SLC CUBE3+

Uninterruptible power supply system from 7.5 to 200 kVA

SLC CUBE3+: Energy efficiency with superior electrical protection

Salicru's **SLC CUBE3+** series is a UPS range featuring highperformance, On-line double conversion (VFI) technology that provides a reliable, high-quality power supply and, at the same time, achieves significant energy and financial savings in terms of installation and operating costs.

Particularly noteworthy is the unit's input power factor (PF=1) and its extremely low distortion rate (THDi even lower than 1.5%), which help to reduce installation and operating costs, and contribute to improving the quality of the electrical grid.

The output power factor (PF=0.9) also stands out, providing optimum electrical protection for computer systems and low harmonic output distortion (THDv even lower than 0.5%), enabling it to protect any type of load (inductive, resistive, capacitive or mixed). In addition, the performance achieved (up to 95% in On-line mode and 98.4% in Smart Eco-mode) produces significant energy consumption savings and reduces air conditioning needs.

For a full optimum solution, the **SLC CUBE3+** provides maximum adaptability (even with the standard model), the possibility of parallel redundant expansion and extensive communication options. Finally, also worth noting is the unit's lightweight design and reduced dimensions, enabling it to be easily installed and ensuring that footprint is minimal.



Applications: Designed to protect any type of environment

High-end design features plus great flexibility capacity (options, power upgrading, communications...) make **SLC CUBE3+** series the best option to protect and secure a wide range of environments: datacentres, hosting, housing, IT-networks, server farms, voice and data networks...











Performances

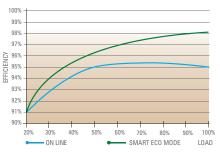
- \cdot On-line double conversion (VFI) technology with DSP control.
- · Input power factor 1, for better performance.
- · Very low input current harmonic distortion (THDi as low as <1.5%).
- \cdot Total flexibility in input/output voltage. $^{\scriptscriptstyle (1)}$
- \cdot Designed to withstand any type of load.
- \cdot Batt-Watch function for monitoring and battery care.
- \cdot High output power factor (PF=0.9)^{(2)}
- \cdot Very low output voltage distortion rate (THDv even lower than 0.5%).
- \cdot On-line mode efficiency of up to 95%.
- \cdot Smart Eco-mode efficiency of up to 98.4%.
- · Touch screen 7" color. (3)
- \cdot Very compact design with minimal footprint.
- · Can be integrated into the most advanced IT environments.
- \cdot Parallel redundant configuration (N+1) for critical installations. $^{\scriptscriptstyle (4)}$
- · Built with 80% recyclable materials.
- · SLC Greenergy solution.

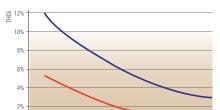
Single/single, single/three and three/single configurations up to 100 kVA.
Only for three-phase input / output models. PF = 0.8 for other configurations.
According to model.



High efficiency

High performance in On-line and Smart The lowest harmonic distortion in the market.







Technical support and service

· Pre and post-sales advice.

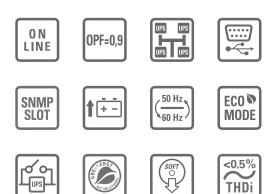
25%

COMPETITOR

· Start-up.

0%

- · Telephone technical support.
- · Preventative/corrective intervention.
- · Maintenance contracts.
- · Remote maintenance contracts.
- · Training courses.



Low harmonic distortion Options

75% SLC CUBE3+ 100

market. · Nimbus/Ethernet/SNMP adapter.

- · Monitoring, management and shutdown software.
- · 1 x additional RS-232/485 serial port.
- · Extended backup times.
- Common battery set for parallel systems.
- · BACS II, battery monitoring, regulation and alarms.
- · Dual-level charger for NiCd batteries.
- · Separate bypass line.
- · Touch screen 7" color.(2)
- · Single/single, single/three and three/single configurations.⁽¹⁾
- · External manual bypass.
- · Temperature and humidity sensors.
- · Frequency converter function.
- · Backfeed protection.
- · Isolation transformer and autotransformer.
- · Parallel installation cable.
- · Nimbus AS-400 extended relay card.
- · Earthquake-proof feet.
- · Other levels of protection.
- · Batteries in rack.
- (1) Up to 100 kVA (2) Up to 60 kVA

Range

MODEL	CODE	POWER (VA / W)	Nº CABINETS (UPS + BAT)	DIMENSIONS (D × W × H mm)	WEIGHT (Kg)	BAT DIMENSIONS (D × W × H mm)	BAT WEIGHT (Kg)
SLC-7,5-CUBE3+	681LA000009	7500 / 6750	1 + 0	770 × 450 × 1100	203	-	-
SLC-10-CUBE3+	681LA000004	10000 / 9000	1 + 0	$770 \times 450 \times 1100$	203	-	-
SLC-15-CUBE3+	681LA000017	15000 / 13500	1 + 0	770 imes 450 imes 1100	205	-	-
SLC-20-CUBE3+	681LA000024	20000 / 18000	1 + 0	770 imes 450 imes 1100	254	-	-
SLC-30-CUBE3+	681LB000006	30000 / 27000	1 + 0	770 imes 450 imes 1100	305	-	-
SLC-40-CUBE3+	681LB000010	40000 / 36000	1 + 0	770 × 450 × 1100	403	-	-
SLC-50-CUBE3+	681LC000001	50000 / 45000	1 + 1	$770\times450\times1100$	185	$775 \times 450 \times 1100$	295
SLC-60-CUBE3+	681LC000002	60000 / 54000	1 + 1	$770 \times 450 \times 1100$	185	$775\times450\times1100$	523
SLC-80-CUBE3+	681TD000001	80000 / 72000	1 + 1	$880\times 590\times 1320$	265	$1050\times650\times1325$	624
SLC-100-CUBE3+	681TD000002	100000 / 90000	1 + 1	$880\times590\times1320$	290	$1050\times650\times1325$	624
SLC-120-CUBE3+	681TD000003	120000 / 108000	1 + 1	880 × 590 × 1320	290	$1050\times650\times1325$	750
SLC-160-CUBE3+	681TE000001	160000 / 140000	1 + 1	850 × 900 × 1900	540	850 × 1305 × 1905	1595
SLC-200-CUBE3+	681TE000002	200000 / 180000	1 + 1	$850 \times 900 \times 1900$	550	$850\times1305\times1905$	1918

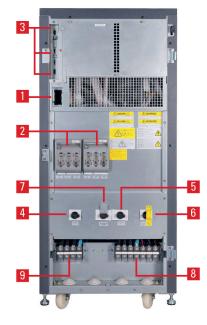
Nomenclature, dimensions and weights for units with input voltage 3 x 400 V, output voltage 3 x 400 V and standard backup time. This code corresponds olny to the UPS module. Consult code for battery module.

Dimensions



SLC-7,5÷60-CUBE3+

Connections





SLC-80÷120-CUBE3+



- 1. Slot for card (option).
- 2. Internal protection fuses. 80 kVA equipments only.
- **3.** Communication interfaces.
- 4. Circuit breaker switch / Input switch.
- 5. Output switch.
- 6. Fuse holder / switch power.
- 7. Manual bypass.
- 8. Output terminals.
- 9. Input and output terminals.





Technical specifications

MODEL		SLC CUBE3+ On-line, double conversion, HF, DSP control			
TECHNOLOGY					
INPUT	Rated voltage	Single-phase 220 / 230 / 240 $V^{(1)}$ / Three-phase 3 \times 380 / 3 \times 400 / 3 \times 415 V (3P + N)			
	Voltage range	+15% / -20% (configurable)			
	Rated frequency	50 / 60 Hz			
	Total harmonic distortion (THDi)	100% load: <1.5% / 50% load: <2.5% / 10% load: <6.0%			
	Power factor	1 from 10% load			
	Rectifier topology	Three-phase IGBT full wave, soft start, PFC, transformerless			
OUTPUT	Power factor	0.9(2)			
	Rated voltage	Single-phase 220 / 230 / 240 $V^{(1)}$ / Three-phase 3 \times 380 / 3 \times 400 / 3 \times 415 V (3P + N)			
	Dynamic accuracy	± 2% dynamic			
	Static accuracy	± 1% steady			
	Response time accuracy	20 ms for load steps 0% \div 100% and voltage drop up to -5%			
	Total harmonic distortion (THDv)	<0.5% linear load / <1.5% (EN-62040-3)non-linear load			
	Synchronised frequency	50/60 Hz ±5 Hz (selectable)			
	Free running frequency	50/60 Hz ±0,05%			
	Synchronous speed	From 1 Hz/s to 10 Hz/s (programmable)			
	Total performance in On-line mode	7.5÷60 kVA: 92.0%÷93.0% / 80÷200 kVA: 94.0%÷95.0%			
	Performance in Smart Eco-mode	Up to 98.4%			
	Admissible overloads	125% for 10 min / 150% for 60 s / >150% for 20ms			
	Crest factor	>3:1			
MANUAL BYPASS	Туре	No breaks			
STATIC BYPASS	Type and activation criteria	Solid state, controlled by microprocessor			
	Transfer times in Smart Eco-mode (ms)	4 ms (typical)			
	Transfer times in On-line	Nil			
	Transfer to bypass	Immediate, for overloads exceeding 150%			
	Retransfer	Automatic, after alarm deactivation			
BATTERY	Battery type	Lead acid, sealed, maintenance free			
	Charging voltage regulation	Batt-Watch			
COMMUNICATION	Ports	1 × RS232/RS485 + 1xUSB,with Modbus protocol			
	Relay interface	4 × AC failure, bypass, low battery and general			
	Intelligent slot	1, for SNMP			
	Display from 80 kVA	Touch screen 7" color			
	Display up to 60 kVA	LCD display, LEDs and keyboard			
GENERAL	Operating temperature	0° C ÷ +40° C			
	Relative humidity	Up to 95%, non-condensing			
	Maxium operating altitude	2,400 masl ⁽³⁾			
	Acoustic noise at 1 metre	<52 dB(A) ⁽⁴⁾			
STANDARDS	Safety	EN-IEC 62040-1			
	Electromagnetic compatibility (EMC)	EN-62040-2			
	Operation	VFI-SS-111 (EN-62040-3)			
	Quality and environmental management	ISO 9001 & ISO 14001			

(1) Up to 60 kVA.

(2) Only for three-phase input / output models. FP = 0.8 for other configurations.. (3) < 65 dB(A) for 80 to 120 kVA models / < 70 dB(A) for 160 to 200 kVA models (4) Power derating for higher altitudes up to 5000 masl.

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