



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 115 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.

The focus here is on the “Installation Systems” and “Safety Automation” sectors. The Installation Systems sector focuses on decentralized energy distribution in modular construction, building automation, EV charging and lighting solutions. In the Safety Automation sector, the focus is on systems and services for the functional safety of machines in the mechanical engineering and wind power sectors.

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



1700+

Employees
worldwide

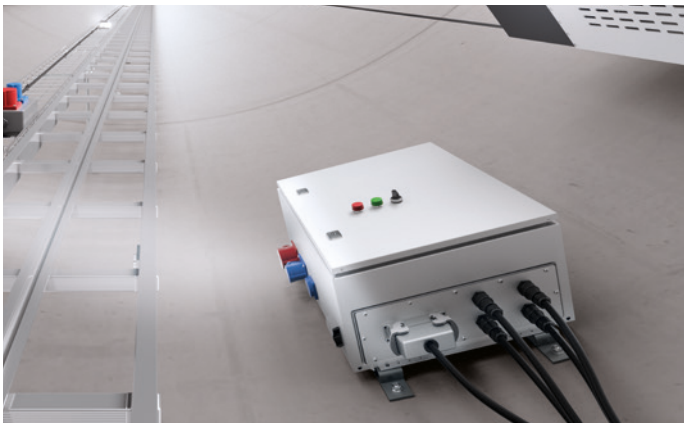


70+

Countries
worldwide

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RELIABLE POWER SUPPLIES FOR MACHINES, BUILDINGS + INFRASTRUCTURE.

A reliable, efficient power supply is the basic prerequisite for the dependable operation of technical systems – whether in building automation, mechanical engineering, power generation, or infrastructure. Our wipos product range offers a stable voltage supply for various functions and in various performance classes, ensuring trouble-free and therefore highly economical processes across a wide range of applications.



Mechanical engineering

Factory automation, processing and production, testing and inspection, robotic systems, printing and labeling systems, etc.



Building automation

Elevators, escalators, ventilation and air conditioning systems, emergency systems, access control, window drives



Infrastructure

Charging stations, grid monitoring, traffic control, ICT systems, safety systems, public transport, parking systems, etc.



Power generation

Wind turbines, photovoltaic systems, combined heat and power plants, distribution stations

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.

**ENERGY EFFICIENCY**

The 3-phase power supply units in the wipos PSU3 series have been developed according to the latest technology standards. The high efficiency values help companies to save operating costs and permanently reduce CO² emissions.

**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

PRO LINE



Model	Art. No.	Output	Continuous current
wipos PSU3 24-5 P	81.000.1401.0	24 V DC	5 A
wipos PSU3 24-10 P	81.000.1410.0	24 V DC	10 A
wipos PSU3 24-20 P	81.000.1420.0	24 V DC	20 A
wipos PSU3 24-40 P	81.000.1430.0	24 V DC	40 A
wipos PSU3 48-5 P	81.000.1620.0	48 V DC	5 A
wipos PSU3 48-10 P	81.000.1630.0	48 V DC	10 A
wipos PSU3 48-20 P	81.000.1640.0	48 V DC	20 A

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

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

WIDE RANGE LINE



Model	Art. No.	Output	Continuous current
wipos PSW 24-5	81.000.7532.0	24 V DC	5 A
wipos PSW 24-10	81.000.7533.0	24 V DC	10 A
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)
350 - 575 V	540 - 810 V	120 W	55 x 129 x 138
350 - 575 V	540 - 810 V	240 W	55 x 129 x 138
350 - 575 V	540 - 810 V	480 W	65 x 129 x 159
350 - 575 V	540 - 810 V	960 W	100 x 129 x 172
350 - 575 V	540 - 810 V	240 W	55 x 129 x 138
350 - 575 V	540 - 810 V	480 W	65 x 129 x 159
350 - 575 V	540 - 810 V	960 W	100 x 129 x 172

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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)
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)
187 - 550 V	250 - 725 V	240 W	54 x 115 x 110
187 - 550 V	250 - 725 V	240 W	54 x 115 x 110
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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WIPOS POWER SUPPLY

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 24-4.2	81.000.6340.0	24 V DC	4.2 A

WIPOS BACKUP COMPONENTS

BACKUP LINE



Model	Function	Art. No.
wipos UPS 20-960 P	UPS DC/DC device	81.000.6230.1
wipos UPS 20-960 ECO	UPS DC/DC device	81.000.6240.1



Model	Function	Art. No.
wipos UPS 20 P SENSOR 1m	Battery temperature sensor	81.000.6232.1
wipos UPS 20 P SENSOR 2m	Battery temperature sensor	81.000.6232.2



Model	Function	Art. No.
wipos R50	Redundancy module	81.000.6201.0

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	100.8 W	90 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	10 - 58 V DC	max. 960 W	54 x 115 x 131
10 - 60 V DC	10 - 58 V DC	max. 960 W	54 x 115 x 131

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Nominal input voltage	Nominal output voltage	Power	Dimensions
1 m	–	–	1 m twin cable
2 m	–	–	2 m twin cable

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Nominal input voltage	Nominal output voltage	Power	Dimensions W x H x D (mm)
12 - 85 V DC	12 - 85 V DC	50 A	40 x 115 x 110

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PRO LINE WIPOS PSU3

Maximum efficiency when using power supplies also means conserving resources. The wipos PSU3 series switching power supplies are characterized by high efficiency and a space-saving design.



- + Additional power reserve of up to 150 % power boost
- + Communicates with DC OK and INHIBIT signal contact
- + Tool-free wiring or use in the event of vibrations possible thanks to push-in terminals
- + Very low switch-on energy pulse for reliable function of the line protection
- + Wide voltage range for AC and DC voltages on the input side
- + Space-saving thanks to modern circuit concepts



PERFORMANCE FEATURES

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

IEC EN 61010-1

PRO LINE · WIPOS PSU · TECHNICAL DATA



Description	wipos PSU3 24-5 P	wipos PSU3 24-10 P	wipos PSU3 48-5 P	wipos PSU3 24-20 P
Art. No.	81.000.1401.0	81.000.1410.0	81.000.1620.0	81.000.1420.0

Output

Power output	120 W	240 W	240 W	480 W
Output voltage DC nominal	24 V	24 V	48 V	24 V
Output voltage DC min.	22.5 V	22.5 V	45 V	22.5 V
Output voltage DC max.	29 V	29 V	56 V	29 V
Output current	5 A	10 A	5 A	20 A

Input

Input voltage DC min.	450 V	450 V	450 V	450 V
Input voltage DC max.	810 V	810 V	810 V	810 V
Input voltage AC min.	350 V	350 V	350 V	350 V
Input voltage AC max.	575 V	575 V	575 V	575 V
Inrush current max.	30 A 39 A < 200 µs	36 A 40 A < 200 µs	34 A 41 A < 200 µs	17 A 22 A < 200 µs

Technical features

Power Boost	6 A / 2s	12 A / 2s	6 A / 2s	30 A / 5s
Bridging time	23 ms	22 ms	23 ms	24 ms
Derating	0.8 W/K > 55°C	2.4 W/K > 55°C	2.6 W/K > 55°C	12 W/K > 55°C
Efficiency	91.3 %	93.1 %	93.8 %	95.1 %
MTBF 25°C environment full load	5.7 mio. h	5.7 mio. h	5.7 mio. h	860,000 h

Dimensions

Depth	138 mm	138 mm	138 mm	159 mm
Width	55 mm	55 mm	55 mm	65 mm
Height	129 mm	129 mm	129 mm	129 mm
Weight	660 g	780 g	780 g	1050 g

PRO LINE · WIPOS PSU · TECHNICAL DATA



Description	wipos PSU3 48-10 P	wipos PSU3 24-40 P	wipos PSU3 48-20 P
Art. No.	81.000.1630.0	81.000.1430.0	81.000.1640.0

Output

Power output	480 W	960 W	960 W
Output voltage DC nominal	48 V	24 V	48 V
Output voltage DC min.	45 V	22.5 V	45 V
Output voltage DC max.	56 V	29 V	56 V
Output current	10 A	40 A	20 A

Input

Input voltage DC min.	450 V	450 V	450 V
Input voltage DC max.	810 V	810 V	810 V
Input voltage AC min.	350 V	350 V	350 V
Input voltage AC max.	575 V	575 V	575 V
Inrush current max. 400 V 500 V	17 A 22 A < 200 µs	17 A 20 A < 200 µs	17 A 20 A < 200 µs

Technical features

Power Boost	15 A / 5s	60 A / 5s	30 A / 5s
Bridging time	24 ms	20 ms	20 ms
Derating	9.6 W/K > 55°C	16 W/K > 55°C	16 W/K > 55°C
Efficiency	95.3%	95.2 %	95.9 %
MTBF 25°C environment full load	860,000 h	970,000 h	760,000 h

Dimensions

Depth	159 mm	171 mm	171 mm
Width	65 mm	100 mm	100 mm
Height	129 mm	129 mm	129 mm
Weight	1050 g	1750 g	1750 g

GENERAL TECHNICAL DATA FOR THE SERIES

Number of phases	3-phase power supply DC power supply
Connection type	Push-in connections
Operating temperature min. - max.	-25...+70 °C
Storage temperature min. - max.	-40...+85 °C
Protection class	IP20
Certificates / Approvals	IEC EN 61010-1
Housing material	Aluminium
Signal contact	N/O relay contact
Remote On/Off	Inhibit contact
Overload protection	CC+ Intermittent mode (Hiccup)
Parallel connection	3 (>3 with output protection)

BASIC LINE WIPOS P1

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 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
+ DC output power	30 - 480 W
+ Voltage	12 V, 24 V, 48 V
+ Output current	1.25 - 20 A
+ Temperature range	-25 °C...+70 °C
+ Mains failure bridging time	>30 ms

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

BASIC LINE · WIPOS P1 · TECHNICAL DATA



Description	wipos P1 24-1.25	wipos P1 24-2.5	wipos P1 12-5	wipos P1 24-3.8
Art. No.	81.000.6110.0	81.000.6120.0	81.000.6132.0	81.000.6135.0

Output

Power output	30 W	60 W	60 W	91.2 W
Output voltage DC nominal	24 V	24 V	12 V	24 V
Output voltage DC min.	24 V	24 V	11.4 V	22.5 V
Output voltage DC max.	28 V	28 V	14.5 V	28.5 V
Output current	1.25 A	2.5 A	5 A	3.8 A

Input

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

Technical features

PFC	No	No	No	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	86 %	89 %	86 %	85 %
MTBF	588,000 h	550,000 h	504,000 h	486,000 h
Overload protection min.-max.	110 - 140 %	110 - 150 %	110 - 140 %	102 - 108 %
Modular version	No	No	Yes	No
Parallel connection	No	No	No	No
Housing material	Polycarbonate	Polycarbonate	Polycarbonate	Metal

Dimensions

Depth	115mm	115 mm	115 mm	123.6 mm
Width	40.5 mm	40.5 mm	40.5 mm	63.2 mm
Height	90 mm	90 mm	90 mm	123.6 mm
Weight	290 g	360 g	340 g	920 g

BASIC LINE · WIPOS P1 · TECHNICAL DATA



Description	wipos P1 24-5	wipos P1 12-10	wipos P1 48-5	wipos P1 24-10	wipos P1 24-20
Art. No.	81.000.6130.0	81.000.6142.0	81.000.6134.0	81.000.6140.0	81.000.6150.0

Output

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

Input

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

Technical features

PFC	Yes	Yes	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	56 °C...70 °C: 2.5%/K
Efficiency	86 %	86 %	90 %	89 %	89 %
MTBF	450,000 h	450,000 h	423,000 h	423,000 h	403,000 h
Overload protection min.-max.	110 - 145 %	125 - 145 %	120 - 145 %	120 - 145 %	110 - 140 %
Modular version	No	Yes	Yes	No	No
Parallel connection	Yes	Yes	Yes	Yes	Yes
Housing material	Metal	Metal	Metal	Metal	Metal

Dimensions

Depth	123.6 mm	123.6 mm	123.6 mm	123.6 mm	123.6 mm
Width	63.2 mm	63.2 mm	83 mm	83 mm	175 mm
Height	123.6 mm	123.6 mm	123.6 mm	123.6 mm	123.6 mm
Weight	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

COMPACT LINE

WIPOS PS1

Developers and designers use our extremely space-saving COMPACT LINE wipos PS1 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
- + 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
+ DC output power	120 - 480 W
+ Voltage	24 V
+ Output current	1.25 - 20 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

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: > 88...> 93 %
- + Models for 24 V/48 V DC output
- + Compact dimensions
- + 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	240 - 480 W
+ Voltage	24 V, 48 V
+ Output current	5 - 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 PSW 48-10	wipos PSW 24-5	wipos PSW 24-10
Art. No.	81.000.7530.0	81.000.7531.0	81.000.7532.0	81.000.7533.0

Output

Power output	480 W	480 W	120 W	240 W
Output voltage DC nominal	24 V	48 V	24 V	24 V
Output voltage DC min.	23 V	45 V	23 V	23 V
Output voltage DC max.	28 V	55 V	28 V	28 V
Output current	20 A	10 A	5 A	10 A
Overload protection	> 33 V DC	> 68 V DC	> 33 V DC	> 33 V DC

Input

Input voltage DC min.	250 V	250 V	250 V	250 V
Input voltage DC max.	725 V	725 V	725 V	725 V
Input voltage AC min.	187 V	187 V	187 V	187 V
Input voltage AC max.	550 V	550 V	550 V	550 V
Inrush current max.	< 55 A	< 55 A	< 21 A	< 45 A

Technical features

Power Boost	140 %	140 %	150 %	150 %
Bridging time	> 50 ms	> 50 ms	> 17 ms (Vin=240Vac) > 60 ms (Vin=500Vac)	15 ms (Vin=240Vac) 100 ms (Vin=500Vac)
Derating	-10 W/K > 45°C	-10 W/K > 45°C	-1.2 W/K > 6°C	-4.2 W/K > 50°C
Efficiency	> 92 %	> 92 %	> 88 %	> 93 %
MTBF 25°C environment full load	> 500,000 h	> 500,000 h	> 500,000 h	> 500,000 h

Dimensions

Depth	125 mm	125 mm	110 mm	110 mm
Width	73 mm	73 mm	40 mm	54 mm
Height	140 mm	140 mm	115 mm	115 mm
Weight	1000 g	1000 g	500 g	650 g

GENERAL TECHNICAL DATA FOR THE SERIES

Number of phases	1, 2 or 3-phase power supply DC power supply
Terminal type	Pluggable clamps
Operating temperature min.-max.	-40 °C...+70 °C
Storage temperature / transport min.-max.	-40 °C...+80 °C
Protection class	IP20
Certificates / Approvals	CE, cULus
Housing material	Aluminium
Signal contact	Potential-free contact
Parallel connection	Yes, for redundancy (with external Oring module)

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 24-4.2
Art. No.	81.000.6322.0	81.000.6330.0	81.000.6331.0	81.000.6340.0

Output

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

Input

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

Technical features

Bridging time	>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
Efficiency	84 %	86 %	82 %	89 %
MTBF	732,000 h	608,000 h	832,000 h	525,000 h
Overload protection min.-max.	120 - 160 %	110 - 150 %	120 - 160 %	110 - 150 %
Modular version	Yes	Yes	Yes	Yes
Parallel connection	No	No	No	No
Housing material	Plastic	Plastic	Plastic	Plastic

Dimensions

Depth	56.5 mm	56.5 mm	56.5 mm	56.5 mm
Width	35 mm	71 mm	35 mm	90 mm
Height	91 mm	91 mm	91 mm	91 mm
Weight	130 g	250 g	130 g	380 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 P + UPS 20-960 ECO

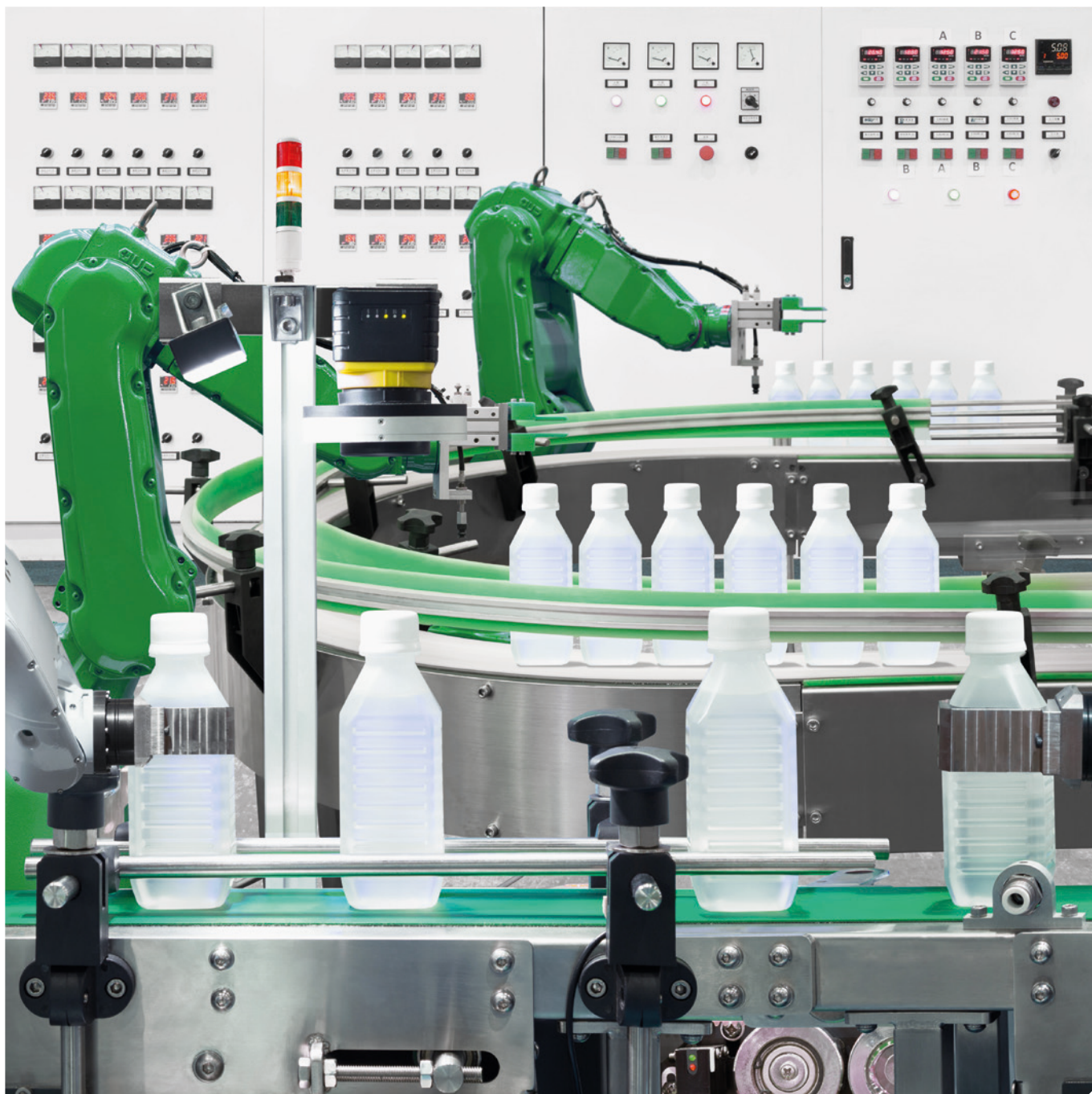
Maximum protection is a must, especially with highly-complex and cost-sensitive automation processes. Our wipos wipos UPS 20-960 P and UPS 20-960 ECO backup components reliably protect critical loads from mains problems, mains failures, voltage peaks, voltage interruptions and fluctuations.



- + Connection to DC Bus 10 V...58 V
- + Compatible with all battery technologies
- + Can also be used with supercaps
- + For any battery/supercap voltage 10 V - 58 VDC
- + Monitoring the battery charge
- + Connection to other systems with Modbus/USB port
- + Programmable with wipos PLAN



- + Up to 20 A, with one device
- + Integrated battery test
- + Detailed diagnosis
- + 2 Status relays and control contacts



PERFORMANCE FEATURES

+ Input voltage	10 - 58 V DC
+ Input current	max. 20 A
+ Output voltage	10 - 58 V DC
+ Output current	max. 20 A
+ Battery voltage	10 - 58 V DC
+ Battery powered	max. 20 A
+ Temperature range	-40 °C...+80 °C



BACKUP LINE

WIPOS UPS 20-960 P



REMOTE MONITORING AND CONTROL

- Firmware updates



RS-485



USB



POWER SUPPLY

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



ENERGY EFFICIENCY

- High efficiency
- Low power dissipation



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...58 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 P	wipos UPS 20-960 ECO
Art. No.	81.000.6230.1	81.000.6240.1
Output		
Power output	960 W	960 W
Output voltage DC nominal	12 - 48 V	12 - 48 V
Output voltage DC min.	10 V	10 V
Output voltage DC max.	58 V	58 V
Nominal output current	20 A	20 A
Auxiliary voltage	5 - 58 V DC / 5 A	-
Input		
Input voltage DC nominal	12 - 48 V	12 - 48 V
Input voltage DC min.	10 V	10 V
Input voltage DC max.	60 V	60 V
Inrush current max.	20 A	20 A
Battery		
Battery voltage DC nominal	12 - 48 V	12 - 48 V
Battery voltage DC min.	10 V	10 V
Battery voltage DC max.	58 V	58 V
Battery technology	Lead, nickel, lithium, supercap	Lead, nickel, lithium, supercap
Buffer discharge voltage DC	5 - 58 V	5 - 58 V
Hof-up-time	Adjustable, up to the deep discharge limit of the battery	Adjustable, up to the deep discharge limit of the battery
Battery capacity range	max. 1000 Ah	max. 1000 Ah
Environment		
Power lossesmax.	10,6 W	10,6 W
No-load consumption max.	0,9 W	0,9 W
Derating 48 V DC	12 W/K > 50 °C Environment	12 W/K > 50 °C Environment
Efficiency Mains operation 25 °C full load	> 98,9 %	> 98,9 %
MTBF 25 °C environment full load	> 210.000 h	> 210.000 h
Dimensions		
Depth	131 mm	131 mm
Width	54 mm	54 mm
Height	115 mm	115 mm
Weight	500 g	470 g
Operation		
Local operation	1.5" color display + push button	LED indications
Remote control, programming	wiposPLAN	wiposPLAN
Communication	Modbus/RTU + Mini USB	Modbus/RTU + Mini USB

BACKUP LINE · WIPOS UPS 20-960 · TECHNICAL DATA

TECHNICAL DATA	
Connection type input, output, battery	Push-In 0.2 - 4 mm ²
Connection type relay, Modbus, Inhibit, AUX	Pluggable push-In 8-Pin 0.2 - 1.5 mm ²
Operating temperature min.-max.	-25 °C...+70 °C
Storage temperature / transport min.-max.	-40 °C...+85 °C
Protection class	IP20
Certificates / Approvals	CE, UL, CB
Housing material	Aluminium

Accessories temperature sensor



Type	Description	Art. No.	PU
wipos UPS 20 P NTC SENSOR1M	10 kOhm NTC sensor with plug, cable length 1 m	81.000.6232.1	1
wipos UPS 20 P NTC SENSOR2M	10 kOhm NTC sensor with plug, cable length 2 m	81.000.6232.2	1

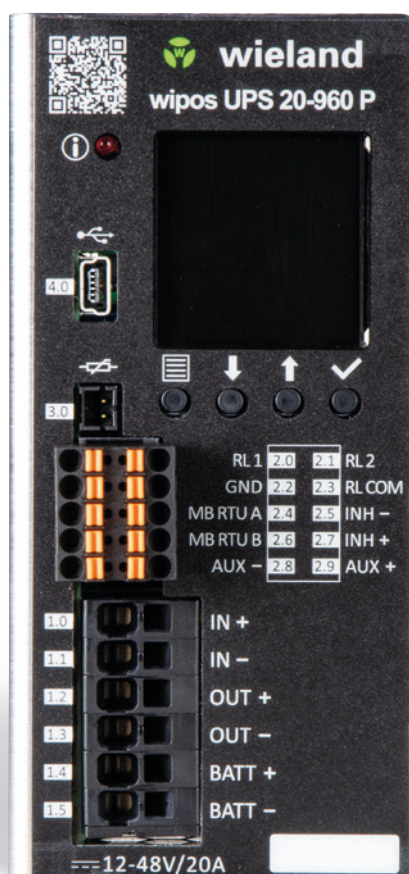
BACKUP LINE

WIPOS UPS 20-960

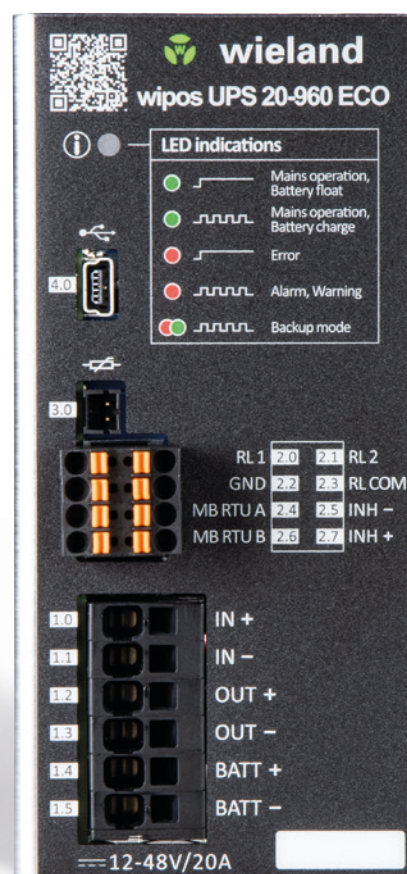
PARAMETERIZATION + PROGRAMMING

The wipos UPS 20-960 Eco and wipos UPS 20-960 P UPS modules are characterized by their highly flexible application possibilities. This requires the appropriate settings in the device. This primarily concerns the system voltages used and adaptation to various energy storage systems. Furthermore, operating states can be comprehensively reported via relay contacts or a Modbus communication interface.

The following options are available for the device as a parameterization interface

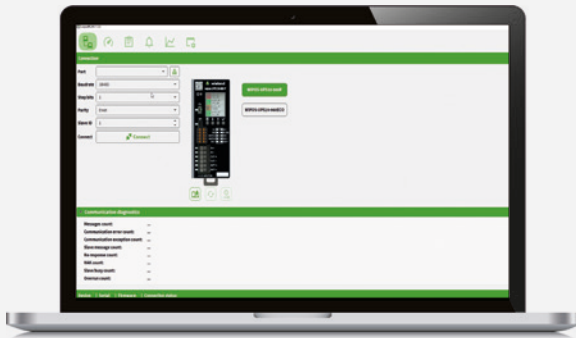


wipos UPS 20-960 P
Parameterization via
Display/4 control buttons
and/or via
wipos PLAN software



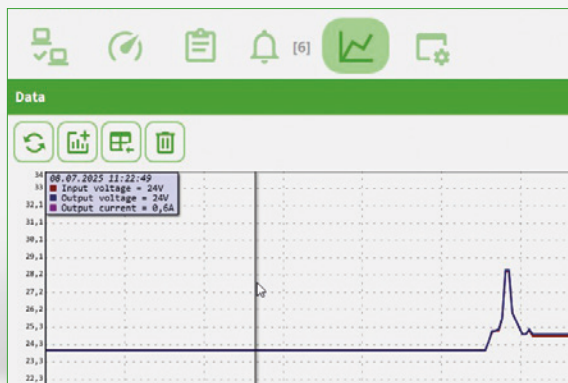
wipos UPS 20-960 ECO
Parameterization only via
wipos PLAN software

PROGRAMMING SOFTWARE WIPOS PLAN



WIPOS PLAN OFFERS THE FOLLOWING FEATURES

- Setting of the application-specific system voltages input / battery / output (load)
- Setting of the energy storage system used (battery technology)
- Monitoring of all states and values
- Log entries
- Online trace display of selected analog values
- Settings of the serial Modbus communication
- Read or write the complete settings via USB interface. Useful when creating series applications.



TRACE FUNCTION

SETTING SYSTEM VOLTAGES

FUNCTIONAL BEHAVIOR

STATUS INDICATORS

BACKUP LINE

WIPOS R50

The use of redundancy modules avoids standstill times, thereby increasing system availability. Our wipos R50 redundancy module monitors the feeding mains devices in a parallel circuit. If one device fails, the other device automatically takes over the supply.



- + Wide input voltage range 12 V - 85 V DC
- + Extremely efficient up to 99 % efficiency
- + Ultra-compact design
- + Microprocessor monitored
- + Display of the current load distribution
- + Increases system availability



PERFORMANCE FEATURES

+ Input voltage	12 - 58 V DC
+ Input current	max. 50 A
+ Output voltage	12 - 58 V DC
+ Output current	max. 50 A
+ Temperature range	-40 °C...+75 °C



BACKUP LINE · WIPOS R50 · TECHNICAL DATA



Description	wipos R50
Art. No.	81.000.6201.0
Output	
Output voltage DC min.	12 V
Output voltage DC max.	85 V
Nominal output current	50 A
Cable resistance	< 4 mOhm
Eingang	
Input voltage DC min.	12 V
Input voltage DC max.	85 V
Nominal input current	50 A
Idle power	< 1,5 W
Displays and signals	
Status signals	IN1+2, FAIL, SHARE Balkenanzeige
Signal contacts	OR OK, Share OK
Dimensions	
Depth	110 mm
Width	40 mm
Height	115 mm
Weight	350 g

TECHNICAL DATA	
Connection type input/output	Screw connection pluggable up to 16mm ²
Connection type Signal contacts	Screw connection pluggable up to 1.5mm ²
Operating temperature min.-max.	-40 °C...+75 °C
Storage temperature / transport min.-max.	-40 °C...+80 °C
Protection class	IP 20
Certificates / Approvals	CE, UL
Housing	Aluminium
MTBF	> 600,000 hours full load 25°C environment



INFO TO GO

All brochures from Wieland Electric are available for download on our website.

<https://www.wieland-electric.com/en/support/downloads>

Interesting for you

INDUSTRIAL COMMUNICATION

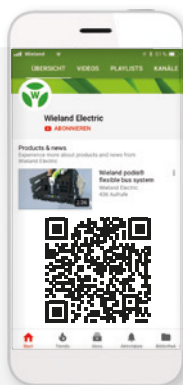
Easy remote access to machines and systems,
machine data collection and machine operation

Part No. 0800.1



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in motion

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