



wipos

FULL ENERGY

Power supplies for machines and plants.
Powerful + reliable + efficient.

HELLO WIELAND ELECTRIC


Tradition and innovation - Wieland is representing the synergy of these two guiding principles for more than 100 years.

At Wieland Electric, we are proud to be the world market leader in electrical connections, and have been focusing on safe and innovative technologies since our founding. The beginnings of our success lie in the legendary Wieland Clamp, the first-ever safe electrical connector. Since then, innovation has pushed us to develop safer and more efficient ways to electrify the world.

Expanding from a component-only manufacturer, we are now one of the leading suppliers of innovative, future-oriented, and complete electrical solutions. We divide our focus into two main areas, Building and Industry. Our Building Solutions focus on decentralized power distribution and pluggable connections in all kinds of architectures and infrastructures. From in-store displays and lighting to hospitals and airports, and any structure in between – you build it, we power it! Our Industry Solutions center around functional safety for machines, industrial networking, and power distribution. At Wieland, we keep your productivity going in mechanical engineering, wind power, material handling, HVAC, and many other industries.

We are at our customers' side in every step of the project, right from the start. Our experts offer consulting, on-site services, and technical support. We see ourselves as service providers, trainers and subject-matter experts.


1910
founded in
Bamberg


1.700+
employees
worldwide


3
production
sites


70+
countries
worldwide

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SAFE **POWER SUPPLIES** FOR MACHINES + PLANTS.

A reliable, efficient power supply is the basic prerequisite for every machine or system operation. Our wipos product range offers a stable voltage supply for various functions and in various performance classes and guarantees trouble-free and hence highly-economical production processes.

Protect your important devices with uninterruptible power supplies (UPS) not only against power failures, but also against brief under and over voltage occurrences. The integrated DC-DC converter helps you construct your supply system individually and independently. That way, you can reliably meet specific requirements within your switching concepts.

With the matching wipos redundancy modules, you optimize the availability of the power supplies operated in parallel.

Our wide product range offers you the voltage required for the most diverse applications – even in case of a power failure.

PRODUCTS FOR:

- + POWER SUPPLY
- + BACKUP
- + DIAGNOSIS
- + REMOTE MONITORING

SPECIALLY SUITABLE FOR

- + Worldwide use
- + Outdoor installations
- + Active monitoring



POWER SUPPLY REQUIREMENTS



POWER FACTOR CORRECTION

The use of PFC technology (Power Factor Correction) compensates for the increased power dissipation by asymmetrical rather than sinusoidal current draw of the switching power supplies.



REMOTE MONITORING

Preventive measures can be realized through an active switching output. Critical situations are detected immediately, thereby preventing outages.



PARALLEL CONNECTION

Increasing the total current due to the downstream power increase, preventing hot spots through spatial distribution and reducing faulty couplings with common power supply paths.

**REDUNDANCY SWITCHING**

Ensuring the total system supply in case of a switching power supply outage.
Increasing the fail safety factor through additional power supplies.

**MAINS FAILURE BRIDGING**

Brief mains failure/interruptions are bridged by the switching power supplies and the voltage supply is maintained without mains voltage for a short time.

**WORLDWIDE USE**

Country-specific restrictions based on network configurations can be eliminated by the extended voltage range input with a switching power supply.

**POWER BOOST**

When consumers with increased loads, such as solenoids for example, start up, higher outputs are triggered briefly. The temporary power boost of a switching power supply prevents an overload when the components start up, thereby preventing an unnecessary over-dimensioning of the power supply.

**(FUNCTION) DIAGNOSIS**

No matter whether for commissioning or an on-site diagnosis, switching power supplies are designed to offer a quick and simple solution, e.g. via front LEDs.



WIPOS POWER SUPPLY

BASIC LINE



Model	Art. No.	Output	Continuous current
wipos P1 24-1.25	81.000.6110.0	24 V DC	1.25 A
wipos P1 24-2.5	81.000.6120.0	24 V DC	2.5 A
wipos P1 12-5	81.000.6132.0	12 V DC	5 A
wipos P1 24-3.8	81.000.6135.0	24 V DC	3.8 A
wipos P1 24-5	81.000.6130.0	24 V DC	5 A
wipos P1 12-10	81.000.6142.0	12 V DC	10 A
wipos P1 48-5	81.000.6134.0	48 V DC	5 A
wipos P1 24-10	81.000.6140.0	24 V DC	10 A
wipos P1 24-20	81.000.6150.0	24 V DC	20 A

Model	Art. No.	Output	Continuous current
wipos P3 24-5	81.000.6160.0	24 V DC	5 A
wipos P3 24-10	81.000.6170.0	24 V DC	10 A
wipos P3 24-20	81.000.6180.0	24 V DC	20 A
wipos P3 24-40	81.000.6190.0	24 V DC	40 A

COMPACT LINE



Model	Art. No.	Output	Continuous current
wipos PS1 24-1.25	81.000.6510.0	24 V DC	1.25 A
wipos PS1 24-2.5	81.000.6520.0	24 V DC	2.5 A
wipos PS1 24-5	81.000.6530.0	24 V DC	5 A
wipos PS1 24-10	81.000.6540.0	24 V DC	10 A
wipos PS1 24-20	81.000.6550.0	24 V DC	20 A

Model	Art. No.	Output	Continuous current
wipos PS3 24-5	81.000.6560.0	24 V DC	5 A
wipos PS3 24-10	81.000.6570.0	24 V DC	10 A
wipos PS3 24-20	81.000.6580.0	24 V DC	20 A
wipos PS3 24-40	81.000.6590.0	24 V DC	40 A

WIDE RANGE LINE



Model	Art. No.	Output	Continuous current
wipos PSW 24-20	81.000.7530.0	24 V DC	20 A
wipos PSW 48-10	81.000.7531.0	48 V DC	10 A

Nominal input voltage AC	Nominal input voltage DC	Power	Dimensions W x H x D (mm)
85 - 264 V	90 - 375 V	30 W	40.5 x 90 x 115
85 - 264 V	90 - 375 V	60 W	40.5 x 90 x 115
85 - 264 V	90 - 375 V	60 W	40.5 x 90 x 115
115/230 V (auto)	210 - 375 V	91.2 W	63.2 x 123.6 x 123.6
115/230 V (auto)	210 - 375 V	120 W	63.2 x 123.6 x 123.6
115/230 V (auto)	210 - 375 V	120 W	63.2 x 123.6 x 123.6
115/230 V (auto)	210 - 375 V	240 W	83 x 123.6 x 123.6
115/230 V (auto)	210 - 375 V	240 W	83 x 123.6 x 123.6
115/230 V (auto)	210 - 375 V	480 W	175 x 123.6 x 123.6

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Nominal input voltage AC	Nominal input voltage DC	Power	Dimensions W x H x D (mm)
340 - 575 V	480 - 820 V	120 W	74.3 x 124 x 119
340 - 575 V	480 - 820 V	240 W	90 x 124 x 119
340 - 575 V	480 - 820 V	480 W	151 x 124 x 119
340 - 575 V	480 - 820 V	960 W	276 x 126 x 119

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Nominal input voltage AC	Nominal input voltage DC	Power	Dimensions W x H x D (mm)
85 - 264 V	90 - 350 V	30 W	32 x 90 x 90
85 - 264 V	90 - 350 V	60 W	32 x 90 x 110
85 - 264 V	90 - 350 V	120 W	40 x 125 x 122
85 - 264 V	90 - 350 V	240 W	60 x 125 x 140
85 - 264 V	90 - 350 V	480 W	95 x 125 x 150

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Nominal input voltage AC	Nominal input voltage DC	Power	Dimensions W x H x D (mm)
320 - 576 V	450 - 810 V	120 W	40 x 125 x 122.2
320 - 576 V	450 - 810 V	240 W	60 x 125 x 150
320 - 576 V	450 - 810 V	480 W	95 x 125 x 150
320 - 576 V	450 - 810 V	960 W	135 x 125 x 180

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Nominal input voltage AC	Nominal input voltage DC	Power	Dimensions W x H x D (mm)
187 - 550 V	250 - 725 V	480 W	73 x 140 x 125
187 - 550 V	250 - 725 V	480 W	73 x 140 x 125

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BUILDING LINE



Model	Art. No.	Output	Continuous current
wipos PB1 24-0.42	81.000.6300.0	24 V DC	0.42 A
wipos PB1 12-0.83	81.000.6302.0	12 V DC	0.83 A
wipos PB1 24-1	81.000.6310.0	24 V DC	1 A
wipos PB1 24-1.5	81.000.6320.0	24 V DC	1.5 A
wipos PB1 5-1.5	81.000.6321.0	5 V DC	1.5 A
wipos PB1 12-2	81.000.6322.0	12 V DC	2 A
wipos PB1 24-2.5	81.000.6330.0	24 V DC	2.5 A
wipos PB1 5-3	81.000.6331.0	5 V DC	3 A
wipos PB1 12-2.75	81.000.6332.0	12 V DC	2.75 A
wipos PB1 24-4.2	81.000.6340.0	24 V DC	4.2 A
wipos PB1 12-4.5	81.000.6342.0	12 V DC	4.5 A

WIPOS BACKUP COMPONENTS

BACKUP LINE



Model	Function	Art. No.
wipos UPS 20-960	UPS DC/DC device	81.000.6230.0



Model	Function	Art. No.
wipos UPS 24-30	UPS module	81.000.6220.0



Model	Function	Art. No.
wipos R20	Redundancy module	81.000.6200.0



Model	Function	Art. No.
wipos FM 4-10	Fuse module	81.000.6210.0



Model	Function	Art. No.
wipos UPS 20 SENSOR	Battery temperature sensor	81.000.6231.0

Nominal input voltage AC	Nominal input voltage DC	Power	Dimensions W x H x D (mm)
90 - 264 V	120 - 375 V	10 W	18 x 91 x 56.5
90 - 264 V	120 - 375 V	10 W	18 x 91 x 56.5
90 - 264 V	120 - 375 V	24 W	35 x 91 x 56.5
90 - 264 V	120 - 375 V	36 W	53 x 91 x 56.5
90 - 264 V	120 - 375 V	7.5 W	18 x 91 x 56.5
90 - 264 V	120 - 375 V	24 W	35 x 91 x 56.5
90 - 264 V	120 - 375 V	60 W	71 x 91 x 56.5
90 - 264 V	120 - 375 V	15 W	35 x 91 x 56.5
90 - 264 V	120 - 375 V	33 W	53 x 91 x 56.5
90 - 264 V	120 - 375 V	100.8 W	90 x 91 x 56.5
90 - 264 V	120 - 375 V	54 W	71 x 91 x 56.5

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Nominal input voltage	Nominal output voltage	Power	Dimensions W x H x D (mm)
10 - 60 V DC	12 - 48 V DC	max. 20 A	54 x 115 x 100

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Nominal input voltage	Nominal output voltage	Power	Dimensions W x H x D (mm)
22.5 - 28 V DC	22.5 - 27.5 V DC	max. 30 A	54 x 90 x 115

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Nominal input voltage	Nominal output voltage	Power	Dimensions W x H x D (mm)
21 - 28 V DC	24 V	20 A	54 x 90 x 114

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Nominal input voltage	Nominal output voltage	Power	Dimensions W x H x D (mm)
18 - 30 V DC	24 V	max. 40 A	48 x 96 x 68

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Nominal input voltage	Nominal output voltage	Power	Dimensions
-	-	-	2 m twin cable

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BASIC LINE

WIPOS P1 + P3

Reliability is the key feature of power supplies in control cabinets. They are largely responsible for the reliability of machines or automation processes. Our BASIC LINE wipos P1 + P3 satisfies the requirements of modern power supply while offering an outstanding price/performance ratio.



- + 100 % performance up to 60 °C
- + Auto (1-phase only) or extended voltage input for worldwide use
- + PFC technology for high functional safety
- + Outdoor installation due to a large temperature range
- + Parallel connection from 5 A for output increase and redundancy
- + Active monitoring with switching output
- + Long mains failure bridging times
- + Adjustable output voltage for compensating voltage drops
- + Simple commissioning via LED diagnosis



PERFORMANCE FEATURES

+ AC or DC input	1-phase or 2/3-phase
+ DC output power	30 - 480 W/120 - 960 W
+ Voltage	12 V, 24 V, 48 V
+ Output current	1.25 - 20 A/5 - 40 A
+ Temperature range	-25 °C...+70 °C
+ Mains failure bridging time	>30 ms

CE cUL^{US} LISTED HAZ. cRU^{US} CLASS I DIV 2

BASIC LINE · WIPOS P1 · TECHNICAL DATA



Description	wipos	P1 24-1.25	P1 24-2.5	P1 12-5	P1 24-3.8	P1 24-5	P1 12-10	P1 48-5	P1 24-10	P1 24-20
Art. No.		81.000.6110.0	81.000.6120.0	81.000.6132.0	81.000.6135.0	81.000.6130.0	81.000.6142.0	81.000.6134.0	81.000.6140.0	81.000.6150.0

Output

Power output	30 W	60 W	60 W	91.2 W	120 W	120 W	240 W	240 W	480 W
Output voltage DC nominal	24 V	24 V	12 V	24 V	24 V	12 V	48 V	24 V	24 V
Output voltage DC min.	24 V	24 V	11.4 V	22.5 V	22.5 V	11.4 V	47 V	22.5 V	22.5 V
Output voltage DC max.	28 V	28 V	14.5 V	28.5 V	28.5 V	14.5 V	56 V	28.5 V	28.5 V
Output current	1.25 A	2.5 A	5 A	3.8 A	5 A	10 A	5 A	10 A	20 A

Input

Input voltage DC min.	90 V	90 V	90 V	210 V	210 V	210 V	210 V	210 V	210 V
Input voltage DC max.	375 V	375 V	375 V	375 V	375 V	375 V	375 V	375 V	375 V
Input voltage AC min.	85 V	85 V	85 V	115 V	115 V	115 V	115 V	115 V	115 V
Input voltage AC operating	264 V	264 V	264 V	230 V	230 V	230 V	230 V	230 V	230 V

Technical features

PFC	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Power Boost	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)
Bridging time	>30 ms	>30 ms	>30 ms	>30 ms	>30 ms	>30 ms	>30 ms	>30 ms	>30 ms
Derating	60 °C...70 °C: 2.5%/K	60 °C...70 °C: 2.5%/K	60 °C...70 °C: 2.5%/K	60 °C...70 °C: 2.5%/K	60 °C...70 °C: 2.5%/K	60 °C...70 °C: 2.5%/K	60 °C...70 °C: 2.5%/K	60 °C...70 °C: 2.5%/K	56 °C...70 °C: 2.5%/K
Efficiency	86 %	89 %	86 %	85 %	86 %	86 %	90 %	89 %	89 %
MTBF	588,000 h	550,000 h	504,000 h	486,000 h	450,000 h	450,000 h	423,000 h	423,000 h	403,000 h
Overload protection min.-max.	110 - 140 %	110 - 150 %	110 - 140 %	102 - 108 %	110 - 145 %	125 - 145 %	120 - 145 %	120 - 145 %	110 - 140 %
Modular version	No	No	Yes	No	No	Yes	Yes	No	No
Parallel connection	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Housing material	Polycarbonate	Polycarbonate	Polycarbonate	Metal	Metal	Metal	Metal	Metal	Metal

Dimensions

Depth	115 mm	115 mm	115 mm	123.6 mm	123.6 mm	123.6 mm	123.6 mm	123.6 mm	123.6 mm
Width	40.5 mm	40.5 mm	40.5 mm	63.2 mm	63.2 mm	63.2 mm	83 mm	83 mm	175 mm
Height	90 mm	90 mm	90 mm	123.6 mm	123.6 mm	123.6 mm	123.6 mm	123.6 mm	123.6 mm
Weight	290 g	360 g	340 g	920 g	920 g	920 g	1.3 kg	1.3 kg	1.9 kg

GENERAL TECHNICAL DATA FOR THE SERIES

Number of phases	Single phase power supply
Terminal type	Screw connection
Rail mounting possible	Yes
Operating temperature min.-max.	-40 °C...+71 °C
Relative humidity min.-max.	20 %-95 %
Storage temperature / transport min.-max.	-40 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, cULus, HAZ, cRUus, CLASS I DIV 2

BASIC LINE · WIPOS P3 · TECHNICAL DATA



Description	wipos P3 24-5	wipos P3 24-10	wipos P3 24-20	wipos P3 24-40
Art. No.	81.000.6160.0	81.000.6170.0	81.000.6180.0	81.000.6190.0

Output				
Power output	120 W	240 W	480 W	960 W
Output voltage DC nominal	24 V	24 V	24 V	24 V
Output voltage DC min.	22.5 V	22.5 V	22.5 V	22.5 V
Output voltage DC max.	28.5 V	28.5 V	28.5 V	28.5 V
Output current	5 A	10 A	20 A	40 A

Input				
Input voltage DC min.	480 V	480 V	480 V	480 V
Input voltage DC max.	820 V	820 V	820 V	820 V
Input voltage AC min.	340 V	340 V	340 V	340 V
Input voltage AC operating	575 V	575 V	575 V	575 V

Technical features				
PFC	Yes	Yes	Yes	Yes
Power Boost	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)
Bridging time	>30 ms	>30 ms	>30 ms	>30 ms
Derating	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K
Efficiency	89 %	90 %	90 %	92 %
MTBF	559,000 h	488,000 h	411,000 h	352,000 h
Overload protection min.-max.	115 - 135 %	120 - 140 %	1101 - 35 %	110 - 130 %
Modular version	No	No	No	No
Parallel connection	No	Yes	Yes	Yes
Housing material	Metal	Metal	Metal	Metal

Dimensions				
Depth	119 mm	119 mm	119 mm	119 mm
Width	74.3 mm	90 mm	151 mm	276 mm
Height	124 mm	124 mm	124 mm	126 mm
Weight	800 g	1.1 kg	1.75 kg	3.4 kg

GENERAL TECHNICAL DATA FOR THE SERIES	
Number of phases	3 phase power supply
Terminal type	Screw connection
Rail mounting possible	Yes
Operating temperature min.-max.	-40°C...+71°C
Relative humidity min.-max.	20 %-95 %
Storage temperature / transport min.-max.	-40 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, cULus, HAZ, cRUus, CLASS I DIV 2

COMPACT LINE WIPOS PS1 + PS3

Developers and designers use our extremely space-saving COMPACT LINE wipos PS1 + PS3 power supplies in challenging or harsh environments. Thanks to their highly robust and compact design, they can withstand even the most demanding conditions.



- + Compact design
- + 100 % performance up to 60 °C
- + Extended voltage input for worldwide use
- + 3-phase: 5 A...40 A full performance with 2 phases (excluding at 40 A)
- + PFC technology for high functional safety
- + 120% power boost for 10 s
- + Outdoor installation possible – temperature range -40 °C...+70 °C
- + Parallel connection from 5 A for output increase and redundancy
- + Compensates for voltage drops with adjustable output voltage
- + Ship approval



PERFORMANCE FEATURES

+ AC or DC input	1-phase or 2/3-phase
+ DC output power	120 - 480 W/120 - 960 W
+ Voltage	24 V
+ Output current	1.25 - 20 A/5 - 40 A
+ Power Boost	120 % (10 s)
+ Temperature range	-40 °C...+70 °C
+ Mains failure bridging time	>30 ms



COMPACT LINE · WIPOS PS1 · TECHNICAL DATA



Description	wipos PS1 24-1.25	wipos PS1 24-2.5	wipos PS1 24-5	wipos PS1 24-10	wipos PS1 24-20
Art. No.	81.000.6510.0	81.000.6520.0	81.000.6530.0	81.000.6540.0	81.000.6550.0

Output

Power output	30 W	60 W	120 W	240 W	480 W
Output voltage DC nominal	24 V	24 V	24 V	24 V	24 V
Output voltage DC min.	21.6 V	21.6 V	21.6 V	21.6 V	21.6 V
Output voltage DC max.	27.6 V	27.6 V	27.6 V	27.6 V	27.6 V
Output current	1.25 A	2.5 A	5 A	10 A	20 A

Input

Input voltage DC min.	90 V	90 V	90 V	90 V	90 V
Input voltage DC operating	350 V	350 V	350 V	350 V	350 V
Input voltage AC min.	85 V	85 V	85 V	85 V	85 V
Input voltage AC operating	264 V	264 V	264 V	264 V	264 V

Technical features

PFC	Yes	No	Yes	Yes	Yes
Power Boost	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)
Bridging time	>30 ms	>30 ms	>30 ms	>30 ms	>30 ms
Derating	60°C...70°C: 2.5%/K	60°C...70°C: 2.5%/K	60°C...70°C: 2.5%/K	60°C...70°C: 2.5%/K	60°C...70°C: 2.5%/K
Efficiency	86 %	88 %	89 %	92 %	93 %
MTBF	580,000 h	590,000 h	450,000 h	360,000 h	230,000 h
Overload protection min.-max.	121 - 160 %	121 - 160 %	121 - 160 %	121 - 160 %	121 - 160 %
Modular version	No	No	No	No	No
Parallel connection	Yes	Yes	Yes	Yes	Yes
Switching in series	Yes	Yes	Yes	Yes	Yes
Housing material	Polycarbonate	Polycarbonate	Metal	Metal	Metal

Dimensions

Depth	90 mm	110 mm	122 mm	140 mm	150 mm
Width	32 mm	32 mm	40 mm	60 mm	95 mm
Height	90 mm	90 mm	125 mm	125 mm	125 mm
Weight	195 g	260 g	620 g	900 g	1.5 kg

GENERAL TECHNICAL DATA FOR THE SERIES

Number of phases	Single phase power supply
Terminal type	Screw connection
Rail mounting possible	Yes
Operating temperature min.-max.	-40 °C...+70 °C
Relative humidity min.-max.	0 - 95 %
Storage temperature / transport min.-max.	-40 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, cULus, cRUus, Germanischer Lloyd

COMPACT LINE · WIPOS PS3 · TECHNICAL DATA



Description	wipos PS3 24-5	wipos PS3 24-10	wipos PS3 24-20	wipos PS3 24-40
Art. No.	81.000.6560.0	81.000.6570.0	81.000.6580.0	81.000.6590.0

Output

Power output	120 W	240 W	480 W	960 W
Output voltage DC nominal	24 V	24 V	24 V	24 V
Output voltage DC min.	22.5 V	22.5 V	22.5 V	22.5 V
Output voltage DC max.	29.5 V	29.5 V	29.5 V	29.5 V
Output current	5 A	10 A	20 A	40 A

Input

Input voltage DC min.	450 V	450 V	450 V	-
Input voltage DC operating	810 V	810 V	810 V	-
Input voltage AC min.	320 V	320 V	320 V	320 V
Input voltage AC operating	576 V	576 V	576 V	576 V

Technical features

PFC	No	No	No	No
Power Boost	120 % (10 s)	120 % (10 s)	120 % (10 s)	120 % (10 s)
Bridging time	>30 ms	>30 ms	>30 ms	>30 ms
Derating	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K
Efficiency	89 %	89 %	91 %	92 %
MTBF	390,000 h	350,000 h	280,000 h	260,000 h
Overload protection min.-max.	120 - 130 %	120 - 130 %	120 - 130 %	120 - 130 %
Modular version	No	No	No	No
Parallel connection	Yes	Yes	Yes	Yes
Switching in series	Yes	Yes	Yes	Yes
Housing material	Metal	Metal	Metal	Metal

Dimensions

Depth	122.2 mm	150 mm	150 mm	180 mm
Width	40 mm	60 mm	95 mm	135 mm
Height	125 mm	125 mm	125 mm	125 mm
Weight	700 g	1 kg	1.6 kg	2.7 kg

GENERAL TECHNICAL DATA FOR THE SERIES

Number of phases	3 phase power supply
Terminal type	Screw connection
Rail mounting possible	Yes
Operating temperature min.-max.	-40 °C...+70 °C
Relative humidity min.-max.	0 - 95 %
Storage temperature / transport min.-max.	-40 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, cULus, cRUus, Germanischer Lloyd

WIDE RANGE LINE

WIPOS PSW

Our wipos PSW modules not only meet the high market demand for compact power supplies, they also satisfy the requirements of the renewable energy sector. They offer safe protection mechanisms in case of mains failure, as well as over and under voltage.



- + 1, 2 or 3-phase input AC (187-550 V) + DC (250-750 V)
- + Active PFC according to EN 61000-3-2
- + High efficiency: >92 %
- + Models for 24 V/48 V DC output
- + Compact dimensions W x H x D (73 x 140 x 137 mm)
- + Can also be used for solutions in the renewable energy sector thanks to diverse safety mechanisms (input undervoltage lock-out, output excess current, short circuit, over-temperature)
- + Status and diagnosis (overload, DC OK LED, DC OK relay contact)



PERFORMANCE FEATURES

+ AC or DC input	1-phase or 2/3-phase
+ DC output power	480 W
+ Voltage	24 V, 48 V
+ Output current	10 - 20 A
+ Power Boost	150 % (5 s)
+ Temperature range	-40 °C...+70 °C
+ Mains failure bridging time	>30 ms



WIDE RANGE LINE · WIPOS PSW · TECHNICAL DATA



Description	wipos PSW 24-20	wipos PSW48-10
Art. No.	81.000.7530.0	81.000.7531.0
Output		
Power output	480 W	480 W
Output voltage DC nominal	24 V	48 V
Output voltage DC min.	23 V	45 V
Output voltage DC max.	28 V	55 V
Output current	20 A	10 A
Input		
Input voltage DC min.	250 V	250 V
Input voltage DC max.	725 V	725 V
Input voltage AC min.	187 V	187 V
Input voltage AC max.	550 V	550 V
Technical features		
PFC	Yes	Yes
Power Boost	150 % (5 s)	150 % (5 s)
Bridging time	>30 ms	>30 ms
Derating	over 45 °C: -10 W/°C	over 45 °C: -10 W/°C
Efficiency	92 %	91 %
MTBF	> 500,000 h	> 500,000 h
Modular version	No	No
Parallel connection	Yes	Yes
Housing material	Aluminum	Aluminum
Dimensions		
Depth	125 mm	125 mm
Width	73 mm	73 mm
Height	140 mm	140 mm
Weight	1 kg	1 kg

WIDE RANGE LINE · WIPOS PSW · TECHNICAL DATA

GENERAL TECHNICAL DATA FOR THE SERIES

Number of phases	1, 2 or 3-phase power supply
Terminal type	Pluggable clamps
Rail mounting possible	Yes
Operating temperature min.-max.	-40 °C...+70 °C
Relative humidity min.-max.	5 - 95 %
Storage temperature / transport min.-max.	-40 °C...+80 °C
Protection class	IP20
Certificates / Approvals	CE, cULus

BUILDING LINE

WIPOS PB1

Our wipos PB1 power supplies have a scalable MDRC design (modular DIN rail component) and are the ideal solution for distribution boxes or sub-distributors in building automation systems. This series offers especially long and reliable bridging of mains failure times.



- + Suitable for series installation in building sub-distributors, as well as for control panel construction
- + 100 % performance up to 60 °C
- + Extended voltage input for worldwide use
- + Outdoor installation possible – temperature range -25 °C...+70 °C
- + From 2.5 A also with screw fastening
- + Compact design
- + Long mains failure bridging times: >60ms
- + Compensates for voltage drops with adjustable output voltage
- + Simple commissioning via LED diagnosis



PERFORMANCE FEATURES

+ AC or DC input	1-phase
+ DC output power	7.5 - 100 W
+ Voltage	5 V, 12 V, 24 V
+ Output current	1 A, 42 - 4,2 A
+ Temperature range	-25 °C...+70 °C
+ Mains failure bridging time	>60 ms

CE cUL[®] US LISTED HAZ. cUL[®] US CLASS I DIV 2

BUILDING LINE · WIPOS PB1 · TECHNICAL DATA



Description	wipos PB1 24-0.42	wipos PB1 12-0.83	wipos PB1 24-1	wipos PB1 24-1.5	wipos PB1 5-1.5
Art. No.	81.000.6300.0	81.000.6302.0	81.000.6310.0	81.000.6320.0	81.000.6321.0

Output

Power output	10 W	10 W	24 W	36 W	7,5 W
Output voltage DC nominal	24 V	12 V	24 V	24 V	5 V
Output voltage DC min.	24 V	12 V	24 V	24 V	5 V
Output voltage DC max.	28 V	14 V	28 V	28 V	5.5 V
Output current	0.42 A	0.83 A	1 A	1.5 A	1.5 A

Input

Input voltage DC min.	120 V	120 V	120 V	120 V	120 V
Input voltage DC max.	375 V	375 V	375 V	375 V	375 V
Input voltage AC min.	90 V	90 V	90 V	90 V	90 V
Input voltage AC max.	264 V	264 V	264 V	264 V	264 V

Technical features

Bridging time	>60 ms	>60 ms	>60 ms	>60 ms	>60 ms
Derating	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K
Efficiency	80 %	78 %	85 %	84 %	74 %
MTBF	868,000 h	884,000 h	832,000 h	732,000 h	970,000 h
Overload protection min.-max.	110 - 165 %	110 - 165 %	120 - 160 %	110 - 150 %	110 - 165 %
Modular version	Yes	Yes	Yes	Yes	Yes
Parallel connection	No	No	No	No	No
Housing material	Plastic	Plastic	Plastic	Plastic	Plastic

Dimensions

Depth	56.5 mm	56.5 mm	56.5 mm	56.5 mm	56.5 mm
Width	18 mm	18 mm	35 mm	53 mm	18 mm
Height	91 mm	91 mm	91 mm	91 mm	91 mm
Weight	65 g	65 g	130 g	190 g	65 g

BUILDING LINE · WIPOS PB1 · TECHNICAL DATA



Description	wipos PB1 12-2	wipos PB1 24-2.5	wipos PB1 5-3	wipos PB1 12-2.75	wipos PB1 24-4.2	wipos PB1 12-4.5
Art. No.	81.000.6322.0	81.000.6330.0	81.000.6331.0	81.000.6332.0	81.000.6340.0	81.000.6342.0

Output

Power output	24 W	60 W	15 W	33 W	100.8 W	54 W
Output voltage DC nominal	12 V	24 V	5 V	12 V	24 V	12 V
Output voltage DC min.	12 V	24 V	5 V	12 V	24 V	12 V
Output voltage DC max.	14 V	28 V	5,5 V	14 V	28 V	14 V
Output current	2 A	2,5 A	3 A	2.75 A	4.2 A	4.5 A

Input

Input voltage DC min.	120 V	120 V	120 V	120 V	120 V	120 V
Input voltage DC max.	375 V	375 V	375 V	375 V	375 V	375 V
Input voltage AC min.	90 V	90 V	90 V	90 V	90 V	90 V
Input voltage AC max	264 V	264 V	264 V	264 V	264 V	264 V

Technical features

Bridging time	>60 ms	>60 ms	>60 ms	>60 ms	>60 ms	>60 ms
Derating	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K	60 °C...70 °C: 2.5 %/K
Efficiency	84 %	86 %	82 %	83 %	89 %	84 %
MTBF	732,000 h	608,000 h	832,000 h	607,000 h	525,000 h	582,000 h
Overload protection min.-max.	120 - 160 %	110 - 150 %	120 - 160 %	110 - 150 %	110 - 150 %	110 - 150 %
Modular version	Yes	Yes	Yes	Yes	Yes	Yes
Parallel connection	No	No	No	No	No	No
Housing material	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic

Dimensions

Depth	56.5 mm	56.5 mm	56.5 mm	56.5 mm	56.5 mm	56.5 mm
Width	35 mm	71 mm	35 mm	53 mm	90 mm	71 mm
Height	91 mm	91 mm	91 mm	91 mm	91 mm	91 mm
Weight	130 g	250 g	130 g	190 g	380 g	250 g

GENERAL TECHNICAL DATA FOR THE SERIES

Number of phases	Single phase power supply
Terminal type	Screw connection
Rail mounting possible	Yes
Operating temperature min.-max.	-40 °C...+71 °C
Relative humidity min.-max.	20 - 95 %
Storage temperature / transport min.-max.	-40 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, cULus, HAZ., cRUus, CLASS I DIV 2

BACKUP LINE

WIPOS UPS 20-960 + UPS 24-30

Maximum protection is a must, especially with highly-complex and cost-sensitive automation processes. Our wipos UPS 20-960 and wipos UPS 24-30 backup components reliably protect critical loads from mains problems, mains failures, voltage peaks, voltage interruptions and fluctuations.



- + Connection to DC Bus 12 V...55 V
- + Compatible with all battery technologies
- + Can also be used with supercaps
- + For any battery/supercap voltage 12 V-58 VDC
- + Monitoring the battery charge
- + Connection to other systems with Modbus/USB port
- + Programmable DC/DC conversion



- + Best price/performance ratio
- + Up to 30 A, with one device
- + Integrated battery test
- + Detailed diagnosis
- + Integrated replaceable fuse



PERFORMANCE FEATURES

- + Input voltage
- + Input current
- + Output voltage
- + Output current
- + Battery voltage
- + Battery powered
- + Temperature range

WIPOS UPS 20-960

- 12 - 48 V DC
- max. 20 A
- 24 V DC
- max. 20 A
- 12 - 48 V
- max. 20 A
- 40 °C...+80 °C

WIPOS UPS 24-30

- + 24 V DC
- + max. 35 A
- + 24 V DC
- + max. 30 A
- + 18.7 - 28.0 V
- + max. 30 A
- + -40 °C...+80 °C



BACKUP LINE

WIPOS UPS 20-960



REMOTE MONITORING AND CONTROL

- Firmware updates



RS-485



USB



POWER SUPPLY

- Input voltage range: 12 V...58 V DC
- Input current: to 20 A


BATTERY CHARGE MONITORING

- Resistance, temperature
- Charge and discharge cycles


DISPLAY + 4 OPERATING BUTTONS

- On-site diagnosis/device status
- Function control


DESIGNED FOR BATTERY-INDEPENDENT DC LOADS

- Voltage range: 12 V...48 V DC
- Current strength: to 20 A



LEAD-ACID LI-ION NI-MH SUPERCAPS

BIDIRECTIONAL DC/DC CHARGER FOR EVERY BATTERY TYPE + SUPERCAPS

- Voltage range: 12 V...58 V DC
- Charge current: to 20 A

BACKUP LINE · WIPOS UPS 20-960 · TECHNICAL DATA



Description	wipos UPS 20-960
Art. No.	81.000.6230.0

Output

Output voltage DC	12 - 48 V
Output current	20 A
Output voltage battery operation min.	12 V
Output voltage battery operation max.	48 V
Output current battery operation	20 A
Short-circuit current	21 A (DC-UPS mode)

Input

Input voltage DC min.	10 V
Input voltage DC max.	60 V
Input current	20 A
Supply voltage battery operation min.	10 V
Supply voltage battery operation max.	60 V

Technical features

Derating	
Battery type	Lead or lead/gel battery, nickel, lithium battery, supercaps
Battery charge efficiency, power dissipation	> 96 %, < 20 W
Battery capacity	to 400 Ah
Max. backup time	User programmable, up to the battery's deep discharge threshold
Battery protection functions	Excess current, deep discharge, polarity reversal
Monitoring functions	Coulomb counter, battery temperature over 10 kΩ NTC sensor (optional WNTC-2MT), battery runtime since installation, number of cycles
MTBF	6000.000 h
Communication interface connection	Mini-USB B-type (virtual Com port), RS-485 via the auxiliary connection
Temperature sensor connection	Friction lock connection
Housing material	Aluminum

Dimensions

Depth	110 mm
Width	54 mm
Height	115 mm
Weight	500 g

TECHNICAL DATA

Terminal type	Screw & push-in connection
Rail mounting possible	Yes
Operating temperature min.-max.	-40 °C...+70 °C
Relative humidity min.-max.	5 - 95 %
Storage temperature / transport min.-max.	-40 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, cULus

BACKUP LINE · WIPOS UPS 24-30 · TECHNICAL DATA



Description	wipos UPS 24-30
Art. No.	81.000.6220.0

Output

Output voltage DC	24 V
Output voltage min.	22 V
Output voltage max.	27.5 V
Output current	30 A
Output voltage battery operation min.	18.7 V
Output voltage battery operation max.	28 V
Output current battery operation	30 A
Battery output fuse	40 A fuse, internal

Input

Input voltage DC min.	22.5 V
Input voltage DC max.	28 V
Input current max.	35 A
Supply voltage battery operation min.	19.2 V
Supply voltage battery operation max.	28.5 V

Technical features

Battery type	Lead or lead/gel battery
Nominal charge voltage min.-max.	26 - 27.2 V
Fast charge voltage min.-max.	26.5 - 28.5 V
Discharge current	30 A
MTBF	360,000 h
Housing material	Polycarbonate

Dimensions

Depth	115mm
Width	54 mm
Height	90 mm
Weight	370 g

TECHNICAL DATA

Terminal type	Screw connection
Rail mounting possible	Yes
Operating temperature min.-max.	-40 °C...+71 °C
Relative humidity min.-max.	20 - 95 %
Storage temperature / transport min.-max.	-40 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, cULus

BACKUP LINE

WIPOS R20

The use of redundancy modules avoids standstill times, thereby increasing system availability. Our wipos R20 redundancy module monitors the feeding mains devices in a parallel circuit. If one device fails, the other device automatically takes over the supply.



- + 2 inputs/1 output
- + Full performance up to 60 °C
- + One signal contact per input
- + One LED per input
- + Ensures safe parallel connection
- + Increases system availability



PERFORMANCE FEATURES

- + Input voltage 21 - 28 V DC
- + Input current max. 20 A
- + Output voltage 24 V DC
- + Output current max. 20 A
- + Temperature range -25 °C...+71 °C



BACKUP LINE · WIPOS R20 · TECHNICAL DATA



Description	wipos R20
Art. No.	81.000.6200.0
Output	
Output voltage DC	24 V
Output current	20 A
Input	
Input voltage DC min.	21 V
Input voltage DC operating	28 V
Input current	20 A
Technical features	
Number of inputs	2
Rated input current	20 A
Output voltage drop	0.5 V
Turnover voltage	30 V
Input A OK / Input B OK	20 V (±5 %) < U(i) < 30 V (±5 %) (LED green)
MTBF	659,000 h
Dimensions	
Depth	114 mm
Width	54 mm
Height	90 mm
Weight	210 g
Installation	
Installation distance horizontal	25 mm
Installation distance vertical	25 mm

TECHNICAL DATA	
Connection type	Screw connection
Rail mounting possible	Yes
Operating temperature min.-max.	-25 °C...+71 °C
Relative humidity min.-max.	20 - 95 %
Storage temperature / transport min.-max.	-25 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, cULus

Fuse module



Description	Model	Art. No.	PU
Fuse module	wipos FM 4-10	81.000.6210.0	1

Output

Output voltage DC	24 V
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Input

Input voltage DC min.	18 V
Input voltage DC max.	30 V
Input current max.	40 A

Technical features

Fuse insert	4x G-fuse 5 x 20 mm
Rated fuse current, max.	10 A
LED indication	One per fuse, illuminates when fuse is defective
General fault signal	potential-free semiconductor output
Switching output	18 V-30 V DC/max. 0,1 A
Connector cross section (input)	10 mm ² solid/stranded
Connector cross section (output)	0.14 mm ² -4 mm ² solid, 0.14 mm ² -2.5 mm ² stranded

Dimensions

Depth	68 mm
Width	48 mm
Height	96 mm

TECHNICAL DATA

Connection type	Screw connection
Rail mounting possible	Yes
Operating temperature min.	0 °C...+70 °C
Degree of protection (IP)	IP20
Certificates / Approvals	CE, cULus

Battery temperature sensor



Description	Model	Art. No.	PU
Battery temperature sensor	wipos UPS 20 SENSOR	81.000.6231.0	1

TECHNICAL DATA

Operating temperature min.-max.	-40 °C... 70 °C
NTC resistance at 25 °C	10 kΩ
NTC B coefficient	4000
Connection clamp	2-pin Leoco 2010S friction lock, spacing 2.0 mm
Cable	2 m twin cable

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We have developed special industry knowledge in a wide variety of specialized fields. This forms the basis of our successful solutions.



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Light technology



Machine and system construction



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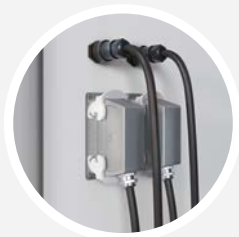
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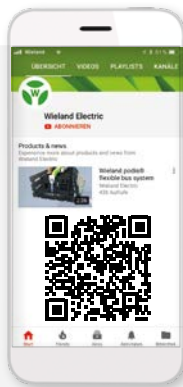


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