Data sheet

CP DC UPS 24V 20A/10A

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com



The UPS control unit together with the associated battery module and the power supply unit form a complete DC UPS system. In normal operation, the input voltage from the UPS control unit is connected directly to the load. In the event of a mains failure (drop of the DC input voltage) the system switches instantly to battery operation. Once the mains supply has been restored, the system switches back to normal operation and the battery is fully recharged by the integrated charger.
Three relay outputs, as well as three additional active transistor outputs and a control input to lock battery operation, provide full remote control by means of SPS or DCS control. Numerous modes of operation and an easy-to-use status display provide rapid fault diagnosis and optimum customisation to the application.

General ordering data

Version	UPS control unit
Order No.	1370050010
Type	CP DC UPS 24V 20A/10A
GTIN (EAN)	4050118202335
Qty.	1 items

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E258476

Dimensions and weights

Depth	150 mm	Depth (inches)	5.9055 inch
Height	130 mm	Height (inches)	5.1181 inch
Width	66 mm	Width (inches)	2.5984 inch
Net weight	1139 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
Humidity	5...95 %, no condensation		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	d6c68c9e-3e33-4fa9-920e-331473bf0422

Battery module

Nominal voltage	24 V	Storage medium	1.3 Ah, 3.4 Ah, 7.2 Ah, 12 Ah, 17 Ah, Selectable with rotary switch
Parallel connection option	yes, max. 2		

Integrated battery charger

Temperature coefficient	- 48 mV / °C	Charging voltage (temperature compensated)	27, 48 V @ 20°C
Charging current	0.15 cA	Battery availability test	every minute
Charging feature	IU characteristic curve		

Operating interfaces and control inputs

Function DIP switch	Inversion of transistor outputs, Operation without temperature probe	Selector switch buffer times	0.5 min, 1 min, 3 min, 5 min, 10 min, 20 min, 30 min, 45 min, ∞, ∞ w/0
Temperature probe	NTC 100 kΩ	Remote disconnection (Interlock)	Yes
Output current selector switch	20 A, 10 A	Selector switch battery	1.3 Ah, 3.4 Ah, 7.2 Ah, 12 Ah, 17 Ah, No Battery, Service

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Input

Rated input voltage	24 V DC	Wire connection method	Screw connection
Input fuse (internal)	Yes	DC current consumption	max. 200 mA (without battery), max. 0.5 A (with fully charged battery)
DC input voltage range	20...30 V DC	Input current	≤ 13A (for 10A), ≤ 23A (for 20A)
Approved input current, max.	28 A		

Output

Rated output voltage	24 V DC ± 1 %	Residual ripple, breaking spikes	<50 mVPP @ 24 V DC, IN
Parallel connection option	yes, max. 2, Yes, with diode module	Overload protection	Yes
Output current, max.	24 A	Wire connection method	Screw connection
Output voltage, note	Vo = Vin - 0.2 V normal operation (Imax), Vo = Vin - 0.3 V battery supply (I max)	Nominal output current for Unom	20 A @ 60 °C
Temperature coefficient	- 48 mV / °C	Temperature probe	NTC 100 kΩ
Protection against inverse voltage	Yes	Continuous output current @ UNominal	24 A @ 45 °C, 20 A @ 60 °C, 15 A @ 70 °C

General data

Degree of efficiency	≥ 96% normal mode, battery is being charged, ≥ 98% normal mode, battery is charged, ≥ 98% buffer mode	
Humidity	5...95 %, no condensation	
Protection degree	IP20	
Surge voltage category	III	
Mounting position, installation notice	Horizontal on TS35 mounting rail. 50 mm of clearance at top & bottom for air circ. Can mount side by side with no space in between.	
Housing version	Metal, corrosion resistant	
Protection against reverse voltages from the load	32...34 V DC	
Current limiting	> 120% IN	
Power loss	<10 W	
MTBF	According to Standard	SN 29500
	Operating time (hours), min.	1860000 h
	Ambient temperature	25 °C
	Input voltage	24 V
	Output power	240 W
	Duty cycle	100 %
	According to Standard	SN 29500
	Operating time (hours), min.	906400 h
	Ambient temperature	40 °C
	Input voltage	24 V
	Output power	240 W
	Duty cycle	100 %
Storage medium	1.3 Ah, 3.4 Ah, 7.2 Ah, 12 Ah, 17 Ah, Selectable with rotary switch	
Clip-in foot	metal	
Short-circuit protection	Yes	
Buffer times	Depending on the connected battery	

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EMC / shock / vibration

Shock resistance IEC 60068-2-27	30 g in all directions	Noise emission in accordance with EN55032	Class B
Interference immunity test acc. to	EN 61000-4-2 (ESD)/ EN 61000-4-3 and EN 61000-4-8 (fields)/EN 61000-4-4 (burst)/EN 61000-4-5 (surge)/EN 61000-4-6 (conducted)/ EN 61000-4-11 (dips)	Vibration resistance IEC 60068-2-6	2.3 g

Insulation coordination

Surge voltage category	III	Pollution severity	2
Insulation voltage	1 kV DC	electrical isolation, output-earth	1 kV
electrical isolation, input-earth	1 kV	Protection class	III, with no ground connection, for SELV

Electrical safety (applied standards)

Electrical machine equipment	Acc. to EN60204	Safety transformers for switch-mode power supplies	According to EN 61558-2-16

Connection data (input)

Reverse polarity protection	Yes	Conductor cross-section input (AWG), max.	6 AWG
Conductor cross-section (AWG) (input), min.	26 AWG	Wire connection cross-section, flexible (input), max.	16 mm²
Conductor cross-section, flexible , min.	0.5 mm²	Conductor cross-section, rigid , max.	16 mm²
Conductor cross-section, rigid , min.	0.5 mm²	Tightening torque (input). min.	1.2 Nm
Tightening torque (input). max.	1.5 Nm		

Connection data (output)

Reverse polarity protection	Yes	Conductor cross-section (AWG) (output), max.	6 AWG
Conductor cross-section (AWG) (output) , min.	26 AWG	Conductor cross-section, flexible , max.	16 mm²
Conductor cross-section, flexible , min.	0.5 mm²	Conductor cross-section, rigid , max.	16 mm²
Conductor cross-section, rigid , min.	0.6 mm²	Tightening torque (output), min.	1.2 Nm
Tightening torque (output), max.	1.5 Nm		

Connection data (signal)

Wire connection cross-section, flexible (signal), max.	1.5 mm²	Wire connection method (signal)	Screw connection
Wire cross-section (AWG) (signal), max.	15	Wire cross-section, solid (signal), min.	0.2 mm²
Wire cross-section, solid (signal), max.	1.5 mm²	Wire connection cross-section, flexible (signal), min.	0.2 mm²
Wire cross-section (AWG) (signal), min.	30 mm²		

Signalling

Status indicator	Three-colour LED: Battery capacity >85% green, >40% yellow, >20% red, <20% red (Flashing), Green/ yellow LED: normal /	Floating contact	Yes

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	buffering, Yellow/red LED: temperature alarm / alarm, Yellow/red LED: switch-off / battery fault		
Transistor outputs (24&...27 V DC max. load 150 mA)	Battery operation (buff.), Charging, Fault (alarm)	Status relay (max. load)	Fault (alarm) (30 V AC/DC 0.1 A), Battery operation (buff.) (30 V AC/DC 0.1 A), Laden (Charg.) (30V AC/DC 0,1A)

Classifications

ETIM 8.0	EC002850	ETIM 9.0	EC002850
ETIM 10.0	EC002850	ECLASS 14.0	27-04-06-92
ECLASS 15.0	27-04-06-92		

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Drawings

Buffer Time

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