



SIPLUS PS UPS1600 10A PN

SIPLUS PS UPS1600 10A PN based on 6EP4134-3AB00-2AY0 with conformal coating, -25...+70 °C, uninterruptible power supply with Ethernet/PROFINET interface input: 24 V DC output: 24 V DC/ 10 A

Input	
supply voltage at DC rated value	24 V
voltage curve at input	DC
input voltage range	21 ... 29 V DC
adjustable response value voltage for buffer connection preset	21.5 V
adjustable response value voltage for buffer connection	21 ... 25 V; Adjustable: 21 V, 21.5 V, 22 V, 22.5 V, 23 V, 24 V, 25 V DC or via software
input current at rated input voltage 24 V rated value	14 A; for max. charging current (3 A)
Mains buffering	
type of energy storage	with batteries
design of the mains power cut bridging-connection	Adjustable range using rotary coding switch: 0.5 min, 1 min, 2 min, 5 min, 10 min, 20 min, max. buffering time or via software
charging current	0.1 A, 3 A
adjustable charging current maximum note	Automatically depending on battery module
Output	
output voltage	
• in normal operation at DC rated value	24 V
• in buffering mode at DC rated value	24 V
formula for output voltage	$V_{in} - \text{approx. } 0.2 \text{ V}$
startup delay time typical	60 ms
voltage increase time of the output voltage typical	60 ms
output voltage in buffering mode at DC	18.5 ... 27 V
output current	
• rated value	10 A
• in normal operation	0 ... 30 A
• in buffering mode	0 ... 30 A
peak current	30 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Limitation to $3 \times I$ rated for 30 ms/min; through-conductivity for $1.5 \times I$ rated for 5 sec/min
supplied active power typical	240 W
Efficiency	
efficiency in percent	
• at rated output voltage for rated value of the output current typical	97.3 %
• in case of operation on rechargeable battery typical	97.3 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	7 W
• in case of operation on rechargeable battery typical	7 W

Protection and monitoring	
product function	
<ul style="list-style-type: none"> reverse polarity protection against energy storage unit polarity reversal 	Yes
<ul style="list-style-type: none"> reverse polarity protection against input voltage polarity reversal 	Yes
Signaling	
display version	
<ul style="list-style-type: none"> for normal operation 	Normal operation: LED green (OK), floating changeover contact "Bat/OK" to setting "OK" ("OK" means: Voltage of the supplying power supply unit is greater than cut-in threshold set at the DC UPS module); Lack of buffer standby: LED red (alarm), floating changeover contact "Alarm/Bat" to setting "Alarm"; Battery replacement required: LED red (alarm) flashing with approx. 0.25 Hz, floating changeover contact "Alarm/Bat" switching with approx. 0.25 Hz; Energy storage > 85%: LED green (Bat > 85%), floating NO contact "Bat > 85" closed; Permissible contact current capacity: DC 60 V/1 A or AC 30 V /1 A
<ul style="list-style-type: none"> in buffering mode 	Buffered mode: LED yellow (Bat), floating changeover contact "OK/Bat" to setting "Bat"; Prewarning battery voltage < 20.4 VDC: LED red (alarm), floating changeover contact "Alarm/Bat" to setting "Alarm"; Energy storage > 85%: LED green (Bat > 85%), floating NO contact "Bat > 85" closed
Interface	
product component PC interface	Yes
design of the interface	Ethernet/PROFINET
Safety	
galvanic isolation between input and output	No
operating resource protection class	Class III
protection class IP	IP20
Approvals	
certificate of suitability	
<ul style="list-style-type: none"> CE marking 	Yes
EMC	
standard	
<ul style="list-style-type: none"> for emitted interference 	EN 55022 Class B
<ul style="list-style-type: none"> for interference immunity 	EN 61000-6-2
environmental conditions	
ambient temperature in horizontal mounting position during operation	-25 ... +70; with natural convection
ambient temperature during storage and transport	-40 ... +85
installation altitude at height above sea level maximum	6 000 m
ambient condition relating to ambient temperature - air pressure - installation altitude	In case of operation at altitudes of 2000 - 6000 m above sea level: Output power derating of -7.5 %/1000 m or reduction of the ambient temperature by 5 K/1000 m
relative humidity with condensation acc. to IEC 60068-2-38 maximum	100 %; RH incl. condensation/frost (no commissioning if condensation is present), horizontal installation
chemical resistance to commercially available cooling lubricants	Yes; incl. diesel and oil droplets in the air
resistance to biologically active substances conformity acc. to EN 60721-3-3	Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request
resistance to chemically active substances conformity acc. to EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3); *
resistance to mechanically active substances conformity acc. to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust; *
resistance to biologically active substances conformity acc. to EN 60721-3-6	Yes; Class 6B2 mold, fungal, sponge spores (except fauna)
resistance to chemically active substances conformity acc. to EN 60721-3-6	Yes; Class 6C3 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3); *
resistance to mechanically active substances conformity acc. to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
environmental category acc. to IEC 60721 note	* The supplied connector covers must remain on the unused interfaces during operation!
coating for equipped printed circuit board acc. to EN 61086	Yes; Class 2 for high availability
type of coating protection against pollution according to EN 60664-3	Yes; Type 1 protection

type of test of the coating acc. to MIL-I-46058C	Yes; Discoloration of the coating during service life possible
product conformity of the coating Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies acc. to IPC-CC-830A	Yes; Conformal Coating, Class A
Mechanics	
type of electrical connection <ul style="list-style-type: none"> • at input • at output • for rechargeable battery module • for control circuit and status message 	screw-type terminals 24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG 24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG 24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG 14 screw terminals for 0.2 ... 1.5 mm ² /24 ... 16 AWG
width of the enclosure	50 mm
height of the enclosure	139 mm
depth of the enclosure	125 mm
required spacing <ul style="list-style-type: none"> • top • bottom • left • right 	50 mm 50 mm 0 mm 0 mm
net weight	0.44 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Battery module
MTBF at 40 °C	349 874 h
reference code acc. to IEC 81346-2	T
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

