

SCALABLE, FAULT TOLERANT, INDUSTRIAL PROTECTION



SOLAHD S5KC UNINTERRUPTIBLE POWER SUPPLIES, 5 – 20 kVA



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COMPANY**

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WE GET IT

24/7 Emergency Material Access

SOLAHD


EMERSON
Industrial Automation

VERSATILE AND DEPENDABLE PROTECTION FOR INDUSTRIAL PROCESSES.



SolaHD's S5KC single phase UPS protects equipment, people and products by providing conditioned power during normal operation and automatic battery back-up during power failures.

The innovative S5KC features a modular design that can be expanded as needed to add capacity and runtime – even while operating in the field. The heavy duty design features an all metal case with tough metal bezels built for durability in demanding industrial settings. Redundant components and hot swappable modules provide fault tolerance and the ability to maintain the UPS without taking it off-line.

Available in transformer based and transformer free models, SolaHD's S5KC is our most scalable, rugged and dependable UPS for demanding industrial applications.

BUILT TOUGH FOR INDUSTRIAL ENVIRONMENTS.

Reliability depends on durability. S5KC uninterruptible power supplies are designed for reliability in extreme industrial settings. With a strong metal case and removable metal bezels, the S5KC provides exceptional protection while still allowing easy access to the modular, hot swappable components housed inside.



EASY TO USE, ENGINEERED FOR RELIABILITY

0.9 power factor for industry leading performance when running on battery power

True on-line double conversion isolates equipment from power fluctuations while minimizing transfers to increase battery life

Modular LCD control screen for visibility and on-machine control; can be remote mounted anywhere within 10 meters of the main cabinet

Rugged industrial design with all-metal housing and bezels

Metal bezels provide easy access to integral standard dust filters that snap on and off with no tools required

Power modules, batteries, maintenance bypass and distribution housed in a single, small footprint cabinet

Installation on raised floor, traditional flooring or in rack enclosure

MODULAR COMPONENTS FOR EASY CONFIGURATION, EXPANSION AND MAINTENANCE.

SolaHD S5KC features a modular design that allows you to add, upgrade and replace components anytime – even while the system is powered. You can perform maintenance or even expand capacity without interrupting industrial productivity.



- Scale your UPS in the field by adding power or battery modules as needed from 5 to 20 kVA.
- Get capacity on demand by adding power modules in 5 kVA/4.5 kW increments, with no need to power down.
- Optional Power A/C Distribution (PAD) provides output distribution, input connection and a rotary maintenance bypass switch.
- Available in 10, 12 and 16 bay models with or without output transformer.
- **Transformer free models** provide flexible input and output voltages for easy integration into an OEM machine.
- **Transformer based models** isolate the load from electrical noise and provide local neutral and grounding points.



These ENERGY STAR® qualified models use an average of 35% less energy:
S5KC-A, S5KC-B, S5KC-C (except 5 kVA), S5KC-D (except 5 kVA), S5KC-E, S5KC-F.

REDUNDANT AND RELIABLE FOR CRITICAL APPLICATIONS.

Make sure your critical loads always have dependable, conditioned power. The S5KC offers a fault tolerant, redundant design with modular components that can be hot swapped to keep your equipment powered even if a module fails or needs to be removed for maintenance.



Optional redundant modules: N+2/20 kVA redundancy enhances reliability, providing multiple layers of power protection for critical applications.

No single point of failure: When configured as redundant, the S5KC allows the load to run on conditioned power even if there is a failure of any component in the system.

Three communication ports: Provide asset visibility and power optimization through flexible communications with a variety of infrastructure management solutions.

Independently controlled maintenance and frame-level bypass: Maintain the S5KC in place or take it off-line without shutting down machines.

Real time alerts: Proactively resolve any issues before they can affect operations.

PROTECT YOUR PROCESSES, MAXIMIZE YOUR PRODUCTIVITY.

Visit www.solahd.com or contact your local SolahD representative to learn how the new SolahD S5KC adapts to your requirements for scalability and availability.



S5KC MODULAR SERIES ON-LINE UNINTERRUPTIBLE POWER SYSTEMS (UPS)

The S5KC Modular UPS is scalable from 5 to 20 kVA, offering many flexible options by adding a few standard modules. Designed to be fully configured, tested and shipped in the configuration you need, the S5KC Modular UPS also has the ability to be easily upgraded in the field to either higher VA ratings (up to 20 kVA maximum), longer back-up time or to add N+x parallel redundancy. Configurations can be cost-effectively upgraded keeping your S5KC Modular UPS current without a large reinvestment in a new system.

The optional N+x redundancy provides a fault-tolerant group of power modules and controls. The modular design is easy to upgrade so the UPS can grow with the needs of the system that is being protected.

Each of the modular components, including 5 kVA power modules, LCD display, battery modules and system control modules, can be hot-swapped making it easy to increase power, extend your back-up time or add redundancy while still providing power protection to the load.

This fault-tolerant system uses intelligent power and battery modules which take themselves off-line if there is a problem without interrupting power to the load. Self-diagnostic capabilities simplify maintenance and troubleshooting. Each unit incorporates an internal automatic bypass.

SUITABLE APPLICATIONS

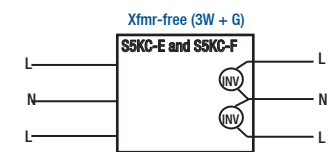
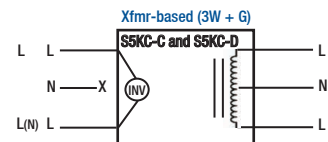
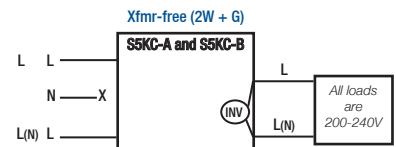
- With multiple standard options in a smaller footprint, providing more flexibility for capacity and communication both pre- and post-installation, the S5KC delivers the power protection needs in applications such as:
 - Oil and Gas (Pure OEMs)
 - Pharmaceutical
 - Automotive
 - Food and Beverage

FEATURES

- Module level redundancy provides multiple layers of protection to ensure your machine has the power it needs to run safely with no single point of failure. Critical loads continue to run on conditioned battery power even if a system component malfunctions.
- An industry leading 0.9 power factor keeps machines performing flawlessly when running on battery power.
- Superior overload capabilities deliver conditioned power during temporary power anomalies without unnecessarily transferring to and from bypass power.
- Independently controlled maintenance bypass is designed to provide maximum system availability to critical equipment by allowing transfer of connected equipment to an alternate power path. The UPS can then be turned Off and removed from service with no interruption of power to connected equipment.
- True on-line double conversion with a large input voltage range isolates sensitive equipment from power fluctuations while minimizing transfers to increase battery life.
- ENERGY STAR® qualified UPS models – UPS products meeting the EPA's requirements use an average of 35% less energy than their standard counterparts.
- To enhance the availability and trouble-free operation, every pre-configured S5KC UPS, includes startup, two year warranty and arrives standard with one IS-UNITY-DP communications card installed. This enables you to take advantage of the remote monitoring and diagnostic service available with your system during your initial standard warranty period.

CHASSIS SELECTION

- Select the proper chassis based on your applications current and future need for expansion. Also consider if redundancy will be required for your application then consider your application power and location wiring needs. To help with selecting the appropriate chassis series, we have provided a useful selection flow chart to guide you to an appropriate chassis series for your needs.



CERTIFICATIONS AND COMPLIANCES

- cULus Listed, UPS Equipment
 - UL 1778, CSA C22.2 No. 107.3
- CE, Low Voltage and EMC Directive
 - IEC/EN 62040-1, IEC/EN 62040-2

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For product information:
www.solahd.com
1.800.377.4384


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Description		10 Bay (A) Xfmr-free	16 Bay (B) Xfmr-free	12 Bay (C) Xfmr-based	16 Bay (D) Xfmr-based	10 Bay (E) Xfmr-free dual inverter	16 Bay (F) Xfmr-free dual inverter
Capacity		15 kVa 13.5 kW	20 kVa 18 kW	15 kVa 13.5 kW	20 kVa 18 kW	15 kVa 13.5 kW	20 kVa 18 kW
General and Environment							
Conducted and Radiated EMC Levels		IEC/EN/AS 62040-2 Cat 2, CISPR22 Class A, FCC Part 15 Class A, C-Tick					
Compliant Immunity Standards		IEC/EN/AS 61000-4-2, 3, 4, 5, 6					
Environmental		WEEE and ROHS2 (6 by 6), REACH Compliant					
Transportation		ISTA-1A					
ENERGY STAR® Qualified		Yes All Models	Yes All Models	Yes 10, 15, 20 kVa	Yes 10, 15, 20 kVa	Yes All Models	Yes All Models
Dimensions mm (in) and Weight kg (lbs)							
Width		440 mm (17 in)	440 mm (17 in)	440 mm (17 in)	440 mm (17 in)	440 mm (17 in)	440 mm (17 in)
Depth		800 mm (32 in)	850 mm (34 in)	800 mm (32 in)	850 mm (34 in)	800 mm (32 in)	850 mm (34 in)
Height		695 mm (27 in)	970 mm (38 in)	1060 mm (42 in)	1240 mm (49 in)	695 mm (27 in)	970 mm (38 in)
Weight (frame rating populated)	Unit Weight	256 kg (565 lbs)	318 kg (700 lbs)	361 kg (795 lbs)	417 kg (920 lbs)	256 kg (565 lbs)	318 kg (700 lbs)
	Shipping Weight	274 kg (605 lbs)	336 kg (740 lbs)	379 kg (835 lbs)	435 kg (960 lbs)	274 kg (605 lbs)	336 kg (740 lbs)
Environmental							
Operating Temperature		0 °C thru +40 °C (+32 °F thru +104 °F)					
Relative Humidity		0 - 95%, non-condensing					
Altitude		3000 m (10000 ft) @ +25 °C (+77 °F)					
Efficiency (AC-AC)		91.8-92.0%	91.6-92.0%	88.5-89.9%	88.6-89.7%	90.4-91.0%	90.0-91.0%
Heat Dissipation		4208 BTU / hour	5747 BTU / hour	5528 BTU / hour	7965 BTU / hour	4904 BTU / hour	6768 BTU / hour
Input Data							
Nominal Input Voltage		200/208/220/230/240 Vac; Single Phase			200/100, 208/120, 220/110, 230/115, 240/120 Vac; Single Phase		
		380/400/415 Vac; 3 Phase		Not Applicable			
Input Voltage Range		The input voltage range based on the output loading, refer to User Manual					
Power Factor		Single Phase input, > 0.99 Cos; Three Phase input, > 0.95 Cos		Single Phase input, > 0.99 Cos			
Input Frequency Range		40 Hz to 70 Hz auto-sensing					
Battery Module							
Battery Capacity		36 Watt @ 15 minimum rating to 1.67 Vdc per cell @ +25 °C (+77 °F)					
Backup Time (full load)		5 minutes (for non-redundant system which has equal number of battery strings and power modules)					
Maximum Charge Current (full load)		Power module internal charger: 1.8 Amp / Charger module: 10 Amp					
Nominal Voltage		144 Vdc					
Recharge Time		< 5 hours to 90% capacity (PM internal charger with 1:1 ratio of PM to Battery Strings)					
Output Data							
Output Voltage		200/208/220/230/240 Vac; Single Phase		100/100/173/200, 110/110/190/220, 115/115/199/230, 120/120/208/240 Vac; Single Phase		200/100, 208/120, 220/110, 230/115, 240/120 Vac; Single Phase	
Voltage Regulation		±3%					
Voltage Stability (100% step load)		±7%					
Voltage Recovery Time		≤ 60 ms					
Voltage Distortion		≤ 3%, linear load					
		≤ 5%, non-linear load		≤ 7%, non-linear load		≤ 5%, non-linear load	
Output Frequency		50/60 Hz					
Output Overload Capability		< 104% continuous					
		105% - 130% for 1 minute					
		131% - 150% for 10 second					
		151% - 200% for 1 second					
		> 201% for 250 millisecond					

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