (opt. casing)</li> </ul> 	

Encapsulated AC/DC Power Modules  
2 – 100 Watt





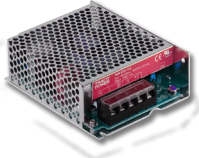




- Universal input
- Protection class II
- EN 55022 class B filter
- IEC/EN/UL 60950-1 approvals
- Start-up temperature -40°C for TMM series

<p><b>TMSB 2</b>                      <b>NEW</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</li> </ul> 	<p><b>TMPS 03</b>                      <b>NEW</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>NEW</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>TMS</b>                              <b>6 – 25 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB/chassis</li> <li>• 5.0 to 24 VDC</li> <li>• Single/dual output</li> <li>• Models with blade connection</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>TMP</b>                                      <b>7 – 60 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB mount</li> <li>• Ind. EMC immunity</li> <li>• 3.3 to 48 VDC</li> <li>• Single, dual, triple</li> <li>• Protection class II</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>• Protection class II</li> <li>• UL 508 approval</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>• Protection class II</li> <li>• Compact design</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> <li>• Protection class I &amp; II</li> </ul> 

<p><b>TMT</b>                      <b>10 – 50 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB/chassis</li> <li>• Medical 2 x MOOP</li> <li>• 3.3 to 24 VDC</li> <li>• Single, dual, triple</li> <li>• Protection class II</li> <li>• UL 508 approval (Chassis)</li> </ul> 	<p><b>TMM</b>      <b>NEW</b>      <b>24 – 60 WATT</b></p> <ul style="list-style-type: none"> <li>• PCB mount</li> <li>• Medical 2 x MOPP</li> <li>• 5.0 to 48 VDC</li> <li>• Single/dual output</li> <li>• Protection class II</li> <li>• Low profile</li> </ul> 	<p><b>TMM-C</b>      <b>NEW</b>      <b>24 – 60 WATT</b></p> <ul style="list-style-type: none"> <li>• Chassis mount</li> <li>• Medical 2 x MOPP</li> <li>• 5.0 to 48 VDC</li> <li>• Single/dual output</li> <li>• Protection class II</li> <li>• UL 508 approval</li> </ul> 
<p><b>TML 100C</b>      <b>NEW</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>• Protection class I &amp; II</li> <li>• 140 x 62 x 37 mm</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>• EN 60335-1 (household)</li> <li>• 3.3 to 24 VDC</li> <li>• ErP-ready</li> <li>• Mount. in flash boxes</li> </ul> 	











**Metal Enclosure Power Supplies  
15 – 1000 Watt**

- Universal input
- EN 55022 class B filter
- Ind. EMC immunity
- International safety approval package
- Start-up temperature -40 °C for TPP 40/65 and TEX series

<p><b>TPP 40</b>              <b>NEW</b>      <b>40 WATT</b></p> <ul style="list-style-type: none"> <li>• Medical 2 x MOPP</li> <li>• Ind. EMC immunity</li> <li>• 5.0 to 24 VDC adjust.</li> <li>• ErP-ready</li> <li>• Protection class II</li> <li>• 91 x 62 x 39 mm</li> </ul> 	<p><b>TPP 65</b>              <b>NEW</b>      <b>65 WATT</b></p> <ul style="list-style-type: none"> <li>• Medical 2 x MOPP</li> <li>• Ind. EMC immunity</li> <li>• 5.0 to 24 VDC adjust.</li> <li>• ErP-ready</li> <li>• Protection class II</li> <li>• 91 x 62 x 39 mm</li> </ul> 	<p><b>TPP 100</b>              <b>NEW</b>      <b>100 WATT</b></p> <ul style="list-style-type: none"> <li>• Medical 2 x MOPP</li> <li>• Ind. EMC immunity</li> <li>• 12 to 48 VDC adjust.</li> <li>• ErP-ready</li> <li>• Protection class II</li> <li>• 91 x 62 x 39 mm</li> </ul> 
<p><b>TPP 150</b>              <b>NEW</b>      <b>150 WATT</b></p> <ul style="list-style-type: none"> <li>• Medical 2 x MOPP</li> <li>• Ind. EMC immunity</li> <li>• 12 to 48 VDC adjust.</li> <li>• ErP-ready</li> <li>• Protection class II</li> <li>• 117 x 62 x 49</li> </ul> 	<p><b>TXM</b>                      <b>15 – 320 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 (up to 75 W)</li> <li>• Protection class I</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> <li>• Protection class I</li> </ul> 
<p><b>TXH</b>                      <b>60 – 480 WATT</b></p> <ul style="list-style-type: none"> <li>• 12 to 48 VDC adjust.</li> <li>• Protection class I</li> <li>• Compact low profile</li> </ul> 	<p><b>TXH 600</b>              <b>NEW</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 adjust.</li> <li>• Ind. EMC immunity</li> <li>• IEC-C13 line socket</li> <li>• Contr. &amp; monitor signals</li> </ul> 	<p><b>TEX</b>                      <b>120 WATT</b></p> <ul style="list-style-type: none"> <li>• Outdoor power supply</li> <li>• All weather proof (IP67)</li> <li>• 12/24 VDC</li> <li>• Ind. EMC immunity</li> <li>• UL 508</li> <li>• IECEx/Atex</li> </ul> 

DIN-Rail Power Supplies 15 – 960 Watt

- Universal input
- EN 55022 class B filter
- International safety approval package including UL 508
- Start-up temperature -40 °C for TMM

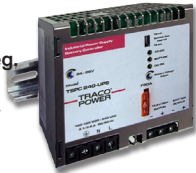
<p><b>TMP-C</b>                      <b>15 – 60 WATT</b></p> <ul style="list-style-type: none"> <li>• Fully encapsulated</li> <li>• 3.3 to 48 VDC</li> <li>• Single, dual, triple</li> <li>• Protection class II</li> <li>• Low profile</li> </ul> 	<p><b>TMM-C</b>    <b>NEW</b>    <b>24 – 60 WATT</b></p> <ul style="list-style-type: none"> <li>• Medical 2 x MOPP</li> <li>• Fully encapsulated</li> <li>• 5.0 to 48 VDC</li> <li>• Single/dual output</li> <li>• Protection class II</li> <li>• Low profile</li> </ul> 	<p><b>TBL</b>                              <b>15 – 150 WATT</b></p> <ul style="list-style-type: none"> <li>• Low profile plastic casing</li> <li>• 5.0 to 24 VDC</li> <li>• Protection class II</li> <li>• NEC class II (up to 90 W)</li> </ul> 
<p><b>TCL</b>                              <b>24 – 240 WATT</b></p> <ul style="list-style-type: none"> <li>• Slim plastic casing</li> <li>• 5.0 to 48 VDC adjust.</li> <li>• Protection Class I</li> <li>• Screw or spring clamp connection</li> </ul> 	<p><b>TPC</b>                              <b>30 – 120 WATT</b></p> <ul style="list-style-type: none"> <li>• Robust plastic casing</li> <li>• 5.0 to 48 VDC adjust.</li> <li>• ErP-ready</li> <li>• DC-OK signal</li> </ul> 	<p><b>TSPC</b>                              <b>50 – 480 WATT</b></p> <ul style="list-style-type: none"> <li>• Rugged metal casing</li> <li>• 12 to 48 VDC adjust.</li> <li>• IECEx/Atex</li> <li>• DC-OK signal</li> </ul> 
<p><b>TSP</b>                              <b>72 – 600 WATT</b></p> <ul style="list-style-type: none"> <li>• Rugged metal casing</li> <li>• 12 to 48 VDC adjust.</li> <li>• Atex (opt.) approval</li> <li>• Entire control signals</li> </ul> 	<p><b>TSP 3P</b>                              <b>240 – 960 WATT</b></p> <ul style="list-style-type: none"> <li>• Rugged metal casing</li> <li>• 3-phase input</li> <li>• 24 VDC adjust</li> <li>• High efficiency up to 92%</li> <li>• Atex approval</li> <li>• 200% boost power</li> </ul> 	<p><b>TSP-WR</b>                              <b>180 – 600 WATT</b></p> <ul style="list-style-type: none"> <li>• Rugged metal casing</li> <li>• 24 VDC adjust</li> <li>• Wide input 85 to 550 VAC</li> <li>• Entire control signals</li> </ul> 
<p><b>TIS</b>                              <b>50 – 600 WATT</b></p> <ul style="list-style-type: none"> <li>• Low profile metal casing</li> <li>• 12 to 72 VDC adjust</li> <li>• Int. function modules</li> </ul> 		

UPS Systems

- Power Supplies with integrated battery controller modules
- Deep discharge protection
- Battery temperature supervision
- Battery test functions
- Entire control signals

TSPC 240UPS **NEW** 240 WATT

- Rugged metal casing
- 24 VDC output, tightly reg. also in power fail mode
- Use with 12 VDC battery



Battery Controller Modules/Battery Pack

- Deep discharge protection
- Battery temperature supervision
- Battery test functions
- Entire control signals

TSP-BCMU360 **NEW** 360 WATT

- Universal module
- For 24 & 48 VDC, tightly reg. also in power fail mode
- Use with 12 VDC battery
- No remote link to PS
- Redundant operation
- Rugged metal casing



TSP-BCM

12 – 48 VDC

- TSP Series access. module
- For 12, 24, 48 VDC
- Rugged metal casing



TSP-BAT

- Battery packs
- High quality lead acid
- 12 VDC/7.2 Ah
- 24 VDC 1.2 to 12 Ah



Buffer Module

- Buffers short time mains black-outs and voltage dips
- No external battery required
- Entire control signals

TSP-BFM

600 WATT

- Universal module
- For 24 VDC
- 120 Ws buffer energy
- No remote link to PS



Decoupling and Current Share Modules

- For 2 units in redundant and parallel operation
- International safety approval package

**TSPC-DCM**

**600 WATT**

- Universal module
- For 5 – 28 VDC
- 2 inputs, 25 A max.
- No remote link to PS
- (no signal outputs)
- Rugged metal casing



**TPC-REM**

**240 WATT**

- TPC series access modules
- Active current sharing
- For 24 or 48 VDC models
- 2 Inputs, 240 W
- DC-OK signal output
- Robust plastic casing



**TCL-REM**

**480 WATT**

- Universal module
- For 5 – 60 VDC
- 2 x 5 A – 10 A out max.
- No remote link to PS
- (no signal outputs)
- Slim plastic casing



**TSP-REM**

**360 – 600 WATT**

- TSP series access modules
- Active current sharing
- For 24 VDC, 2 inputs
- Alarm signal
- Remote On/Off
- Rugged metal casing



# TRACO POWER

TRACO – dedicated to design and production of high industrial quality, state-of-the-art AC/DC & DC/DC power conversion products.

Our mission is to provide optimal power supply solutions for specific applications with regard to performance, quality, cost and functionality.

High ex-stock availability, short-term delivery and an extended Traco Power product life-cycle provides quick and long-term disposability.

Our commitment to quality is supported by a 3 year product warranty for all products.

To be aware of any changes check the online version for the latest revision.