

Tecnología en Electrónica y Control SRL

Ficha Técnica

Fuentes Switching

Weidmüller 



Tecnología en Electrónica y Control SRL

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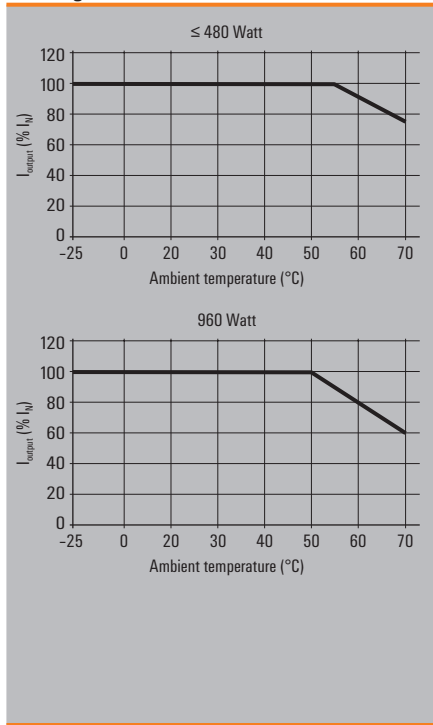
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PROeco power supplies with basic functionality and a high level of reliability

- Single- and three-phase switched-mode power supply units
- Slim design
- Large temperature range from -25 °C to 70 °C
- The output voltage can be precisely adjusted via the potentiometer on the front
- Remote monitoring via integrated status relay
- Three-coloured LED indicators for simple error detection
- Advanced visual warning at 90 % rated output current
- International approvals



Derating curves



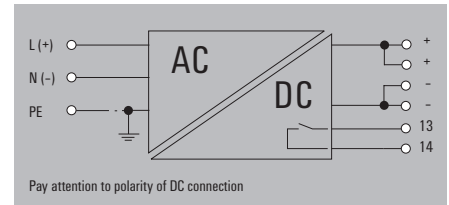
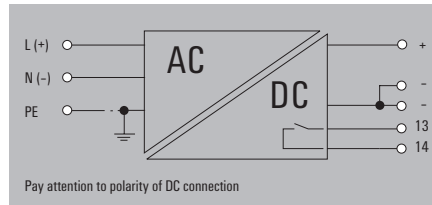
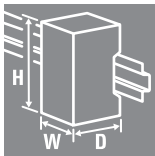
Technical data

| General technical data | |
|---|---|
| Ambient temp. operating / storage temperature | -25 °C...+70 °C / -40 °C...+85 °C |
| Max. perm. air humidity (operation) | 5 %...95 % RH |
| Degree of protection | IP 20 |
| Class of protection | I, with PE connection |
| Pollution degree | 2 |
| Insulation voltage input/output | 3 kV E/A / 2 kV E/earth / 0.5 kV A/earth |
| MTBF | > 500.000 h acc. to IEC 1709 (SN29500) |
| Parallel connection option | yes, max. 5 without diode module |
| Housing version | metal, corrosion resistant |
| Mounting position, installation notice | horizontal on mounting rail TS 35, 50 mm spacing top and bottom for free air circulation |
| Short-circuit protection | Yes, automatic restart |
| Overload protection | Yes, IU characteristic curve |
| Overtemperature protection | Yes, automatic restart |
| EMC / shock / vibration | |
| Noise emission acc. to EN55022 | Class B |
| Noise immunity tests acc. to | EN61000-4-2 (ESD), EN61000-4-3 and EN61000-4-8 (Fields), EN61000-4-4 (Burst), EN61000-4-5 (Surge), EN61000-4-6 (conducted), EN61000-4-11 (Dips) |
| Limiting of mains voltage harmonic currents | Acc. to EN61000-3-2 |
| Resistance against vibration and shock | 1 g acc. to EN50178, shock: 15 g in all directions |
| Electrical safety (applied standards) | |
| Electrical equipment of machines | Acc. to EN60204 |
| Safety transformers for switched-mode power units | Acc. to EN61558-2-17 |
| Machinery with electronic equipment | Acc. to EN50178 / VDE0160 |
| Safety extra-low voltage | SELV acc. to EN60950-1, PELV acc. to EN60204-1 |
| Protective separation / protection against electrical shock | VDE0100-410 / acc. to DIN57100-410 |
| Protection against dangerous shock currents | Acc. to VDE0106-101 |

PROeco

PRO ECO 72W 24V 3A

PRO ECO 120W 24V 5A



Technical data

Input

- Rated input voltage
- AC input voltage range
- AC frequency range
- DC input voltage range
- AC current consumption
- DC current consumption
- Input fuse (internal) / inrush current
- Recommended back-up fuse

- 100 ... 240 V AC
- 85 ... 264 V AC (Derating @ 100 V AC)
- 47 ... 63 Hz
- 80 ... 370 DC (Derating @ 120 V DC)
- 0.55 A @ 230 V AC / 1.04 A @ 110 V AC
- 0.22 A @ 370 V DC / 0.68 A @ 120 V DC
- Yes / max. 40
- 2 A / DI, Safety fuse
- 6 A, Char. B, Circuit breaker
- 2...4 A, Char. C, Circuit breaker

- 100 ... 240 V AC
- 85 ... 264 V AC (Derating @ 100 V AC)
- 47 ... 63 Hz
- 80 ... 370 DC (Derating @ 120 V DC)
- 1.26 A @ 230 V AC / 2.24 A @ 110 V AC
- 0.39 A @ 370 V DC / 1.16 A @ 120 V DC
- Yes / max. 40
- 4 A / DI, Safety fuse
- 6 A, Char. B, Circuit breaker
- 3...5 A, Char. C, Circuit breaker

Output

- Rated output voltage
- Output voltage
- Ramp-up time / residual ripple, switching peaks
- Rated output current @ U_{rated}
- Continuous output current @ 24 V DC
- Power boost @ 24 V DC, 60 °C
- Capacitive load
- Protection against reverse voltages from the load
- Protection against internal surge voltage

- 24 V DC \pm 1 %
- 22...28 V DC (adjustable via potentiometer on front)
- < 100 ms / < 50 mVSS @ 24 V DC, I_h
- 3 A up to 55 °C
- 3 A @ 55 °C, 2.25 A @ 70 °C
- 3.6 A for 1 min, ED = 5 %
- Unrestricted
- 30...35 V DC
- 35 V DC

- 24 V DC \pm 1 %
- 22...28 V DC (adjustable via potentiometer on front)
- < 100 ms / < 50 mVSS @ 24 V DC, I_h
- 5 A up to 55 °C
- 5 A @ 55 °C, 3.75 A @ 70 °C
- 6 A for 1 min, ED = 5 %
- Unrestricted
- 30...35 V DC
- 35 V DC

Signalling

- DC OK
- Alarm
- Error
- Voltage monitoring / no-voltage contact / contact load
- On/Off relay

- LED Green ($U_{output} > 21.6$ V DC)
- LED Yellow ($I_{output} > 90 \% I_h$)
- LED Red (Overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC)
- Yes / NO contact / max. 30 V AC/DC 1 A
- Output voltage > 21.6 V DC / < 20.4 V DC

- LED Green ($U_{output} > 21.6$ V DC)
- LED Yellow ($I_{output} > 90 \% I_h$)
- LED Red (Overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC)
- Yes / NO contact / max. 30 V AC/DC 1 A
- Output voltage > 21.6 V DC / < 20.4 V DC

General data

- Efficiency
- Power loss @ idling / nominal load
- Earth discharge current
- Power factor (approx.)
- Mains buffering @ I_{rated}
- Parallel connection option
- Height x width x depth / weight

- > 87 % @ 230 V AC & 3 A
- 4 W / 9.5 W
- < 1 mA
- > 0.42 @ 230 V AC / > 0.45 @ 115 V AC
- > 100 ms @ 230 V AC / > 20 ms @ 115 V AC
- yes, max. 5
- 125 / 34 / 100 mm / 0.5 kg

- > 87 % @ 230 V AC & 5 A
- 4 W / 15 W
- < 1 mA
- > 0.47 @ 230 V AC / > 0.56 @ 115 V AC
- > 80 ms @ 230 V AC / > 20 ms @ 115 V AC
- yes, max. 5
- 125 / 40 / 100 mm / 0.6 kg

Approvals

Approvals

CE, TÜV (EN/IEC 60950-1), cULus (Pending)

CE, TÜV (EN/IEC 60950-1), cULus (Pending)

Connection data

| Conductor connection system | |
|--------------------------------------|-----------------|
| Number of terminals | |
| Wire cross-section, rigid min/max | mm ² |
| Wire cross-section, flexible min/max | mm ² |
| Wire cross-section, AWG/kcmil | min/max |
| Min./max. tightening torque range | Nm |
| Stripping length | mm |

| Input | Output |
|------------------|------------------|
| Screw connection | Screw connection |
| 3 for L/N/PE | 5 (13,14,+, -) |
| 0.5/6 | 0.5/6 |
| 0.5/2.5 | 0.5/2.5 |
| 26/12 | 26/12 |
| 0.5/0.6 | 0.5/0.6 |
| 6 | 6 |

| Input | Output |
|------------------|------------------|
| Screw connection | Screw connection |
| 3 for L/N/PE | 6 (13,14,+,+, -) |
| 0.5/6 | 0.5/6 |
| 0.5/2.5 | 0.5/2.5 |
| 26/12 | 26/12 |
| 0.5/0.6 | 0.5/0.6 |
| 6 | 6 |

Note

Ordering data

| Type | Qty. | Order No. |
|--------------------|------|------------|
| PRO ECO 72W 24V 3A | 1 | 1469470000 |

| Type | Qty. | Order No. |
|---------------------|------|------------|
| PRO ECO 120W 24V 5A | 1 | 1469480000 |

| Type | Qty. | Order No. |
|---------------------|------|------------|
| PRO ECO 120W 24V 5A | 1 | 1469480000 |

Note

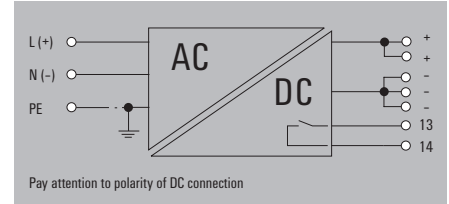
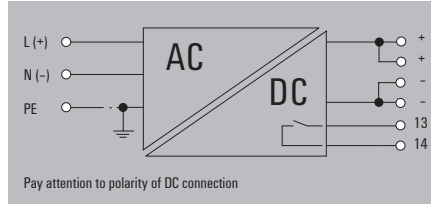
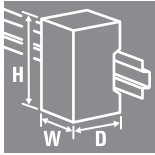
The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system.

The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system.

PROeco

PRO ECO 240W 24V 10A

PRO ECO 480W 24V 20A



Technical data

Input

| |
|--|
| Rated input voltage |
| AC input voltage range |
| AC frequency range |
| DC input voltage range |
| AC current consumption |
| DC current consumption |
| Input fuse (internal) / inrush current |
| Recommended back-up fuse |

| |
|---------------------------------------|
| 100 ... 240 V AC |
| 85 ... 264 V AC (Derating @ 100 V AC) |
| 47 ... 63 Hz |
| 80 ... 370 DC (Derating @ 120 V DC) |
| 1.23 A @ 230 V AC / 2.47 A @ 110 V AC |
| 1.18 A @ 370 V DC / 2.4 A @ 120 V DC |
| Yes / max. 15 A |
| 4 A / DI, Safety fuse |
| 10 A, Char. B, Circuit breaker |
| 3...4 A, Char. C, Circuit breaker |

| |
|---------------------------------------|
| 100 ... 240 V AC |
| 85 ... 264 V AC (Derating @ 100 V AC) |
| 47 ... 63 Hz |
| 80 ... 370 DC (Derating @ 120 V DC) |
| 2.37 A @ 230 V AC / 5.2 A @ 110 V AC |
| 1.55 A @ 370 V DC / 4.65 A @ 120 V DC |
| Yes / max. 3 A |
| 6 A / DI, Safety fuse |
| 16 A, Char. B, Circuit breaker |
| 6...8 A, Char. C, Circuit breaker |

Output

| |
|---|
| Rated output voltage |
| Output voltage |
| Ramp-up time / residual ripple, switching peaks |
| Rated output current @ U_{rated} |
| Continuous output current @ 24 V DC |
| Power boost @ 24 V DC, 60 °C |
| Capacitive load |
| Protection against reverse voltages from the load |
| Protection against internal surge voltage |

| |
|--|
| 24 V DC \pm 1 % |
| 22...28 V DC (adjustable via potentiometer on front) |
| < 100 ms / < 50 mVSS @ 24 V DC, I_b |
| 10 A up to 55 °C |
| 10 A @ 55 °C, 7.5 A @ 70 °C |
| 12 A for 1 min, ED = 5 % |
| Unrestricted |
| 30...35 V DC |
| 35 V DC |

| |
|--|
| 24 V DC \pm 1 % |
| 22...28 V DC (adjustable via potentiometer on front) |
| < 100 ms / < 50 mVSS @ 24 V DC, I_b |
| 20 A up to 55 °C |
| 20 A @ 55 °C, 15 A @ 70 °C |
| 24 A for 1 min, ED = 5 % |
| Unrestricted |
| 30...35 V DC |
| 35 V DC |

Signalling

| |
|--|
| DC OK |
| Alarm |
| Error |
| Voltage monitoring / no-voltage contact / contact load |
| On/Off relay |

| |
|--|
| LED Green ($U_{output} > 21.6$ V DC) |
| LED Yellow ($I_{output} > 90 \% I_b$) |
| LED Red (Overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC) |
| Yes / NO contact / max. 30 V AC/DC 1 A |
| Output voltage > 21.6 V DC / < 20.4 V DC |

| |
|--|
| LED Green ($U_{output} > 21.6$ V DC) |
| LED Yellow ($I_{output} > 90 \% I_b$) |
| LED Red (Overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC) |
| Yes / NO contact / max. 30 V AC/DC 1 A |
| Output voltage > 21.6 V DC / < 20.4 V DC |

General data

| |
|------------------------------------|
| Efficiency |
| Power loss @ idling / nominal load |
| Earth discharge current |
| Power factor (approx.) |
| Mains buffering @ I_{rated} |
| Parallel connection option |
| Height x width x depth / weight |

| |
|---|
| > 90 % @ 230 V AC & 10 A |
| 3 W / 24 W |
| < 1 mA |
| > 0.93 @ 230 V AC / > 0.99 @ 115 V AC |
| > 20 ms @ 230 V AC / > 20 ms @ 115 V AC |
| yes, max. 5 |
| 125 / 60 / 100 mm / 1 kg |

| |
|---|
| > 91 % @ 230 V AC & 20 A |
| 5 W / 43 W |
| < 1 mA |
| > 0.97 @ 230 V AC / > 0.99 @ 115 V AC |
| > 20 ms @ 230 V AC / > 20 ms @ 115 V AC |
| yes, max. 3 |
| 125 / 100 / 120 mm / 1.6 kg |

Approvals

| |
|-----------|
| Approvals |
|-----------|

| |
|---|
| CE, TÜV (EN/IEC 60950-1), cULus (Pending) |
|---|

| |
|---|
| CE, TÜV (EN/IEC 60950-1), cULus (Pending) |
|---|

Connection data

| |
|--|
| Conductor connection system |
| Number of terminals |
| Wire cross-section, rigid min/max mm² |
| Wire cross-section, flexible min/max mm² |
| Wire cross-section, AWG/kcmil min/max |
| Min./max. tightening torque range Nm |
| Stripping length mm |

| Input | Output |
|------------------|---------------------|
| Screw connection | Screw connection |
| 3 for L/N/PE | 6 (13, 14, +, -, -) |
| 0.5/6 | 0.5/6 |
| 0.5/2.5 | 0.5/2.5 |
| 26/12 | 26/12 |
| 0.5/0.6 | 0.5/0.6 |
| 6 | 6 |

| Input | Output |
|------------------|------------------------|
| Screw connection | Screw connection |
| 3 for L/N/PE | 7 (13, 14, +, +, -, -) |
| 0.5/6 | 0.18/6 |
| 0.5/2.5 | 0.5/2.5 |
| 26/12 | 26/10 |
| 0.5/0.6 | 0.5/0.6 |
| 6 | 7 |

Note

Ordering data

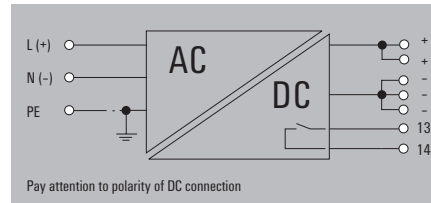
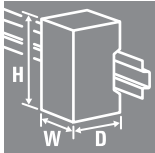
| |
|------|
| Note |
|------|

| Type | Qty. | Order No. |
|--|------|------------|
| PRO ECO 240W 24V 10A | 1 | 1469490000 |
| The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system. | | |

| Type | Qty. | Order No. |
|--|------|------------|
| PRO ECO 480W 24V 20A | 1 | 1469510000 |
| The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system. | | |

PROeco

PRO ECO 960W 24V 40A



Technical data

Input

| |
|--|
| Rated input voltage |
| AC input voltage range |
| AC frequency range |
| DC input voltage range |
| AC current consumption |
| DC current consumption |
| Input fuse (internal) / inrush current |
| Recommended back-up fuse |

| |
|---------------------------------------|
| 100 ... 240 V AC |
| 85 ... 264 V AC (Derating @ 100 V AC) |
| 47 ... 63 Hz |
| 80 ... 370 DC (Derating @ 120 V DC) |
| 4.6 A @ 230 V AC / 9.9 A @ 110 V AC |
| 2.9 A @ 370 V DC / 9 A @ 120 V DC |
| Yes / max. 3 A |
| 16 A / DI, Safety fuse |
| 20 A, Char. B, Circuit breaker |
| 16 A, Char. C, Circuit breaker |

Output

| |
|---|
| Rated output voltage |
| Output voltage |
| Ramp-up time / residual ripple, switching peaks |
| Rated output current @ U_{rated} |
| Continuous output current @ 24 V DC |
| Power boost @ 24 V DC, 60 °C |
| Capacitive load |
| Protection against reverse voltages from the load |
| Protection against internal surge voltage |

| |
|--|
| 24 V DC \pm 1 % |
| 22...28 V DC (adjustable via potentiometer on front) |
| < 100 ms / < 50 mVSS @ 24 V DC, I_h |
| 40 A up to 50 °C |
| 40 A @ 50 °C, 24 A @ 70 °C |
| 48 A for 1 min, ED = 5 % |
| Unrestricted |
| 30...35 V DC |
| 35 V DC |

Signalling

| |
|--|
| DC OK |
| Alarm |
| Error |
| Voltage monitoring / no-voltage contact / contact load |
| On/Off relay |

| |
|--|
| LED Green ($U_{output} > 21.6$ V DC) |
| LED Yellow ($I_{output} > 90 \% I_R$) |
| LED Red (Overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC) |
| Yes / NO contact / max. 30 V AC/DC 1 A |
| Output voltage > 21.6 V DC / < 20.4 V DC |

General data

| |
|------------------------------------|
| Efficiency |
| Power loss @ idling / nominal load |
| Earth discharge current |
| Power factor (approx.) |
| Mains buffering @ I_{rated} |
| Parallel connection option |
| Height x width x depth / weight |

| |
|---|
| > 93 % @ 230 V AC & 40 A |
| 6 W / 76 W |
| < 1 mA |
| > 0.97 @ 230 V AC / > 0.99 @ 115 V AC |
| > 20 ms @ 230 V AC / > 20 ms @ 115 V AC |
| yes, max. 3 |
| 125 / 160 / 120 mm / 2.9 kg |

Approvals

Approvals

CE, TÜV (EN/IEC 60950-1), cULus (Pending)

Connection data

| |
|--------------------------------------|
| Conductor connection system |
| Number of terminals |
| Wire cross-section, rigid min/max |
| Wire cross-section, flexible min/max |
| Wire cross-section, AWG/kcmil |
| Min./max. tightening torque range |
| Stripping length |

| Input | Output |
|------------------|---------------------------|
| Screw connection | Screw connection |
| 3 for L/N/PE | 7 (13, 14, +, +, +, -, -) |
| 0.18/6 | 0.5/16 |
| 0.5/2.5 | 2.5/10 |
| 26/10 | 22/8 |
| 0.5/0.6 | 1.2/1.5 |
| 7 | 12 |

Note

Ordering data

| Type | Qty. | Order No. |
|----------------------|------|------------|
| PRO ECO 960W 24V 40A | 1 | 1469520000 |

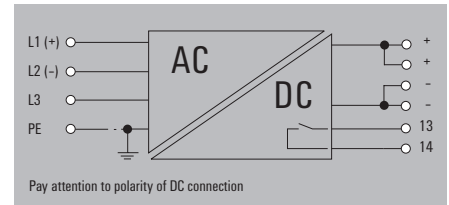
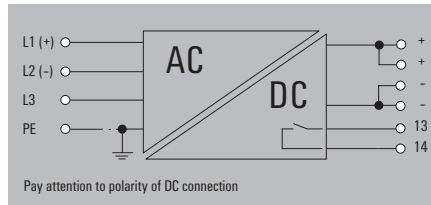
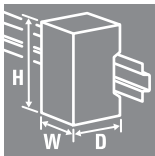
Note

The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system.

PROeco

PRO ECO3 120W 24V 5A

PRO ECO3 240W 24V 10A



Technical data

| Input | |
|--|---|
| Rated input voltage | 3 x 400...3 x 500 V AC (Wide-range input) |
| AC input voltage range | 3 x 340...3 x 575 V AC / 2 x 360...2 x 575 V AC |
| AC frequency range | 47...63 Hz |
| DC input voltage range | 450...800 V DC (max. 500 V DC in accordance with UL 508) |
| AC current consumption | 0.3 A @ 3 x 500 V AC / 0.4 A @ 3 x 400 V AC |
| DC current consumption | 0.2 A @ 800 V DC / 0.4 A @ 450 V DC |
| Input fuse (internal) / inrush current | Yes / max. 40 A |
| Recommended back-up fuse | 2 A / DI, Safety fuse 2...3 A, Char. C, Circuit breaker |
| Output | |
| Rated output voltage | 24 V DC ± 1 % |
| Output voltage | 22...28 V DC (adjustable via potentiometer on front) |
| Ramp-up time / residual ripple, switching peaks | < 100 ms / < 50 mVSS @ 24 V DC, I _h |
| Rated output current @ U _{rated} | 5 A up to 55 °C |
| Continuous output current @ 24 V DC | 5 A @ 55 °C, 3.75 A @ 70 °C |
| Power boost @ 24 V DC, 60 °C | 6 A for 1 min, ED = 5 % |
| Capacitive load | Unrestricted |
| Protection against reverse voltages from the load | 30...35 V DC |
| Protection against internal surge voltage | 35 V DC |
| Signalling | |
| DC OK | LED Green (U _{output} > 21.6 V DC) |
| Alarm | LED Yellow (I _{output} > 90 % I _h) |
| Error | LED Red (Overload, overtemperature, short-circuit, U _{output} < 20.4 V DC) |
| Voltage monitoring / no-voltage contact / contact load | Yes / NO contact / max. 30 V AC/DC 1 A |
| On/Off relay | Output voltage > 21.6 V DC / < 20.4 V DC |
| General data | |
| Efficiency | 87 % @ 3 x 500 V AC / 88 % @ 3 x 400 V AC |
| Power loss @ idling / nominal load | 6 W / 13 W |
| Earth discharge current | < 1 mA |
| Power factor (approx.) | > 0.4 @ 3 x 500 V AC / > 0.45 @ 3 x 400 V AC |
| Mains buffering @ I _{rated} | > 40 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC |
| Parallel connection option | yes, max. 5 |
| Height x width x depth / weight | 125 / 40 / 100 mm / 0.6 kg |
| Approvals | |
| Approvals | CE, TÜV (EN/IEC 60950-1), cULus (Pending) |
| Connection data | |
| Conductor connection system | Screw connection |
| Number of terminals | 4 for L1/L2/L3/PE |
| Wire cross-section, rigid min/max | 0.18/6 |
| Wire cross-section, flexible min/max | 0.5/2.5 |
| Wire cross-section, AWG/kcmil | 26/10 |
| Min./max. tightening torque range | 0.5/0.6 |
| Stripping length | 8 |
| Note | |

| Input | |
|--|---|
| Rated input voltage | 3 x 400...3 x 500 V AC (Wide-range input) |
| AC input voltage range | 3 x 340...3 x 575 V AC / 2 x 360...2 x 575 V AC |
| AC frequency range | 47...63 Hz |
| DC input voltage range | 450...800 V DC (max. 500 V DC in accordance with UL 508) |
| AC current consumption | 0.3 A @ 3 x 500 V AC / 0.4 A @ 3 x 400 V AC |
| DC current consumption | 0.2 A @ 800 V DC / 0.4 A @ 450 V DC |
| Input fuse (internal) / inrush current | Yes / max. 40 A |
| Recommended back-up fuse | 2 A / DI, Safety fuse 2...3 A, Char. C, Circuit breaker |
| Output | |
| Rated output voltage | 24 V DC ± 1 % |
| Output voltage | 22...28 V DC (adjustable via potentiometer on front) |
| Ramp-up time / residual ripple, switching peaks | < 100 ms / < 50 mVSS @ 24 V DC, I _h |
| Rated output current @ U _{rated} | 10 A up to 55 °C |
| Continuous output current @ 24 V DC | 10 A @ 55 °C, 7.5 A @ 70 °C |
| Power boost @ 24 V DC, 60 °C | 12 A for 1 min, ED = 5 % |
| Capacitive load | Unrestricted |
| Protection against reverse voltages from the load | 30...35 V DC |
| Protection against internal surge voltage | 35 V DC |
| Signalling | |
| DC OK | LED Green (U _{output} > 21.6 V DC) |
| Alarm | LED Yellow (I _{output} > 90 % I _h) |
| Error | LED Red (Overload, overtemperature, short-circuit, U _{output} < 20.4 V DC) |
| Voltage monitoring / no-voltage contact / contact load | Yes / NO contact / max. 30 V AC/DC 1 A |
| On/Off relay | Output voltage > 21.6 V DC / < 20.4 V DC |
| General data | |
| Efficiency | 88 % @ 3 x 500 V AC / 89 % @ 3 x 400 V AC |
| Power loss @ idling / nominal load | 8 W / 26 W |
| Earth discharge current | < 0.5 mA |
| Power factor (approx.) | > 0.45 @ 3 x 500 V AC / > 0.5 @ 3 x 400 V AC |
| Mains buffering @ I _{rated} | > 40 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC |
| Parallel connection option | yes, max. 5 |
| Height x width x depth / weight | 125 / 60 / 100 mm / 1 kg |
| Approvals | |
| Approvals | CE, TÜV (EN/IEC 60950-1), cULus (Pending) |
| Connection data | |
| Conductor connection system | Screw connection |
| Number of terminals | 4 for L1/L2/L3/PE |
| Wire cross-section, rigid min/max | 0.18/6 |
| Wire cross-section, flexible min/max | 0.5/2.5 |
| Wire cross-section, AWG/kcmil | 26/10 |
| Min./max. tightening torque range | 0.5/0.6 |
| Stripping length | 7 |
| Note | |

| Input | |
|--|---|
| Rated input voltage | 3 x 400...3 x 500 V AC (Wide-range input) |
| AC input voltage range | 3 x 340...3 x 575 V AC / 2 x 360...2 x 575 V AC |
| AC frequency range | 47...63 Hz |
| DC input voltage range | 450...800 V DC (max. 500 V DC in accordance with UL 508) |
| AC current consumption | 0.6 A @ 3 x 500 V AC / 0.8 A @ 3 x 400 V AC |
| DC current consumption | 0.4 A @ 800 V DC / 0.7 A @ 450 V DC |
| Input fuse (internal) / inrush current | Yes / max. 50 A |
| Recommended back-up fuse | 2 A / DI, Safety fuse 2...3 A, Char. C, Circuit breaker |
| Output | |
| Rated output voltage | 24 V DC ± 1 % |
| Output voltage | 22...28 V DC (adjustable via potentiometer on front) |
| Ramp-up time / residual ripple, switching peaks | < 100 ms / < 50 mVSS @ 24 V DC, I _h |
| Rated output current @ U _{rated} | 10 A up to 55 °C |
| Continuous output current @ 24 V DC | 10 A @ 55 °C, 7.5 A @ 70 °C |
| Power boost @ 24 V DC, 60 °C | 12 A for 1 min, ED = 5 % |
| Capacitive load | Unrestricted |
| Protection against reverse voltages from the load | 30...35 V DC |
| Protection against internal surge voltage | 35 V DC |
| Signalling | |
| DC OK | LED Green (U _{output} > 21.6 V DC) |
| Alarm | LED Yellow (I _{output} > 90 % I _h) |
| Error | LED Red (Overload, overtemperature, short-circuit, U _{output} < 20.4 V DC) |
| Voltage monitoring / no-voltage contact / contact load | Yes / NO contact / max. 30 V AC/DC 1 A |
| On/Off relay | Output voltage > 21.6 V DC / < 20.4 V DC |
| General data | |
| Efficiency | 88 % @ 3 x 500 V AC / 89 % @ 3 x 400 V AC |
| Power loss @ idling / nominal load | 8 W / 26 W |
| Earth discharge current | < 0.5 mA |
| Power factor (approx.) | > 0.45 @ 3 x 500 V AC / > 0.5 @ 3 x 400 V AC |
| Mains buffering @ I _{rated} | > 40 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC |
| Parallel connection option | yes, max. 5 |
| Height x width x depth / weight | 125 / 60 / 100 mm / 1 kg |
| Approvals | |
| Approvals | CE, TÜV (EN/IEC 60950-1), cULus (Pending) |
| Connection data | |
| Conductor connection system | Screw connection |
| Number of terminals | 4 for L1/L2/L3/PE |
| Wire cross-section, rigid min/max | 0.18/6 |
| Wire cross-section, flexible min/max | 0.5/2.5 |
| Wire cross-section, AWG/kcmil | 26/10 |
| Min./max. tightening torque range | 0.5/0.6 |
| Stripping length | 7 |
| Note | |

Ordering data

| Type | Qty. | Order No. |
|--|------|------------|
| PRO ECO3 120W 24V 5A | 1 | 1469530000 |
| The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system. | | |
| Note | | |

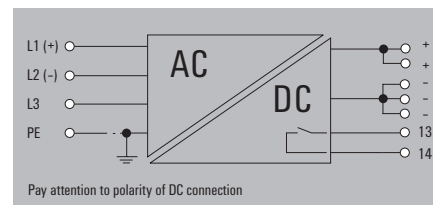
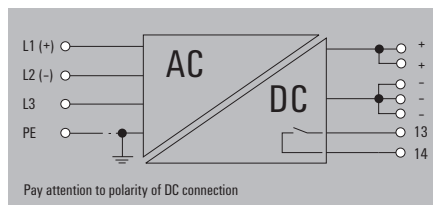
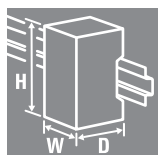
| Type | Qty. | Order No. |
|--|------|------------|
| PRO ECO3 240W 24V 10A | 1 | 1469540000 |
| The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system. | | |
| Note | | |

| Type | Qty. | Order No. |
|--|------|------------|
| PRO ECO3 240W 24V 10A | 1 | 1469540000 |
| The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system. | | |
| Note | | |

PROeco

PRO ECO3 480W 24V 20A

PRO ECO3 960W 24V 40A



Technical data

| Input | |
|--|-----------------|
| Rated input voltage | |
| AC input voltage range | |
| AC frequency range | |
| DC input voltage range | |
| AC current consumption | |
| DC current consumption | |
| Input fuse (internal) / inrush current | |
| Recommended back-up fuse | |
| Output | |
| Rated output voltage | |
| Output voltage | |
| Ramp-up time / residual ripple, switching peaks | |
| Rated output current @ U_{rated} | |
| Continuous output current @ 24 V DC | |
| Power boost @ 24 V DC, 60 °C | |
| Capacitive load | |
| Protection against reverse voltages from the load | |
| Protection against internal surge voltage | |
| Signalling | |
| DC OK | |
| Alarm | |
| Error | |
| Voltage monitoring / no-voltage contact / contact load | |
| On/Off relay | |
| General data | |
| Efficiency | |
| Power loss @ idling / nominal load | |
| Earth discharge current | |
| Power factor (approx.) | |
| Mains buffering @ I_{rated} | |
| Parallel connection option | |
| Height x width x depth / weight | |
| Approvals | |
| Approvals | |
| Connection data | |
| Conductor connection system | |
| Number of terminals | |
| Wire cross-section, rigid min/max | mm ² |
| Wire cross-section, flexible min/max | mm ² |
| Wire cross-section, AWG/kcmil | min/max |
| Min./max. tightening torque range | Nm |
| Stripping length | mm |
| Note | |

| 3 x 400...3 x 500 V AC (Wide-range input) | |
|--|-------------------|
| 3 x 340...3 x 575 V AC / 2 x 360...2 x 575 V AC | |
| 47...63 Hz | |
| 450...800 V DC (max. 500 V DC in accordance with UL 508) | |
| 1.2 A @ 3 x 500 V AC / 1.5 A @ 3 x 400 V AC | |
| 0.7 A @ 800 V DC / 1.2 A @ 450 V DC | |
| Yes / max. 50 A | |
| 4 A / DI, Safety fuse | |
| 3...5 A, Char. C, Circuit breaker | |
| 24 V DC ± 1 % | |
| 22...28 V DC (adjustable via potentiometer on front) | |
| < 100 ms / < 50 mVSS @ 24 V DC, I_R | |
| 20 A up to 55 °C | |
| 20 A @ 55 °C, 15 A @ 70 °C | |
| 24 A for 1 min, ED = 5 % | |
| Unrestricted | |
| 30...35 V DC | |
| 35 V DC | |
| LED Green ($U_{output} > 21.6$ V DC) | |
| LED Yellow ($I_{output} > 90 \% I_R$) | |
| LED Red (Overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC) | |
| Yes / NO contact / max. 30 V AC/DC 1 A | |
| Output voltage > 21.6 V DC / < 20.4 V DC | |
| 89 % @ 3 x 500 V AC / 90 % @ 3 x 400 V AC | |
| 8 W / 48 W | |
| < 0.5 mA | |
| > 0.41 @ 3 x 500 V AC / > 0.43 @ 3 x 400 V AC | |
| > 30 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC | |
| yes, max. 3 | |
| 125 / 100 / 120 mm / 1.3 kg | |
| CE, TÜV (EN/IEC 60950-1), cULus (Pending) | |
| Input | Output |
| Screw connection | Screw connection |
| 4 for L1/L2/L3/PE | 7 (13,14,+,+,-,-) |
| 0.18/6 | 0.18/6 |
| 0.5/2.5 | 0.5/2.5 |
| 26/10 | 26/10 |
| 0.5/0.6 | 0.5/0.6 |
| 7 | 7 |

| 3 x 400...3 x 500 V AC (Wide-range input) | |
|--|-------------------|
| 3 x 340...3 x 575 V AC / 2 x 360...2 x 575 V AC | |
| 47...63 Hz | |
| 450...800 V DC (max. 500 V DC in accordance with UL 508) | |
| 2.15 A @ 3 x 500 V AC / 2.68 A @ 3 x 400 V AC | |
| 1.37 A @ 800 V DC / 2.37 A @ 450 V DC | |
| Yes / max. 40 A | |
| 6 A / DI, Safety fuse | |
| 10 A, Char. B, Circuit breaker | |
| 6...8 A, Char. C, Circuit breaker | |
| 24 V DC ± 1 % | |
| 22...28 V DC (adjustable via potentiometer on front) | |
| < 100 ms / < 50 mVSS @ 24 V DC, I_R | |
| 40 A up to 50 °C | |
| 40 A @ 50 °C, 24 A @ 70 °C | |
| 48 A for 1 min, ED = 5 % | |
| Unrestricted | |
| 30...35 V DC | |
| 35 V DC | |
| LED Green ($U_{output} > 21.6$ V DC) | |
| LED Yellow ($I_{output} > 90 \% I_R$) | |
| LED Red (Overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC) | |
| Yes / NO contact / max. 30 V AC/DC 1 A | |
| Output voltage > 21.6 V DC / < 20.4 V DC | |
| 90 % @ 3 x 500 V AC / 91 % @ 3 x 400 V AC | |
| 5 W / 95 W | |
| < 1 mA | |
| > 0.56 @ 3 x 500 V AC / > 0.56 @ 3 x 400 V AC | |
| > 25 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC | |
| yes, max. 3 | |
| 125 / 160 / 120 mm / 2.5 kg | |
| CE, TÜV (EN/IEC 60950-1), cULus (Pending) | |
| Input | Output |
| Screw connection | Screw connection |
| 4 for L1/L2/L3/PE | 7 (13,14,+,+,-,-) |
| 0.18/6 | 0.5/16 |
| 0.5/2.5 | 2.5/10 |
| 26/10 | 22/8 |
| 0.5/0.6 | 1.2/1.5 |
| 7 | 12 |

Ordering data

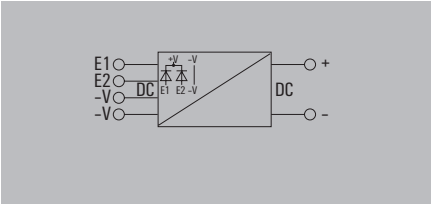
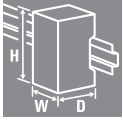
| Type | Qty. | Order No. |
|--|------|------------|
| PRO ECO3 480W 24V 20A | 1 | 1469550000 |
| Note | | |
| The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system. | | |

| Type | Qty. | Order No. |
|--|------|------------|
| PRO ECO3 960W 24V 40A | 1 | 1469560000 |
| Note | | |
| The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system. | | |

| Type | Qty. | Order No. |
|--|------|------------|
| PRO ECO3 960W 24V 40A | 1 | 1469560000 |
| Note | | |
| The internal varistor found in a switch-mode power unit does not replace the necessary surge protection in a system. | | |

connectPower PROeco

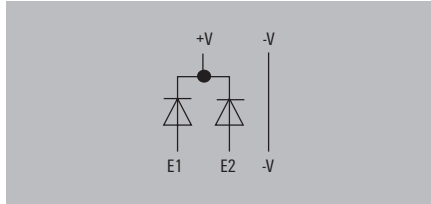
connectPower PROeco diode module



Technical data

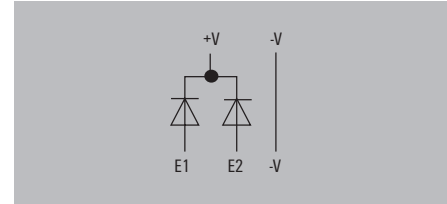
| Input | |
|--|---|
| Input voltage | 40 V DC max. |
| Input current | 2 x 0...10 A max. |
| Output | |
| Output voltage | U_m - 0.5 V typical |
| Output current | 0...20 A max. or 10 A max. for redundancy operation |
| General data | |
| Ambient temperature (operational) | -10 °C...+55 °C |
| Storage temperature | -20 °C...+85 °C |
| Degree of efficiency at max. load | 95.5% |
| Mounting position, installation notice | horizontally, on terminal rail TS 35 |
| Installation advice | Space: side \geq 2 cm; above/below \geq 10 cm |
| Weight | 0.4 kg |
| Approvals | CE; cULus; cURus |

CP DM 10



| Input | |
|--|---|
| Input voltage | 40 V DC max. |
| Input current | 2 x 0...10 A max. |
| Output | |
| Output voltage | U_m - 0.5 V typical |
| Output current | 0...20 A max. or 10 A max. for redundancy operation |
| General data | |
| Ambient temperature (operational) | -10 °C...+55 °C |
| Storage temperature | -20 °C...+85 °C |
| Degree of efficiency at max. load | 95.5% |
| Mounting position, installation notice | horizontally, on terminal rail TS 35 |
| Installation advice | Space: side \geq 2 cm; above/below \geq 10 cm |
| Weight | 0.4 kg |
| Approvals | CE; cULus; cURus |

CP DM 20



| Input | |
|--|---|
| Input voltage | 40 V DC max. |
| Input current | 2 x 0...20 A max. |
| Output | |
| Output voltage | U_m - 0.5 V typical |
| Output current | 0...40 A max. or 20 A max. for redundant operations |
| General data | |
| Ambient temperature (operational) | -10 °C...+55 °C |
| Storage temperature | -20 °C...+85 °C |
| Degree of efficiency at max. load | 97.5% |
| Mounting position, installation notice | horizontally, on terminal rail TS 35 |
| Installation advice | Space: side \geq 2 cm; above/below \geq 10 cm |
| Weight | 0.4 kg |
| Approvals | CE; cULus; cURus |

| Dimensions | |
|--|-----------------|
| Clamping range (nominal / min. / max.) | mm ² |
| Depth x width x height | mm |
| Note | |

| Input | Output |
|------------------|------------------|
| 4 / 0.13 / 6 | 4 / 0.13 / 6 |
| 110 / 55.5 / 125 | 110 / 55.5 / 125 |

| Input | Output |
|------------------|------------------|
| 4 / 0.13 / 6 | 10 / 0.32 / 16 |
| 110 / 55.5 / 125 | 110 / 55.5 / 125 |

Ordering data

| |
|------------------|
| Screw connection |
|------------------|

| Type | Qty. | Order No. |
|----------|------|------------|
| CP DM 10 | 1 | 8710620000 |

| Type | Qty. | Order No. |
|----------|------|------------|
| CP DM 20 | 1 | 8768650000 |

| Note |
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| Note |
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| Note |
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Accessories

| Note |
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| Note |
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| Note |
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|------|

Small metal foot



| Type | Order No. |
|-----------|------------|
| MTA 30 MF | 1251320000 |

Large metal foot



| Type | Order No. |
|-----------|------------|
| MTA 45 MF | 1251310000 |

Small plastic foot



| Type | Order No. |
|-----------|------------|
| MTA 30 BK | 1168970000 |

Large plastic foot



| Type | Order No. |
|-----------|------------|
| MTA 45 BK | 1962250000 |

Small wall mounting



| Type | Order No. |
|------------------------|------------|
| CP A WALLADAPTER 30 MM | 1461870000 |

Large wall mounting



| Type | Order No. |
|------------------------|------------|
| CP A WALLADAPTER 45 MM | 1461850000 |

Small screwdriver



| Type | Blade type | Size/AF | a | b | c | Order No. |
|------------------|------------|---------|-----|---|-----|------------|
| SDIK PH1 | | 1.00 | | | 80 | 9008570000 |
| SDIS 0.5X3.0X100 | B | | 0.5 | 3 | 100 | 9008380000 |

Markers



| Type | Colour | Qty. | Order No. |
|----------------------|--------|------|------------|
| SM 18/9.5 K MC NE WS | white | 200 | 1248580000 |

End bracket

For DIN rail TS 35



| Polyamide with fibre glass, screwable | Colour | Torque | Qty. | Order No. |
|---------------------------------------|--------|--------|------|------------|
| WEW 35/1 SW | black | 1.2 Nm | 50 | 1162600000 |



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