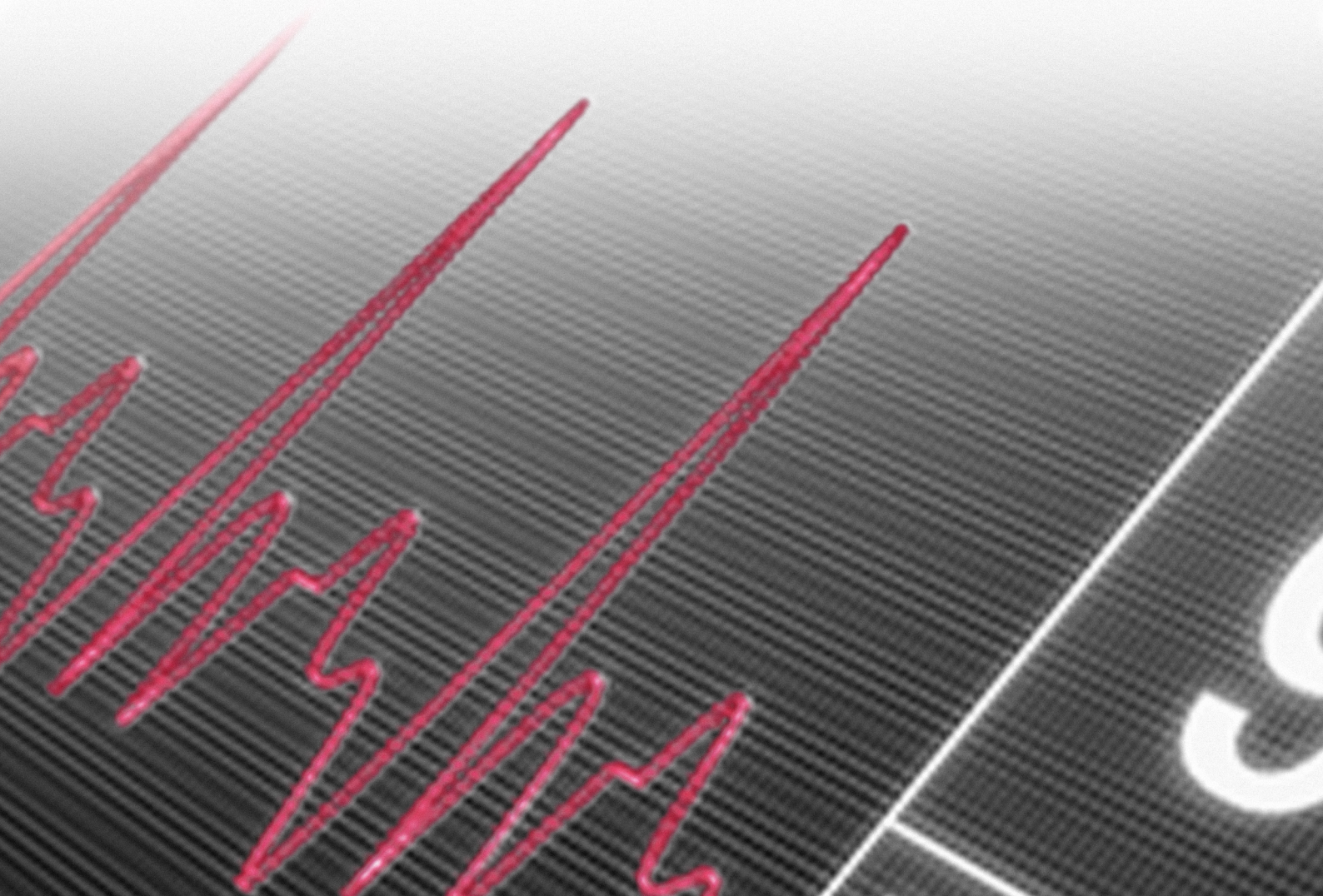


Product Portfolio 2017

Medical



TRACO POWER products for applied versus non-applied medical requirements

For non-applied parts sections of medical equipment, power and safety requirements can be satisfied by any of Traco Power power supplies, non-medical for 1×MOOP applications and medical rated power supplies for all other MOPP levels. If this part of the system is attaching to a DC input from a non-medical rated power supply, then use of our DC/DC Converters should satisfy safety requirements for 1×MOPP / 2×MOPP applications.

For applied parts sections of medical equipment, the clearance and creepage distances, as well as a secondary isolation barrier are required to further isolate the patient from potentially high voltages (2×MOPP is means of patient protection). The isolation barrier may be satisfied using Traco Power medical rated 2×MOPP AC/DC power supplies or DC/DC converters. Even this reinforced insulation system does not unconditionally qualify a power supply unit and DC/DC converter for medical applications. Particular and collateral standards also require that a risk/quality management System be in place at the component level, especially for safety critical applications.

TRACO POWER products for applied parts applications with a 2×MOPP rating, have been carefully designed and manufactured to the highest standards to meet the increased quality, reliability and safety standards for medical equipment. These products have fully regulated output voltages and feature:

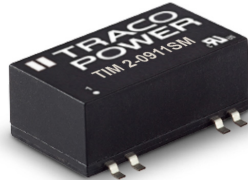
- Product certification according to IEC/EN/ES 60601-1 3rd edition for 2×MOPP
- Risk management process according to ISO 14971 including risk management file
- Acceptance criteria for electronic assemblies according to IPC-A-610 Level 3
- Design and production to ISO 13485 quality management system (certification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

TIM 2SM Series

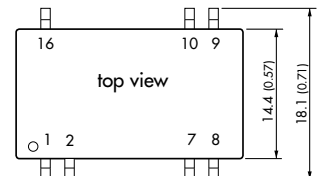
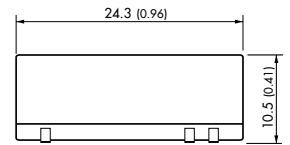
NEW

2 Watt DC/DC converter in SMD-16 package

- 2:1 input voltage with extended low input range:
4.5-12, 9-18, 18-36, 36-75
- Output voltages:
5.0, 12, 15, 24, ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for 250 VACrms working voltage
- Low leakage current
- Input filter to meet EN55022 class A



- 1: -Vin
- 2: NC
- 7: NC
- 8: NC / com
- 9: +Vout
- 10: -Vout
- 16: +Vin



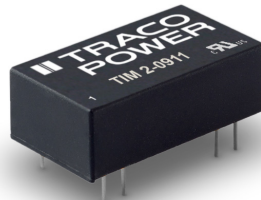
www.tracopower.com/overview/tim2sm

TIM 2 Series

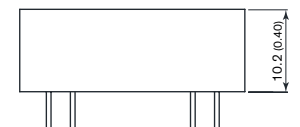
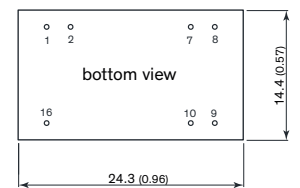
NEW

2 Watt DC/DC converter in DIP-16 package

- 2:1 input voltage with extended low input range:
4.5-12, 9-18, 18-36, 36-75
- Output voltages:
5.0, 12, 15, 24, ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for 250 VACrms working voltage
- Low leakage current
- Input filter to meet EN55022 class A



- 1: -Vin
- 2: NC
- 7: NC
- 8: NC / com
- 9: +Vout
- 10: -Vout
- 16: +Vin



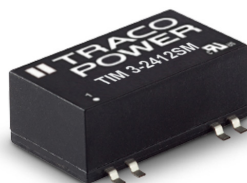
www.tracopower.com/overview/tim2

TIM 3.5SM Series

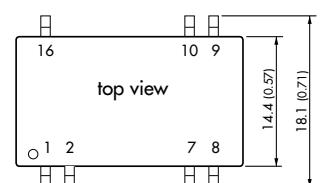
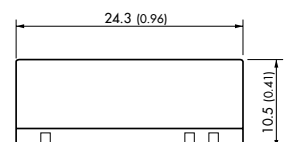
NEW

3.5 Watt DC/DC converter in SMD-16 package

- 2:1 input voltage with extended low input range:
4.5-12, 9-18, 18-36, 36-75
- Output voltages:
5.0, 12, 15, 24, ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for 250 VACrms working voltage
- Low leakage current
- Input filter to meet EN55022 class A



- 1: -Vin
- 2: NC
- 7: NC
- 8: NC / com
- 9: +Vout
- 10: -Vout
- 16: +Vin



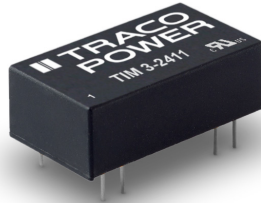
www.tracopower.com/overview/tim3sm

TIM 3.5 Series

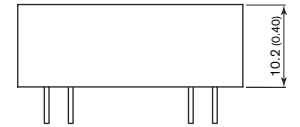
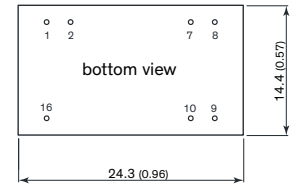
NEW

3.5 Watt DC/DC converter in DIP-16 package

- 2:1 input voltage with extended low input range:
4.5-12, 9-18, 18-36, 36-75
- Output voltages:
5.0, 12, 15, 24, ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for 250 VACrms working voltage
- Low leakage current
- Input filter to meet EN55022 class A



1: -Vin
2: NC
7: NC
8: NC / com
9: +Vout
10: -Vout
16: +Vin



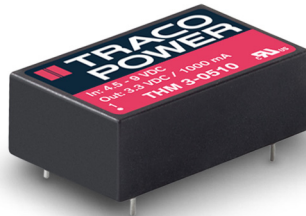
www.tracopower.com/overview/tim3

THM 3 Series

NEW

3 Watt DC/DC converter in DIP-24 package

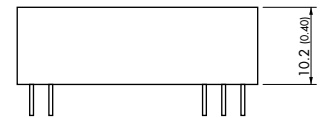
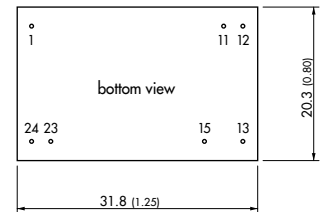
- 2:1 input voltage ranges
4.5-9, 9-18, 18-36, 36-75
- Output voltages:
3.3, 5.0, 12, 15, 24, ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for 250 VACrms working voltage
- Low leakage current $< 2 \mu\text{A}$
- Very high efficiency up to 87%
- Extended operating temperature range
 -40°C to 80°C at full load.
- Input filter to meet EN55022 class A



Single output
1: +Vin
11: no pin
12: -Vout
13: +Vout
15: no pin
23: -Vin
24: -Vin

Dual output
1: +Vin
11: com
12: no pin
13: -Vout
15: +Vout
23: -Vin
24: -Vin

Optional: pinning
of THM 3WI series



www.tracopower.com/overview/thm3

THM 3WI Series

3 Watt DC/DC converter in DIP-24 package

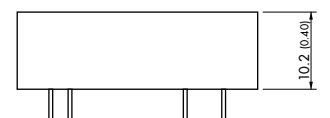
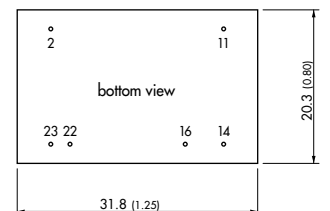
- Wide 4:1 input voltage ranges:
9-36, 18-75
- Output voltages:
3.3, 5.0, 12, 15, 24, ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for 250 VACrms working voltage
- Low leakage current $< 2 \mu\text{A}$
- Very high efficiency up to 87%
- Extended operating temperature range
 -40°C to 80°C at full load.
- Input filter to meet EN55022 class A



Single output
2: -Vin
11: NC
14: +Vout
16: -Vout
22: +Vin
23: +Vin

Dual output
2: -Vin
11: -Vout
14: +Vout
16: com
22: +Vin
23: +Vin

Optional: pinning
of THM 3 series



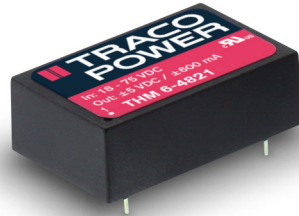
www.tracopower.com/overview/thm3wi

THM 6 Series

NEW

6 Watt DC/DC converter in DIP-24 package

- 2:1 input voltage ranges
4.5-9, 9-18, 18-36, 36-75
- Output voltages:
3.3, 5.0, 12, 15, 24, ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for
250 VACrms working voltage
- Low leakage current $< 2 \mu\text{A}$
- Very high efficiency up to 88%
- Extended operating temperature range
 -40°C to 70°C at full load.
- Input filter to meet EN55022 class A



www.tracopower.com/overview/thm6

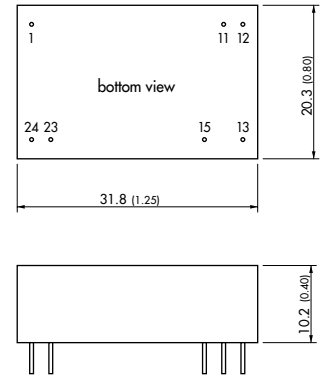
Single output

- 1: +Vin
- 11: no pin
- 12: -Vout
- 13: +Vout
- 15: no pin
- 23: -Vin
- 24: -Vin

Dual output

- 1: +Vin
- 11: com
- 12: no pin
- 13: -Vout
- 15: +Vout
- 23: -Vin
- 24: -Vin

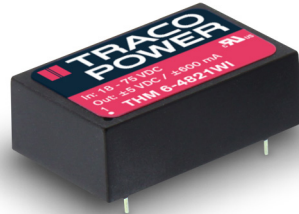
Optional pinning
of THM 6WI series



THM 6WI Series

6 Watt DC/DC converter in DIP-24 package

- Wide 4:1 input voltage ranges:
9-36, 18-75
- Output voltages:
3.3, 5.0, 12, 15, 24, ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for
250 VACrms working voltage
- Low leakage current $< 2 \mu\text{A}$
- Very high efficiency up to 89%
- Extended operating temperature range
 -40°C to 70°C at full load.
- Input filter to meet EN55022 class A



www.tracopower.com/overview/thm6wi

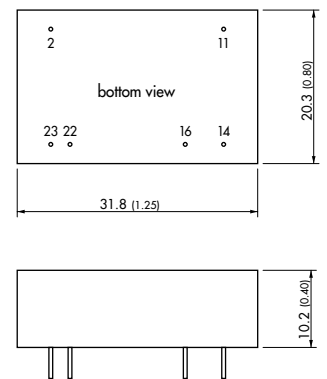
Single output

- 2: -Vin
- 11: NC
- 14: +Vout
- 16: -Vout
- 22: +Vin
- 23: +Vin

Dual output

- 2: -Vin
- 11: -Vout
- 14: +Vout
- 16: com
- 22: +Vin
- 23: +Vin

Optional pinning
of THM 6 series



THM 10 Series

NEW

10 Watt DC/DC converter in DIP-24 package

- 2:1 input voltage ranges
4.5-9, 9-18, 18-36, 36-75
- Output voltages:
3.3, 5.0, 12, 15, 24, ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for
250 VACrms working voltage
- Low leakage current $< 2 \mu\text{A}$
- Very high efficiency up to 89%
- Input filter to meet EN55022 class A



www.tracopower.com/overview/thm10

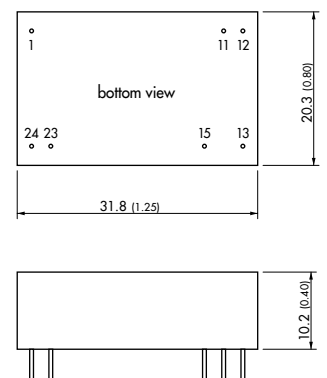
Single output

- 1: +Vin
- 11: no pin
- 12: -Vout
- 13: +Vout
- 15: no pin
- 23: -Vin
- 24: -Vin

Dual output

- 1: +Vin
- 11: com
- 12: no pin
- 13: -Vout
- 15: +Vout
- 23: -Vin
- 24: -Vin

Optional pinning
of THM 10WI
series



THM 10WI Series

10 Watt DC/DC converter in DIP-24 package

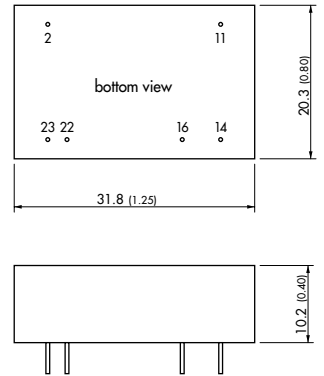
- Wide 4:1 input voltage ranges:
9-36, 18-75
- Output voltages:
3.3, 5.0, 12, 15, 24, ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for
250 VACrms working voltage
- Low leakage current $< 2 \mu\text{A}$
- Very high efficiency up to 89%
- Input filter to meet EN55022 class A



Single output
2: -Vin
11: NC
14: +Vout
16: -Vout
22: +Vin
23: +Vin

Dual output
2: -Vin
11: -Vout
14: +Vout
16: com
22: +Vin
23: +Vin

Optional pinning
of THM 10 series



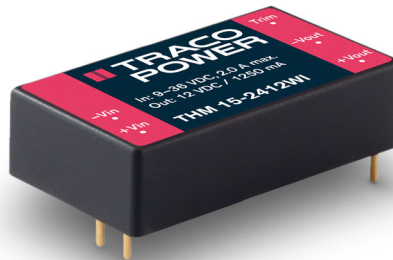
www.tracopower.com/overview/thm10wi

THM 15WI Series

NEW

15 Watt DC/DC converter in 1.6" x 1" package

- Wide 4:1 input voltage ranges:
9-36, 18-75
- Output voltages:
5.0, 12, 15, 24 VDC adjust. $\pm 10\%$
 ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for
250 VACrms working voltage
- Low leakage current
- Very high efficiency up to 90%



Series available mid of Y2017

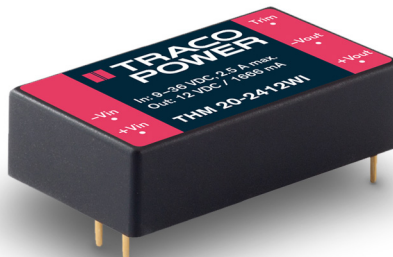
www.tracopower.com/overview/thm15wi

THM 20WI Series

NEW

20 Watt DC/DC converter in 1.6" x 1" package

- Wide 4:1 input voltage ranges:
9-36, 18-75
- Output voltages:
5.0, 12, 15, 24 VDC adjust. $\pm 10\%$
 ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for
250 VACrms working voltage
- Low leakage current
- Very high efficiency up to 90%



Series available mid of Y2017

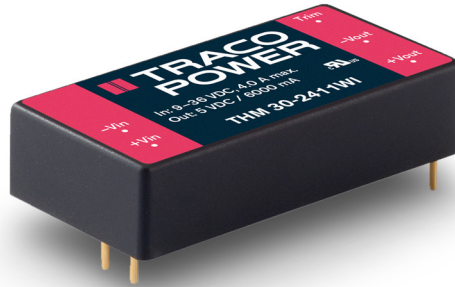
www.tracopower.com/overview/thm20wi

THM 30 Series

NEW

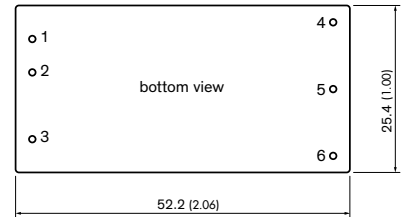
30 Watt DC/DC converter in 2" x 1" package

- Wide 4:1 input voltage ranges:
9-36, 18-75
- Output voltages:
5.0, 12, 15, 24 VDC adjust. $\pm 10\%$
 ± 5 , ± 12 , ± 15 VDC
- I/O isolation 5000 VACrms rated for
250 VACrms working voltage
- Low leakage current
- Very high efficiency up to 90%



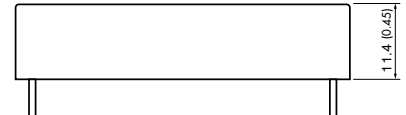
Single output

- 1: +Vin
- 2: -Vin
- 3: RC
- 4: +Vout
- 5: -Vout
- 6: Trim



Dual output

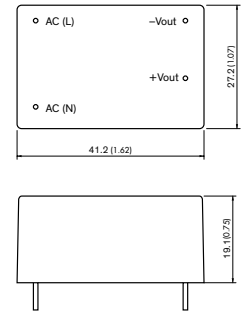
- 1: +Vin
- 2: -Vin
- 3: RC
- 4: +Vout
- 5: com.
- 6: -Vout



www.tracopower.com/overview/thm30wi

TMF 05 Series**NEW****5 Watt AC/DC power module**

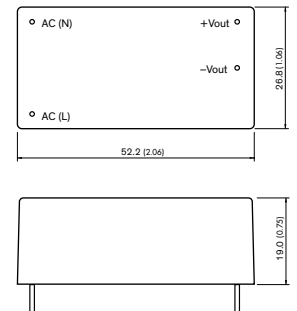
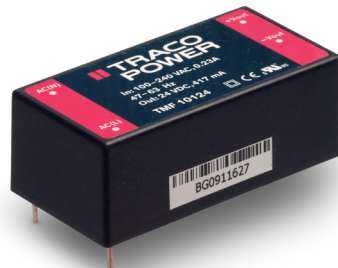
- Universal input 90-264 VAC and 120-370 VDC
- Output voltages: 5.0, 12, 15, 24 VDC
- Fully encapsulated ultra compact plastic casing for PCB mount
- Protection class II prepared
- Low leakage current <100 μ A
- Operating temperature range -25°C to 70°C.
- Input filter to meet EN55022 class B



www.tracopower.com/overview/tmf05

TMF 10 Series**NEW****10 Watt AC/DC power module**

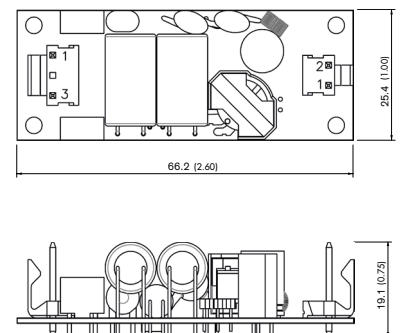
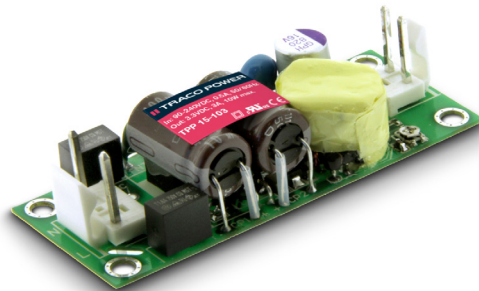
- Universal input 90-264 VAC and 120-370 VDC
- Output voltages: 5.0, 12, 15, 24 VDC
- Fully encapsulated ultra compact plastic casing for PCB mount
- Protection class II prepared
- Low leakage current <100 μ A
- Operating temperature range -25°C to 70°C.
- Input filter to meet EN55022 class B



www.tracopower.com/overview/tmf10

TPP 15 Series**NEW****15 Watt AC/DC open frame power supply**

- Universal input 90-264 VAC and 120-370 VDC
- Output voltages adjust $\pm 10\%$: 3.3, 5.0, 12, 15, 24, 48 VDC
- Protection class II prepared
- Low leakage current <75 μ A
- Operating temperature range -25°C to 85°C.
- Input filter to meet EN55022 class



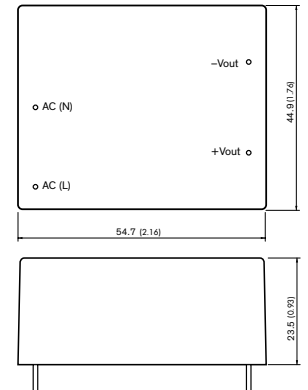
www.tracopower.com/overview/tpp15

TMF 20 Series

NEW

20 Watt AC/DC power module

- Universal input 90-264 VAC and 120-370 VDC
- Output voltages: 5.0, 12, 15, 24 VDC
- Fully encapsulated ultra compact plastic casing for PCB mount
- Protection class II prepared
- Low leakage current <100 μ A
- Operating temperature range -25°C to 70°C.
- Input filter to meet EN55022 class B



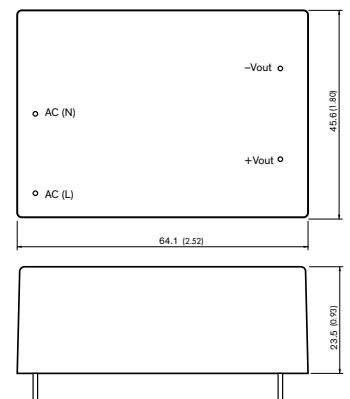
www.tracopower.com/overview/tmf20

TMF 30 Series

NEW

30 Watt AC/DC power module

- Universal input 90-264 VAC and 120-370 VDC
- Output voltages: 5.0, 12, 15, 24 VDC
- Fully encapsulated ultra compact plastic casing for PCB mount
- Protection class II prepared
- Low leakage current <100 μ A
- Operating temperature range -25°C to 70°C.
- Input filter to meet EN55022 class B



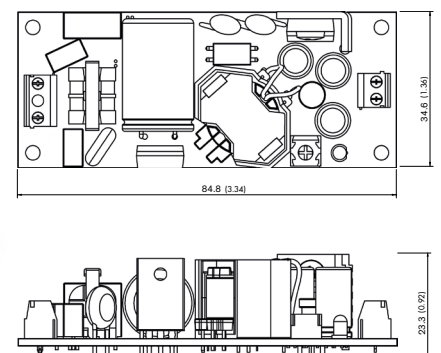
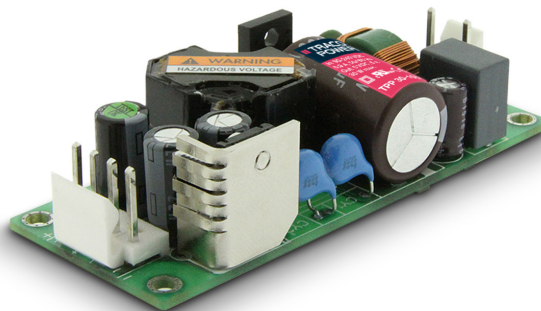
www.tracopower.com/overview/tmf30

TPP 30

NEW

30 Watt AC/DC open frame power supply

- Universal input 90-264 VAC and 120-370 VDC
- Output voltages adjust $\pm 10\%$: 3.3, 5.0, 12, 15, 24, 48 VDC
- Protection class II prepared
- Low leakage current <75 μ A
- Operating temperature range -25°C to 85°C.
- Input filter to meet EN55022 class B

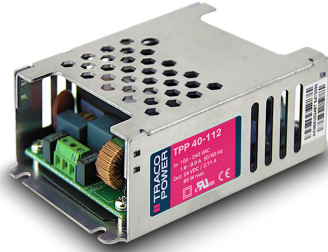


www.tracopower.com/overview/tpp30

TPP 40 Series

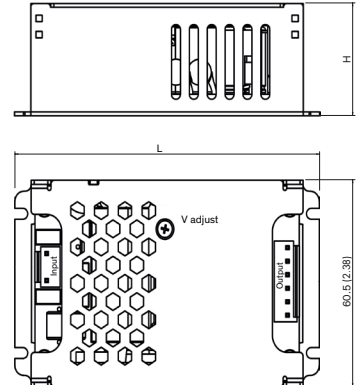
40 Watt AC/DC metal enclosure power supply

- Universal input 85-264 VAC and 120-370 VDC
- Output voltages (Vout1 adjust. $\pm 10\%$)
single: 5.0, 12, 15, 24, 48 VDC
dual: 12/5, 15/5, 24/5 VDC
triple: $\pm 12/5$, $\pm 15/5$, 24/5/12 VDC
- Highest efficiency (ErP ready)
- Protection class II prepared
- Low leakage current $< 75 \mu\text{A}$
- Optional: Open frame, DIN-rail, individual output voltages...



Single output
L = 89.7 (3.53)
H = 33.3 (1.31)

Multi output
L = 102.4 (4.03)
H = 34.3 (1.36)

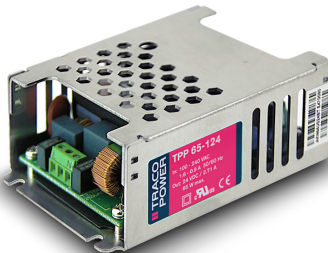


www.tracopower.com/overview/tpp40

TPP 65 Series

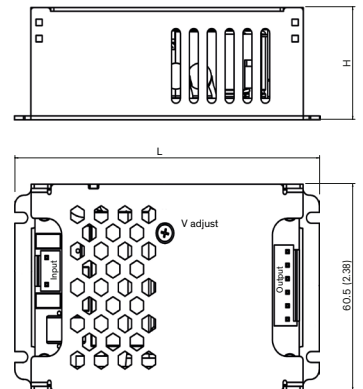
65 Watt AC/DC metal enclosure power supply

- Universal input 85-264 VAC and 120-370 VDC
- Output voltages (Vout1 adjust. $\pm 10\%$)
single: 5.0, 12, 15, 24, 48 VDC
dual: 12/5, 15/5, 24/5 VDC
triple: $\pm 12/5$, $\pm 15/5$, 24/5/12 VDC
- Highest efficiency (ErP ready)
- Protection class II prepared
- Low leakage current $< 75 \mu\text{A}$
- Optional: Open frame, DIN-rail, individual output voltages...



Single output
L = 89.7 (3.53)
H = 33.3 (1.31)

Multi output
L = 102.4 (4.03)
H = 34.3 (1.36)

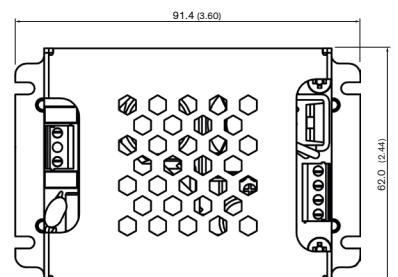
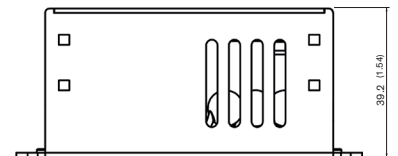


www.tracopower.com/overview/tpp65

TPP 100 Series

100 Watt AC/DC metal enclosure power supply

- Universal input 85-264 VAC and 120-370 VDC
- Output voltages adjustable $\pm 10\%$:
12, 15, 24, 28, 36, 48 VDC
- Active power factor correction
- Highest efficiency (ErP ready)
- Protection class II prepared
- Low leakage current $< 75 \mu\text{A}$
- Optional: Open frame, DIN-rail, individual output voltages...



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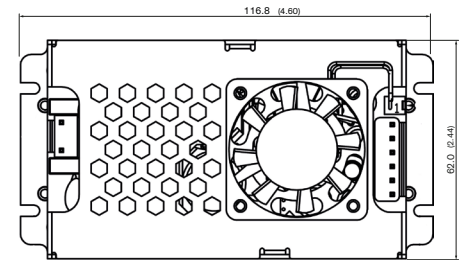
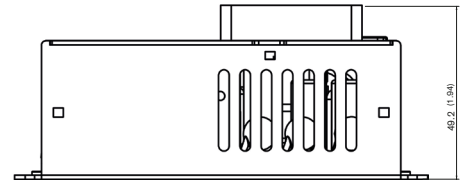
TPP 150 Series

150 Watt AC/DC metal enclosure power supply

- Universal input 85-264 VAC and 120-370 VDC
- Output voltages adjustable $\pm 10\%$: 12, 15, 24, 28, 36, 48 VDC
- Active power factor correction
- Highest efficiency (ErP ready)
- Protection class II prepared
- Low leakage current $< 75 \mu\text{A}$
- Optional: Open frame, DIN-rail, individual output voltages...



www.tracopower.com/overview/tpp150



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

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

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

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

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