

SITOP DC UPS uninterruptible power supplies

DC UPS with battery modules

SITOP DC-UPS

Technical specifications (continued)

Product	DC UPS module	DC UPS module	DC UPS module
Power supply, type	6 A	15 A	40 A
Article number	6EP1931-2DC21 6EP1931-2DC31 (with serial interface) 6EP1931-2DC42 (with USB interface)	6EP1931-2EC21 ¹⁾ 6EP1931-2EC31 (with serial interface) 6EP1931-2EC42 (with USB interface)	6EP1931-2FC21 ¹⁾ 6EP1931-2FC42 (with USB interface)
Input L+/M in normal operation			
	Controlled DC voltage	Controlled DC voltage	Controlled DC voltage
Rated voltage $U_{in rated}$ ²⁾	24 V DC	24 V DC	24 V DC
Voltage range	22 ... 29 V DC	22 ... 29 V DC	22 ... 29 V DC
Connection threshold for battery	22.5 V DC \pm 0.1 V (factory setting), adjustable in the range 22 ... 25.5 V DC (in 0.5 V increments)	22.5 V DC \pm 0.1 V (factory setting), adjustable in the range 22 ... 25.5 V DC (in 0.5 V increments)	22.5 V DC \pm 0.1 V (factory setting), adjustable in the range 22 ... 25.5 V DC (in 0.5 V increments)
Rated current $I_{in rated}$	6 A + approx. 0.6 A with empty battery	15 A + approx. 1 A with empty battery	40 A + approx. 2.6 A with empty battery
Mains buffering			
Line buffering or buffer time	Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes!	Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes!	Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes!
On/off control circuit	External isolated NO contact required (load max. 15 V DC/max. 10 mA). With an open control circuit, the accumulator is isolated from output L+, thus canceling line buffering. If there is no input voltage, a quiescent current of approximately 0.3 mA is drawn from the battery disconnected from the output.	External isolated NO contact required (load max. 15 V DC/max. 10 mA). With an open control circuit, the accumulator is isolated from output L+, thus canceling line buffering. If there is no input voltage, a quiescent current of approximately 0.3 mA is drawn from the battery disconnected from the output.	External isolated NO contact required (load max. 15 V DC/max. 10 mA). With an open control circuit, the accumulator is isolated from output L+, thus canceling line buffering. If there is no input voltage, a quiescent current of approximately 0.3 mA is drawn from the battery disconnected from the output.
Methods of setting the buffering time	Adjustable using DIP switches to a maximum buffering time up to forced shutdown through exhaustive discharge protection (at approx. 19 V) or to a limited buffering time of 5 ... 635 s (in 10 s increments)	Adjustable using DIP switches to a maximum buffering time up to forced shutdown through exhaustive discharge protection (at approx. 19 V) or to a limited buffering time of 5 ... 635 s (in 10 s increments)	Adjustable using DIP switches to a maximum buffering time up to forced shutdown through exhaustive discharge protection (at approx. 19 V) or to a limited buffering time of 5 ... 635 s (in 10 s increments)
Interruption	Adjustable using DIP switch, either: • Interruption of the output voltage despite returning input voltage for min. 5 s following expiry of set buffering time to support automatic restarting of industrial PCs • No forced interruption on expiry of the set buffer time	Adjustable using DIP switch, either: • Interruption of the output voltage despite returning input voltage for min. 5 s following expiry of set buffering time to support automatic restarting of industrial PCs • No forced interruption on expiry of the set buffer time	Adjustable using DIP switch, either: • Interruption of the output voltage despite returning input voltage for min. 5 s following expiry of set buffering time to support automatic restarting of industrial PCs • No forced interruption on expiry of the set buffer time
Output L+/M in normal operation			
Rated voltage value $U_{out rated}$	24 V DC (output voltage of SITOP power supply)	24 V DC (output voltage of SITOP power supply)	24 V DC (output voltage of SITOP power supply)
Voltage range	Input voltage V_{in} less approx. 0.5 V DC	Input voltage V_{in} less approx. 0.5 V DC	Input voltage V_{in} less approx. 0.5 V DC
Startup delay	Approx. 1 s	Approx. 1 s	Approx. 1 s
Voltage rise	Typ. 60 ms	Typ. 60 ms	Typ. 360 ms
Output current I_{out}	0 ... 6 A	0 ... 15 A	0 ... 40 A
Dynamic current with overload	Electronic current limitation to 1.05 ... 1.4 $\times I_{out rated}$ for approx. 80 ms, then electronic shutdown of the output with automatic restart attempts (approx. 20 s intervals between restart attempts)	Electronic current limitation to 1.05 ... 1.4 $\times I_{out rated}$ for approx. 80 ms, then electronic shutdown of the output with automatic restart attempts (approx. 20 s intervals between restart attempts)	Electronic current limitation to 1.05 ... 1.4 $\times I_{out rated}$ for approx. 80 ms, then electronic shutdown of the output with automatic restart attempts (approx. 20 s intervals between restart attempts)
Dynamic current with short-circuit	Electronic current limitation to 1.5 ... 3 $\times I_{out rated}$ for approx. 20 ms, then electronic shutdown of the output with automatic restart attempts (approx. 20 s intervals between restart attempts)	Electronic current limitation to 1.5 ... 3 $\times I_{out rated}$ for approx. 20 ms, then electronic shutdown of the output with automatic restart attempts (approx. 20 s intervals between restart attempts)	Electronic current limitation to 1.5 ... 3 $\times I_{out rated}$ for approx. 20 ms, then electronic shutdown of the output with automatic restart attempts (approx. 20 s intervals between restart attempts)

¹⁾ SIPLUS module, see SIPLUS range

²⁾ All SITOP 24 V DC power supplies are permissible without restriction.

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DC UPS with battery modules

SITOP DC-UPS

Technical specifications (continued)

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Power supply, type	6 A	15 A	40 A
Article number	6EP1931-2DC21 6EP1931-2DC31 (with serial interface) 6EP1931-2DC42 (with USB interface)	6EP1931-2EC21 ¹⁾ 6EP1931-2EC31 (with serial interface) 6EP1931-2EC42 (with USB interface)	6EP1931-2FC21 ¹⁾ 6EP1931-2FC42 (with USB interface)
Output L+/M with battery operation			
Rated voltage value U_{out} rated	24 V DC (from battery module)	24 V DC (from battery module)	24 V DC (from battery module)
Approximate voltage range	27 V to 19 V DC at $I_{out} = 0.05 \times C \times 1/h$ or 24 V at $I_{out} = 1 \times C \times 1/h$ or 23 V at $I_{out} = 2 \times C \times 1/h$ (C = total connected battery capacity in Ah), 19 V disconnection threshold for exhaustive discharge protection	27 V to 19 V DC at $I_{out} = 0.05 \times C \times 1/h$ or 24 V at $I_{out} = 1 \times C \times 1/h$ or 23 V at $I_{out} = 2 \times C \times 1/h$ (C = total connected battery capacity in Ah), 19 V disconnection threshold for exhaustive discharge protection	27 V to 19 V DC at $I_{out} = 0.05 \times C \times 1/h$ or 24 V at $I_{out} = 1 \times C \times 1/h$ or 23 V at $I_{out} = 2 \times C \times 1/h$ (C = total connected battery capacity in Ah), 19 V disconnection threshold for exhaustive discharge protection
Output current I_{out} ²⁾	0 ... 6 A (permanently permissible)	0 ... 15 A (permanently permissible)	0 ... 40 A (permanently permissible)
Dynamic current with overload	Electronic current limitation to 1.05 to 1.4 $\times I_{out rated}$ for approx. 80 ms, then latching switch-off of output (restart following return to normal operation)	Electronic current limitation to 1.05 to 1.4 $\times I_{out rated}$ for approx. 80 ms, then latching switch-off of output (restart following return to normal operation)	Electronic current limitation to 1.05 to 1.4 $\times I_{out rated}$ for approx. 80 ms, then latching switch-off of output (restart following return to normal operation)
Dynamic current with short-circuit	Electronic current limitation to 1.5 to 3 $\times I_{out rated}$ for approx. 20 ms, then latching switch-off of output (restart following return to normal operation)	Electronic current limitation to 1.5 to 3 $\times I_{out rated}$ for approx. 20 ms, then latching switch-off of output (restart following return to normal operation)	Electronic current limitation to 1.5 to 3 $\times I_{out rated}$ for approx. 20 ms, then latching switch-off of output (restart following return to normal operation)
Output +Bat/-Bat in normal operation			
Output +Bat/-Bat in normal operation	I-U charging characteristic (first constant current I, then constant voltage U)	I-U charging characteristic (first constant current I, then constant voltage U)	I-U charging characteristic (first constant current I, then constant voltage U)
End-of-charge voltage V	26.6 V DC \pm 0.1 V (factory setting for +40 °C battery temperature), adjustable in the range 26.3 ... 29.3 V (in 0.1 V increments)	26.6 V DC \pm 0.1 V (factory setting for +40 °C battery temperature), adjustable in the range 26.3 ... 29.3 V (in 0.1 V increments)	26.6 V DC \pm 0.1 V (factory setting for +40 °C battery temperature), adjustable in the range 26.3 ... 29.3 V (in 0.1 V increments)
Charging current I	Approx. 0.4 A (factory setting), adjustable to 0.2 A or 0.4 A (charging is carried out with closed and open on/off circuit); at a battery voltage of < 6 V (batteries defective), charging is not carried out as a protective measure.	Approx. 0.7 A (factory setting), adjustable to 0.35 A or 0.7 A (charging is carried out with closed and open on/off circuit); at a battery voltage of < 6 V (batteries defective), charging is not carried out as a protective measure.	Approx. 2 A (factory setting), adjustable to 1 A or 2 A (charging is carried out with closed and open on/off circuit); at a battery voltage of < 6 V (batteries defective), charging is not carried out as a protective measure.
Efficiency/heat loss			
at $U_{out rated}$, $I_{out rated}$ approx.	95% / 7 W	96.2% / 14 W	97.2% / 28.6 W
With battery operation, approx.	94.5% / 8 W	96% / 15 W	96.9% / 33.6 W
Protection and monitoring			
Reverse polarity protection	Against polarity reversal on input voltage and batteries	Against polarity reversal on input voltage and batteries	Against polarity reversal on input voltage and batteries
Overload protection	In accordance with "dynamic current with overload" in normal operation (automatic restart attempts) or in battery mode (restart following return to normal operation)	In accordance with "dynamic current with overload" in normal operation (automatic restart attempts) or in battery mode (restart following return to normal operation)	In accordance with "dynamic current with overload" in normal operation (automatic restart attempts) or in battery mode (restart following return to normal operation)
Short-circuit protection	In accordance with "dynamic current with short-circuit" in normal operation (automatic restart attempts) or in battery mode (restart following return to normal operation). Built-in (not accessible) 16 A fuse (6 A and 15 A on DC UPS module) or 64 A fuse (40 A on DC UPS module).	In accordance with "dynamic current with short-circuit" in normal operation (automatic restart attempts) or in battery mode (restart following return to normal operation). Built-in (not accessible) 16 A fuse (6 A and 15 A on DC UPS module) or 64 A fuse (40 A on DC UPS module).	In accordance with "dynamic current with short-circuit" in normal operation (automatic restart attempts) or in battery mode (restart following return to normal operation). Built-in (not accessible) 16 A fuse (6 A and 15 A on DC UPS module) or 64 A fuse (40 A on DC UPS module).
Exhaustive discharge protection	Automatic shutdown when battery voltage falls below approx. 19 V. At a battery voltage of < 6 V (batteries defective), charging is not carried out as a protective measure.	Automatic shutdown when battery voltage falls below approx. 19 V. At a battery voltage of < 6 V (batteries defective), charging is not carried out as a protective measure.	Automatic shutdown when battery voltage falls below approx. 19 V. At a battery voltage of < 6 V (batteries defective), charging is not carried out as a protective measure.
Monitoring "Wire break in battery circuit"	Alarm signal if battery circuit not closed or if it opens during operation (cyclic check approximately every 20 s)	Alarm signal if battery circuit not closed or if it opens during operation (cyclic check approximately every 20 s)	Alarm signal if battery circuit not closed or if it opens during operation (cyclic check approximately every 20 s)

¹⁾ SIPLUS module, see SIPLUS range

²⁾ In order to implement more than 30 A up to max. 40 A output current for the DC-UPS module 40 A, two 7 Ah or 12 Ah battery modules connected in parallel are required.

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Monitoring "Battery replacement required"	Alarm signal flashing at approx. 0.25 Hz repetition frequency (approx. 2 s alarm, approx. 2 s no alarm, approx. 2 s alarm, etc.). Check every 4 hours with 6 ohm load for 1 s if no buffer mode or switch-off has taken place within 4 hours.	Alarm signal flashing at approx. 0.25 Hz repetition frequency (approx. 2 s alarm, approx. 2 s no alarm, approx. 2 s alarm, etc.). Check every 4 hours with 3 ohm load for 1 s if no buffer mode or switch-off has taken place within 4 hours.	Alarm signal flashing at approx. 0.25 Hz repetition frequency (approx. 2 s alarm, approx. 2 s no alarm, approx. 2 s alarm, etc.). Check every 4 hours with 1 ohm load for 1 s if no buffer mode or switch-off has taken place within 4 hours. No monitoring is performed when the compatibility switch is in the "On" position!
Monitoring "Battery charge status > 85%"	Indication whether batteries are charged to at least 85% of residual capacity still available depending on aging	Indication whether batteries are charged to at least 85% of residual capacity still available depending on aging	Indication whether batteries are charged to at least 85% of residual capacity still available depending on aging
Signaling²⁾			
Normal operation	Green LED (O K) and isolated change-over contact "24 V DC OK/Bat" at setting "24 V DC OK" ³⁾	Green LED (O K) and isolated change-over contact "24 V DC OK/Bat" at setting "24 V DC OK" ³⁾	Green LED (O K) and isolated change-over contact "24 V DC OK/Bat" at setting "24 V DC OK" ³⁾
Buffering or battery operation (battery supplies load alone or in addition to PS in the case of overload)	Yellow LED (Bat) and isolated change-over contact "24 V DC OK/Bat" at setting "Bat" (de-energized position)	Yellow LED (Bat) and isolated change-over contact "24 V DC OK/Bat" at setting "Bat" (de-energized position)	Yellow LED (Bat) and isolated change-over contact "24 V DC OK/Bat" at setting "Bat" (de-energized position)
Alarm (buffer not ready, or prewarning at and above < 20.4 V battery voltage)	Red LED (alarm) and isolated change-over contact at setting "Alarm" (= off position). Causes of the buffer not being ready during normal operation can include: Off status or open on/off control circuit, battery module not connected, polarity reversal or defective battery (battery voltage < 18.5 V) or wire breakage between battery and UPS module. Scanning and thus updating of the signal every 20 s. Causes for absence of buffer readiness during buffer mode can be: Battery voltage has dropped below 20.4 V DC (= pre-warning before shutdown through exhaustive discharge protection) and shutdown of the battery due to overload, short-circuit, exhaustive discharge protection or expired buffering time. The red LED then goes out.	Red LED (alarm) and isolated change-over contact at setting "Alarm" (= off position). Causes of the buffer not being ready during normal operation can include: Off status or open on/off control circuit, battery module not connected, polarity reversal or defective battery (battery voltage < 18.5 V) or wire breakage between battery and UPS module. Scanning and thus updating of the signal every 20 s. Causes for absence of buffer readiness during buffer mode can be: Battery voltage has dropped below 20.4 V DC (= pre-warning before shutdown through exhaustive discharge protection) and shutdown of the battery due to overload, short-circuit, exhaustive discharge protection or expired buffering time. The red LED then goes out.	Red LED (alarm) and isolated change-over contact at setting "Alarm" (= off position). Causes of the buffer not being ready during normal operation can include: Off status or open on/off control circuit, battery module not connected, polarity reversal or defective battery (battery voltage < 18.5 V) or wire breakage between battery and UPS module. Scanning and thus updating of the signal every 20 s. Causes for absence of buffer readiness during buffer mode can be: Battery voltage has dropped below 20.4 V DC (= pre-warning before shutdown through exhaustive discharge protection) and shutdown of the battery due to overload, short-circuit, exhaustive discharge protection or expired buffering time. The red LED then goes out.
"Battery replacement required"	Red LED (alarm) flashing at 0.25 Hz and isolated changeover contact (alarm) switching at approx. 0.25 Hz	Red LED (alarm) flashing at 0.25 Hz and isolated changeover contact (alarm) switching at approx. 0.25 Hz	Red LED (alarm) flashing at 0.25 Hz and isolated changeover contact (alarm) switching at approx. 0.25 Hz
"Battery charge status > 85%"	Second green LED (Bat > 85%) and isolated NO contact closed (off position = open)	Second green LED (Bat > 85%) and isolated NO contact closed (off position = open)	Second green LED (Bat > 85%) and isolated NO contact closed (off position = open)
Compatibility switch	Only on 6EP1931-2FC21 The following can be selected using DIP switches: Switch position "Off" - "significant properties analogous to new DC UPS range" or "On" switch position - "analogous to previous DC UPS module 40 (6EP1931-2FC01)". With compatibility switch in "On" position: The output of the alarm signal changes: – the red LED flashes on wire-break between battery module and DC-UPS module with 1/3 Hz and isolated changeover contact (alarm) switching at approx. 1/3 Hz. A battery test does not take place.	Only on 6EP1931-2FC21 The following can be selected using DIP switches: Switch position "Off" - "significant properties analogous to new DC UPS range" or "On" switch position - "analogous to previous DC UPS module 40 (6EP1931-2FC01)". With compatibility switch in "On" position: The output of the alarm signal changes: – the red LED flashes on wire-break between battery module and DC-UPS module with 1/3 Hz and isolated changeover contact (alarm) switching at approx. 1/3 Hz. A battery test does not take place.	Only on 6EP1931-2FC21 The following can be selected using DIP switches: Switch position "Off" - "significant properties analogous to new DC UPS range" or "On" switch position - "analogous to previous DC UPS module 40 (6EP1931-2FC01)". With compatibility switch in "On" position: The output of the alarm signal changes: – the red LED flashes on wire-break between battery module and DC-UPS module with 1/3 Hz and isolated changeover contact (alarm) switching at approx. 1/3 Hz. A battery test does not take place.

¹⁾ SIPLUS module, see SIPLUS range

²⁾ Permissible contact rating: 60 V DC/1 A or 30 V AC/1 A.

³⁾ "24 V DC OK" means: voltage of the power supply unit is greater than the battery connection threshold set on the DC UPS module.

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Technical specifications (continued)

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Optional interface and software			
Serial interface	Only for 6EP1931-2.C31 Output of all alarm signals and receipt of the "Remote timer start" signal. Technical design: PC-compatible. 8N1 send and receive, 9600 bit/s, 8 data bits, 1 stop bit, no parity bit. Required connection to the PC: 1 : 1 interconnected 9-pole sub D extension cable (connector/socket), only pin 2 (RXD), pin 3 (TXD) and pin 7 (RTS) are required.	Only for 6EP1931-2.C31 Output of all alarm signals and receipt of the "Remote timer start" signal. Technical design: PC-compatible. 8N1 send and receive, 9600 bit/s, 8 data bits, 1 stop bit, no parity bit. Required connection to the PC: 1 : 1 interconnected 9-pole sub D extension cable (connector/socket), only pin 2 (RXD), pin 3 (TXD) and pin 7 (RTS) are required.	Only for 6EP1931-2.C31 Output of all alarm signals and receipt of the "Remote timer start" signal. Technical design: PC-compatible. 8N1 send and receive, 9600 bit/s, 8 data bits, 1 stop bit, no parity bit. Required connection to the PC: 1 : 1 interconnected 9-pole sub D extension cable (connector/socket), only pin 2 (RXD), pin 3 (TXD) and pin 7 (RTS) are required.
USB interface	Only for 6EP1931-2.C42 Output of all alarm signals and receipt of the "Remote timer start" signal. Technical design: Specification 2.0 with full speed, i.e. 2 Mbps. Supplied with +5 V by DC UPS ("self powered"). Required connection to the PC: Commercially available 4-core shielded cable, 90 Ohm, max. 5 m, USB series "A" connector to PC and USB series "B" connector to DC UPS	Only for 6EP1931-2.C42 Output of all alarm signals and receipt of the "Remote timer start" signal. Technical design: Specification 2.0 with full speed, i.e. 2 Mbps. Supplied with +5 V by DC UPS ("self powered"). Required connection to the PC: Commercially available 4-core shielded cable, 90 Ohm, max. 5 m, USB series "A" connector to PC and USB series "B" connector to DC UPS	Only for 6EP1931-2.C42 Output of all alarm signals and receipt of the "Remote timer start" signal. Technical design: Specification 2.0 with full speed, i.e. 2 Mbps. Supplied with +5 V by DC UPS ("self powered"). Required connection to the PC: Commercially available 4-core shielded cable, 90 Ohm, max. 5 m, USB series "A" connector to PC and USB series "B" connector to DC UPS
Software	DC UPS software tool (runs under Windows 2000, Windows XP, Windows Vista and Windows 7) for reading and processing signals	DC UPS software tool (runs under Windows 2000, Windows XP, Windows Vista and Windows 7) for reading and processing signals	DC UPS software tool (runs under Windows 2000, Windows XP, Windows Vista and Windows 7) for reading and processing signals
Control signals			
On/off control signal	Buffering is terminated or the battery is disconnected from the output by opening the control circuit or by means of DIP switches on the device (DIP switch must be in "Off" position). All other functions are retained.	Buffering is terminated or the battery is disconnected from the output by opening the control circuit or by means of DIP switches on the device (DIP switch must be in "Off" position). All other functions are retained.	Buffering is terminated or the battery is disconnected from the output by opening the control circuit or by means of DIP switches on the device (DIP switch must be in "Off" position). All other functions are retained.
"Remote Timerstart" via serial interface or USB	Starts mains buffering for the set buffering time	Starts mains buffering for the set buffering time	Starts mains buffering for the set buffering time
Safety			
Primary/secondary isolation	No	No	No
Safety class	Class III (ext. circuit and power supply unit: SELV in accordance with EN 60950 required)	Class III (ext. circuit and power supply unit: SELV in accordance with EN 60950 required)	Class III (ext. circuit and power supply unit: SELV in accordance with EN 60950 required)
EMC			
Emitted interference	Radio interference suppression according to EN 55022, Class B	Radio interference suppression according to EN 55022, Class B	Radio interference suppression according to EN 55022, Class B
Interference immunity	Interference immunity according to EN 61000-6-2	Interference immunity according to EN 61000-6-2	Interference immunity according to EN 61000-6-2
Environmental conditions			
Ambient temperature during operation	-25 ... + 60 °C with natural convection	-25 ... + 60 °C with natural convection	-25 ... + 60 °C with natural convection
Transport/storage temperature	-40 ... + 85 °C	-40 ... + 85 °C	-40 ... + 85 °C
Degree of protection (EN 60529)	IP20	IP20	IP20
Humidity class	Rated conditions in accordance with EN 60721, climate class 3K3 (relative humidity 5% ... 85% and absolute humidity 1 g/m ³ ... 25 g/m ³ ; no condensation)	Rated conditions in accordance with EN 60721, climate class 3K3 (relative humidity 5% ... 85% and absolute humidity 1 g/m ³ ... 25 g/m ³ ; no condensation)	Rated conditions in accordance with EN 60721, climate class 3K3 (relative humidity 5% ... 85% and absolute humidity 1 g/m ³ ... 25 g/m ³ ; no condensation)
Approvals			
CE mark	Yes	Yes	Yes
UL/cUL (CSA) approval	cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259	cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259	cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259

¹⁾ SIPLUS module, see SIPLUS range

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Mechanics			
Input connections 24 V DC	2 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	2 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	2 screw terminals for 0.33 ... 10 mm ² /22 ... 7 AWG
Output connections 24 V DC	4 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	4 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	4 screw terminals for 0.33 ... 10 mm ² /22 ... 7 AWG
Battery module connections 24 V DC	2 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	2 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	2 screw terminals for 0.33 ... 10 mm ² /22 ... 7 AWG
Connections for control circuit and alarm signals	10 screw terminals for 0.5 ... 2.5 mm ² /20 ... 13 AWG	10 screw terminals for 0.5 ... 2.5 mm ² /20 ... 13 AWG	10 screw terminals for 0.5 ... 2.5 mm ² /20 ... 13 AWG
Dimensions (W x H x D) in mm	50 x 125 x approx. 125	50 x 125 x approx. 125	102 x 125 x 125
Weight, approx.	0.4 kg (with serial or USB interface: 0.45 kg).	0.4 kg (with serial or USB interface: 0.45 kg).	1.1 kg (with serial or USB interface: 1.1 kg).
Installation	Snaps onto DIN rail EN 60715 35 x 7.5/15	Snaps onto DIN rail EN 60715 35 x 7.5/15	Snaps onto DIN rail EN 60715 35 x 7.5/15

¹⁾ SIPLUS module, see SIPLUS range

Ordering data

Article No.

DC UPS module 6 A

- with serial interface
- with USB interface

6EP1931-2DC21
6EP1931-2DC31
6EP1931-2DC42

DC UPS module 15 A

- with serial interface
- with USB interface

6EP1931-2EC21
6EP1931-2EC31
6EP1931-2EC42

DC UPS module 40 A

- with USB interface

6EP1931-2FC21
6EP1931-2FC42