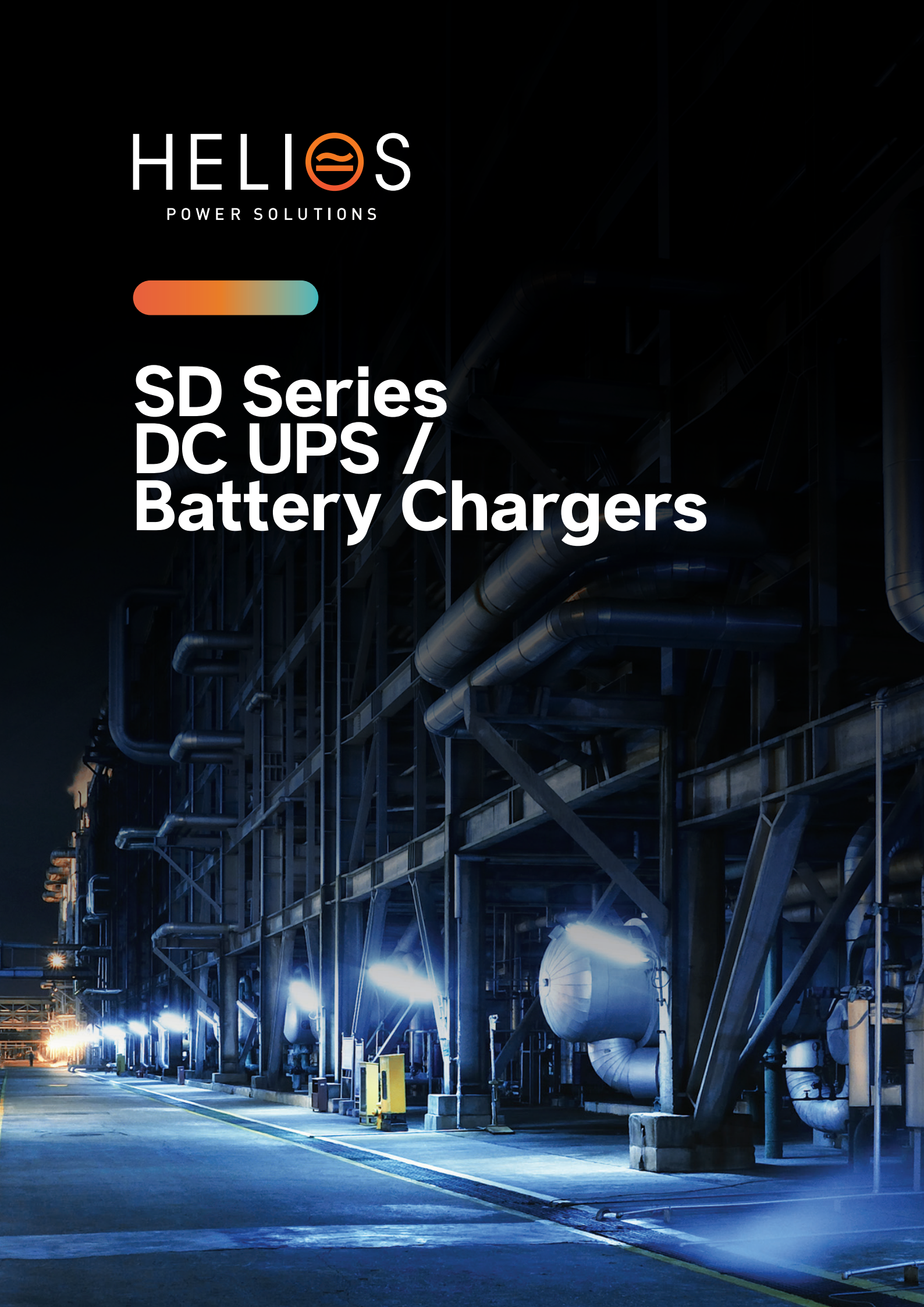
HELIOS

POWER SOLUTIONS

SD Series DC UPS / Battery Chargers



Our DC UPS systems are suitable for all these sectors >>

Defence | IT & Telcom | Oil & Gas | Transportation | Power Utilities | Critical Manufacturing

SD Series DC UPS

RELIABLE & HIGH MTBF
+20 years of design life and over 200000 hrs. MTBF.

EASY MAINTENANCE AND REPAIR
Modular structure and front access with smart component distribution for easier repair and maintenance.

SMART CHARGE FACILITY
Voltage, Current and timer adjustments according to load/battery. Automatic charge & boost inhibit options.

HARSH ENVIRONMENTS
High grade protection level up to IP54 ensures full functionality in every harsh condition. Coating and plating provides solid resistance to the system.

Your power backup for critical loads.

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Features

- Input isolation transformer
- Fast control with DSP controller
- Thyristor/IGBT technology
- Float boost and equalize charge
- Auto and manual charge mode
- <1% Voltage Ripple (<4% on 1 phase)
- Alarm adjustable dry contacts
- ModBus Protocol - RS232, RS485
- Operation available while mains fail
- Current limiting (adjustable)
- Automatic start & fault recovery
- Smart fault diagnosing
- Modular board structure

Options

- Analog gauges (V, A, Hz meters)
- Battery discharging facility
- Transducers (4-20mA and 0-10V)
- Enclosure heating
- Fan failure monitoring

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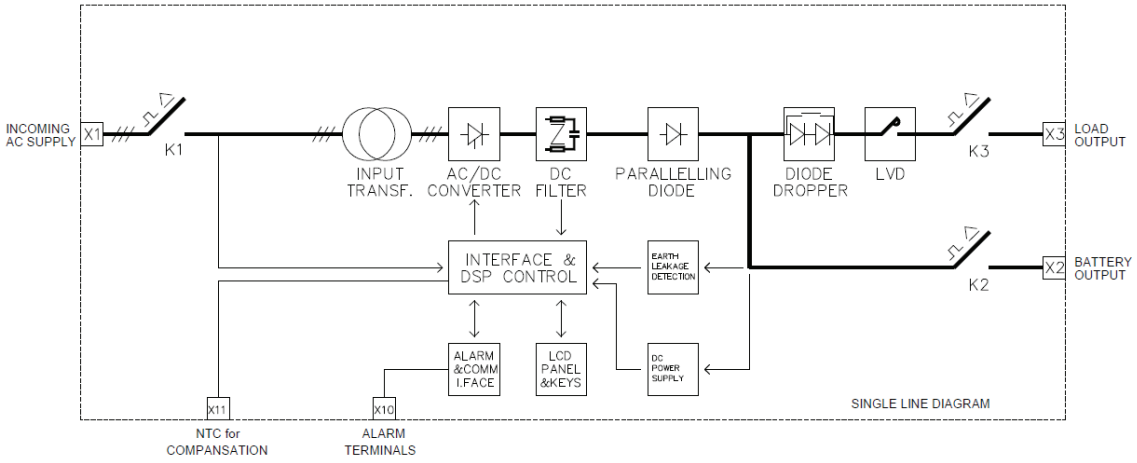
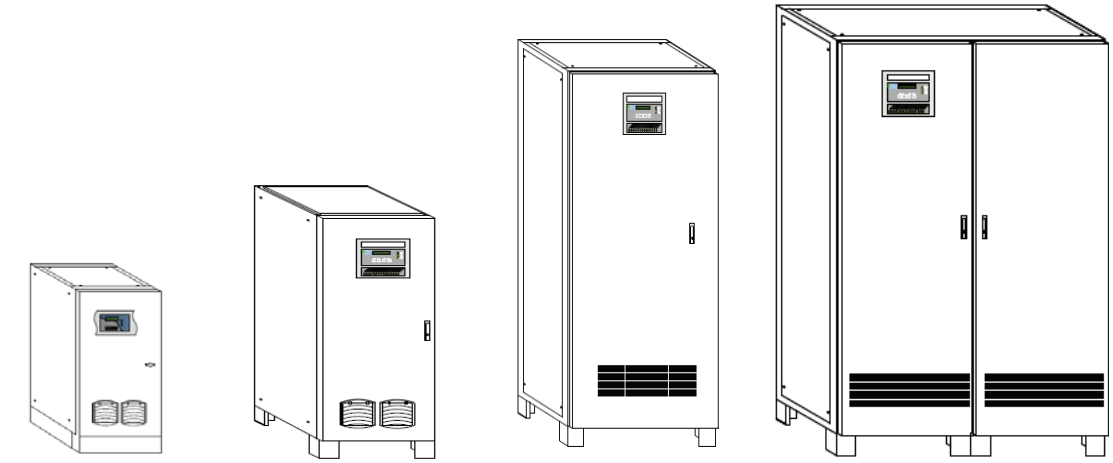
Single-line Diagram



Standard Cabinet Sizes



500*450*1000mm | 600*600*1300mm | 600*600*1900mm | 1200* 800*2100mm

Fully controlable and monitorable systems

Standard:

- **Modbus RTU over RS232 + 4 relay NO/NC alarm outputs**

Optional:

- **Modbus RTU over RS485**
- **Modbus TCP**
- **Profinet**
- **SNMP**
- **IEC61850**
- **8-16 relays NO/NC alarm outputs**

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DC UPC Systems

MODEL	SD1	SD3
INPUT		
Voltage	110VAC to 275VAC ± 15% VAC	190VAC to 480VAC ± 15% VAC
Frequency	50, 60 or 400Hz ± 10%	
Rectifier Type	Half Bridge / Full Bridge	6 pulse / 12 pulse
OUTPUT		
Output Voltage	12 to 600VDC	
Output Current	10 to 1000A	10 to 5000A
Efficiency	78% to 85%	85% to 93%
Voltage Stability	<1%	
Overload	continuous @ 110%, 10mins @ 110-125%, 1mins @ 125-150%	
Ripple	<4%	<1%
Battery Type	VRLA / OPzV / OPzS / NiCad	
Battery Charge Voltage	VRLA / OPzV / OPzS : 2,25 (Float) per cell NiCad : 1,42 (Float) – 1,5 to 1,7 (Boost/equalize) per cell	
Battery Charge Current	VRLA / OPzV / OPzS : 10-15% of Battery Capacity (adjustable) NiCad : 20% of Battery Capacity (adjustable)	
Boost Charge Timer	0-20 hrs. adjustable (with Auto Boost inhibit)	
Voltage Adj. Range	80% to 140% of Nominal Voltage	
Isolation	1500, 2000 or 3000VAC input&output/chassis	
PHYSICAL CHARACTERISTICS		
Protection Degree	Standard: IP20, **(OPT: 21 to 54)**	
Cooling System	Forced Ventilation **(OPT: Natural cooling, Water cooling, Smart Fans)**	
Cable Entry	Standard: Bottom **(OPT: Top, Rear, Side)**	
Cabinet Color	Standard: RAL7032,7035 **(OPT: Others)**	
ENVIRONMENT		
Operating Temperature	0 to 50C°	
Storage Temperature	-25 to 70C°	
Relative Humidity	up to 90% (non-condensing)	
Operating Altitude	1000m from MSL (1% derate each 100m after 1000m)	
Acoustic Noise	50 to 73 dBA (depending on rating)	
COMMUNICATIONS		
Standard Comm.	RS232, Dry Contact x4 to x16 **(OPT: RS485, TCP, SNMP and IEC61850)**	
Paralel Operation	Passive: Infinite **(Active: up to 4)**	
Visual Interfaces	LED/LCD Panel **(OPT: Touch Panel, Mimic Panel Available)**	
PROTECTIONS		
Battery Protections	Temperature Compensating Charge / LVD	
Input/output Protections	Auxiliary Trip Contacts / TMS or LS/G Breakers AC or DC Earth Fault / DROPPER (or DC/DC Conv.)	
Internal Protection	Phase Sequence Protection / SCR Protection Rapid Fuses	
STANDARDS		
IEC 60146-1-1:2009	Semi Conductor Converters – Specification of basic requirements	
IEC 60335	Household and similar electrical appliances – Safety - Part 1: General requirements	
IEC 61204	Low-Voltage power supply devices , DC output performance characteristics	

Product properties may change without a notice*

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SINGAPORE

NEW ZEALAND

World-class engineering, local focus.