

300 W

DCU Series - DC-UPS, AC/DC uninterruptable power systems for critical DC loads.

All-in-One: Power supply + Battery charger + Back-up functions, all packaged in one box.

- Selectable Output Voltage, 12 Vdc or 24 Vdc
- Load-first, Dynamic Load/Battery power sharing
- Adjustable maximum battery charging current
- Suitable for backup of high inrush current DC loads
- Universal charging output, selectable Battery Type
- SBS Smart Temperature Compensation probe (opt.)
- Manual Battery start-up button with no mains
- Battery life test, automatic or manual on push button
- Extensive BATTSAFE battery management firmware
- Full set of protection and monitoring functions
- Local monitoring and diagnostics on LEDs
- Remote alarms via 3 voltage-free relay contacts

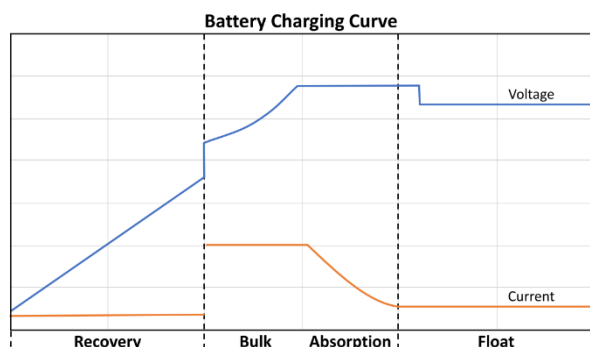
Norms - Certifications - Conformity

This device complies with:

- **Electrical Safety** Low Voltage Directive 2014/35/EU, 2014/35/UE as follow:
- EN60950-1, (UL60950-1, UL508, C22.2, EN60335-2-29, UL1236), EN IEC 62368-1:2014/AC:2015;
- **EMC Emission** EN55011 (CISPR11), EN55022 (CISPR22) Class B, EN61000-3-3
- **EMC Immunity** EN61000-4-2,3,4,5,6,8,11
- **Fire Detection** and fire alarm systems EN54-4
- **Charging cycle** DIN41773
- **UL Pending**

Battery Management

Rated Voltage	12 Vdc	24 Vdc
Charging Curve	3 stages (IUoU) + Recovery	
Charging Current setting (min/max)	1.5 A / 15.0 A	1 A / 10 A
Battery Type, selectable by Dip Switch	Vented & Sealed Lead Acid, AGM, Li-Io, Li-PoFe, NiCd/NiCd/Ni-Mh	
Voltage max	14.75 Vdc	29.50 Vdc
Boost Voltage	14.4 Vdc	28.8 Vdc
Float Voltage, dip switch selectable	According to battery type	
Recovery Charge	2-10 Vdc	2-20 Vdc
Low Voltage Disconnect (LVD) Threshold	9.3 Vdc	18.5 Vdc
Low Voltage Alarm Threshold	11 Vdc	22 Vdc
Time Boost-Bulk Charge (Typ. IN)	min 5 s, max 15 h	
Temperature Compensation	SBS Smart Temperature Compensation probe (opt.)	
Boost voltage Enable/Disable Protections	Local dip switch or Remote Link Reverse Polarity, Disconnected Battery Wrong Battery Voltage Sulphated Battery, Cell-In Short Circuit	
Battery Diagnostics		
Life Test	Automatic Every 2 h in Standby, Manual on Push Button	



DSH-DCU300M1224-R2-DA28.docx

Technical data

Input		
Rated Input Voltage AC	115/230/277 Vac (range 85-305 Vac)	
Frequency Range	50/60 Hz (range 47- 440 Hz)	
Input Current (Typ.)	2.8 A (115 Vac), 1.4 A (230 Vac)	
Rated Input Voltage DC	110/220 Vdc (range 110-420 Vdc)	
Input Current DC (Typ.)	3.0 (110 Vdc), 1.5 A (220 Vdc)	
Inrush Current (Typ. Cold Start)	15 A max	
Setup, Rise Time Max	1 s	
Recommended External Fuse/MCB	10A, curve B	
Load Output - Power Supply Mode - Mains ON & Battery OFF		
Voltage, selectable by Dip Switch ¹	12 Vdc	24 Vdc
Rated Current (I _a)	15 A	10 A
Ripple / Noise ²	80 mV _{pp}	100 mV _{pp}
Short Circuit Protection	yes	
Over Load Protection	> 110% I _r	
Over Voltage Protection	35 Vdc	
Load Output - Standby Mode - Mains ON & Battery ON		
Voltage Range, Automatic Set ¹	12-14.4 Vdc	24-28.8 Vdc
Max Continuous Current (I _r +I _{BATT})	≤20 A	≤15 A
Max Current for 30 s	≤25 A	≤20 A
Max Current for 15 s	≤27.5 A	≤25 A
Max Current for 5 s	< 30 A	< 30 A
Load Output - Backup Mode - Mains OFF & Battery ON		
Voltage Range, Automatic Set ¹	9.5-12 Vdc	18.5-24 Vdc
Max Continuous Current (I _r +I _{BATT})	≤20 A	≤15 A
Max Current for 30 s	≤25 A	≤20 A
Max Current for 15 s	≤27.5 A	≤25 A
Max Current for 5 s	< 30 A	< 30 A
Start from battery with no mains	Yes, on Push Button	
Quiescent current	< 90 mA	
Signal Output/Input		
Standby / Backup	Change-over relay contact, M terminals	
Common Fault	Change-over relay contact, F terminals	
Charger Failure	Change-over relay contact, S terminals	
Full set of monitor and alarm visual signals	Flashing code on 3, Three-color LEDs	
Climatic Data		
Operating Ambient Temperature (T _a)	-25 up to +70°C	
Relative Humidity, no condensation@25°C	max 95%	
Storage Temperature	-40 up to +85°C	
Cooling	Natural Convection	
General Data		
Efficiency (Typ.)	>90%	>92%
Temperature Derating Factor ¹	2.5 %/°C , T _a > 50°C	
Altitude Derating Factor ¹	0.5°C/100 m, above 2000 m	
Insulation Voltage (In/Out)	4 kVac	
Insulation Voltage (In/PE)	2 kVac	
Insulation Voltage (Out/PE)	500 Vdc	
Insulation Resistance (500 V)	> 100 MΩ	
Protection Class (EN/IEC 60529)	IP 20	
Pollution Degree Environment	2	
Dimensions (W x H x D)	80 x 130 x 126 mm	
Weight	0.9 kg	
Commercial Data		
Weight per unit, including packing	1.0 kg	
Dimensions per unit, including packing	85 x 138 x 134 mm	
Volume per unit, including packing	0.0014 m ³	
Custom Tariff HS	85044055	