An everlasting power supply for buildings and machines

INSTA POWER power supplies – compact, efficient and reliable

In building automation and mechanical engineering, many small distributors, meter cabinets and electrical distributions must often be taken into account. Efficient power supply solutions with high power density and high efficiency are in demand here.

The single phase INSTA POWER have a broad power spectrum, compact design, and good price-performance ratio. They operate in a temperature range from -25 °C to +70 °C and have wide range of approvals and wide-range voltage input. They are suitable for a variety of applications, which include signal and telecommunication systems and automation systems with low power requirements up to 96 W.

With its unique combination of particularly slim design, proven PUSH IN connection technology and high cost efficiency, INSTA POWER has decisive advantages over competitive products on the market.

Building automation with the compact power package.

The new INSTA POWER is optimal for the use in building automation. Due to the standardized design with small width, this power supply also finds sufficient space in sub-distribution boards and small distribution boards. Furthermore, the extensive power spectrum of INSTA POWER is an additional advantage for compact applications.

Extremely space- and energy-saving
With a basic depth of only 60 mm, INSTA POWER fits into the smallest control cabinets. The high efficiency of up to 91 % and the extremely low no-load power loss of max. 0.5 W ensure minimum energy costs.

Robust and reliable
INSTA POWER operates reliably in a temperature range from -25 °C to +70 °C (start-up: -40 °C) and have a high MTBF value of more than 1,000,000 hours.

Easy and quick to install
The INSTA POWER devices can either be snapped onto a DIN rail or screwed to the control cabinet wall. The maintenance work and measurements can be carried out conveniently via the PUSH IN connections.

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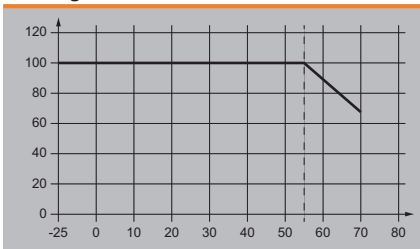
Derating curve



Technical data

General data	
Ambient temperature (operational)	-25 °C...70 °C
MTBF	> 750.000 h nach IEC 61709 (SN29500)
Protection degree	IP20
Housing version	Plastic, protective insulation
Mounting position, installation notice	Horizontal on DIN rail TS 35, top and bottom 50 mm clearance for free air flow, 10 mm clearance to neighbouring active subassemblies with full load, 5 mm with passive neighbouring subassemblies, direct row mounting with 90% rated load
Signalling	
LED green	Operating voltage OK
EMC / shock / vibration	
Limiting of mains voltage harmonic currents	According to EN 61000-3-2
Noise emission in accordance with EN55032	Class B
Interference immunity test acc. to	EN 61000-4-2 (ESD) | EN 61000-4-3 and EN 61000-4-8 (fields) | EN 61000-4-4 (burst) | EN 61000-4-5 (surge) | EN 61000-4-6 (conducted) | EN 61000-4-11 (dips), EN 61000-4-11 (Dips)
Shock	15 g In all directions
Insulation coordination	
Insulation voltage output / earth	0.5 kV
Insulation voltage, input/output	4 kV
Insulation voltage input / earth	3.5 kV
Protection class	II
Pollution degree	2
Electrical safety (applied standards)	
For use with electronic equipment	Acc. to EN50178 / VDE0160
Electrical machine equipment	Acc. to EN60204
Protection against dangerous shock currents	Acc. to VDE0106-101
Protective separation / protection against electrical shock	VDE0100-410 / acc. to DIN57100-410
Safety transformers for switch-mode power supplies	According to EN 61558-2-16

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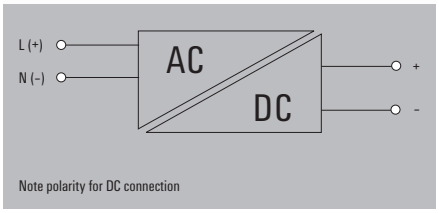
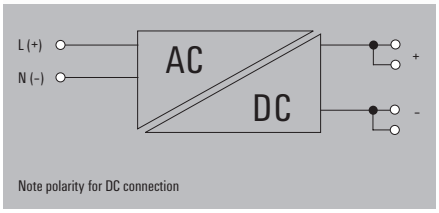
- 1-phase power supplies

PRO INSTA 16 W 24 V 0.7 A



Note polarity for DC connection

PRO INSTA 30 W 5 V 6 A



Note polarity for DC connection

Technical data

Input		
Rated input voltage	100 - 240 V AC / 120 - 340 V DC	100 - 240 V AC / 120 - 340 V DC
Input voltage range AC	85...264 V AC (derating at 100 V AC)	85...264 V AC (derating at 100 V AC)
AC current consumption	0.25 A @ 230 V AC / 0.45 A @ 100 V AC	0.5 A @ 230 V AC / 1.0 A @ 100 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	95...370 V DC	95...370 V DC
DC current consumption	0.08 A @ 370V DC /0.22 A @ 120 V DC	0.2 A @ 370 V DC / 0.5 A @ 120 V DC
Inrush current	max. 40 A	max. 40 A
Output		
Rated output voltage	24 V DC ± 1 %	5 V DC ± 2 %
Nominal output current for U_{nom}	0.7 A @ 55 °C	6 A @ 55 °C
Output voltage	22...28 V (adjustable via potentiometer on front)	7...4 V (adjustable via potentiometer on front)
Continous output current @ $U_{Nominal}$	0.7 A @ 55 °C, 0.43 A @ 70 °C	6 A @ 55 °C, 3.75 A @ 70 °C
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Capacitive load	unrestricted	unrestricted
General data		
Degree of efficiency	82.5 %	82 %
Power loss idling / nominal load	0.4 W	0.45 W
Power loss, nominal load	3.6 W	5.4 W
Protection against reverse voltages from the load	30...35 V DC	8...10 V DC
Depth x width x height	60 / 22.5 / 90.5 mm	60 / 72 / 90 mm
Net weight	82 g	256 g
Approvals		
Approvals	cCSAus; TUEV	cCSAus; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		PUSH IN	PUSH IN	PUSH IN	PUSH IN
Number of terminals		2 (L,N)	2 (+ / -)	2 (L,N)	4 (++ / –)
Wire cross-section, rigid min/max	mm²	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5
Wire cross-section, flexible min/max	mm²	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5
Wire cross-section, AWG/kcmil min/max		24 / 12	24 / 12	24 / 12	24 / 12
Note					

Ordering data

Type	**Qty.**	**Order No.**
PRO INSTA 16W 24V 0.7A	1	**2580180000**

Type	**Qty.**	**Order No.**
PRO INSTA 30W 5V 6A	1	**2580210000**

Note

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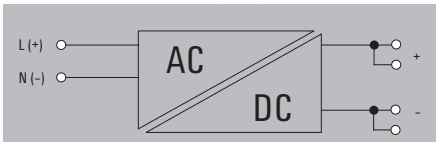
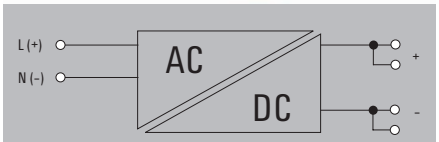
- 1-phase power supplies

PRO INSTA 30 W 12 V 2.6 A



Note polarity for DC connection

PRO INSTA 30 W 24 V 1.3 A



Note polarity for DC connection

Technical data

Input		
Rated input voltage	100 - 240 V AC / 120 - 340 V DC	100 - 240 V AC / 120 - 340 V DC
Input voltage range AC	85...264 V AC (derating at 100 V AC)	85...264 V AC (derating at 100 V AC)
AC current consumption	0.5 A @ 230 V AC / 1.0 A @ 100 V AC	0.5 A @ 230 V AC / 1.0 A @ 100 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	95...370 V DC	95...370 V DC
DC current consumption	0.2 A @ 370 V DC / 0.5 A @ 120 V DC	0.2 A @ 370 V DC / 0.5 A @ 120 V DC
Inrush current	max. 40 A	max. 40 A
Output		
Rated output voltage	12 V DC ± 1 %	24 V DC ± 1 %
Nominal output current for U_{nom}	2.6 A @ 55 °C	1.3 A @ 55 °C
Output voltage	16...9 V (adjustable via potentiometer on front)	22...28 V (adjustable via potentiometer on front)
Continous output current @ $U_{Nominal}$	2.6 A @ 55 °C, 1.625 A @ 55 °C	1.3 A @ 55 °C, 0.8 A @ 70 °C
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Capacitive load	unrestricted	unrestricted
General data		
Degree of efficiency	85 %	86%
Power loss idling / nominal load	0.45 W	0.45 W
Power loss, nominal load	5.29 W	4.88 W
Protection against reverse voltages from the load	18...25 V DC	30...35 V DC
Depth x width x height	60 / 54 / 90 mm	60 / 54 / 90 mm
Net weight	192 g	192 g
Approvals		
Approvals	cCSAus; TUEV	cCSAus; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		PUSH IN	PUSH IN	PUSH IN	PUSH IN
Number of terminals		2 (L,N)	4 (++ / –)	2 (L,N)	4 (++ / –)
Wire cross-section, rigid min/max	mm²	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5
Wire cross-section, flexible min/max	mm²	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5
Wire cross-section, AWG/kcmil min/max		24 / 12	24 / 12	24 / 12	24 / 12
Note					

Ordering data

Type	**Qty.**	**Order No.**
PRO INSTA 30W 12V 2.6A	1	**2580220000**

Type	**Qty.**	**Order No.**
PRO INSTA 30W 24V 1.3A	1	**2580190000**

Note

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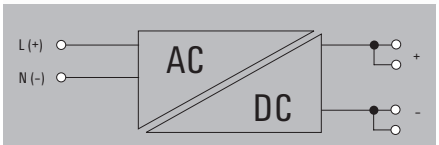
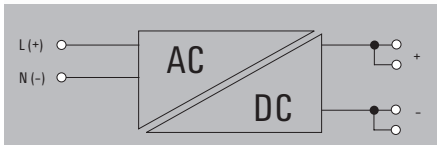
- 1-phase power supplies

PRO INSTA 60 W 12 V 5 A



Note polarity for DC connection

PRO INSTA 60 W 24 V 2.5 A



Note polarity for DC connection

Technical data

Input		
Rated input voltage	100 - 240 V AC / 120 - 340 V DC	100 - 240 V AC / 120 - 340 V DC
Input voltage range AC	85...264 V AC (derating at 100 V AC)	85...264 V AC (derating at 100 V AC)
AC current consumption	0.7 A @ 230 V AC / 1.5 A @ 100 V AC	0.7 A @ 230 V AC / 1.5 A @ 100 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	95...370 V DC	95...370 V DC
DC current consumption	0.25 A @ 370 V DC / 0.8 A @ 120 V DC	0.25 A @ 370 V DC / 0.8 A @ 120 V DC
Inrush current	max. 40 A	max. 40 A
Output		
Rated output voltage	12 V DC ± 1 %	24 V DC ± 1 %
Nominal output current for U_{nom}	5 A @ 55 °C	2.5 A @ 55 °C
Output voltage	16...9 V (adjustable via potentiometer on front)	22...28 V (adjustable via potentiometer on front)
Continous output current @ $U_{Nominal}$	5 A @ 55 °C, 3.75 A @ 70 °C	2.5 A @ 55 °C, 1.56 A @ 70 °C
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Capacitive load	unrestricted	unrestricted
General data		
Degree of efficiency	86%	89%
Power loss idling / nominal load	0.42 W	0.44 W
Power loss, nominal load	8.4 W	6.6 W
Protection against reverse voltages from the load	18...25 V DC	30...35 V DC
Depth x width x height	60 / 72 / 90 mm	60 / 72 / 90 mm
Net weight	258 g	258 g
Approvals		
Approvals	cCSAus; TUEV	cCSAus; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		PUSH IN	PUSH IN	PUSH IN	PUSH IN
Number of terminals		2 (L,N)	4 (++ / –)	2 (L,N)	4 (++ / –)
Wire cross-section, rigid min/max	mm²	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5
Wire cross-section, flexible min/max	mm²	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5
Wire cross-section, AWG/kcmil min/max		24 / 12	24 / 12	24 / 12	24 / 12
Note					

Ordering data

Type	**Qty.**	**Order No.**
PRO INSTA 60W 12V 5A	1	**2580240000**

Type	**Qty.**	**Order No.**
PRO INSTA 60W 24V 2.5A	1	**2580230000**

Note

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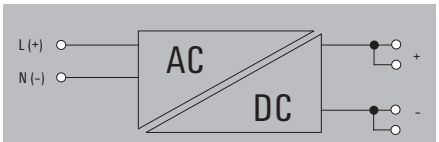
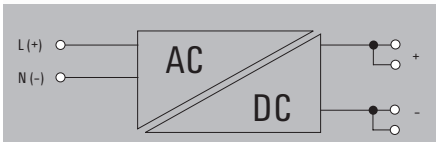
- 1-phase power supplies

PRO INSTA 90 W 24 V 3.8 A



Note polarity for DC connection

PRO INSTA 96 W 24 V 4 A



Note polarity for DC connection

Technical data

Input		
Rated input voltage	100 - 240 V AC / 120 - 340 V DC	100 - 240 V AC / 120 - 340 V DC
Input voltage range AC	85...264 V AC (derating at 100 V AC)	85...264 V AC (derating at 100 V AC)
AC current consumption	1.2 A @ 230 V AC / 2.4 A @ 100 V AC	1.2 A @ 230 V AC / 2.5 A @ 100 V AC
Frequency range AC	45...65 Hz	45...65 Hz
DC input voltage range	95...370 V DC	95...370 V DC
DC current consumption	0.4 A @ 370 V DC / 1.3 A @ 120 V DC	0.4 A @ 370 V DC / 1.35 A @ 120 V DC
Inrush current	max. 40 A	max. 40 A
Output		
Rated output voltage	24 V DC ± 1 %	24 V DC ± 1 %
Nominal output current for U_{nom}	3.8 A @ 55 °C	4 A @ 55 °C
Output voltage	22...25 V (adjustable via potentiometer on front)	22...28 V (adjustable via potentiometer on front)
Continous output current @ $U_{Nominal}$	3.8 A @ 55 °C, 2.38 A @ 70 °C	4 A @ 55 °C, 2.5 A @ 70 °C
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load	< 50 mVss @ U_{Nenn}, Full Load
Capacitive load	unrestricted	unrestricted
General data		
Degree of efficiency	87 %	87 %
Power loss idling / nominal load	0.45 W	0.45 W
Power loss, nominal load	11.7 W	12.48 W
Protection against reverse voltages from the load	30...35 V DC	30...35 V DC
Depth x width x height	60 / 90 / 90 mm	60 / 90 / 90 mm
Net weight	352 g	352 g
Approvals		
Approvals	cCSAus; TUEV	cCSAus; TUEV

Connection data		**Input**	**Output**	**Input**	**Output**
Connection system		PUSH IN	PUSH IN	PUSH IN	PUSH IN
Number of terminals		2 (L,N)	4 (++ / –)	2 (L,N)	4 (++ / –)
Wire cross-section, rigid min/max	mm²	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5
Wire cross-section, flexible min/max	mm²	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5	0.25 / 2.5
Wire cross-section, AWG/kcmil min/max		24 / 12	24 / 12	24 / 12	24 / 12
Note					

Ordering data

Type	**Qty.**	**Order No.**
PRO INSTA 90W 24V 3.8A	1	**2580250000**

Type	**Qty.**	**Order No.**
PRO INSTA 96W 24V 4A	1	**2580260000**

Note

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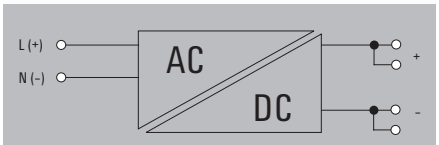
- 1-phase power supplies

PRO INSTA 96 W 48 V 2 A



Note polarity for DC connection

Technical data

Input	
Rated input voltage	100 - 240 V AC / 120 - 340 V DC
Input voltage range AC	85...264 V AC (derating at 100 V AC)
AC current consumption	1.2 A @ 230 V AC / 2.5 A @ 100 V AC
Frequency range AC	45...65 Hz
DC input voltage range	95...370 V DC
DC current consumption	0.4 A @ 370 V DC / 1.35 A @ 120 V DC
Inrush current	max. 40 A
Output	
Rated output voltage	48 V DC ± 1 %
Nominal output current for U_{nom}	2 A @ 55 °C
Output voltage	56...35 V (adjustable via potentiometer on front)
Continous output current @ $U_{Nominal}$	2 A @ 55 °C, 1.25 A @ 70 °C
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn}, Full Load
Capacitive load	unrestricted
General data	
Degree of efficiency	89%
Power loss idling / nominal load	0.45 W
Power loss, nominal load	10.56 W
Protection against reverse voltages from the load	58...62 V DC
Depth x width x height	60 / 90 / 90 mm
Net weight	361 g
Approvals	
Approvals	cCSAus; TUEV

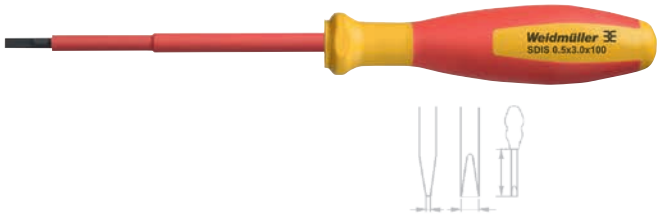
Connection data		**Input**	**Output**
Connection system		PUSH IN	PUSH IN
Number of terminals		2 (L,N)	4 (++ / –)
Wire cross-section, rigid min/max	mm²	0.25 / 2.5	0.25 / 2.5
Wire cross-section, flexible min/max	mm²	0.25 / 2.5	0.25 / 2.5
Wire cross-section, AWG/kcmil min/max		24 / 12	24 / 12
Note			

Ordering data

Type	**Qty.**	**Order No.**
PRO INSTA 96W 48V 2A	1	**2580270000**

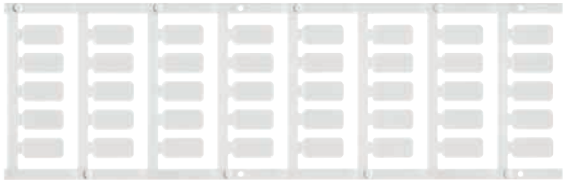
Note

Small screwdriver



Type	Size/AF	a	b	c	Order No.
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**