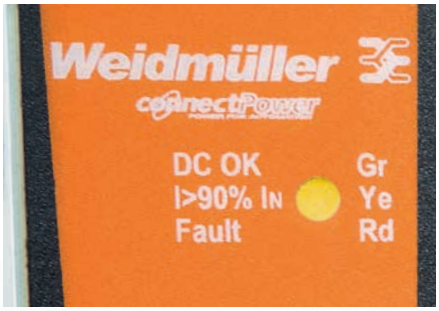
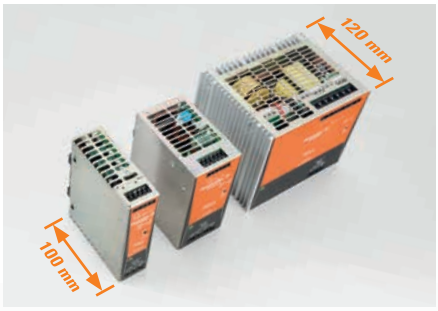
Rapid status diagnosis
The tricolour LED display and an integrated status relay make it easier to analyse statuses and errors during commissioning and operation.

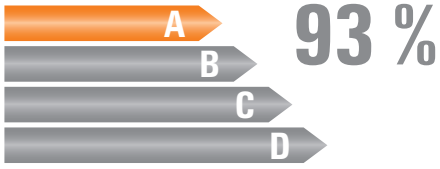


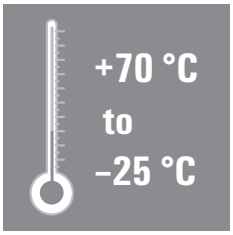
Extremely compact
With a depth of 100 mm, PROeco power supplies even fit into small cabinets.
The compact design also saves up to 50 % space in the cabinet.



Robust and reliable
PROeco power packs work reliably in a wide temperature range from –25 °C to +70 °C and boast a high MTBF value of more than 500,000 hours.

Noticeably energy-saving
A high degree of efficiency of up to 93 % and minimal no-load losses ensure low energy consumption and a long service life.



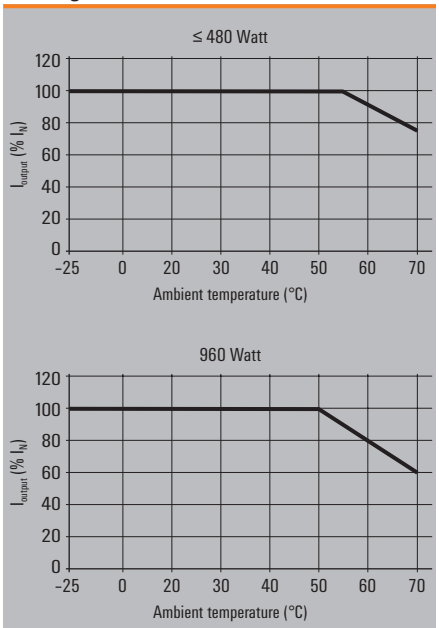


Power supply solution
Together with the uninterruptible DC UPS, the diode modules or CAP modules, you can create a power supply solution that is tailored to your requirements.

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 curve



Technical data

General data	
Ambient temperature (operational)	-25 °C...70 °C
Storage temperature	-40 °C...85 °C
Max. perm. air humidity (operational)	5 %...95 % RH
Protection degree	IP20
Protection class	I, with PE connection
Pollution degree	2
Insulation voltage, input/output	3 kV
Insulation voltage input / earth	2 kV
Insulation voltage output / earth	0.5 kV
MTBF	> 500,000 h in accordance with IEC 61709 (SN29500)
Parallel connection option	yes, max. 5
Housing version	Metal, corrosion resistant
Mounting position, installation notice	on terminal rail TS 35
Short-circuit protection	Yes
Overload protection	Yes
Protection against over-heating	Yes
EMC / shock / vibration	
Noise emission in accordance with EN55032	Class B
Interference immunity test acc. to	EN 61000-4-2 (ESD), EN 61000-4-3 (RS), EN 61000-4-4 (burst), EN 61000-4-5 (surge), EN 61000-4-6 (conducted), EN61000-4-8 (Fields), EN61000-4-11 (Dips)
Limiting of mains voltage harmonic currents	According to EN 61000-3-2
Resistance to vibration / Shock	1 g according to EN 50178 / 15 g In all directions
Electrical safety (applied standards)	
Electrical machine equipment	Acc. to EN60204
Safety transformers for switch-mode power supplies	According to EN 61558-2-16
For use with electronic equipment	Acc. to EN50178 / VDE0160
Protective separation / protection against electrical shock	VDE0100-410 / acc. to DIN57100-410
Protection against dangerous shock currents	Acc. to VDE0106-101

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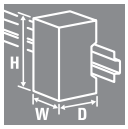
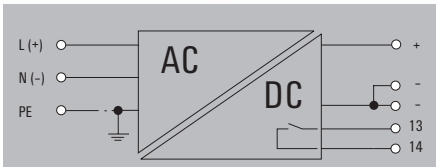


PRO ECO 72W 24V 3A

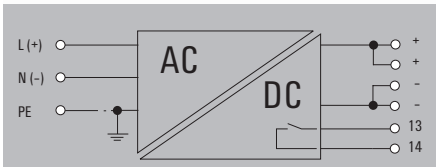
Similar to illustration



Pay attention to polarity of DC connection

PRO ECO 120W 24V 5A

Similar to illustration



Pay attention to polarity of DC connection

Technical data

Input		
Rated input voltage	100...240 V AC (wide-range input)	100...240 V AC (wide-range input)
Input voltage range AC	85...264 V AC (derating at 100 V AC)	85...264 V AC (derating at 100 V AC)
Frequency range AC	47...63 Hz	47...63 Hz
DC input voltage range	80...370 V DC (Derating @ 120 V DC)	80...370 V DC (Derating @ 120 V DC)
AC current consumption	0,55 A @ 230 V AC / 1,04 A @ 110 V AC	1,26 A @ 230 V AC / 2,24 A @ 110 V AC
DC current consumption	0,22 A @ 370 V DC / 0,68 A @ 120 V DC	0,39 A @ 370 V DC / 1,16 A @ 120 V DC
Input fuse (internal) / Inrush current	Yes / max. 40 A	Yes / max. 40 A
Recommended back-up fuse	2 A / DI, safety fuse 6 A, Char. B, circuit breaker 2...4 A, Char. C circuit breaker	4 A / DI, safety fuse 6 A, Char. B, circuit breaker 3...5 A, Char. C, circuit breaker
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Output voltage	22...28 V (adjustable via potentiometer)	22...28 V (adjustable via potentiometer)
Ramp-up time / Residual ripple, breaking spikes	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N
Nominal output current for U_{nom}	3 A at 55 °C	5 A at 55 °C
Continous output current @ $U_{Nominal}$	3 A @ 55 °C, 2,25 A @ 70 °C	5 A @ 55 °C, 3,75 A @ 70 °C
Capacitive load	unrestricted	unrestricted
Protection against inverse voltage	Yes	Yes
Signalling		
Indication	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)
Floating contact / Contact load	Yes / max. 30 V DC / 1 A	Yes / max. 30 V DC / 1 A
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload	Output voltage >21.6 V DC/ <20.4 V DC, overload
General data		
Degree of efficiency	87 %	87 %
Power loss idling / nominal load / Power loss, nominal load	4 W / 9.5 W	4 W / 15 W
Earth leakage current, max.	3.5 mA	3.5 mA
Power factor (approx.)	> 0.5...230 V AC / > 0.53...115 V AC	> 0.5...230 V AC / > 0.53...115 V AC
AC failure bridging time @ I_{nom}	> 100 ms @ 230 V AC / > 20 ms @ 115 V AC	> 80 ms @ 230 V AC / > 20 ms @ 115 V AC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height / Net weight	100 / 34 / 125 mm / 566 g	100 / 40 / 125 mm / 675 g
Approvals		
Approvals	CE; cULus; EAC; TUEV	CE; cULus; EAC; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		Screw connection	Screw connection	Screw connection	Screw connection
Number of terminals		3 for L/N/PE	5 (+,-,13,14)	3 for L/N/PE	6 (++,-,13,14)
Wire cross-section, rigid min/max	mm^2	0.5 / 6	0.5 / 6	0.5 / 6	0.5 / 6
Wire cross-section, flexible min/max	mm^2	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5
Wire cross-section, AWG/kcmil min/max		26 / 12	26 / 12	26 / 12	26 / 12
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**

Note	
	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.

Note	
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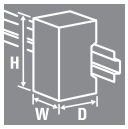
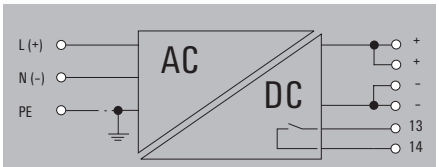


PRO ECO 240W 24V 10A

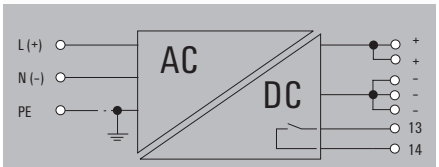
Similar to illustration



Pay attention to polarity of DC connection

PRO ECO 480W 24V 20A

Similar to illustration



Pay attention to polarity of DC connection

Technical data

Input		
Rated input voltage	100...240 V AC (wide-range input)	100...240 V AC (wide-range input)
Input voltage range AC	85...264 V AC (derating at 100 V AC)	85...264 V AC (derating at 100 V AC)
Frequency range AC	47...63 Hz	47...63 Hz
DC input voltage range	80...370 V DC (Derating @ 120 V DC)	80...370 V DC (Derating @ 120 V DC)
AC current consumption	1,23 A @ 230 V AC / 2,47 A @ 110 V AC	2,37 A @ 230 V AC / 5,2 A @ 110 V AC
DC current consumption	1,18 A @ 370 V DC / 2,4 A @ 120 V DC	1,55 A @ 370 V DC / 4,65 A @ 120 V DC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 5 A
Recommended back-up fuse	4 A / DI, safety fuse 10 A, Char. B, circuit breaker 3...4 A, Char. C, circuit breaker	6 A / DI, safety fuse 16 A, Char. B, circuit breaker 6...8 A, Char. C, circuit breaker
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Output voltage	22...28 V (adjustable via potentiometer)	22...28 V (adjustable via potentiometer)
Ramp-up time / Residual ripple, breaking spikes	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N
Nominal output current for U_{nom}	10 A @ 55 °C	20 A @ 55 °C
Continous output current @ $U_{Nominal}$	10 A @ 55 °C, 2.5 A @ 70 °C	20 A @ 55 °C, 15 A @ 70 °C
Capacitive load	unrestricted	unrestricted
Protection against inverse voltage	Yes	Yes
Signalling		
Indication	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)
Floating contact / Contact load	Yes / max. 30 V DC / 1 A	Yes / max. 30 V DC / 1 A
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload	Output voltage >21.6 V DC/ <20.4 V DC, overload
General data		
Degree of efficiency	90%	91%
Power loss idling / nominal load / Power loss, nominal load	2 W / 24 W	5 W / 43 W
Earth leakage current, max.	3.5 mA	3.5 mA
Power factor (approx.)	> 0.94 @ 230 V AC / > 0.99 @ 115 V AC	> 0.98...230 V AC / > 0.98...115 V AC
AC failure bridging time @ I_{nom}	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC
Parallel connection option	yes, max. 5	yes, max. 3
Depth x width x height / Net weight	100 / 60 / 125 mm / 1016 g	120 / 100 / 125 mm / 1557 g
Approvals		
Approvals	CE; cULus; EAC; TUEV	CE; cULus; EAC; TUEV

Connection data		Input	Output	Input	Output
Connection system		Screw connection	Screw connection	Screw connection	Screw connection
Number of terminals		3 for L/N/PE	6 (++,–,13,14)	3 for L/N/PE	7 (++,–,13,14)
Wire cross-section, rigid min/max	mm²	0.5 / 6	0.5 / 6	0.5 / 6	0.5 / 6
Wire cross-section, flexible min/max	mm²	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5
Wire cross-section, AWG/kcmil min/max		26 / 12	26 / 12	26 / 12	26 / 10
Note					

Ordering data

Type	Qty.	Order No.
PRO ECO 240W 24V 10A	1	**1469490000**

Type	Qty.	Order No.
PRO ECO 480W 24V 20A	1	**1469510000**

Note	
	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.

Note	
	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.

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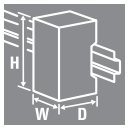
PRO ECO 960W 24V 40A



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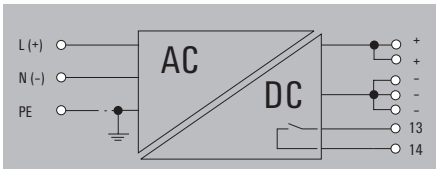


Pay attention to polarity of DC connection

Technical data

Input	
Rated input voltage	100...240 V AC (wide-range input)
Input voltage range AC	85...264 V AC (derating at 100 V AC)
Frequency range AC	47...63 Hz
DC input voltage range	80...370 V DC (Derating @ 120 V DC)
AC current consumption	4,6 A @ 230 V AC / 9,9 A @ 110 V AC
DC current consumption	2,9 A @ 370 V DC / 9 A @ 120 V DC
Input fuse (internal) / Inrush current	Yes / max. 5 A
Recommended back-up fuse	16 A / DI, safety fuse 20 A, Char. B, circuit breaker 16 A, Char. C, circuit breaker
Output	
Rated output voltage	24 V DC ± 1 %
Output voltage	22...28 V (adjustable via potentiometer)
Ramp-up time / Residual ripple, breaking spikes	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N
Nominal output current for U_{nom}	40 A @ 50 °C
Continous output current @ $U_{Nominal}$	40 A @ 50 °C, 24 A @ 70 °C
Capacitive load	unrestricted
Protection against inverse voltage	Yes
Signalling	
Indication	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)
Floating contact / Contact load	Yes / max. 30 V DC / 1 A
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload
General data	
Degree of efficiency	93%
Power loss idling / nominal load / Power loss, nominal load	8 W / 85 W
Earth leakage current, max.	3.5 mA
Power factor (approx.)	> 0.98...230 V AC / > 0.98...115 V AC
AC failure bridging time @ I_{nom}	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC
Parallel connection option	yes, max. 3
Depth x width x height / Net weight	120 / 160 / 125 mm / 3190 g
Approvals	
Approvals	CE; cULus; EAC; TUEV

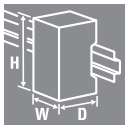
Connection data		**Input**	**Output**
Connection system		Screw connection	Screw connection
Number of terminals		3 for L/N/PE	7 (++,–,13,14)
Wire cross-section, rigid min/max	mm²	0.5 / 6	0.5 / 16
Wire cross-section, flexible min/max	mm²	0.5 / 2.5	2.5 / 10
Wire cross-section, AWG/kcmil min/max		26 / 12	22 / 8
Note			

Ordering data

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

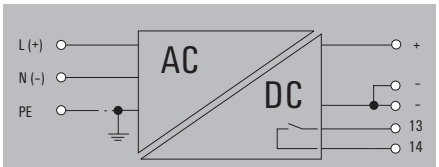
Note	
	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.

connectPower PROeco



PRO ECO 72W 12V 6A

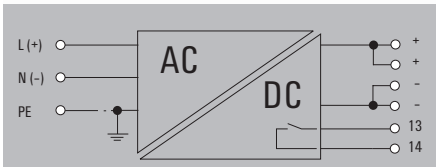
Similar to illustration



Pay attention to polarity of DC connection

PRO ECO 120W 12V 10A

Similar to illustration



Pay attention to polarity of DC connection

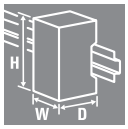
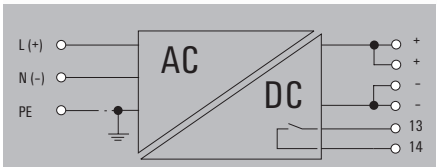
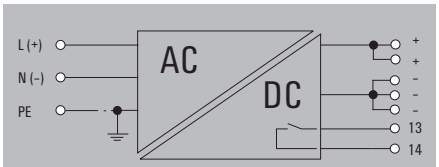
Technical data

Input		
Rated input voltage	100...240 V AC (wide-range input)	100...240 V AC (wide-range input)
Input voltage range AC	85...264 V AC (derating at 100 V AC)	85...264 V AC (derating at 100 V AC)
Frequency range AC	47...63 Hz	47...63 Hz
DC input voltage range	80...370 V DC (Derating @ 120 V DC)	80...370 V DC (Derating @ 120 V DC)
AC current consumption	0.6 A @ 230 V AC / 1.1 A @ 115 V AC	1.25 A @ 230 V AC / 2.25 A @ 110 V AC
DC current consumption	0.25 A @ 370 V DC / 0.7 A @ 120 V DC	0.4 A @ 370 V DC / 1.2 A @ 120 V DC
Input fuse (internal) / Inrush current	Yes / max. 40 A	Yes / max. 40 A
Recommended back-up fuse	2 A / DI, safety fuse 6 A, Char. B, circuit breaker 2...4 A, Char. C circuit breaker	4 A / DI, safety fuse 6 A, Char. B, circuit breaker 3...5 A, Char. C, circuit breaker
Output		
Rated output voltage	12 V DC ± 1 %	12 V DC ± 1 %
Output voltage	10...16 V (adjustable via potentiometer)	10...16 V (adjustable via potentiometer)
Ramp-up time / Residual ripple, breaking spikes	≤ 100 ms / < 50 mV ss @ 12 V DC, I Nenn	≤ 100 ms / < 50 mV ss @ 12 V DC, I Nenn
Nominal output current for U_{nom}	6 A @ 55 °C	10 A @ 55 °C
Continous output current @ $U_{Nominal}$	6 A @ 55 °C, 4.5 A @ 60 °C	10 A @ 55 °C, 2.5 A @ 70 °C
Capacitive load	unrestricted	unrestricted
Protection against inverse voltage	Yes	Yes
Signalling		
Indication	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)
Floating contact / Contact load	Yes / max. 30 V DC / 1 A	Yes / max. 30 V DC / 1 A
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload	Output voltage >21.6 V DC/ <20.4 V DC, overload
General data		
Degree of efficiency	85 %	87 %
Power loss idling / nominal load / Power loss, nominal load	4 W / 15 W	4 W / 20 W
Earth leakage current, max.	3.5 mA	3.5 mA
Power factor (approx.)	> 0.5...230 V AC / > 0.53...115 V AC	> 0.5...230 V AC / > 0.53...115 V AC
AC failure bridging time @ I_{nom}	> 100 ms @ 230 V AC / > 20 ms @ 115 V AC	> 80 ms @ 230 V AC / > 20 ms @ 115 V AC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height / Net weight	100 / 34 / 125 mm / 570 g	100 / 40 / 125 mm / 684 g
Approvals		
Approvals	CE; cULus; EAC; TUEV	CE; cULus; EAC; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		Screw connection	Screw connection	Screw connection	Screw connection
Number of terminals		3 for L/N/PE	5 (+,–,13,14)	3 for L/N/PE	6 (++,–,13,14)
Wire cross-section, rigid min/max	mm²	0.5 / 6	0.5 / 6	0.5 / 6	0.5 / 6
Wire cross-section, flexible min/max	mm²	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5
Wire cross-section, AWG/kcmil min/max		26 / 12	26 / 12	26 / 12	26 / 12
Note					

Ordering data

	Type	**Qty.**	**Order No.**	**Type**	**Qty.**	**Order No.**
	PRO ECO 72W 12V 6A	1	**1469570000**	PRO ECO 120W 12V 10A	1	**1469580000**
Note	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.			The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.		

connectPower PROeco	PRO ECO 240W 48V 5A	PRO ECO 480W 48V 10A
	 Similar to illustration	 Similar to illustration
	 Pay attention to polarity of DC connection	 Pay attention to polarity of DC connection

Technical data

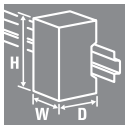
Input		
Rated input voltage	100...240 V AC (wide-range input)	100...240 V AC (wide-range input)
Input voltage range AC	85...264 V AC (derating at 100 V AC)	85...264 V AC (derating at 100 V AC)
Frequency range AC	47...63 Hz	47...63 Hz
DC input voltage range	80...370 V DC (Derating @ 120 V DC)	80...370 V DC (Derating @ 120 V DC)
AC current consumption	1.2 A @ 230 V AC / 2.4 A @ 115 V AC	2.4 A @ 230 V AC / 5.2 A @ 110 V AC
DC current consumption	1.2 A @ 370 V DC / 2.4 A @ 120 V DC	1.5 A @ 370 V DC / 4.6 A @ 120 V DC
Input fuse (internal) / Inrush current	Yes / Max. 10 A	Yes / max. 3 A
Recommended back-up fuse	4 A / DI, safety fuse 10 A, Char. B, circuit breaker 3...4 A, Char. C, circuit breaker	6 A / DI, safety fuse 16 A, Char. B, circuit breaker 6...8 A, Char. C, circuit breaker
Output		
Rated output voltage	48 V DC ± 1 %	48 V DC ± 1 %
Output voltage	42...56 V (adjustable via potentiometer)	42...56 V (adjustable via potentiometer)
Ramp-up time / Residual ripple, breaking spikes	≤ 100 ms / < 100 mV ss @ 48 V DC, I Nenn	≤ 100 ms / < 100 mV ss @ 48 V DC, I Nenn
Nominal output current for U_{nom}	5 A at 55 °C	10 A @ 55 °C
Continous output current @ $U_{Nominal}$	5 A @ 55 °C, 3,75 A @ 70 °C	10 A @ 55 °C, 2.5 A @ 70 °C
Capacitive load	unrestricted	unrestricted
Protection against inverse voltage	Yes	Yes
Signalling		
Indication	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)
Floating contact / Contact load	Yes / max. 30 V DC / 1 A	Yes / max. 30 V DC / 1 A
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload	Output voltage >21.6 V DC/ <20.4 V DC, overload
General data		
Degree of efficiency	92 %	93%
Power loss idling / nominal load / Power loss, nominal load	3 W / 23 W	5 W / 50 W
Earth leakage current, max.	3.5 mA	3.5 mA
Power factor (approx.)	> 0.94 @ 230 V AC / > 0.99 @ 115 V AC	> 0.98...230 V AC / > 0.98...115 V AC
AC failure bridging time @ I_{nom}	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC
Parallel connection option	yes, max. 5	yes, max. 3
Depth x width x height / Net weight	100 / 60 / 125 mm / 1.01 g	120 / 100 / 125 mm / 1570 g
Approvals		
Approvals	CE; cULus; EAC; TUEV	CE; cULus; EAC; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		Screw connection	Screw connection	Screw connection	Screw connection
Number of terminals		3 for L/N/PE	6 (++,–,13,14)	3 for L/N/PE	7 (++,–,13,14)
Wire cross-section, rigid min/max	mm²	0.5 / 6	0.5 / 6	0.5 / 6	0.5 / 6
Wire cross-section, flexible min/max	mm²	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5	0.22 / 4
Wire cross-section, AWG/kcmil min/max		26 / 12	26 / 12	26 / 12	26 / 10
Note					

Ordering data

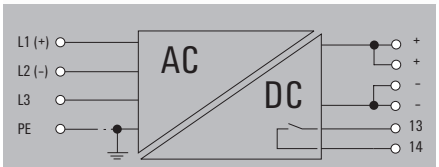
	Type	**Qty.**	**Order No.**
	PRO ECO 240W 48V 5A	1	**1469590000**
	PRO ECO 480W 48V 10A	1	**1469610000**
Note	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.		
	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.		

connectPower PROeco



PRO ECO3 120W 24V 5A

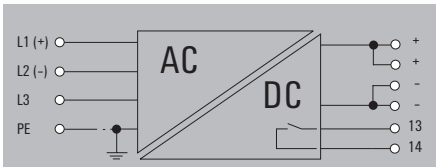
Similar to illustration



Pay attention to polarity of DC connection

PRO ECO3 240W 24V 10A

Similar to illustration



Pay attention to polarity of DC connection

Technical data

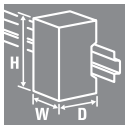
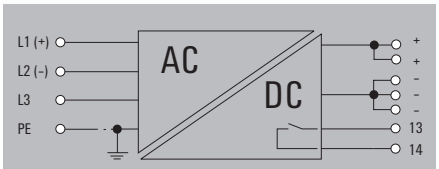
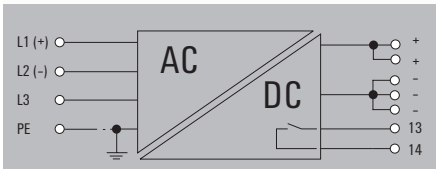
Input		
Rated input voltage	3 x 400...3 x 500 V AC (wide-range input)	3 x 400...3 x 500 V AC (wide-range input)
Input voltage range AC	3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC	3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC
Frequency range AC	47...63 Hz	47...63 Hz
DC input voltage range	450...800 V DC (max. 500 V DC acc. to UL508)	450...800 V DC (max. 500 V DC acc. to UL508)
AC current consumption	0.3 A @ 3 x 500 V AC / 0.4 A @ 3 x 400 V AC	0.6 A @ 3 x 500 V AC / 0.8 A @ 3 x 400 V AC
DC current consumption	0.2 A @ 800 V DC / 0.4 A @ 450 V DC	0.4 A @ 800 V DC / 0.7 A @ 450 V DC
Input fuse (internal) / Inrush current	Yes / max. 40 A	Yes / max. 50 A
Recommended back-up fuse	2 A / DI, safety fuse 2...3 A, Char. C, circuit breaker	2 A / DI, safety fuse 2...3 A, Char. C, circuit breaker
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Output voltage	22...28 V (adjustable via potentiometer)	22...28 V (adjustable via potentiometer)
Ramp-up time / Residual ripple, breaking spikes	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N
Nominal output current for U_{nom}	5 A at 55 °C	10 A @ 55 °C
Continous output current @ $U_{Nominal}$	5 A @ 55 °C, 3,75 A @ 70 °C	10 A @ 55 °C, 2.5 A @ 70 °C
Capacitive load	unrestricted	unrestricted
Protection against inverse voltage	Yes	Yes
Signalling		
Indication	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)
Floating contact / Contact load	Yes / max. 30 V DC / 1 A	Yes / max. 30 V DC / 1 A
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload	Output voltage >21.6 V DC/ <20.4 V DC, overload
General data		
Degree of efficiency	87 %	88%
Power loss idling / nominal load / Power loss, nominal load	6 W / 17 W	8 W / 26 W
Earth leakage current, max.	3.5 mA	3.5 mA
Power factor (approx.)	> 0.55 @ 3 x 500 V AC / > 0.65 @ 3 x 400 V AC	> 0.55 @ 3 x 500 V AC / > 0.65 @ 3 x 400 V AC
AC failure bridging time @ I_{nom}	> 40 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC	> 40 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height / Net weight	100 / 40 / 125 mm / 685 g	100 / 60 / 125 mm / 962 g
Approvals		
Approvals	CE; cULus; EAC; TUEV	CE; cULus; cURus; EAC; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		Screw connection	Screw connection	Screw connection	Screw connection
Number of terminals		4 for L1/L2/L3/PE	6 (++,-,13,14)	4 for L1/L2/L3/PE	6 (++,-,13,14)
Wire cross-section, rigid min/max	mm^2	0.5 / 6	0.5 / 6	0.5 / 6	0.5 / 6
Wire cross-section, flexible min/max	mm^2	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5
Wire cross-section, AWG/kcmil min/max		26 / 12	26 / 12	26 / 12	26 / 12
Note					

Ordering data

	Type	**Qty.**	**Order No.**
	PRO ECO3 120W 24V 5A	1	**1469530000**
	PRO ECO3 240W 24V 10A	1	**1469540000**

Note	
	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.

connectPower PROeco	PRO ECO3 480W 24V 20A	PRO ECO3 960W 24V 40A
	 Similar to illustration	 Similar to illustration
	 Pay attention to polarity of DC connection	 Pay attention to polarity of DC connection

Technical data

Input		
Rated input voltage	3 x 400...3 x 500 V AC (wide-range input)	3 x 400...3 x 500 V AC (wide-range input)
Input voltage range AC	3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC	3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC
Frequency range AC	47...63 Hz	47...63 Hz
DC input voltage range	450...800 V DC (max. 500 V DC acc. to UL508)	450...800 V DC (max. 500 V DC acc. to UL508)
AC current consumption	1.2 A @ 3 x 500 V AC / 1.5 A @ 3 x 400 V AC	2,15 A @ 3 x 500 V AC / 2,68 A @ 3 x 400 V AC
DC current consumption	0.7 A @ 800 V DC / 1.2 A @ 450 V DC	1,37 A @ 800 V DC / 2,37 A @ 450 V DC
Input fuse (internal) / Inrush current	Yes / max. 50 A	Yes / max. 40 A
Recommended back-up fuse	4 A / DI, safety fuse 3...5 A, Char. C, circuit breaker	6 A / DI, safety fuse 10 A, Char. B, circuit breaker 6...8 A, Char, C, circuit breaker
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Output voltage	22...28 V (adjustable via potentiometer)	22...28 V (adjustable via potentiometer)
Ramp-up time / Residual ripple, breaking spikes	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N	≤ 100 ms / < 50 mV_{PP} @ 24 V DC, I_N
Nominal output current for U_{nom}	20 A @ 55 °C	40 A @ 50 °C
Continous output current @ $U_{Nominal}$	20 A @ 55 °C, 15 A @ 70 °C	40 A @ 50 °C, 24 A @ 70 °C
Capacitive load	unrestricted	unrestricted
Protection against inverse voltage	Yes	Yes
Signalling		
Indication	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)	Green LED (U_{output} > 21.6 V DC), Yellow LED (I_{output} > 90 % I_{Rated} typ.), red LED (overload, overtemperature, short-circuit, U_{output} < 20.4 V DC)
Floating contact / Contact load	Yes / max. 30 V DC / 1 A	Yes / max. 30 V DC / 1 A
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload	Output voltage >21.6 V DC/ <20.4 V DC, overload
General data		
Degree of efficiency	89%	90%
Power loss idling / nominal load / Power loss, nominal load	8 W / 48 W	5 W / 95 W
Earth leakage current, max.	3.5 mA	3.5 mA
Power factor (approx.)	> 0.55 @ 3 x 500 V AC / > 0.65 @ 3 x 400 V AC	> 0.55 @ 3 x 500 V AC / > 0.65 @ 3 x 400 V AC
AC failure bridging time @ I_{nom}	> 30 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC	> 25 ms at 3 x 500 V AC / > 20 ms at 3 x 400 V AC
Parallel connection option	yes, max. 3	yes, max. 3
Depth x width x height / Net weight	120 / 100 / 125 mm / 1300 g	120 / 160 / 125 mm / 2899 g
Approvals		
Approvals	CE; cULus; cURus; EAC; TUEV	CE; cULus; cURus; EAC; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		Screw connection	Screw connection	Screw connection	Screw connection
Number of terminals		4 for L1/L2/L3/PE	7 (++,–,13,14)	4 for L1/L2/L3/PE	7 (++,–,13,14)
Wire cross-section, rigid min/max	mm^2	0.5 / 6	0.5 / 6	0.5 / 6	0.5 / 16
Wire cross-section, flexible min/max	mm^2	0.5 / 2.5	0.5 / 2.5	0.5 / 2.5	2.5 / 10
Wire cross-section, AWG/kcmil min/max		26 / 12	26 / 10	26 / 12	22 / 8
Note					

Ordering data

	Type	Qty.	Order No.
	PRO ECO3 480W 24V 20A	1	1469550000
	PRO ECO3 960W 24V 40A	1	1469560000

Note	
	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.

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

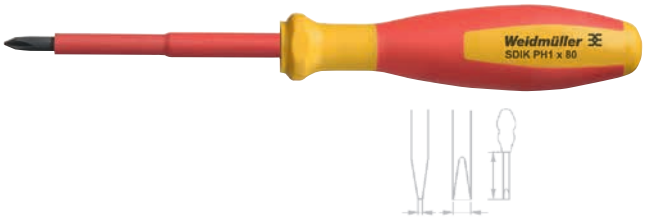
Small wall mounting

Type	Order No.
CP A WALLADAPTER 30 MM	1461870000

Large wall mounting

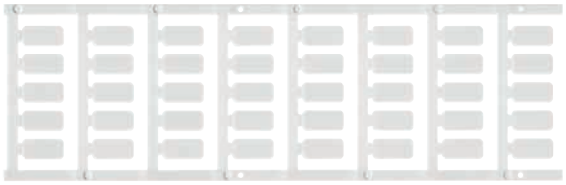
Type	Order No.
CP A WALLADAPTER 45 MM	1461850000

Small screwdriver



Type	Size/AF	a	b	c	Order No.
SDIK PH 1 X 80				80	2749890000
SDIS 0.5X3.0X100		0,5	3	100	2749800000

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