



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

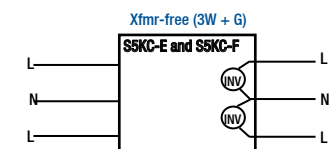
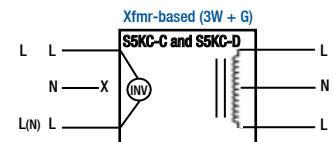
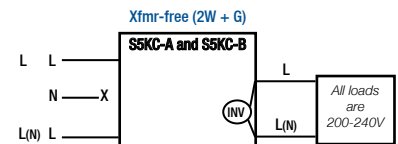
- With multiple standard options in a smaller footprint, providing more flexibility for capacity and communication both pre- and post-installation, the S5KC delivers the power protection needs in applications such as:
 - Oil and Gas (Pure OEMs)
 - Pharmaceutical
 - Automotive
 - Food and Beverage

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

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

SOLAHD

For product information:
www.solahd.com
1.800.377.4384

EMERSON

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| Description | | 10 Bay (A) | 16 Bay (B) | 12 Bay (C) | 16 Bay (D) | 10 Bay (E) | 16 Bay (F) |
|--|-----------------|--|-------------------|--|-----------------------|---|-------------------|
| | | Xfmr-free | | Xfmr-based | | 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 Pending | | | | | |
| 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 | | | | | |