# **II TRACO POWER**

# 2024 | DC/DC Converters AC/DC Power Supplies

Product Portfolio



# **TRACO POWER**

# **Company Profile**

TRACO Electronic AG is a Swiss company with headquarters based in Baar, Switzerland. As a leading power supply specialist with more than 40 years experience we are dedicated to the design and manufacturing of high quality DC/DC and AC/DC power conversion products.

TRACO markets its products worldwide under the registered trademark TRACO POWER. Our mission is to provide our customers with optimal power supply solutions in terms of performance, quality and cost for their individual application.

## **Product Range**

TRACO POWER's product range focuses on the four vertical markets:

Industrial, Medical & Healthcare, Railway / Ruggedized and Building Technology & Household.

Within these markets TRACO offers one of the most comprehensive programs for standard products in application areas such as:

Test & Measurement, Automation & Control, Robotics, Machinery, Therapy, Diagnostic, Laboratory, Home & Office Automation, White Goods, Transportation, Construction & Farming, Information Technology, Smartgrid, Renewable Energy, Oil & Gas.

Detailed product data can be downloaded from our website: www.tracopower.com

# lcons used throughout the catalog



#### High isolation products for medical applications

- Product certification according to IEC/EN/ES 60601-1 3rd edition for 2×MOPP
- EMC emission according to IEC 60601-1-2 ed. 4
- Risk management process according to ISO 14971 including risk management file
- Acceptance criteria for electronic assemblies according to IPC-A-610 Level 3
- Design and production according to ISO 13485 quality management system
- 5-year product warranty



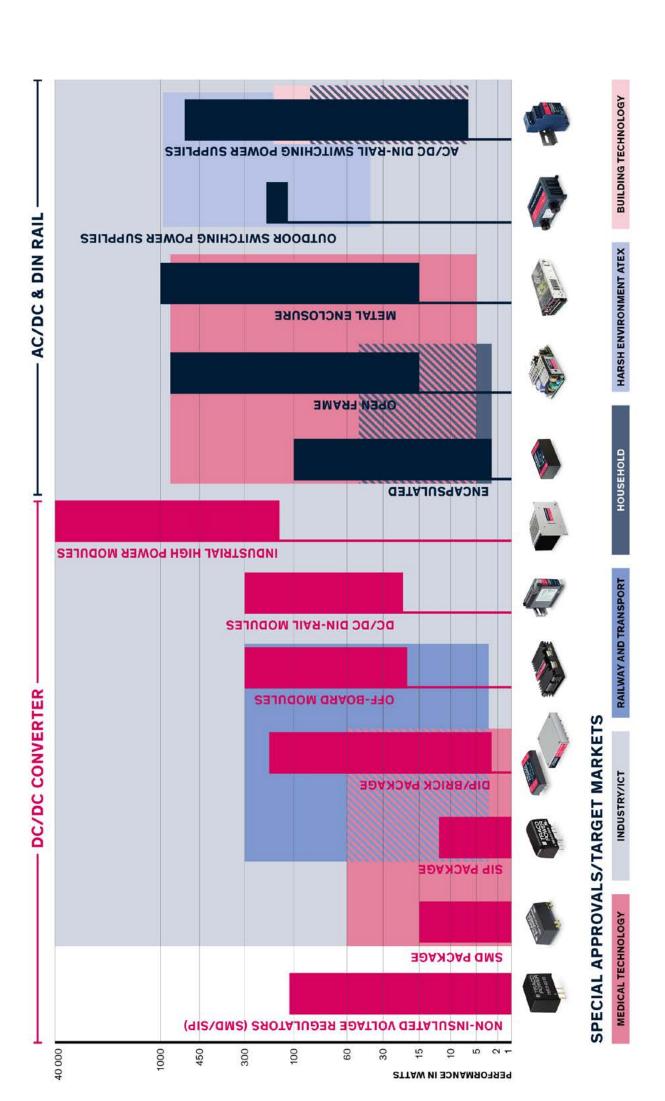
#### Ruggedized DC/DC converters for railway applications

- Approved to EN 50155 for electronic equipment used on rolling stock
- Shock and vibration test according EN 61373
- Qualification for the fire behavior of components according to EN 45545-2



#### **Building Technology/Household**

Product certification according to IEC/EN 60335-1



# **DC/DC Converters**

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## Non-Isolated Step Down DC/DC Converters (POL) in 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 to +85°C

#### **0.5 AMP**

- +Vin/+Vout
- Input 4.75-32 VDC

- 11.5×7.6×10.2 mm
- 1.5 to 15 Vout fixed LM78xx compatible

#### **TSR 0.5**

- **0.6 AMP**
- +Vin/+Vout
- Input 9.0-72 VDC
- 3.3 to 24 Vout fixed
- LM78xx compatible
- 12×8.6×13.4 mm

#### **TSR 0.6WI**

- 1 AMP +Vin/+Vout
- Input 1.2-36 VDC
- 1.5 to 15 Vout fixed
- LM78 compatible
- 11.7×7.6×10 mm



TSN<sub>1</sub>

TSR<sub>1</sub>

#### 1 AMP

- +Vin/+Vout
- Input 6-36 VDC
- 3.3 and 5.0 Vout fixed
- Cost optimized design
- LM78xx compatible
- 11.5×7.6×10.2 mm

#### TSR 1E

- **1.0 AMP**
- +Vin/+Vout
- Input 9.0–72 VDC
- 3.3 to 24 Vout fixed
- LM78xx compatible
- 12.1 × 8.6 × 17.5 mm

#### TSR 1WI

#### 1 AMP

- -Vin/-Vout
- Input -7.0-32 VDC
- -5.0 to -15 Vout fixed
- LM79 compatible
- 11.7×7.5×16.5 mm



## 1 AMP

- +Vin/+Vout or -Vout
- Input 4.6-36 VDC
- (±)1.5 to 15 Vout fixed
- 11.7×7.5×10.2 mm

#### TSRN 1

- **1.5 AMP**
- +Vin/+Vout
- Input 7–36 VDC 3.3, 5.0, 12 Vout fixed
- Cost optimized design
- LM78xx compatible
- 9.6 × 6.4 × 14.9 mm

#### **TSR 1.5E**

#### 2 AMP

#### TSR 2N **NEW** under development

- +Vin/+Vout
- Input 4.6–36 VDC
- 1.2 to 15 Vout fixed
- Wide temperature range
- LM78 compatible
- 14×7.6×10.2 mm



TSR3

#### 2 AMP

- +Vin/+Vout
- Input 3.0-36 VDC
- 1.2 to 15 Vout fixed
- LM78 compatible
- 14×7.5×10.1 mm

#### TSR 2

TOS

#### 3 AMP

#### **NEW** under development

- +Vin/+Vout
- Input 4.6-36 VDC
- 1.2 to 15 Vout fixed
- Wide temperature range
- LM78 compatible
- 14×7.6×10.2 mm



TSR 3N

#### 3 AMP

- +Vin/+Vout or -Vout
- Input 2.5-30 VDC
- (±) 0.6 to 15 Vout adjust.
- Remote On/Off
- Open frame
- 16.5 × 10.4 × 6 mm



#### 6-30 AMP

- +Vin/+Vout
- Input 2.4-14 VDC
- 0.75 to 5.5 Vout adjust.
- Remote On/Off
- Open frame



#### 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 to +85°C

# 0.5 AMP +Vin/+Vout

■ Input 4.75-32 VDC

15.3 x 9.6 x 9.2 mm

■ Remote On/Off

1.4 to 15.5 Vout adjust.

**TSR 0.5SM** 

- 1 AMP
- +Vin/+Vout
- Input 3.0-36 VDC
- 1.2 to 15 Vout fixed ■ 15.2×9.3×7.6 mm

## 1 AMP

TSR 1SM

**TSRN 1SM** 

- +Vin/+Vout or -Vout
- Input 3.0-42 VDC
- (±)1.2 to 15.5 VDC adjust.
- Remote On/Off
- 15.2×9.3×7.3 mm



#### 6-30 AMP

TOS

- +Vin/+Vout
- Input 2.4-14 VDC
- 0.75 to 5.5 VDC adjust.
- Remote On/Off
- Open frame



1 - 15 Watt

■ MSL Level 2a or better

SMD DC/DC Converters

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

#### 1 WATT

TES 1

- ±10% Input 5, 12, 24 VDC 3.3 to 15 VDC (unregulated)
- 13.7×8.0×7.0 mm (single)
- 16.2×8.0×7.0 mm (dual)

4:1 Input 4.5 to 75 VDC



#### 1 WATT

- 3000 VDC I/O-isolation
- ±10% Input 5, 12, 24 VDC
- 3.3 to 15 VDC (unregulated)
- 16.3×8.0×8.0 mm



TES<sub>1</sub>V

#### 1 WATT

2:1/3:1 Input 4.5 to 75 VDC

- 3.3 to 24 VDC
- 11.9×11.3×8.0 mm



TRN 1SM

#### 1 WATT

3.3 to 24 VDC

Remote On/Off

■ 13.2×9.1×10.2 mm

**TDN 1WISM** 

- 1 WATT
- 2:1 Input 4.5 to 75 VDC
- 5.0 to 24 VDC
- Remote On/Off
- 18.9 × 13.7 × 8.7 mm



#### TMR 1SM 1 WATT

Unregulated

#### TRI 1SM **NEW**

- 3000 VAC I/O-isolation rated for 480 VACrms working voltage (reinforced)
- 8000 VDC peak isolation (1s)
- ±10 % Input 5 to 24 VDC
- 5.0 to 15 VDC
- 18.9 × 13.7 × 10.5 mm



## 2 WATT

TES 2H

#### 2 WATT

TMR 2WISM

#### 2 WATT

TDR 2(WI)SM

- ±10 % Input 5, 12, 24 VDC
- 3.3 to 15 VDC (unregulated)
- 16.3×9.3×8.9 mm



4:1 Input 4.5 to 75 VDC

- 5.0 to 24 VDC
- Remote On/Off
- IEC/UL 62368-1
- 19.0×14.9×8.7 mm



- Epoxy over mold (washable)
- 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 15 VDC
- Remote On/Off
- IEC/UL 62368-1
- 18.9 × 12.8 × 8.7 mm



- 2:1/3:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- 11.9 × 11.3 × 8.0 mm



TRS 2

- **2 WATT**
- 4 kVAC I/O-isolation
- ±10 % Input 5, 12, 24 VDC
- 5.0 to 15 VDC (unreg.)
- IEC 60601-1 (2×MOOP)
- 24.0 × 13.7 × 9.3 mm



TES 2M

#### 2 WATT

#### TIM 2SM

- Medical safety approval
- 2:1/3:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- IEC/UL 62368-1, IEC/ES 60601-1
- SMD-16 (24.3 × 14.4)



#### 3 WATT

#### TRN 3SM

- 3.3 to 24 VDC
- 11.9×11.3×8.0 mm

2:1/3:1 Input 4.5 to 75 VDC



#### 3 WATT

#### **TDN 3WISM**

- 3.3 to 24 VDC
- Remote On/Off
- Compact design
- 13.2×9.1×10.2 mm

4:1 Input 4.5 to 75 VDC



#### 3 WATT

#### TMR 3WISM

- 4:1 Input 4.5 to 75 VDC
- 5.0 to 24 VDC
- Remote On/Off
- IEC/UL 62368-1
- 19.0×14.9×8.7 mm



#### 3 WATT

#### TDR 3(WI)SM

- Epoxy over mold (washable) 2:1 or 4:1 Input 4.5 to 75 VDC
- 5.0 to 15 VDC
- Remote On/Off
- IEC/UL 62368-1
- 18.9×12.8×8.7 mm



#### **3.5 WATT**

#### **★ TIM 3.5SM**

- Medical safety approval (2×MOPP)
- 2:1/3:1 Input 4.5 to 75 VDC
- 5.0 to 24 VDC
- IEC/UL 62368-1, IEC/ES 60601-1
- SMD-16 (24.3 × 14.4)



#### 5 WATT

#### **TDN 5WISM**

- 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- Remote On/Off
- Compact design
- 13.2×9.1×10.2 mm



#### **15 WATT**

#### **TON 15WISM**

- EN 55032 class A filter
- 4:1 Input. 9 to 75 VDC
- 3.3 to 15 VDC adjust.
- Remote On/Off
- IEC/UL 62368-1 27.9 × 23.9 × 8.5 mm



# SIP DC/DC Converters

1 - 12 Watt

- Single and dual output models (standard)
- Operating temperature -40 to +85°C
- IT approval acc. to IEC/EN/UL 62368-1 (for regulated & high isolation converters)
- 1500 VDC I/O-isolation (standard)

# 1 WATT

Unregulated

5.0 to 15 VDC

■ 19.5×6×10 mm

Short circuit protection

±10% Input 5 to 24 VDC

#### TBA 1E

#### 1 WATT

- Unregulated
- Cost optimized design
- ±10% Input 5 VDC
- 5 VDC output (single)
- 19.5×6×10 mm



#### TEA 1E

# 1 WATT

- Unregulated ±10% Input 5 to 24 VDC
- 5.0 to 15 VDC
- 19.5 × 6.1 × 10.2 mm



**TMA** 

## 1 WATT

- Unregulated
- Short circuit protection
- Compact design
- ±10% Input 3.3 to 24 VDC
- 3.3 to 15 VDC (single only)
- 11.7 × 6 × 10 mm



TBA 1

## 1 WATT

- Unregulated
- Compact and cost optimized design
- ±10% Input 5 VDC
- 5 VDC output (single)
- 11.7×6×10.2 mm



#### TEA 1 1 WATT

- Unregulated
- Compact design
- ±10% Input 3.3 to 24 VDC
- 3.3 to 15 VDC (single only)
- 11.5×6.1×10.2 mm



**TME** 

- Unregulated
- 3000 VDC I/O-isolation
- ±10 % Input 5 to 24 VDC
- 5.0 to 15 VDC
- 19.5 × 6.1 × 10.2 mm



#### 1 WATT

- Unregulated
- Short circuit protection
- 3000 VDC I/O-isolation
- ±10% Input 5 to 24 VDC
- 5.0 to 15 VDC
- 19.5×6×10 mm



TMV-EN

TBA 1HI

# 1 WATT

- Unregulated
- 4000 VDC I/O-isolation
- Cost optimized design
- ±10% Input 5 VDC
- 5 VDC output (single)
- 19.5×6×10 mm



**TEA 1HI** 

#### 1 WATT

- Unregulated
- 5200 VDC I/O-isolation
- ±10% Input 5 to 24 VDC
- 3.3 to 15 VDC
- 19.5×7.5×10.2 mm



#### TMV-HI

**TMV** 

#### 1 WATT

- Unregulated
- 3000 VDC reinforced I/O-isolation
- ±10 %Input 5 to 12 VDC
- 5.0 to 15 VDC
- 22.0×7.5×12.5 mm



TRV 1M

## 1 WATT

# **NEW**

TRI 1

- Unregulated
- 3000 VAC I/O-isolation rated for 480 VACrms working voltage (reinforced)
- 8000 VDC peak isolation (1s)
- ±10 % Input 5 to 24 VDC
- 5.0 to 15 VDC
- 21 × 12.5 × 7.5 mm



TRN 1

#### 1 WATT

- Semi regulation (load)
- 3000 VDC I/O-isolation
- ±10% Input 5 to 24 VDC
- 5.0 to 15 VDC
- 19.5 × 6.1 × 10.2 mm



#### TRV 1

#### 1 WATT

- Semi regulation
- Medical safety approval (2 × MOPP)
- 5000 VAC I/O-isolation (reinforced)
- ±10% Input 5 to 24 VDC
- 3.3 to 15 VDC
- 19.6×9.8×12.5 mm



TMU 2

#### 1 WATT

- Regulated
- 2:1/3:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- 11.9×7.7×11.0 mm



TMV 2HI

#### 1 WATT

- Regulated
- 2:1 Input 4.5 to 75 VDC
- 5.0 to 24 VDC
- 17.0×7.6×11.0 mm



# TMR 1

#### 2 WATT

- **NEW** under development
- Unregulated
- Short circuit protection
- 1500 VDC I/O-isolation
- ±10% Input 5 to 24 VDC 5 to 24 VDC output
- 11.3 × 7.6 × 10.4 mm



# 2 WATT

- Unregulated
- 5200 VDC I/O-isolation
- ±10% Input 5 to 24 VDC
- 3.3 to 15 VDC
- 19.5×7.1×10.2 mm



#### 2 WATT

- Unregulated Short circuit protection
- 1500 VDC I/O-isolation
- ±10% Input 5 to 24 VDC
- 5.0 to 15 VDC
- 19.5×7.6×10.2 mm



# TBA 2

#### 2 WATT

- Unregulated
- ±10% Input 5 to 24 VDC
- 5.0 to 15 VDC
- 19.5×7.5×10.2 mm



TMH 2 WATT

- Regulated 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC Remote On/Off
- 21.8 × 9.1 × 11.2 mm



TEC 2(WI)

# 2 WATT

- Regulated
- 2:1 Input 4.5 to 75 VDC
- 3.3 to 12 VDC
- Remote On/Off
- 21.8×9.2×11.1 mm



#### TMR 2

#### 2 WATT

- Regulated
- 4:1 Input 4.5 to 75 VDC
- 3.3 to 15 VDC
- Remote On/Off 21.8×9.3×11.2 mm



TMR 2WIN

#### 2 WATT

- Semi regulation
- Medical safety approval (2×MOPP) 5000 VAC I/O-isolation (reinforced)
- ±10% Input 5 to 24 VDC
- 3.3 to 15 VDC
- 19.6×9.8×12.5 mm



TEC 3(WI)

TRV 2M **NEW** 

## 3 WATT

- Unregulated
- Short circuit protection
- 1500 VDC I/O-isolation
- ±10% Input 5 to 24 VDC
- 5.0 to 15 VDC ■ 11.5 × 8.6 × 10.2 mm



#### TMU3 **NEW**

## 3 WATT

- Regulated 2:1/3:1 Input 4.5
- to 75 VDC 3.3 to 24 VDC
- 11.9×7.7×11.0 mm



#### TRN 3

# 3 WATT Regulated

- 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- Remote On/Off
- 21.8×9.1×11.2 mm



#### TEC 3UI

#### **NEW** under development

- Ultra wide 8:1 Input 9 to 75 VDC
- Regulated
- 3.3 to 15 Vout
- Remote On/Off
- 22.3 × 10 × 11.3 mm



#### 3 WATT

# **TMR 3(WI)**

- Regulated
- 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 15 VDC
- Remote On/Off
- 21.8×9.2×911.2 mm



# 3 WATT

# TMR 3HI

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



#### 3 WATT

# TVN<sub>3</sub>

- Ultra low ripple & noise
- 2:1/3:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC Remote On/Off
- 21.8×9.6×11.2 mm



#### 3 WATT

#### **■ TMR 3WIR**

#### 4 WATT

#### TMR 4(WI)

- Railway approval
- Regulated
- 3000 VDC I/O-isolation
- 4:1 Input 9 to 160 VDC
- 3.3 to 24 VDC
- 21.8×9.6×11.2 mm



#### Regulated

- 2:1 or 4:1 Input 9 to 75 VDC
- 5 to 24 VDC
- Remote On/Off
- 21.8×9.3×11.2 mm



#### 6 WATT

#### TEC 6

## **NEW** under development

- Regulated
- 2:1 Input 4.5 to 9 VDC
- 3.3 to 24 Vout
- Remote On/Off
- 22.3 × 10 × 11.3 mm



#### 6 WATT

#### TEC 6UI

#### 6 WATT **NEW** under development

# TMR 6(WI)

- Ultra wide 8:1 Input 9 to 75 VDC
- Regulated
- 3.3 to 24 Vout
- Remote On/Off
- 22.3 × 10 × 11.3 mm



TMR 8WI

Regulated

- 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- Remote On/Off
- 21.8×9.1×11.2 mm



#### 6 WATT

#### TMR 6WIR

- Railway approval
- Regulated 3000 VDC I/O-isolation
- 4:1 Input 9 to 160 VDC
- 3.3 to 24 VDC
- 21.8×9.6×11.2 mm



## 8 WATT

#### **NEW** under development

- Regulated
- 4:1 Input 4.5 to 75 VDC
- 5.0 to 24 Vout
- Wide temperature range
- Remote On/Off
- 21.8×9.6×12 mm



**TMR 12WI NEW** 

# 9 WATT

# TMR 9(WI)

- Regulated
- 2:1or 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC
- Remote On/Off
- 21.8×9.1×11.2 mm



#### **10 WATT**

#### **TMR 10WI**

#### **NEW** under development

- Regulated
- 4:1 Input 4.5 to 75 VDC
- 5.1 to 24 Vout Wide temperature range
- Remote On/Off 21.8 × 9.6 × 12 mm



#### **12 WATT**

## Regulated

- 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- Remote On/Off 22×9.6×12 mm



# **High Performance DC/DC Converters**

1 - 80 Watt

- Fully regulated outputs
- Single, dual (and triple) output models
- 1500 VDC I/O-isolation (standard)
- IT approval acc. to IEC/EN/UL 62368-1
- Operating temperature -40 to +85°C
- Opt. heat-sink for most >10 Watt models
- Remote On/Off control

## 1 WATT

- Unregulated
- Short circuit protection
- 1500 VDC I/O-isolation ±10% Input 5 to 24 VDC
- 5 to 15 VDC output
- 12.7×10.2×8.0 mm

# TDU 1 **NEW**

## 1 WATT

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



**TDN 1WI** 

## 2 WATT

- Compact design
- 2:1 Input 4.5 to 75 VDC
- 3.3 to 15 VDC
- 14.0×14.0×8.0 mm



TDL 2

#### **2 WATT** TDR 2(WI)

- Epoxy over-mold
- 2:1 or 4:1 Input 4.5 to 75 VDC
- 5.0 to 15 VDC
- 18.9×12.8×8.7 mm



- 2:1 Input 4.5 to 75 VDC
- 3.3 to 15 VDC

**2 WATT** 

- EN 55032 class A filter
- DIP-16 (23.8 × 13.7)



TEL 2

# 2 WATT

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



**TDN 3WI** 

THI 2M

#### 2 WATT

#### **•** TIM 2

- Medical safety approval
- 2:1/3:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- DIP-16 (24.3 × 14.4)



#### 3 WATT

- Compact design
- 2:1 Input 4.5 to 75 VDC
- 3.3 to 15 VDC
- 14.0×14.0×8.0 mm



THL 3WI

#### TDL 3 3 WATT

- Ultra compact design
- 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- 13.2×9.1×10.2 mm



#### 3 WATT

#### TDR 3(WI)

- Epoxy over-mold
- 2:1 or 4:1 Input 4.5 to 75 VDC
- 5.0 to 15 VDC
- 18.9 × 12.8 × 8.7 mm



#### 3 WATT

- 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-16 (23.8 × 13.7)



#### 3 WATT

## TEM 3N

- Cost down redesign
- ±10% Input 5 to 24 VDC
- 5.0 to 15 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



#### 3 WATT

#### TEN 3(WI)N

- Cost down redesign
- 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



# 3 WATT

- Railway approval
- 4:1 Input 36 to 160 VDC
- 3.3 to 24 VDC
- Reinforced Isolation
- DIP-24 (32×20.3)



THI<sub>3</sub>

**■ TEN 3WIRH** 

#### **3.5 WATT**

- 5000 VAC I/O-isolation rated for 1000 Vrms working voltage
- 2:1 Input 4.5 to 75 VDC
- 5 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



THP3

TRI3

#### 3 WATT

#### THR 3WI

- 3000 VAC I/O-isolation (reinforced)
- 4:1 Input 9 to 160 VDC
- 5 to 15 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



#### 3 WATT

- Regulated
- ±10% Input 5 to 24 VDC
- 5.0 to 15 VDC
- 2 x MOOP
- EN 55032 class A filter
- DIP-24 (32×20.3)



**H** TIM 3.5

## Regulated

- 4:1 Input 9 to 160 VDC
- 5.0 to 12 VDC
- 2 x MOOP

3 WATT

- EN 55032 class A filter
- DIP-24 (32×20.3)



#### 3 WATT

#### ⊕ THM 3(WI)

- Medical safety approval
- 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



TVN 5WI

#### **3.5 WATT**

- Medical safety approval
- 2:1/3:1 Input 4.5 to 75 VDC
- 5.0 to 24 VDC
- DIP-16 (24.3 × 14.4)



TEL 5

#### 5 WATT

- Highest power density
- 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- 13.2×9.1×10.2 mm



TMDC 06

**TDN 5WI** 

## 5 WATT

- Ultra low ripple & noise
- 4:1 Input 4.5 to 75 VDC
- 3.3 to 48 VDC ■ EN 55032 class B filter
- Case pin ■ DIP-24 (32×20.3)

# 5 WATT

- Cost optimized
- 2:1 Input 9 to 36 VDC 3.3 to 15 VDC
- DIP-24 (32×20.3)



## 6 WATT

# 4:1 Input 9 to 75 VDC

- 5.1 to 48 VDC
- EN 55032 class A filter
- Chassis/DIN-rail
- Screw terminal connection
- 53×34×26.5 mm



**TEL 6WI** 

#### 6 WATT

#### TMDC 06H

- 2:1 Input 80 to 160 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- Chassis/DIN-rail
- Screw terminal connection
- 53×34×26.5 mm



#### 6 WATT

- Cost efficient design
- 2:1 Input 9 to 75 VDC
- 5 to 24 VDC
- EN 55032 class A filter
- DIP-16 (24.3 × 14.4)

#### TEL 6 **NEW**

# 6 WATT

#### **NEW**

- Cost efficient design
- 4:1 Input 9 to 75 VDC
- 5 to 24 VDC
- EN 55032 class A filter
- DIP-16 (24.3 × 14.4)



#### 6 WATT

#### TEN 6(WI)N

- 2:1 or 4:1 Input 9 to 75 VDC 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



#### 6 WATT

#### **TEN 6WIN-HI**

- 3000 VDC I/O-isolation
- 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



#### 6 WATT

- Railway approval
- 4:1 Input 36 to 160 VDC
- 3.3 to 24 VDC
- Reinforced Isolation
- DIP-24 (32×20.3)



**■ TEN 6WIRH** 

#### 6 WATT

#### TRI6

- 5000 VAC I/O-isolation rated for 1000 Vrms working voltage
- 2:1 Input 9.0 to 75 VDC
- 5.0 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



#### 6 WATT

# THM 6(WI)

- Medical safety approval
- 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



#### 6 WATT

## Medical safety approval

- 2:1 Input 9 to 75 VDC
- 3.3 to 15 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



**■ TEN 8WI** 

TIM 6 **NEW** 

#### 8 WATT

#### TEL 8(WI)

- 2:1 or 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-16 (24.1 × 14)



#### 8 WATT

- 2:1 Input 9 to 75 VDC
- 3.3 to 15 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



TEL 10WI

#### TEN8 8 WATT

#### Railway approval

- 4:1 Input 9 to 160 VDC
- 3.3 to 15 VDC
- Increased EMC immunity
- DIP-24 (32×20.3)



#### **10 WATT**

#### Highest power density of 3.83 W/cm3

- 2:1 Input 9 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-16 (23.8 × 13.3)



#### **TEL 10 10 WATT**

- Highest power density of 3.83 W/cm3
- 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-16 (23.8 × 13.3)



#### **10 WATT**

# THD 10(WI)N

- 2:1 or 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



**■ TEN 10WIRH** 

#### **10 WATT**

#### **■ THN 10WIR**

- Railway approval EN 55032 class A filter
- 4:1 Input 9 to 160 VDC
- 3.3 to 24 VDC adjust. Increased EMC
- immunity ■ 1"×1"



#### **10 WATT**

- 10 watt DC/DC converter
- Railway

12:1 input 3000 VDC isolation

PCB-mount ■ 1"×1"



#### **■ THN 10UIR**

# **10 WATT**

- Railway approval 4:1 Input 36 to 160 VDC
- 3.3 to 24 VDC
- Reinforced Isolation
- DIP-24 (32 × 20.3)



⊕ THM 10(WI)

# **10 WATT**

#### TRI 10

#### **10 WATT**

#### THR 10WI

- 3000 VAC I/O-isolation (reinforced)
- 4:1 Input 9 to 160 VDC 5 to 24 VDC
- FN 55032 class A filter
- 2"×1"



#### **10 WATT**

- Medical safety approval
- 2:1 or 4:1 Input 4.5 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



- 2:1 Input 9 to 75 VDC
- 3.3 to 24 VDC
- EN 55032 class A filter

5000 VAC I/O-isolation rated for

1000 Vrms working voltage

■ DIP-24 (32×20.3)



- Chassis/DIN-rail
- Screw terminal connection
- 4:1 Input 9 to 75 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- 79×34×22 mm



# **10 WATT**

#### Chassis/DIN-rail

- Screw terminal connection
- 2:1 Input 80 to 160 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- 79×34×22 mm

#### TMDC 10H **12 WATT**

- Highest power density of 3.61 W/cm³
- 2:1 Input 9 to 75 VDC
- 5.1 to 24 VDC
- EN 55032 class A filter
- DIP-16 (23.8 × 13.3)



**TEL 12** 

#### **12 WATT**

#### TEL 12WI

**TMDC 10** 

- Highest power density
- of 3.61 W/cm3 4:1 Input 9 to 75 VDC
- 5.1 to 24 VDC
- EN 55032 class A filter
- DIP-16 (23.8 × 13.3)



**THN 15N** 

#### **12 WATT**

#### THD 12(WI)

- 2:1 or 4:1 Input 9 to 75 VDC
- 3.3 to 15 VDC
- EN 55032 class A filter
- DIP-24 (32 × 20.3)



#### **15 WATT**

#### THD 15(WI)N

- 2:1 or 4:1 Input 9 to 75 VDC
- 3.3 to 15 VDC
- EN 55032 class A filter
- DIP-24 (32×20.3)



#### **15 WATT**

- 2:1 Input 9 to 75 VDC
- 3.3 to 48 VDC adjust.
- EN 55032 class A filter
- 1"×1"
- Low no-load power consumption



#### **15 WATT**

- cost efficient design
- 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC adjust.
- EN 55032 class A filter
- 1"×1"



**THL 15WI** 

#### **15 WATT**

#### **THN 15WI**

- 4:1 Input 9 to 75 VDC
- 3.3 to 48 VDC adjust.
- 1"×1"
- Remote On/Off



**TEL 15WIN** 

#### **15 WATT**

#### **TEL 15N** NEW

- Highest power density 4.51 W/cm³
- 2:1 Input 9 to 75 VDC
- 5 to 24 VDC
- EN 55032 class A filter
- DIP-16 (23.8 × 13.7)



#### **15 WATT**

# **TEL 15N-HS**

- High temperature range, up to 70°C without derating
- 2:1 Input 9 to 75 VDC
- 5 to 24 VDC
- EN 55032 class A filter
- DIP-16 (24.4×14.3×24.4)



#### **15 WATT**

# NEW

- Highest power density of 4.51 W/cm³
- 4:1 Input 9 to 75 VDC
- 5 to 24 VDC
- EN 55032 class A filter
- DIP-16 (23.8 × 13.7)



**■ THN 15WIR** 

#### **15 WATT**

#### **TEL 15WIN-HS** NEW

- High temperature range, up to 70°C without derating
- 4:1 Input 9 to 75 VDC
- 5 to 24 VDC
- EN 55032 class A filter
- DIP-16 (24.4×14.3×24.4)



#### **15 WATT**

#### 4200 VAC I/O-isolation rated for 1000 Vrms working voltage

- 2:1 Input 9 to 75 VDC
- 5.1 to 24 VDC
- EN 55032 class A filter
- 2"×1"



#### **TRI 15**

**15 WATT** 

- Railway approval EN 55032 class A filter
- 4:1 Input 9 to 160 VDC
- 3.3 to 48 VDC adjust.
- Increased EMC immunity
- 1"×1"



THN 20(WI)

## **15 WATT**

#### **■ THN 15UIR** NEW

- 15 watt DC/DC converter
- Railway
- 12:1 input

3000 VDC isolation

PCB-mount ■ 1"×1"



#### **15 WATT**

#### **⊕** THM 15(WI)

- Medical safety approval
- 2:1 or 4:1 Input 9 to 75 VDC
- 5.0 to 24 VDC
- EN 55032 class A filter
- 1.6"×1"



#### **20 WATT**

- 2:1 or 4:1 Input 9 to 75 VDC
- 3.3 to 48 VDC adjust.
- EN 55032 class A filter
- 1"×1"



THR 20WI

## **20 WATT**

#### **TEN 20WIN**

#### **20 WATT**

- 4200 VAC I/O-isolation rated for 1000 Vrms working voltage
- 2:1 Input 9 to 75 VDC
- 5.1 to 24 VDC
- EN 55032 class A filter
- 2"×1"



#### TRI 20 **20 WATT**

# 3000 VAC I/O-isolation (reinforced)

- 4:1 Input 9 to 160 VDC
- 5 to 24 VDC
- FN 55032 class A filter
- 2"×1"



- 4:1 Input 9 to 75 VDC
- 3.3 to 15 VDC adjust. Remote On/Off
- 2"×1"



#### **■ THN 20WIR**

- Railway approval
- 4:1 Input 9 to 160 VDC 3.3 to 24 VDC adjust.
- Increased EMC immunity
- 1"×1"



# **20 WATT**

# **■ THN 20UIR**

- 20 watt DC/DC converter
- Railway
- 12:1 input
- 3000 VDC isolation
- PCB-mount
- 1"×1"



#### **20 WATT**

#### **■ TEN 20WIR**

- Railway approval
- EN 55032 class A filter
- 4:1 Input 9 to 160 VDC
- 3.3 to 15 VDC adjust.
- Increased EMC immunity
- 2"×1"



#### **20 WATT**

#### **■ TEN 20WIRH**

- Railway approval
- 4:1 Input 36 to 160 VDC
- 5.1 to 24 VDC
- Reinforced Isolation
- 16"×1"



#### **20 WATT**

#### THM 20(WI)

- Medical safety approval
- 2:1 or 4:1 Input 9 to 75 VDC
- 5.0 to 24 VDC
- EN 55032 class A filter
- 1.6"×1"



**■ TEQ 20WIR** 

#### **20 WATT**

## **TMDC 20**

- Chassis/DIN-rail
- Screw terminal connection
- 4:1 Input 9 to 75 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- 3.8"×2.1"×0.9"



#### **20 WATT**

#### TMDC 20H

- Chassis/DIN-rail
- Screw terminal connection
- 2:1 Input 80 to 160 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- 3.8"×2.1"×0.9"

#### **20 WATT**

- Railway approval
- EN 55032 class B filter
- 4:1 Input 9 to 160 VDC
- 5.0 to 24 VDC adjust.
- Increased EMC immunity
- Temp. range -40 to 93°C
- 4.1"×2.3"×1"

#### **25 WATT**

#### THL 25(WI)

- 2:1 or 4:1 Input 9 to 75 VDC
- 3.3 to 15 VDC adjust.
- Remote On/Off
- 1"×1"



#### 30 WATT

- 2:1 Input 9 to 75 VDC
- 3.3 to 15 VDC adjust.
- Remote On/Off
- 2"×1"



#### **TEN 30 30 WATT**

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



**TEN 30WIN** 

#### **30 WATT**

# **■ TEN 30UIR**

- 30 watt DC/DC converter
- Railway
- 12:1 input
- 3000 VDC isolation
- PCB-mount
- 2"×1"



**■ THN 30WIR** 

#### **30 WATT**

- 2:1 or 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC adjust.
- Remote On/Off



#### THN 30(WI)

- - High power density 4:1 Input 9 to 75 VDC 3.3 to 24 VDC adjust.
  - EN 55032 class A filter 1" x 1"

**30 WATT** 



#### THL 30WI **NEW**



#### **30 WATT**

- Railway approval
- 4:1 Input 9 to 160 VDC
- 3.3 to 24 VDC adjust.
- Increased EMC immunity
- 1"×1"



**TEN 40(WI)E** 

#### **30 WATT**

#### ⊕ THM 30(WI)

- Medical safety approval
- 5.0 to 24 VDC
- EN 55032 class A filter
- 2"×1"



#### **40 WATT**

#### **NEW** under development

- 4:1 Input 9 to 75 VDC
- 5 to 24 VDC adjust.
- Highest power density Remote On/Off
- and Trim 1" × 1"



**■ TEN 40WIR** 

#### THL 40WI

# **40 WATT**

- 2:1 or 4:1Input 9 to 75 VDC
- 3.3 to 24 VDC adjust. Maximized quality in a cost efficient design
- Remote On/Off
- 2"×1"



- 3000 VAC I/O-isolation (reinforced)
- 4:1 Input 36 to 160 VDC 5 to 24 VDC
- 2"×1"



## **40 WATT**

- Railway approval
- 4:1 Input 9 to 160 VDC 3.3 to 48 VDC adjust.
- Increased EMC immunity
- 2"×1"



## **40 WATT**

#### **TEN 40WIRH**

- Railway approval
- 4:1 Input 36 to 160 VDC
- 5.1 to 24 VDC
- Reinforced Isolation
- 2"×1"



#### **40 WATT ■ TEN 40UIR 40 WATT NEW** 40 watt DC/DC converter ■ EN 55032 Railway ■ 12:1 input 3000 VDC isolation ■ PCB-mount ■ 2"×1" **40 WATT** TMDC 40H **50 WATT**

**■ TEQ 40WIR** 

- Railway approval
- class B filter
- 4:1 Input 9.5 to 160 VDC
- 5.0 to 24 VDC adjust.
- Increased EMC immunity
- 4.1"×2.3"×1"

**40 WATT TMDC 40** 

- Chassis/DIN-rail
- Screw terminal connection
- 4:1 Input 9 to 75 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- 4.4"×2.5"×1"



- Chassis/DIN-rail
- Screw terminal connection
- 2:1 Input 80 to 160 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- 4.4"×2.5"×1"



- 2:1 or 4:1 Input 9 to 75 VDC
- 3.3 to 24 VDC adjust.
- Over temperature protection
- Remote On/Off
- 2"×1"



**TEN 50(WI)** 

**60 WATT** 

**TEN 60(WI)N** 

- 2:1 or 4:1 Input 9 to 75 VDC
- 5.0 to 48 VDC adjust.
- EN 55032 class A filter
- 2"×1"



**60 WATT** 

**■ TEN 60WIR** 

- 4:1 Input 9 to 160 VDC
- 5 to 48 VDC adjust.

Railway approval

- Increased EMC immunity
- 2"×1"



TMDC 60H

**60 WATT** 

- THM 60WI
- Medical safety approval 2×MOPP
- 4:1 Input 9 to 75 VDC
- 5.0 to 24 VDC adjust.
- 2.3"×1.45"×0.5"



**60 WATT** 

TMDC 60

- Chassis/DIN-rail
- Screw terminal connection
- 4:1 Input 9 to 75 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- 4.4"×2.7"×1.5"



**60 WATT** 

■ Chassis/DIN-rail

- Screw terminal connection
- 2:1 Input 80 to 160 VDC
- 5.1 to 48 VDC
- EN 55032 class A filter
- 4.4"×2.7"×1.5"



**80 WATT** 

# **TEN 80WI**

- 4:1 Input 9 to 75 VDC
- 5 to 48 VDC adjust.
- Highest power density
- Remote On/Off and Trim
- 2"×1"



High Power DC/DC Converters / RIA12 Surge Filters

TFI

40 – 300 Watt

- Excellent thermal management
- EN 55032 class A (chassis models)
- Increased EMC immunity
- Entire protective structure
- Control functions
- Wide selection of options

0-300 WATT

RIA 12, NF F01-510 Surge Filter

- Clamps overvoltage transients (up to 385 VDC) at 168 VDC
- Wide input 43 to 160 VDC
- Brownout voltage 36 VDC min.
- DIP-24 or 1.6"×1"

- **40 WATT** 
  - Railway approval
  - Ultra wide 12:1 Input 9 to 160 VDC
  - 5 to 53 VDC adjust.
  - PCB mount
  - 2.3"×1.45"×0.5"



**TEP 100** 

**■ TEP 40UIR** 

**60 WATT** 

- Railway approval Ultra wide 12:1 Input 9 to 160 VDC
- 5 to 53 VDC
- PCB mount
- 2.3"×1.45"×0.5"



**■ TEP 60UIR** 

**75 WATT** 

**■ TEP 75WI** 

- Railway approval 4:1 Input 9 to 160 VDC
- 5.0 to 48 VDC adjust.
- PCB / chassis / DIN-rail
- 2.4"×2.3"×0.5"



- **100 WATT**
- 2:1 Input 9 to 75 VDC
- 3.3 to 48 VDC adjust. PCB / chassis /
- DIN-rail ■ 2.4"×2.3"×0.5"



**100 WATT** 

**■ TEP 100UIR** 

- Railway approval
- Ultra wide 12:1 Input 9 to 160 VDC
  - 5 to 53 VDC
  - PCB mount
  - 2.3"×1.45"×0.5"



#### **100 WATT ■ TEP 100WIR**

- Railway approval
- PCB/chassis/



#### **100 WATT**

#### **■ TEQ 100WIR**



#### **■ TEP 150WI**

- 4:1 Input 9.0 to 160 VDC
- 5.0 to 48 VDC adust.
- DIN-rail
- 2.4"×2.3"×0.5"



- Railway approval
- 85°C full load operation
- 4:1 Input 10.0 to 160 VDC
- 12 to 48 VDC adust.
- UL 508 approval
- 3"×4"×3.5"



**TEP 160** 

#### CV / CC for battery charging

- Railway approval
- 4:1 Input 9 to 160 VDC
- 12 to 48 VDC adust.
- EN 55032 class B (opt.)
- 98×65×38 mm



#### **150 WATT**

# **■ TEP 150UIR**

- Railway approval
- Ultra wide 10:1 Input 16 to 160 VDC
- 5 to 53 VDC
- PCB mount
- 2.4"×2.3"×0.5"



#### **160 WATT**

- 2:1 Input 16.5 to 75 VDC
- 12 to 53 VDC adust.
- PCB / chassis / DIN-rail
- Soft start
- 2.4"×2.3"×0.5"



#### **160 WATT**

# **■ TEP 160WIR**

- Railway approval
- 4:1 Input 9.0 to 160 VDC
- 12 to 53 VDC adust.
- PCB/chassis/ DIN-rail
- 2.4"×2.3"×0.5"



#### **160 WATT**

#### **■ TEQ 160WIR**

- Railway approval
- 75°C full load operation
- 4:1 Input 19 to 160 VDC
- 12 to 48 VDC adust.
- UL 508 approval
- 3"×4"×3.5"



#### **200 WATT**

#### **■ TEP 200WIR**

- Railway approval
- 4:1 Input 9.0 to 160 VDC
- 12 to 53 VDC adust.
- Chassis mount / PCB
- DIN-rail mount opt. 2.4"×2.3"×0.5"



**■ TEQ 300WIR** 

#### **200 WATT**

#### **■ TEP 200UIR NEW**

- Railway approval
- Ultra wide 10:1 Input 16 to 160 VDC
- 5 to 53 VDC
- PCB mount
- 2.4"×2.3"×0.5"



#### **200 WATT**

- **TEQ 200WIR**
- Railway approval
- 70°C full load operation
- 4:1 Input 19 to 160 VDC 12 to 48 VDC adust.
- UL 508 approval
- 3"×4"×3.5"



## **300 WATT**

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

# Industrial DIN-Rail Mount DC/DC Converters

20 - 300 Watt

- DC/DC modules designed for DIN-Rail mount
- DC/DC modules with optional mounting kit for DIN-Rail mount

#### 24-60 WATT

#### Slim plastic casing

- UL 508 approval 4:1 Input 9.5 to 75 VDC
- 5.0 to 24 VDC
- EN 55032 class B filter
- 75×100×27/45 mm

# TCL-DC

#### 20-60 WATT

#### **TMDC Series**

Mounting kit for Modules TMDC 20 TMDC 40 TMDC 60



Mounting kit for all **TEQ Series models** (not on picture: TEQ 20WIR. **TEQ 40WIR** and TEQ 300WIR)



#### 20-300 WATT

#### **Industrial High Power Converters**

- DC/DC & AC/DC converters up to 40 kW
- DC/AC inverters up to 45 kVA
- AC/AC static switches up to 10 kVA
- Eurocassette, 19" Plug-in Modules, wall/chassis mount or DIN-Rail mount
- IEC/EN/UL 62368-1 approvals
- Modular options and customised solutions

150 Watt - 40 kW / 45 kVA

#### 150-5000 WATT

**TSC** 

#### 5-40 kW

**TSC 19** 

200 VA-45 kVA **TSD** 

- 19" plug-in /chassis / DIN
- 5 to 400 VDC
- Input 10 to 800 VDC or AC input
- Entire protection circuit
- Individual power solutions
- 19" sub rack 5 to 800 VDC
  - Input 40 to 800 VDC or AC input
  - Entire protection circuit
  - Individual power solutions



- AC output with true sine wave
- Single and three phase
- 10 to 800 VDC input models
- AC input for frequency conversion
- Configurable for individual power solutions



#### **Encapsulated AC/DC Power Modules**

3 - 100 Watt

- Universal input (85-264 VAC)
- EN 55032 class B filter

■ EN 60335-1 (household)

■ ErP ready

- IEC/EN/UL 62368-1 approvals
- Start-up temperature -40°C for several series

#### 3 WATT

PCB mount

■ 3.3 to 24 VDC

■ 1"×1"×0.6"

#### ↑ TMPS 03

- 4 WATT
- PCB mount
- 3.3 to 24 VDC
- Single and dual
- Compact design



**TMLM 04** 

#### 5 WATT

↑ TMPS 05

- PCB mount
- EN 60335-1 (household)
- 3.3 to 48 VDC
- 1"×1"×0.6"



# 5 WATT

#### ↑ TMPW 5

- Extended input 90 to 305 VAC EN 60335-1 (household)
- PCB mount
- 3.3 to 24 VDC
- 1.45"×1.08"×0.7"



#### 5 WATT

#### ↑ TMPW 5-J/-T

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- Chassis mount
- 3.3 to 24 VDC
- 2.17"×1.08"×0.91"



# **10 WATT**

- PCB mount
- Inc. EMC immunity
- EN 60335-1 (household)
- 3.3 to 48 VDC
- Ultra-compact design 1.5"×1"×0.6"



TMPS 10

#### **10 WATT**

■ PCB mount

5 to 24 VDC

■ 1.45"×1.08"×0.8"

#### ★ TMPW 10

#### **10 WATT**

#### ★ TMPW 10-J/-T

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- Chassis mount
- 5 to 24 VDC
- 2.17"×1.08"×0.91"



TMPS 15

#### **15 WATT**

#### **TMPW 15 NEW** under development

- Extended input 90 to 305 VAC
- EN 60335-1 (house
- PCB mount
- 5 to 48 VDC
- 1.8"×1.1"



#### **15 WATT**

#### TMPW 15-J/-T

## **NEW** under development

Extended input 90 to 305 VAC

Extended input 90 to 305 VAC

EN 60335-1 (household)

- EN 60335-1 (household)
- Chassis mount
- 5 to 48 VDC
- 2.7"×1.35"



#### **15 WATT**

- PCB mount
- Inc. EMC immunity
- EN 60335-1 (household)
- 3.3 to 48 VDC
- 2.06"×1.07"×0.93"



#### 15 WATT

- Medical safety approval
- Chassis mount with JST connectors
- 3.3 to 48 VDC
- EN 60335-1
- 2.82"×1.14"×0.82"



★ TPP 15-J

#### **☆ ⊕** TPP 15-D

#### 4-24 WATT

#### **☆**♥♥ TIW

#### **25 WATT**

#### ↑ TMPW 25

- Medical safety approval
- PCB mount
- 3.3 to 48 VDC
- EN 60335-1
- 1.65"×1.14"×0.85"



- IP67 casing w. flying leads
- Fire safety for furniture
- FN 60335-1 (household)
- 3.3 to 24 VDC
- Mount in flush boxes



- Extended input 90 to 305 VAC EN 60335-1 (household)
- PCB mount
- 5.1 to 24 VDC
- 2.07"×1.08"×0.9"



#### **25 WATT**

#### ↑ TMPW 25-J/-T

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- Chassis mount
- 5.1 to 24 VDC
- 3.48"×1.08"×0.95"



#### 5-30 WATT

- Medical safety approval
- **PCB** mount
- Fully encapsulated
- Highest power density

Medical safety approval

Mount in flush boxes

IP68 casing w. flying leads

Fire safety for furniture

- 5 to 24 VDC
- Single output



◆ TMF

#### **30 WATT**

- Medical safety approval
- Chassis mount with JST connectors
- 3.3 to 48 VDC
- EN 60335-1
- JST connection
- 3.95"×1.5"×1.0"



↑ TPP 30-J

#### **30 WATT**

#### ★ TPP 30-D

- Medical safety approval PCB mount, throughole
- 3.3 to 48 VDC
- EN 60335-1
- 2.89"×1.5"×1.0"



#### 24-36 WATT

EN 60335-1

(household) ■ 5 to 24 VDC

# **☆** ⊕ ♥♥ TMW

#### 40 WATT

## ★ TMPW 40

#### **NEW** under development Extended input 90 to 305 VAC

- EN 60335-1 (household)
- PCB mount
- 5 to 48 VDC
- 2.52" × 1.8" × 0.9"



TPP 40E-J

#### 40 WATT

#### ↑ TMPW 40-J/-T **NEW** under development

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- Chassis mount
- 5 to 48 VDC
- 3.48" × 1.84" × 1.0"



#### **40 WATT**

- Medical safety approval
- 5.0 to 48 VDC
- Protection class II
- PCB mount ■ 3.2"×2.2"×1.2"



↑ TMPW 50

TPP 40E-D

**40 WATT** 

- Medical safety approval
- 5.0 to 48 VDC (adj.)
- Protection class II
- IST connection
- 4.3"×2.2"×1.2



☆ TMPW 50-J/-T

#### 7-50 WATT

- PCB mount
- Compact design 3.3 to 48 VDC
- Safety class II prepared



#### TMG

#### **50 WATT**

- Extended input 90 to 305 VAC EN 60335-1 (household)
- **PCB** mount
- 12 to 24 VDC
- 2.92"×1.85"×0.9"

#### **50 WATT**

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- Chassis mount
- 12 to 24 VDC
- 3.81"×1.85"×1'



#### 7-60 WATT

- PCB mount
- Industr. EMC immunity
- 3.3 to 48 VDC
- Single, dual, triple



#### **TMP**

#### 15-60 WATT

- Chassis mount
- Ind. EMC immunity 5.0 to 48 VDC
- Single, dual, triple UL 508 approval
- DIN-Rail clip



TMP-C

#### 20-40 WATT

- PCB / chassis Single, dual, triple
- 3.3 to 24 VDC
- Protection class II for TML 40



**TML** 

#### 24-60 WATT

PCB mount

Low profile

5.0 to 48 VDC

Fully encapsulated



#### **TMM**

#### 24-60 WATT

Chassis mount

Fully encapsulated

Single / dual output

- Low profile
- 5.0 to 48 VDC
- UL 508 approval
- DIN-Rail clip



#### TMM-C **60 WATT**

#### ↑ TMPW 60 **NEW** under development

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- PCB mount
- 12 to 48 VDC
- 2.92"×1.85"×0.9"



#### **60 WATT** ↑ TMPW 60-J/-T

#### **NEW** under development

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- Chassis mount
- 12 to 48 VDC
- 3.81"×1.85"×1"



- Medical safety approval
- 5.0 to 48 VDC

**65 WATT** 

- Protection class II
- PCB mount
- 3.2"×2.2"×1.2"



**⊕** TPP 65E-D

#### **65 WATT**

- **•** TPP 65E-J
- Medical safety approval
- 5.0 to 48 VDC (adj.)
- Protection class II
- JST connection
- 4.3"×2.2"×1.2"



**TML 100C** 

#### **80 WATT**

#### ↑ TMPW 80

#### **NEW** under development

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- PCB mount
- 12 to 48 VDC
- 3.2"×1.85"×1.06"



#### **80 WATT**

#### ↑ TMPW 80-J/-T

# **NEW** under development

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- Chassis mount 12 to 48 VDC
- 4.0"×1.9"×1.1"



#### **100 WATT**

#### Chassis mount

- Active PFC
- 12 to 48 VDC
- 140×60×37 mm



#### **100 WATT**

#### ↑ TMPW 100

#### **NEW** under development

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- PCB mount
- 12 to 48 VDC
- 3.5"×2.05"



#### ↑ TMPW 100-J/-T **100 WATT**

#### **NEW** under development

- Extended input 90 to 305 VAC
- EN 60335-1 (household)
- Chassis mount
- 12 to 48 VDC
- 4.57"×2.2"



## Metal Enclosure and Open Frame Power Supplies

#### 15 - 1000 Watt

- Excellent thermal management
- Universal input (85-264 VAC)
- EN 61000-3-2 compliant
- IEC/EN/UL 62368-1 approvals
- EN 55032 class B filter
- ErP readv

## 15-200 WATT

- Cost optimized design
- Fanless operation
- 3.3 to 48 VDC adjust.



#### **TXM** 18-960 WATT

- 3.3 to 48 VDC adjust.
- Single, dual, triple
- < 200 Watt fanless</p>
- Active PFC > 0.95
- Screw terminal block



**TXLN** 

#### 25-1000 WATT

#### **TXN NEW** under development

- Cost optimized design
- 3.3 to 48 VDC adjust.
- Up to 200 Watt fanless
- Active PFC >0.95
- Screw terminal block



#### **15 WATT**

Ultra compact

3.3 to 48 VDC

JST connection ■ 2.6"×1"×0.73"

EN 60335-1

#### ↑ TPP 15A-J

- **15 WATT**
- Medical safety approval
- Ultra compact
- 3.3 to 48 VDC EN 60335-1
- PCB mount
- 1.5"×1"×0.82"



#### **30 WATT**

# **TPI 30A-J**

- Ultra compact
  - Peak power up to 40 Watt
  - 3.3 to 53 VDC
  - JST connection
  - 3.34"×1.36"×0.8"



TPP 40A

## **30 WATT**

- ♠ TPP 30A-J
- Medical safety approval

Medical safety approval

- Ultra compact
- 3.3 to 48 VDC
- EN 60335-1 JST connection
- 3.34"×1.36"×0.88"



#### **30 WATT**

- Medical safety approval
- Ultra compact
- 3.3 to 48 VDC
- EN 60335-1 PCB mount
- 2.74" × 1.36" × 0.95'



★ ● TPP 30A-D

#### **40 WATT**

- Medical safety approval 5.0 to 48 VDC adjust.
- Protection class I & II
- JST connection ■ 3"×2"×1.05"

#### **TPP 40**

#### **TXO 45**

#### **TPI 50A-J NEW**

- Medical safety approval
- 5.0 to 24 VDC adjust.
- Single, dual, triple
- Protection class I & II
- 3.5"×2.4"×1.3" mm

5.0 to 48 VDC (adj.)

Screw terminals

Opt.: DIN-rail, pin con.



## **NEW** under development

- Cost optimized design 12 to 48 Vout (adj.)
- Protection class II
- JST connection
- 3"×2"×1.1"

**45 WATT** 



# **50 WATT**

- Ultra compact Peak power up to 70 Watt
- 5.0 to 48 VDC
- Protection class II
- JST connection
- 3"×1.5"×1.2"



#### **60 WATT**

■ 3"×1.7"

#### **TXH 060**

#### **60 WATT**

# **TXO 60**

#### **NEW** under development

- Cost optimized design
- 12 to 48 Vout (adj.)
- Protection class II
- JST connection
- 3"×2"×1.1"



#### **65 WATT**

#### TPI 65A-J

- Ultra compact
- Peak power up to 90 Watt
- 5.0 to 53 VDC
- Protection class I & II
- IST connection
- 3"×2"×1.1"



#### **65 WATT**

#### TPP 65A

- Medical safety approval
- 5.0 to 48 VDC (adj.)
- Protection class I & II
- JST connection
- 3"×2"×1.1"



#### **65 WATT**

- Medical safety approval
- 5.0 to 24 VDC (adj.)
- Single, dual, triple
- Protection class I & II
- $3.5" \times 2.5" \times 1.3"$
- Opt.: DIN-rail, pin con.



**TPI 100A** 

**TXO 120** 

**TXO 150** 

TPP 65

#### **100 WATT**

#### **TOP 100**

- 5.0 to 48 VDC (adj.)
- Protection class I & II
- Pin connection
- 4"×2"×1.2"



#### **100 WATT**

- 5.0 to 48 VDC (adj.)
- Protection class I & II
- Pin connection
- 4.5"×2.5"×1.5"



# **100 WATT**

- 12 to 48 VDC (adj.)
- Protection class I & II
- 3"×2"×1.3"
- Opt.: Casing



#### **100 WATT**

# TPP 100A

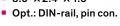
- Medical safety approval
- 12 to 48 VDC (adj.)
- Protection class I & II
- JST connection
- 3"×2"×1.3"



#### **100 WATT**

# **TPP 100**

- Medical safety approval
- 12 to 48 VDC (adj.)
- Protection class I & II
- 3.6"×2.4"×1.5"





#### **120 WATT**

## **NEW** under development

- Cost optimized design
- 12 to 48 Vout (adj.)
- Protection class II
- JST connection 3"×2"×1"



#### **125 WATT**

#### TPI 125A-J

- Ultra compact
- Peak power up to 150 Watt
- 5.0 to 48 VDC
- Protection class II
- JST connection ■ 3"×2"×1.2"



**TPI 150A** 

#### **130 WATT**

#### TCI 130 NEW

- Unique conduction cooled design
- 12 to 48 VDC
- Protection class II OVC III
- JST connection ■ 3"×2.35"×1.70"



#### **150 WATT**

## **NEW** under development

- Cost optimized design 12 to 48 Vout (adi.)
- Protection class II
- JST connection 4"×2"×1.45"



#### **150 WATT**

- 12 to 48 VDC (adj.)
- Protection class II ■ 4"×2"×1.3"
- (opt. casing) JST connection



**TPI 180A-M** 

## **150 WATT**

#### TPP 150A

- **150 WATT** 
  - Medical safety approval
  - 12 to 48 VDC (adj.) Protection class I & II
  - 4.6"×2.4"×1.9"
  - Opt.: DIN-rail, pin con.



**TPP 150** 

## **180 WATT**

- Ultra compact design
- 12 to 48 VDC (adj.)
- Protection class I & II
- Contr. & monitor signals
- 3"×2"×1.3"



- Medical safety approval



#### TPI 180-M

## ● TPP 180A-M

## ⊕ TPP 180-M

- Ultra compact design
- 12 to 48 VDC (adj.)
- Protection class I & II
- Contr. & monitor signals
- 3.6"×2.44"×1.5"



- Medical safety approval
- Ultra compact design
- 12 to 48 VDC (adj.)

**180 WATT** 

- Protection class I & II
- Contr. & monitor signals
- 3"×2"×1.3"



## Medical safety approval

**180 WATT** 

- Ultra compact design
- 12 to 48 VDC (adj.)
- Protection class I & II
- Contr. & monitor signals
- 3.6"×2.44"×1.5"



#### **200 WATT**

#### **TXO 200**

#### **NEW** under development

- Cost optimized design
- 12 to 48 Vout (adj.)



#### 120-480 WATT

- 12 to 48 VDC (adj.)
- Compact low profile
- Screw terminals



#### **200 WATT**

# **TOP 200**

- 12 to 48 VDC
- Protection class I & II
- Remote On/Off
- 5"×3"×1.3"



#### **200 WATT**

#### **TOP 200C**

- 12 to 48 VDC
- Protection class I & II
- Remote On/Off
- 5.5"×3.5"×1.5"



#### **240 WATT**

## TCI 240

#### **NEW**

TXH

#### Unique conduction cooled design

- 12 to 48 VDC
- Protection class II
- OVC III
- JST connection
- 4.1"×2.46"×1.54"

TPI 300L-M

## **250 WATT**

#### TPP 250A

#### **NEW** under development

- Medical safety approval
- Ultra compact design
- 12 to 48 VDC (adj.)
- Protection class I & II
- Contr. & monitor signals
- 4"×2"



#### **300 WATT**

# **TXO 300**

- **NEW** under development
- Cost optimized design
- 12 to 48 Vout (adj.) ■ Protection class II
- IST connection
- 5"×3"×1.72"



## **300 WATT**

#### Ultra compact design

- 12 to 48 VDC (adj.)
- Protection class I & II
- Contr & monitor signals
- 4.6"×2.44"×1.3"

**300 WATT** 



TPP 300-M

#### **300 WATT**

## TPI 300-M

- Ultra compact design
- 12 to 48 VDC (adj.)
- Protection class I & II

Medical safety approval

12 to 53 VDC (adj.)

Contr. & monitor signals

5"×3"×1.6"

Protection class I & II

Contr. & monitor signals

**450 WATT** 

4.6"×2.4"×2.32"



TPP 450BA

#### **300 WATT**

#### ⊕ TPP 300A-M

- Medical safety approval
- Ultra compact design
- 12 to 48 VDC (adj.) ■ Protection class I & II
- Contr. & monitor signals
- 4"×2"×1.3"



**450 WATT** 

- **•** TPP 450
- Medical safety approval
- 12 to 53 VDC (adj.)
- Protection class I & II Contr. & monitor
- signals ■ 5.8"×3.2"×1.6"
- Fan



#### **500 WATT**

signals

## **TXO 500**

- Cost optimized design
- Protection class II
- 6"×4"×1.52"



■ 4.6"×2.4"×2.32"

## **NEW** under development

- 12 to 48 Vout (adi.)
- JST connection



#### **500 WATT**

#### **TCI 500 NEW**

**TPI 700** 

**NEW** 

Unique conduction cooled design

12 VDC auxiliary output for fan

- 12 to 48 VDC
- Protection class II
- OVCIII
- JST connection
- 5.1"×3.26"×2.45



# **500 WATT**

#### TCI 500-U **NEW**

#### Unique conduction cooled design

- 12 to 48 VDC
- Protection class II OVC III
- JST connection
- 5.1"×3.26"×1.57"



#### **600 WATT**

- **NEW** under development Medical safety approval
- Ultra compact design
- 24 to 48 VDC (adj.) Protection class I & II
- Contr. & monitor signals
- 5"×3"×1.5"



**TPP 600A** 

#### **700 WATT**

- Compact design
- 12 to 48 VDC Protection class II
- Standby power
- Screw terminals



TPP 850A

- Medical safety approval
- Ultra compact design
- 24 to 48 VDC (adj.)
- Protection class I & II
- Contr. & monitor signals
- 6"×4"×1.5"



## 1000 WATT

- Compact design
- 12 to 48 VDC
- Protection class II
- OVC III
- Standby power
- Screw terminals
- 7.66"×4.02"×1.6"



**TPI 1000** 

#### **Outdoor Power Supply**

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

#### **120 WATT**

**TEX 120** 

- 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**

6-600 Watt

- Universal input (85-264 VAC)
- EN 55032 class B filter
- 3-Phase input for TSP 3P models
- International safety approval package including IEC/EN/UL 62368-1 and **UL508**

#### 15-60 WATT

- Fully encapsulated 5.0 to 48 VDC
- Single, dual, triple
- Low profile



**TCL** 



#### 15-150 WATT

- Low profile plastic casing
- 5.0 to 24 VDC
- NEC class II (up to 90 W)
- DC-OK signal



#### TBL 6-90 WATT

**☆ TBLC** 

- Low profile plastic casing
- 5.0 to 24 VDC
- High efficiency
- ErP-ready
- UL 1310 (NEC class II)
- EN 60335-1 (household)



#### 24-240 WATT

Slim plastic casing

- 5.0 to 48 VDC adjust. Screw or spring
- clamp connection DC-OK signal



#### 30-120 WATT

- Robust plastic casing
- 5.0 to 48 VDC adjust.
- ErP-readv
- DC-OK signal



**TPC** 

#### 80-480 WATT

Rugged metal casing

- Cost optimized design
- 12, 24, 48 VDC output
- High efficiency
- Active PFC
- Alternative side mounting



**TIB** 

**TSP** 

TIB-EX

#### 50-480 WATT

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



**TSPC** 

#### 72-600 WATT

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



## 80-480 WATT

 UL HazLoc Class I, division 2 and ATEX certification

- Rugged metal casing
- 12, 24, 48 VDC output
- Cost optimized design High efficiency
- Active PFC



#### 180-600 WATT

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



## UPS Systems and Function Modules (DIN-Rail and Industrial Cabinets)

72 - 600 Watt

- System modules for Charging, Buffering, Powersharing, Redundancy, Oring or Freewheeling
- Modules with battery interfaces providing fully integrated fail save DC power solutions (UPS)
- Solutions for further upgrading TRACO POWER power supplies or function modules

#### **UPS SYSTEM**

#### **240 WATT** TSPC 240UPS

- Power Supply with integrated Battery management module
- 24 VDC output, tightly reg. also in power fail mode
- Use with 12 VDC battery



#### **BATTERY CONTROLLER MODULES**

#### **360 WATT** TSP-BCMU360

- Universal module
- For 24 & 48 VDC, tightly reg. also in power fail mode
- Use with 12 VDC battery
- No remote link to PS
- Also for redundant operation



#### 72-600 WATT **TSP-BCM**

- TSP Series access & module
- For 12, 24, 48 VDC models



#### **240 WATT** TIB-BCMU240

- Universal module
- For 24 VDC, tightly reg. also in power fail mode
- Use with 24 VDC battery
- No remote link to PS
- For redundant operation



#### **BUFFER MODULE**

#### **600 WATT**

- **TSP-BFM**
- Universal module
- For any 24 VDC source
- 120 Ws buffer energy
- No batteries
- No remote link to PS



#### **REDUNDANCY MODULES**

## **240 WATT**

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



#### **480 WATT**

#### TIB-REM480

**NEW** under development

- Redundancy module
- For 12-54 VDC
- 2 inputs, 20 A nom.
- >99% efficiency
- No remote link to PS
- Convection cooled



#### TCL-REM

## 360-600 WATT

#### **TSP-REM**

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



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





TRACO POWER dedicated to design and production of high quality, state-of-the-art DC/DC & AC/DC power conversion products. 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 25+ 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.

# Our other selection guides / catalogues









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