CP DC UPS 24V 40A

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.	1370040010
Type	CP DC UPS 24V 40A
GTIN (EAN)	4050118202342
Qty.	1 pc(s).

CP DC UPS 24V 40A

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

www.weidmueller.com

Technical data

Dimensions and weights

Depth	150 mm	Depth (inches)	5.905 inch
Height	130 mm	Height (inches)	5.118 inch
Width	66 mm	Width (inches)	2.598 inch
Net weight	1,051.8 g		

Temperatures

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

Battery module

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

Integrated battery charger

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

Operating interfaces and control inputs

Function DIP switch	Inversion of transistor outputs, Operation without temperature probe	Remote disconnection (Interlock)	Yes
Selector switch battery	3.4 Ah, 7.2 Ah, 12 Ah, 17 Ah, No Battery, Service	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		

Input

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	≤ 43 A	Input fuse (internal)	Yes
Max. approved input current	52 A	Rated input voltage	24 V DC
Wire connection method	Screw connection		

Output

Continous output current @ $U_{Nominal}$	48 A @ 45 °C, 24 A @ 70 °C, 40 A @ 60 °C	Nominal output current for U_{nom}	40 A @ 60 °C
Output current, max.	48 A	Output voltage, note	Vo = Vin - 0.2 V normal operation (Imax), Vo = Vin - 0.3 V battery supply (I max)
Overload protection	Yes	Parallel connection option	yes, max. 2, Yes, with diode module
Protection against inverse voltage	Yes	Rated output voltage	24 V DC ± 1 %
Residual ripple, breaking spikes	< 50 mV_{PP} @ 24 V DC, I_N	Temperature coefficient	- 48 mV / °C
Temperature probe	NTC 100 kΩ	Wire connection method	Screw connection

CP DC UPS 24V 40A

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

www.weidmueller.com

Technical data

General data

Buffer times	Depending on the connected battery	Clip-in foot	metal
Current limiting	> 120% I_N	Degree of efficiency	≥ 96% normal mode, battery is being charged, ≥ 98% normal mode, battery is charged, ≥ 98% buffer mode
Housing version	Metal, corrosion resistant	Humidity	5...95 %, no condensation
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.	Power loss	< 10 W
Protection against reverse voltages from the load	32...34 V DC	Protection degree	IP20
Short-circuit protection	Yes	Storage medium	3.4 Ah, 7.2 Ah, 12 Ah, 17 Ah, Selectable with rotary switch
Surge voltage category	III		

EMC / shock / vibration

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)	Noise emission in accordance with EN55032	Class B
Shock resistance IEC 60068-2-27	30 g in all directions	Vibration resistance IEC 60068-2-6	2.3 g

Insulation coordination

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

Electrical safety (applied standards)

Electrical machine equipment	Acc. to EN60204	For use with electronic equipment	Acc. to EN50178 / VDE0160
Protection against dangerous shock currents	Acc. to VDE0106-101	Protective separation / protection against electrical shock	VDE0100-410 / acc. to DIN57100-410
Safety transformers for switch-mode power supplies	According to EN 61558-2-16		

Connection data (input)

Conductor cross-section, AWG/kcmil , max.	6	Conductor cross-section, AWG/kcmil , min.	26
Conductor cross-section, flexible , min.	0.5 mm²	Conductor cross-section, rigid , max.	16 mm²
Conductor cross-section, rigid , min.	0.5 mm²	Reverse polarity protection	Yes
Wire connection cross section, flexible (input), max.	16 mm²		

CP DC UPS 24V 40A

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

www.weidmueller.com

Technical data

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	6	Conductor cross-section, AWG/kcmil , min.	26
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
Reverse polarity protection	Yes		

Connection data (signal)

Wire connection method	Screw connection	Wire cross-section, AWG/kcmil , max.	15
Wire cross-section, AWG/kcmil , min.	30	Wire cross-section, solid , max.	1.5 mm²
Wire cross-section, solid , min.	0.2 mm²		

Signalling

Floating contact	Yes	Status indicator	Three-colour LED: Battery capacity >85% green, >40% yellow, >20% red, <20% red (Flashing), Green/yellow LED: normal / buffering, Yellow/red LED: temperature alarm / alarm, Yellow/red LED: switch-off / battery fault
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)	Transistor outputs (24&...27 V DC max. load 150 mA)	Battery operation (buff.), Charging, Fault (alarm)

Approbations

Certificate no. (cULus)	E258476	Institute (cULus)	CULUS

Classifications

ETIM 6.0	EC002850	ETIM 7.0	EC002850
ETIM 8.0	EC002850	ETIM 9.0	EC002850
ECLASS 9.0	27-04-06-92	ECLASS 9.1	27-04-92-01
ECLASS 10.0	27-04-06-92	ECLASS 11.0	27-04-06-92
ECLASS 12.0	27-04-06-92	ECLASS 13.0	27-04-06-92

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	d6c68c9e-3e33-4fa9-920e-331473bf0422

Approvals

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

Creation date March 28, 2024 3:58:27 PM CET

CP DC UPS 24V 40A

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

www.weidmueller.com

Technical data

Downloads

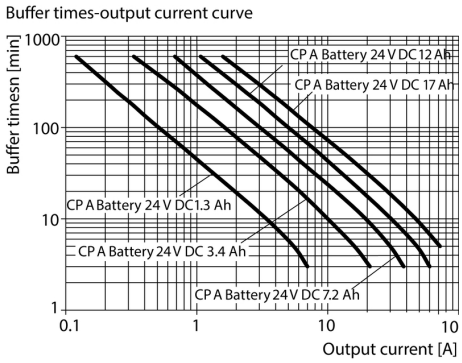
Approval/Certificate/Document of Conformity	UL 508 Certificate.pdf UL 60950 Certificate.pdf DNV Certificate.pdf BV Certificate Declaration of Conformity
Engineering Data	CAD data – STEP Quick start guide – QSG0009 PS-Selection Guide AC Backup Guide for AC backup for power supplies
User Documentation	Operating instructions
Catalogues	Catalogues in PDF-format

CP DC UPS 24V 40A

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

www.weidmueller.com

Drawings



Buffer Time

CP DC UPS 24V 40A

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

www.weidmueller.com

Accessories

Installation



Mounting accessory for Weidmüller Power Supplys.

General ordering data

Type	MTA 45 MF	Version
Order No.	1251310000	Electronics housings, Mounting flange
GTIN (EAN)	4050118042719	
Qty.	1 pc(s).	

W-Series



Weidmüller's range of products includes end brackets that guarantee a permanent, reliable mounting on the terminal rail and prevent sliding. Versions with and without screws are available. The end brackets include marking options, also for group markers, and also a test plug holder.

General ordering data

Type	WEW 35/2 V0 GF SW	Version
Order No.	1479000000	W-Series, End bracket
GTIN (EAN)	4050118286779	
Qty.	50 pc(s).	

Type	WEW 35/1 V0 GF SW	Version
Order No.	1478990000	W-Series, End bracket
GTIN (EAN)	4050118286892	
Qty.	50 pc(s).	

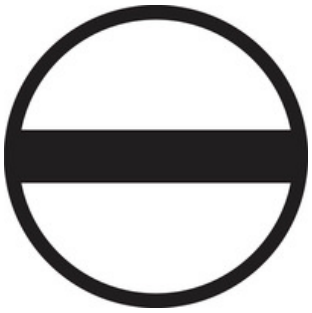
CP DC UPS 24V 40A

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

www.weidmueller.com

Accessories

Slotted screwdriver



VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

General ordering data

Type	SDIS SL 0.6X3.5X100	Version
Order No.	1274660000	Screwdriver, Mounting tool
GTIN (EAN)	4050118072631	
Qty.	1 pc(s).	

Type	SDIS SL 1.0X5.5X125	Version
Order No.	1274680000	Screwdriver, Mounting tool
GTIN (EAN)	4050118073263	
Qty.	1 pc(s).	

Crosshead screwdriver, Pozidrive



VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

General ordering data

Type	SDIK PZ2 SL	Version
Order No.	1274740000	Screwdriver, Screwdriver
GTIN (EAN)	4050118073218	
Qty.	1 pc(s).	

CP DC UPS 24V 40A

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

www.weidmueller.com

Accessories

Temperature probe



External temperature probe for battery modules in combination with the Weidmüller UPS control unit.

General ordering data

Type	CP DC UPS TF05
Order No.	1444480000
GTIN (EAN)	4050118249767
Qty.	1 pc(s).

Type	CP DC UPS TF25
Order No.	1444540000
GTIN (EAN)	4050118249880
Qty.	1 pc(s).