DC UPS DIN rail **DCH series**

Reliability and availability in a small space. The DCH series power supplies with UPS function are the most compact of its kind and impress with extraordinary overload behavior. They are characterized by a variety of applications and their robust IP 20 housing is the perfect solution for all DIN rail applications. By the power boost mode, the DCH offers 300% of the rated power for 4 seconds. Thus, it can be used as a reliable overload protection and is ideally suitable for consumers with high inrush currents, such as electric motors.

Classic DCH series 12, 24 or 48V

New model:
can be set
to 12 or 24V

Multifunctional Display

Optionally temperature-controlled charging: External temperature sensor for optimal temperature controlled charging voltage.

One device for many battery types: Since the user can select several predefi ned charging curves via jumper, the DCH series is suitable for all types of batteries. Standard open and sealed AGM or lead-acid batteries can be used. Ni-Cd and Li-ion batte-ries can be used optionally. Recharging is done via automatic 4-step battery charge according to IUoU. A “boost” charge is selectable.

Wide range of applications: A variety of certifi cations (including UL 60950-1, CE) enables the global use of the DCH series as well as in areas where specifi c stan-dards are required.

Extensive diagnostics: Errors are detected early through comprehensive measurements, such as: battery not connected, sulfated battery, short circuit, reverse polarity of the connections or suitability of the type of battery (voltage test).

Wide input voltage range: The DC UPS can be opera-ted in an extremely wide input voltage range of 90 to 305 V.

Reliable technology: The components of the DCH se-ries represent a highly reliable and effi cient technology with an MTBF of> 300,000 h according to IEC61709.

Effective technology: Thanks to the use of advanced technology, the DCH series reaches an effi ciency of more than 91%.

Communication and control: Electrically isolated relay contacts are available to monitor the power supply. Further communication interfaces: MODBUS devices
>400W, Integration and confi guration via separate software, Interface for parallel operation: redundancy or capacity expansion on certain models possible (see specifi cations).

New in EFFEKTA program: DC UPS with output voltage adjustable to 12 or 24V. Multifunction display for configuration and monitoring of the DC systems.

Specifications

Standards and certifications: Conformity: IEC / EN 60335-2-29, Chargers: EN60950 / UL 60950-1; EEC EMC Directive; 2006/95 / EC, DIN41773 (charge cycle); Interference emission for industrial areas: EN61000-6-4; Interference immunity for industrial areas: EN 61000-6-2; Immunity to fast transient electrical disturbances: EN 61000-4-4/EC; Immunity to Surge Voltage.

DCH			12 V, 3 A	12 V, 6 A	12 V, 10 A	12 V, 35 A
Input	Rated voltage [VAC]		115-230-277	115-230-277	115-230-277	115/230-277
	Voltage range [VAC]		90 - 305	90 - 305	90 - 305	90-135, 180-305
Output (Normal mode)	Rated voltage [VDC]		12			
	Rated current [A]		3	6	10	35
	Power max. [W]		36	72	120	420
	Efficiency (@ 50% I_n)		≥89%	≥89%	≥89%	≥90%
	Redundant operation or power enhancement		No	No	No	Yes
Output	Voltage range [VDC] @ I_n		10 – 14.4 [VDC]			
	Peak current [A]	Mains 4 Sec.	9	18	30	105
		Batt. 4 Sec.	6	12	20	70
	Deep discharge protection		9.5 ± 0.5			
	Charge current adjustment		Range: 10-100% (max. In)			
Communication	Relay contacts		Messages: normal power or backup operation, discharged or defective battery			
	Dimensions HxWxD [mm]		115x65x135	115x65x135	115x65x135	115x150x135
Mechanical/ environment	Weight [kg]		0.60	0.60	0.60	1.55
	Operating temperature		-25 to +70°C			
	Humidity		95% Humidity (non-condensing)			

DCH			24 V, 3 A	24 V, 5 A	24 V, 10 A	24 V, 20 A
Input	Rated voltage [VAC]		115-230-277	115-230-277	115/230-277	115/230-277
	Voltage range [VAC]		90 - 305	90 - 305	90-135/180-305	90-135, 180-305
Output (Normal mode)	Rated voltage [VDC]		24			
	Rated current [A]		3	5	10	20
	Power max. [W]		72	120	240	480
	Efficiency (@ 50% I_n)		≥89%	≥89%	≥83%	≥90%
	Redundant operation or power enhancement		No	No	No	Yes
Output	Voltage range [VDC] @ I_n		22 – 28.8 [VDC]			
	Peak current [A]	Mains 4 Sec.	9	15	30	60
		Batt. 4 Sec.	6	10	20	40
	Deep discharge protection		19.5 ± 0.5			
	Charge current adjustment		10-100% (max. I_n)			
Communication	Relay contacts		Messages: normal power or backup operation, discharged or defective battery			
	Dimensions HxWxD [mm]		115x65x135	115x65x135	115x100x135	115x150x135
Mechanical/ environment	Weight [kg]		0.60	0.60	0.85	1.55
	Operating temperature		-25 to +70°C	0.60	0.85	1.55
	Humidity		95% Humidity (non-condensing)			

DCH			48 V, 5 A	48 V, 10 A	12V,15A/24V,10 A	Multifunction-Display
Input	Rated voltage [VAC]		115/230-277	115/230-277	115-230-277	
	Voltage range [VAC]		90-305/180-305	90-305/180-305	90 – 305	**Main functions:** - Monitoring - Configuration - Alarm management - History - Event programming
Output (Normal mode)	Rated voltage [VDC]		48	48	12/24 selectable	
	Rated current [A]		5	10	15/10	
	Power max. [W]		240	480	280	
	Efficiency (@ 50% In)		≥83%	≥91%	≥91%	
	Redundant operation or power enhancement		No	No	No	**Consumption:** 130mA/ 1.6W typical
Output	Voltage range [VDC] @ I_n		44 – 57.6 [VDC]	44 – 57.6 [VDC]	10-14.4 / 22-28.8[VDC]	**Anzeige:** 3,5" LCD-Display with 160° viewing angle
	Peak current [A]	Mains 4 Sec.	15	30	12V/45A – 24V30A	
		Batt. 4 Sec.	10	20	12V/30A – 24V20A	
	Deep discharge protection		39 ± 1	39 ± 1	9-10/19-20	
	Charge current adjustment		10-100% (max. In)			**Gateway for:** - Ethernet - CAN-Bus - MODBUS
Communication	Relay contacts		Messages: normal power, backup operation, discharged or defective batt.			
	Dimensions HxWxD [mm]		115x100x135	115x150x135	115x100x135	**Protocols:** SNMP, MODBUS TCP, MODBUS RTU, SAE J1939
Mechanical/ environment	Weight [kg]		0.85	1.55	0.85	
	Operating temperature		-25 to +70°C			
	Humidity		95% Humidity (non-condensing)			