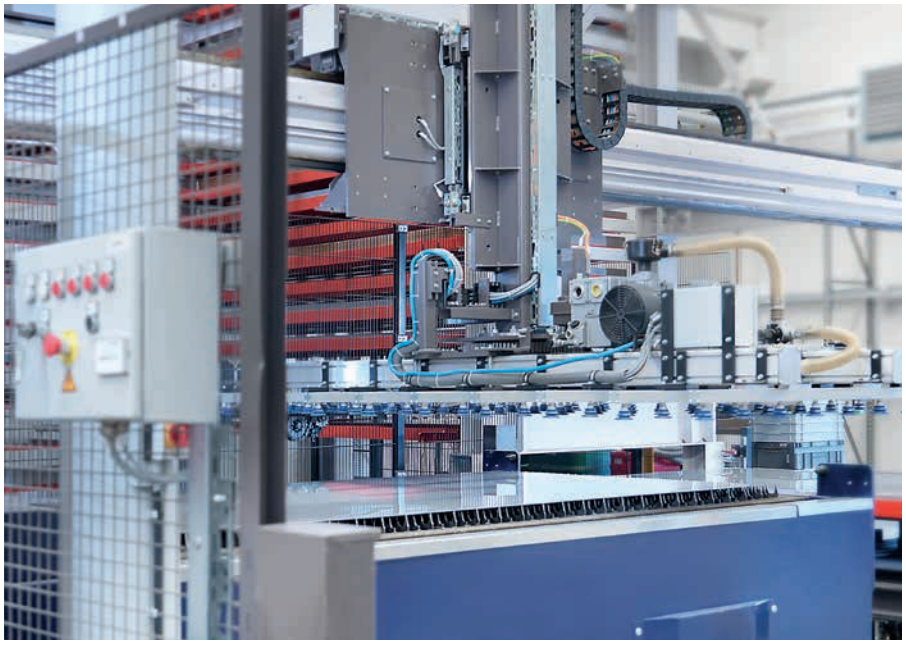
Powerful power supply for machines and systems

PROmax offers flexible solutions for ambitious automation

Power supplies for large systems and machines are particularly challenging. Failures caused by device defects impact the entire production line and can result in high costs.

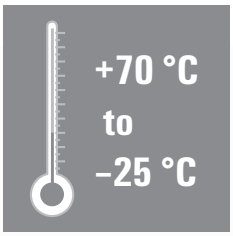
Our high performance and durable PROmax switched-mode power supply units are designed for demanding requirements. Continuous overload of up to 120 % or transient peak loads of 300 % are easy for PROmax to handle.

High boost capability and full power are also enabled over a wide temperature range. Our switched-mode power supply units can be used around the world and are also suitable for tight spaces thanks to their narrow width.



High boost capability for all industrial systems
Whether in large machines and plants, in power engineering or even in light process systems: Thanks to their high boot capability, the space-saving housing geometries, the wide temperature range and the numerous approvals, our PROmax switched-mode power supply units can be used for universal applications and anywhere in the world.

Robust and reliable supply
MTBF values exceeding 500,000 hours and a wide temperature range of –25 °C to +70 °C ensure reliable supply of the systems. Start-up temperatures of –40 °C make the PROmax particularly robust.



Space-saving width
With extremely small width and direct side-by-side fitting, minimal space is required on the DIN rail.

SEMIF47

Cl. I Div. 2 (EMC1)

Universal application
Variants with 3 A to 40 A output current, output voltages of 5 V DC to 48 V DC and numerous approvals (e.g. GL, UL, Class I, Div. 2) enable universal application solutions the world over.

Powerful
Continuous output power of up to 120 % at temperatures up to +45 °C and high output peaks up to 300 % ensure safe operation, also at the limits.

Robust Input
With an AC input voltage range of up to 277 V in single-phase devices and SEMI F47, PROmax is extremely robust.

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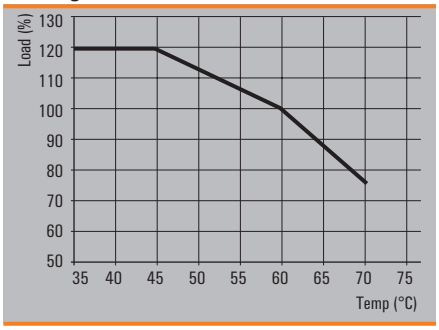
Derating curve



Permitted continuous limit currents [A]

Typ\Temp.	45 °C	50 °C	55 °C	60 °C	65 °C	70 °C
1ph 24 V / 3 A	3,6	3,3	3,2	3	2,6	2,2
1ph 24 V / 5 A	6	5,7	5,4	5	4,4	3,8
1ph 24 V / 7,5 A	9	8,5	8	7,5	6,6	5,6
1ph 24 V / 10 A	12	11,3	10,7	10	8,8	7,5
1ph 24 V / 20 A	24	22,6	21,4	20	17,6	15
1ph 24 V / 40 A	48	45,2	42,8	40	35,2	30
1ph 5 V / 14 A	16,8	15,8	15	14	12,3	10,5
1ph 12 V / 6 A	7,2	6,8	6,4	6	5,3	4,5
1ph 12 V / 10 A	12	11,3	10,7	10	8,8	7,5
1ph 48 V / 5 A	6	5,7	5,4	5	4,4	3,8
1ph 48 V / 10 A	12	11,3	10,7	10	8,8	7,5
1ph 48 V / 20 A	24	22,6	21,4	20	17,6	15
3ph 24 V / 5 A	6	5,7	5,4	5	4,4	3,8
3ph 24 V / 10 A	12	11,3	10,7	10	8,8	7,5
3ph 24 V / 20 A	24	22,6	21,4	20	17,6	15
3ph 24 V / 40 A	48	45,2	42,8	40	35,2	30

Technical data

General data	
Current limiting	> 120% I_N
Insulation voltage input / earth	3.5 kV
Insulation voltage output / earth	0.5 kV
Insulation voltage, input/output	4 kV
Earth leakage current, max.	3.5 mA
Series switching capability	Yes
Ambient temperature (operational) / Storage temperature / Start-up	-25 °C...70 °C / -40 °C...85 °C / ≥ -40 °C
Humidity at operating temperature	5...95 %, no condensation
Protection class / Pollution degree	I, with PE connection / 2
MTBF	>500.000h (25°C, IEC 61709 (SN29500))
Housing version	Metal, corrosion resistant
Status indication	LED red/green and relay (≥21.6 V DC LED green, relay on/ ≤20.6 LED red, relay off)
Mounting position, installation notice	Horizontal on TS35 mounting rail. 50 mm of clearance at top & bottom for air circ. Can mount side by side with no space in between.
EMC / shock / vibration	
Interference immunity test acc. to	EN 55024, EN 55032, IEC61000-3-2,-3, IEC61000-4-2,-3,-4,-5,-6,-8,-11
Shock	30 g in all directions
Resistance to vibration	2.3 g
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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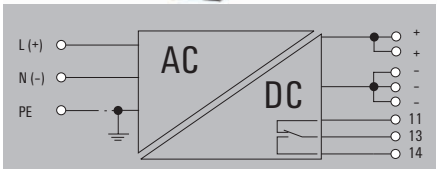
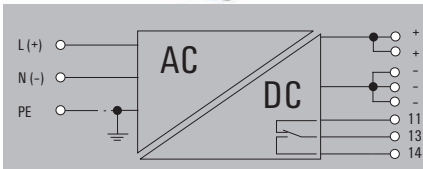
	PRO MAX 72W 24V 3A	PRO MAX 120W 24V 5A
		
	 Pay attention to polarity of DC connection	 Pay attention to polarity of DC connection

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...277 V AC	85...277 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	80...370 V DC	80...370 V DC
AC current consumption	1 A @ 230 V AC / 1.5 A @ 115 V AC	1A @ 230 VAC / 2,5A @ 115 VAC
DC current consumption	1A @ 370 VDC / 1,5A @ 120 VDC	1,5A @ 370 VDC / 2,5A @ 120 VDC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 15 A
Recommended back-up fuse	6 A, Char. B, circuit breaker, 3 - 5 A, char. C, circuit breaker	6 A, Char. B, circuit breaker, 6 A, char. C circuit breaker
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Output voltage	22.5...29.5 V (adjustable via potentiometer)	22.5...29.5 V (adjustable via potentiometer)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Nominal output current for U_{nom}	3 A @ 60 °C	5 A @ 60 °C
Continous output current @ $U_{Nominal}$	3,6 A @ 45°C, 2,25 A @ 70°C	6.0 A @ 45 °C, 3,75 A @ 70 °C
Reserve capacity @ $U_{Nominal}$	3.6 A (1 min), 4.5 A (4s)	6 A (1 min), 7.5 A (4s)
Current capacity (pulse) @ $U_{Nominal}$	9 A (2ms)	15 A (2ms)
General data		
Degree of efficiency	89%	89%
Power factor (approx.)	> 0.90 @ 230 V AC	> 0.90 @ 230 V AC
AC failure bridging time @ I_{nom}	min. 20 ms	min. 20 ms
Protection against reverse voltages from the load	30...35 V DC	30...35 V DC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height	125 / 32 / 130 mm	125 / 40 / 130 mm
Net weight	650 g	858 g
Approvals		
Approvals	CE; cULus; cULusEX; cURus; DNVGL; EAC; TUEV	CE; cULus; cULusEX; cURus; DNVGL; 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	8 (++,–,11,13,14)	3 for L/N/PE	8 (++,–,11,13,14)
Wire cross-section, rigid min/max	mm²	0.18 / 6	0.5 / 6	0.18 / 6	0.5 / 6
Wire cross-section, flexible min/max	mm²	0.22 / 4	0.5 / 4	0.22 / 4	0.5 / 4
Wire cross-section, AWG/kcmil min/max		26 / 10	26 / 12	26 / 10	26 / 12
Note					

Ordering data

Type	**Qty.**	**Order No.**
PRO MAX 72W 24V 3A	1	**1478100000**

Type	**Qty.**	**Order No.**
PRO MAX 120W 24V 5A	1	**1478110000**

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.

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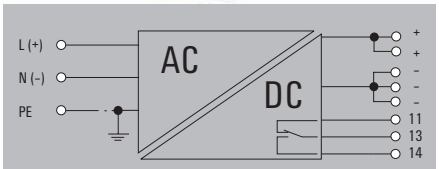
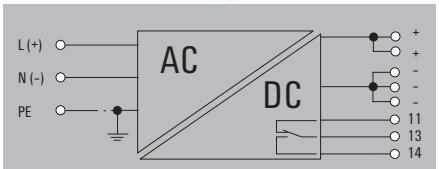
PRO MAX 180W 24V 7,5A



Pay attention to polarity of DC connection

PRO MAX 240W 24V 10A



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...277 V AC	85...277 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	80...370 V DC	80...370 V DC
AC current consumption	1 A @ 230 V AC / 2 A @ 115 V AC	1.5 A @ 230 V AC / 3 A @ 115 V AC
DC current consumption	1A @ 370 VDC / 2A @ 120 VDC	1,5A @ 370 VDC / 3A @ 120 VDC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 15 A
Recommended back-up fuse	10 A, Char. B circuit breaker, 6...8 A, char. C circuit breaker	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	22.5...29.5 V (adjustable via potentiometer)	22.5...29.5 V (adjustable via potentiometer)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Nominal output current for U_{nom}	7,5 A @ 60 °C	10 A @ 60 °C
Continous output current @ $U_{Nominal}$	9 A @ 45°C, 5,6 A @ 70°C	12 A @ 45°C, 7,5 A @ 70°C
Reserve capacity @ $U_{Nominal}$	9 A (1 min), 11.25 A (4s)	12 A (1 min), 15 A (4s)
Current capacity (pulse) @ $U_{Nominal}$	22,5 A (2ms)	30 A (2ms)
General data		
Degree of efficiency	91.5%	91.5%
Power factor (approx.)	> 0.95 @ 230 V AC	> 0.95 @ 230 V AC
AC failure bridging time @ I_{nom}	min. 20 ms	min. 20 ms
Protection against reverse voltages from the load	30...35 V DC	30...35 V DC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height	125 / 50 / 130 mm	125 / 60 / 130 mm
Net weight	950 g	1050 g
Approvals		
Approvals	CE; cULus; cULusEX; cURus; DNVGL; EAC; TUEV	CE; cULus; cULusEX; cURus; DNVGL; 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	8 (++,–,11,13,14)	3 for L/N/PE	8 (++,–,11,13,14)
Wire cross-section, rigid min/max	mm²	0.18 / 6	0.5 / 6	0.18 / 6	0.18 / 6
Wire cross-section, flexible min/max	mm²	0.22 / 4	0.5 / 4	0.22 / 4	0.22 / 4
Wire cross-section, AWG/kcmil min/max		26 / 10	26 / 12	26 / 10	26 / 10
Note					

Ordering data

Type	Qty.	Order No.
PRO MAX 180W 24V 7,5A	1	**1478120000**

Type	Qty.	Order No.
PRO MAX 240W 24V 10A	1	**1478130000**

Note	
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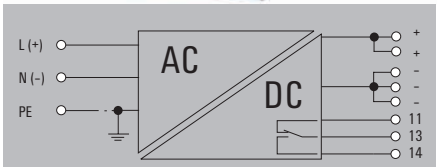
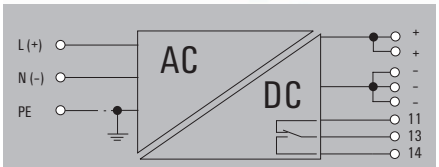
PRO MAX 480W 24V 20A



Pay attention to polarity of DC connection

PRO MAX 960W 24V 40A



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...277 V AC	85...277 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	80...370 V DC	80...370 V DC
AC current consumption	2,3A @ 230 VAC / 4,8A @ 115 VAC	4,52A @ 230 VAC / 10A @ 115 VAC
DC current consumption	1,5A @ 370 VDC / 4.8A @ 120 VDC	2,8A @ 370 VDC / 10A @ 120 VDC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 15 A
Recommended back-up fuse	16 A, char. B circuit breaker, 10 A, Char. C circuit breaker	20 A, char. B circuit breaker, 16 A, char. C, circuit breaker
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Output voltage	22.5...29.5 V (adjustable via potentiometer)	22.5...29.5 V (adjustable via potentiometer)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Nominal output current for U_{nom}	20 A @ 60 °C	40 A @ 60 °C
Continous output current @ $U_{Nominal}$	24 A @ 45°C, 15 A @ 70°C	48 A @ 45°C, 30 A @ 70°C
Reserve capacity @ $U_{Nominal}$	24 A (1 min), 30 A (4s), 100...240 V AC	48 A (1 min), 60 A (4s), 100...240 V AC
Current capacity (pulse) @ $U_{Nominal}$	60 A (2ms)	120 A (2ms)
General data		
Degree of efficiency	92 %	93%
Power factor (approx.)	> 0.95 @ 230 V AC	> 0.95 @ 230 V AC
AC failure bridging time @ I_{nom}	min. 20 ms	min. 20 ms
Protection against reverse voltages from the load	30...35 V DC	30...35 V DC
Parallel connection option	yes, max. 3	yes, max. 3
Depth x width x height	150 / 90 / 130 mm	150 / 140 / 130 mm
Net weight	2000 g	3900 g
Approvals		
Approvals	CE; cULus; cULusEX; cURus; DNVGL; EAC; TUEV	CE; cULus; cULusEX; cURus; DNVGL; 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	8 (++,–,11,13,14)	3 for L/N/PE	8 (++,–,11,13,14)
Wire cross-section, rigid min/max	mm²	0.18 / 6	0.18 / 6	0.18 / 6	0.5 / 16
Wire cross-section, flexible min/max	mm²	0.22 / 4	0.22 / 4	0.22 / 4	0.5 / 16
Wire cross-section, AWG/kcmil min/max		26 / 10	26 / 10	26 / 10	22 / 8
Note					

Ordering data

Type	Qty.	Order No.
PRO MAX 480W 24V 20A	1	**1478140000**

Type	Qty.	Order No.
PRO MAX 960W 24V 40A	1	**1478150000**

Note	
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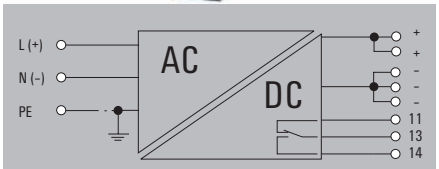
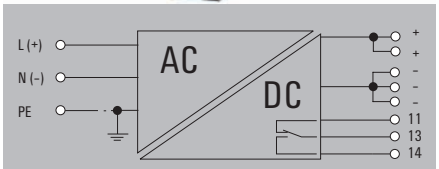
PRO MAX 70W 5V 14A



Pay attention to polarity of DC connection

PRO MAX 72W 12V 6A



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...277 V AC	85...277 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	80...370 V DC	80...370 V DC
AC current consumption	1 A @ 230 V AC / 1.5 A @ 115 V AC	1 A @ 230 V AC / 1.5 A @ 115 V AC
DC current consumption	1A @ 370 VDC / 1,5A @ 120 VDC	1A @ 370 VDC / 1,5A @ 120 VDC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 15 A
Recommended back-up fuse	6 A, Char. B, circuit breaker, 3 - 5 A, char. C, circuit breaker	6 A, Char. B, circuit breaker, 3 - 5 A, char. C, circuit breaker
Output		
Rated output voltage	5 V DC	12 V DC ± 1 %
Output voltage	4.5...7 V (adjustable via potentiometer)	10...15 V (adjustable via potentiometer)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Nominal output current for U_{nom}	14 A @ 60°C	6 A @ 60°C
Continous output current @ $U_{Nominal}$	16,8 A @ 45°C, 10,5 A @ 70°C	7.2 A @ 45°C, 4.5 A @ 70°C
Reserve capacity @ $U_{Nominal}$	16.8 A (1 min), 21 A (4s)	7.2 A (1 min), 9 A (4s)
Current capacity (pulse) @ $U_{Nominal}$	42 A (2ms)	18 A (2ms)
General data		
Degree of efficiency	86%	89%
Power factor (approx.)	> 0.90 @ 230 V AC	> 0.90 @ 230 V AC
AC failure bridging time @ I_{nom}	min. 20 ms	min. 20 ms
Protection against reverse voltages from the load	> 7.5 V DC	> 18 V DC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height	125 / 32 / 130 mm	125 / 32 / 130 mm
Net weight	650 g	650 g
Approvals		
Approvals	CE; cULus; cULusEX; cURus; DNVGL; EAC; TUEV	CE; cULus; cULusEX; cURus; DNVGL; 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	8 (++,–,11,13,14)	3 for L/N/PE	8 (++,–,11,13,14)
Wire cross-section, rigid min/max	mm²	0.18 / 6	0.5 / 6	0.18 / 6	0.5 / 6
Wire cross-section, flexible min/max	mm²	0.22 / 4	0.5 / 4	0.22 / 4	0.5 / 4
Wire cross-section, AWG/kcmil min/max		26 / 10	26 / 12	26 / 10	26 / 12
Note					

Ordering data

Type	Qty.	Order No.
PRO MAX 70W 5V 14A	1	**1478210000**

Type	Qty.	Order No.
PRO MAX 72W 12V 6A	1	**1478220000**

Note	
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Note	
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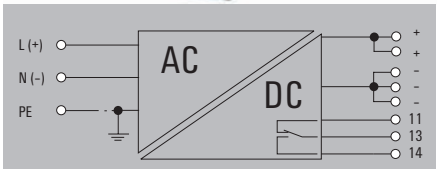
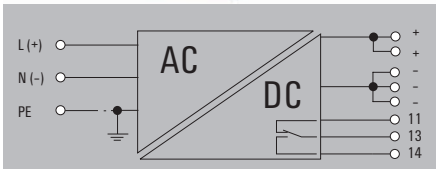
PRO MAX 120W 12V 10A



Pay attention to polarity of DC connection

PRO MAX 240W 48V 5A



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...277 V AC	85...277 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	80...370 V DC	80...370 V DC
AC current consumption	1A @ 230 VAC / 2,5A @ 115 VAC	1.5 A @ 230 V AC / 3 A @ 115 V AC
DC current consumption	1,5A @ 370 VDC / 2,5A @ 120 VDC	1,5A @ 370 VDC / 3A @ 120 VDC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 15 A
Recommended back-up fuse	6 A, Char. B, circuit breaker, 6 A, char. C circuit breaker	10 A, Char. B circuit breaker, 6...8 A, char. C circuit breaker
Output		
Rated output voltage	12 V DC ± 1 %	48 V DC ± 1 %
Output voltage	10...15 V (adjustable via potentiometer)	30...56 V (adjustable via potentiometer)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Nominal output current for U_{nom}	10 A @ 60 °C	5 A @ 60 °C
Continous output current @ $U_{Nominal}$	12 A @ 45°C, 7,5 A @ 70°C	6.0 A @ 45 °C, 3,75 A @ 70 °C
Reserve capacity @ $U_{Nominal}$	12 A (1 min), 15 A (4s)	5 A (1 min), 7.5 A (4s)
Current capacity (pulse) @ $U_{Nominal}$	30 A (2ms)	15 A (2ms)
General data		
Degree of efficiency	89%	92.5%
Power factor (approx.)	> 0.90 @ 230 V AC	> 0.95 @ 230 V AC
AC failure bridging time @ I_{nom}	min. 20 ms	min. 20 ms
Protection against reverse voltages from the load	> 18 V DC	58...65 V DC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height	125 / 40 / 130 mm	125 / 60 / 130 mm
Net weight	850 g	1050 g
Approvals		
Approvals	CE; cULus; cULusEX; cURus; DNVGL; EAC; TUEV	CE; cULus; cULusEX; cURus; DNVGL; 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	8 (++,–,11,13,14)	3 for L/N/PE	8 (++,–,11,13,14)
Wire cross-section, rigid min/max	mm²	0.18 / 6	0.5 / 6	0.18 / 6	0.18 / 6
Wire cross-section, flexible min/max	mm²	0.22 / 4	0.5 / 4	0.22 / 4	0.22 / 4
Wire cross-section, AWG/kcmil min/max		26 / 10	26 / 12	26 / 10	26 / 10
Note					

Ordering data

Type	Qty.	Order No.
PRO MAX 120W 12V 10A	1	**1478230000**

Type	Qty.	Order No.
PRO MAX 240W 48V 5A	1	**1478240000**

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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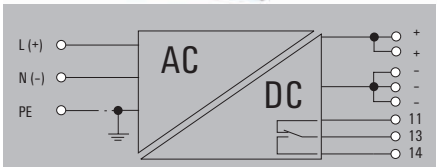
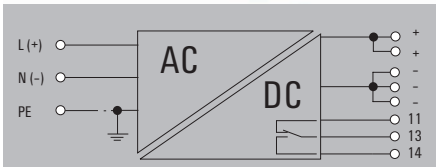
connectPower PROmax

	PRO MAX 480W 48V 10A	PRO MAX 960W 48V 20A
		
	 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...277 V AC	85...277 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	80...370 V DC	80...370 V DC
AC current consumption	2,3A @ 230 VAC / 4,8A @ 115 VAC	4,52A @ 230 VAC / 10A @ 115 VAC
DC current consumption	1,5A @ 370 VDC / 4.8A @ 120 VDC	2,8A @ 370 VDC / 10A @ 120 VDC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 15 A
Recommended back-up fuse	16 A, char. B circuit breaker, 10 A, Char. C circuit breaker	20 A, char. B circuit breaker, 16 A, char. C, circuit breaker
Output		
Rated output voltage	48 V DC ± 1 %	48 V DC ± 1 %
Output voltage	30...56 V (adjustable via potentiometer)	30...56 V (adjustable via potentiometer)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Nominal output current for U_{nom}	10 A @ 60 °C	20 A @ 60 °C
Continous output current @ $U_{Nominal}$	12 A @ 45°C, 7,5 A @ 70°C	24 A @ 45°C, 15 A @ 70°C
Reserve capacity @ $U_{Nominal}$	12 A (1 min), 15 A (4s), 100...240 V AC	24 A (1 min), 30 A (4s), 100...240 V AC
Current capacity (pulse) @ $U_{Nominal}$	60 A (2ms)	60 A (2ms)
General data		
Degree of efficiency	93%	94%
Power factor (approx.)	> 0.95 @ 230 V AC	> 0.95 @ 230 V AC
AC failure bridging time @ I_{nom}	min. 20 ms	min. 20 ms
Protection against reverse voltages from the load	58...65 V DC	58...65 V DC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height	150 / 90 / 130 mm	150 / 140 / 130 mm
Net weight	2000 g	3950 g
Approvals		
Approvals	CE; cULus; cULusEX; cURus; DNVGL; EAC; TUEV	CE; cULus; cULusEX; cURus; DNVGL; 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	8 (++,–,11,13,14)	3 for L/N/PE	8 (++,–,11,13,14)
Wire cross-section, rigid min/max	mm²	0.18 / 6	0.18 / 6	0.18 / 6	0.5 / 16
Wire cross-section, flexible min/max	mm²	0.22 / 4	0.22 / 4	0.22 / 4	0.5 / 16
Wire cross-section, AWG/kcmil min/max		26 / 10	26 / 10	26 / 10	22 / 8
Note					

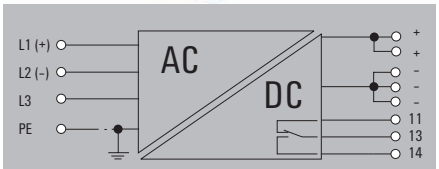
Ordering data

Type	Qty.	Order No.
PRO MAX 480W 48V 10A	1	**1478250000**
PRO MAX 960W 48V 20A	1	**1478270000**

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

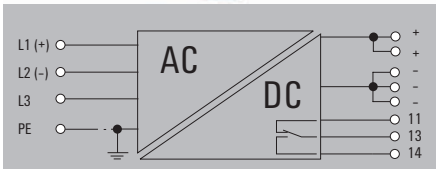
connectPower PROmax

PRO MAX3 120W 24V 5A



Pay attention to polarity of DC connection

PRO MAX3 240W 24V 10A



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	45...65 Hz	45...65 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	0,28A @ 3*500 VAC / 0,3A @ 3*400 VAC	0,35A @ 3*500 VAC / 0,4A @ 3*400 VAC
DC current consumption	0.18 A @ 800 V DC / 0.3 A @ 450 V DC	0.35 A @ 800 V DC / 0.6 A @ 450 V DC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 15 A
Recommended back-up fuse	2...3 A, char. C circuit breaker	3 - 5 A, char. C, circuit breaker
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Output voltage	22.5...29.5 V (adjustable via potentiometer)	22.5...29.5 V (adjustable via potentiometer)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Nominal output current for U_{nom}	5 A @ 60 °C	10 A @ 60 °C
Continous output current @ $U_{Nominal}$	6.0 A @ 45 °C, 3,75 A @ 70 °C	12 A @ 45°C, 7,5 A @ 70°C
Reserve capacity @ $U_{Nominal}$	6 A (1 min), 7.5 A (4s), 400...500 V AC	12 A (1 min), 15 A (4s)
Current capacity (pulse) @ $U_{Nominal}$	15 A (2ms)	30 A (2ms)
General data		
Degree of efficiency	90%	91.5%
Power factor (approx.)	> 0.50 @ 3x400 V AC	> 0.85 @ 3*400 V AC
AC failure bridging time @ I_{nom}	min. 20 ms	min. 20 ms
Protection against reverse voltages from the load	30...35 V DC	30...35 V DC
Parallel connection option	yes, max. 5	yes, max. 5
Depth x width x height	125 / 40 / 130 mm	125 / 60 / 130 mm
Net weight	783 g	1322 g
Approvals		
Approvals	CE; cULus; cULusEX; cURus; DNVGL; EAC; TUEV	CE; cULus; cULusEX; cURus; DNVGL; 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	8 (++,–,11,13,14)	4 for L1/L2/L3/PE	8 (++,–,11,13,14)
Wire cross-section, rigid min/max	mm²	0.18 / 6	0.5 / 6	0.18 / 6	0.18 / 6
Wire cross-section, flexible min/max	mm²	0.22 / 4	0.5 / 4	0.22 / 4	0.22 / 4
Wire cross-section, AWG/kcmil min/max		26 / 10	26 / 12	26 / 10	26 / 10
Note					

Ordering data

Type	Qty.	Order No.
PRO MAX3 120W 24V 5A	1	**1478170000**

Type	Qty.	Order No.
PRO MAX3 240W 24V 10A	1	**1478180000**

Note	
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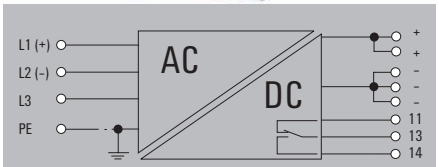
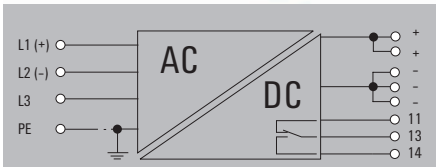
connectPower PROmax

PRO MAX3 480W 24V 20A



Pay attention to polarity of DC connection

PRO MAX3 960W 24V 40A



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	45...65 Hz	45...65 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	0,7A @ 3*500 VAC / 0,85 @ 3*400 VAC	1,3A @ 3*500 VAC / 1,6A @ 3*400 VAC
DC current consumption	0.7 A @ 800 V DC / 1.2 A @ 450 V DC	1.4 A @ 800 V DC / 2.4 A @ 450 V DC
Input fuse (internal) / Inrush current	Yes / max. 15 A	Yes / max. 15 A
Recommended back-up fuse	3 - 5 A, char. C, circuit breaker	6...8 A, char. C circuit breaker
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Output voltage	22.5...29.5 V (adjustable via potentiometer)	22.5...29.5 V (adjustable via potentiometer)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Nominal output current for U_{nom}	20 A @ 60 °C	40 A @ 60 °C
Continous output current @ $U_{Nominal}$	24 A @ 45°C, 15 A @ 70°C	48 A @ 45°C, 30 A @ 70°C
Reserve capacity @ $U_{Nominal}$	24 A (1 min), 30 A (4s)	48 A (1 min), 60 A (4s), 400...500 V AC
Current capacity (pulse) @ $U_{Nominal}$	60 A (2ms)	120 A (2ms)
General data		
Degree of efficiency	91.5%	93.5%
Power factor (approx.)	> 0.85 @ 3*400 V AC	> 0.75 @ 3x400 V AC
AC failure bridging time @ I_{nom}	min. 20 ms	min. 20 ms
Protection against reverse voltages from the load	30...35 V DC	30...35 V DC
Parallel connection option	yes, max. 3	yes, max. 3
Depth x width x height	150 / 70 / 130 mm	150 / 140 / 130 mm
Net weight	1600 g	3400 g
Approvals		
Approvals	CE; cULus; cULusEX; cURus; DNVGL; EAC; TUEV	CE; cULus; cULusEX; cURus; DNVGL; 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	8 (++,–,11,13,14)	4 for L1/L2/L3/PE	8 (++,–,11,13,14)
Wire cross-section, rigid min/max	mm²	0.18 / 6	0.18 / 6	0.18 / 6	0.5 / 16
Wire cross-section, flexible min/max	mm²	0.22 / 4	0.22 / 4	0.22 / 4	0.5 / 16
Wire cross-section, AWG/kcmil min/max		26 / 10	26 / 10	26 / 10	22 / 8
Note					

Ordering data

Type	Qty.	Order No.
PRO MAX3 480W 24V 20A	1	**1478190000**

Type	Qty.	Order No.
PRO MAX3 960W 24V 40A	1	**1478200000**

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

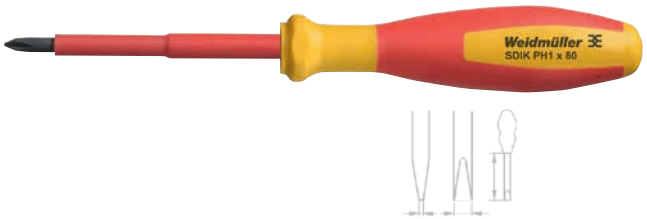
Small wall mounting

Type	Order No.
CP A WALLADAPTER 30 MM	1461870000

Large wall mounting

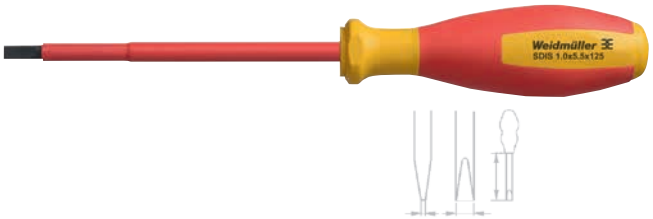
Type	Order No.
CP A WALLADAPTER 45 MM	1461850000

Small screwdriver



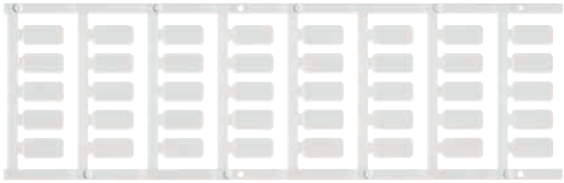
Type	Size/AF	a	b	c	Order No.
SDIK PH 1 X 80				80	2749890000
SDIS 0.5X3.0X100		0.5	3	100	2749800000

Large screwdriver



Type	Size/AF	a	b	c	Order No.
SDIS 1.0X5.5X125		1	5.5	125	2749850000

Markers



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

Endwinkel

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