

# SLC CUBE4 R

Rackmount Uninterruptible Power Supply Systems from 7.5 to 20 kVA

## SLC CUBE4 R: Outstanding performance in rackmount devices

The **SLC CUBE4 R** series offers excellent robustness and exceptional features throughout its range. In 19" format, these small three-phase on-line double conversion units can be easily integrated into complete rack cabinet solutions such as a small server, taking advantage of the footprint of the cabinet itself and avoiding the use of additional surface area for the UPS and its battery cabinets.

With its unique technological architecture, it achieves high performance in both On-line and Eco-mode operation, the latter with an efficiency of over 98%. The **SLC CUBE4 R**, available in power ratings from 7.5 to 20kVA, with an FP=1 output power factor, allows for the parallel connection of up to 4 units, offering the possibility of designing an optimal and economical redundant system.

Ample versatility in terms of communications is another of its noteworthy features. The NIMBUS card (optional) designed entirely at Salicru, places the **SLC CUBE4 R** within the IoT environment. Prior to activation, the user can connect via the app or the web portal and manage certain aspects of the device remotely.



## Applications: Minimum space - maximum performance

Medium-power edge-computing solutions with virtualised environments and all the associated critical processes. Space-saving installations and integration in 19" rack cabinets.



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## Performances

- On-line double conversion technology with three-level topology.
- Output power factor 1 (kVA=kW).
- Input power factor >0.99, from 10% load.
- Input current distortion rate (THDi) <4%.
- Nimbus IoT connection as optional for monitoring via the NIMBUS APP and web portal.
- High energy efficiency, over 95% in On-line mode and up to 99% in Eco mode.
- Parallel system of up to 4 units.
- Single/single and three/single configurations.
- Batt-Watch battery care and management system.
- Compatible with all battery types, including lithium-ion.
- Compatibility with power generators.
- 5" touch screen for all models.
- USB, RS-232 and RS-485 interfaces, plus relays.
- Wide range of options available.
- SLC Greenergy solution.



## Continuous surveillance

By integrating the equipment as feature of Salicru's Nimbus-cloud (optional), it is permanently monitored and provides a continuous analysis of the level of protection provided.

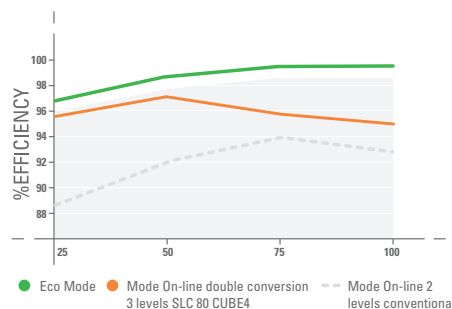


**NIMBUS**



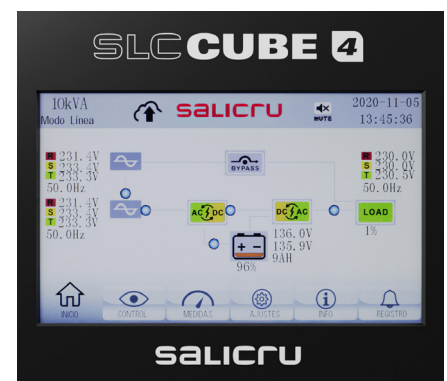
## Three-level topology with DSP control

Three-level switching, which is based on switching the IGBTs in half-cycles (positive and negative), controlled by floating point DSP with exclusive cores for the rectifier and inverter, provides maximum performance in double conversion. Lowers cooling costs and increases energy efficiency by more than 96% from a 25% charge, thereby improving TCO by reducing OpEx.



## Touch screen

An attractive 5" touch screen display provides the ideal medium for a complete and fully intuitive user interface based on the format of the SLC CUBE4 range.



## Range

MODEL	CODE	POWER (VA / W)	DIMENSIONS (D × W × H mm)	WEIGHT (Kg)
SLC-7,5-CUBE4 R	6B3AF000001	7500 / 7500	685 × 438 × 312	80
SLC-10-CUBE4 R	6B3AF000002	10000 / 10000	685 × 438 × 312	80
SLC-15-CUBE4 R	6B3AF000003	15000 / 15000	685 × 438 × 446	134
SLC-20-CUBE4 R	6B3AF000004	20000 / 20000	685 × 438 × 446	136

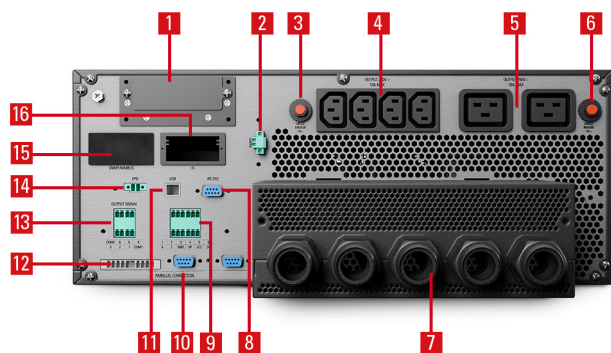
Nomenclature, dimensions and weights for devices with input voltage of 3 x 400 V, output voltage of 3 x 400 V and standard backup.

Protrusion from the side surfaces of the main body of the UPS (elements for mounting and handling the device): 23 mm per side. This distance is not included in the dimensions quoted for "Width". Front protrusion from the mounting surface to the rack cabinet: 46 mm. This distance is not included in the dimensions quoted for "Depth".

## Dimensions



## Connections



SLC-7,5-20-CUBE4 R

1. Battery terminals.
2. Signals port BPME.
3. Sockets thermal protection IEC C13.
4. Output sockets IEC C13.
5. Output sockets IEC C19.
6. Sockets thermal protection IEC C19.
7. Inlet, outlet, bypass and earth connections.
8. RS-232 interface.
9. Input digital port.
10. Parallel signals port.
11. USB interface.
12. Parallel current port.
13. Potential-free contacts.
14. Emergency stop (EPO).
15. Intelligent slot for nimbus cloud (optional).
16. Free communications slot.

## Technical specifications

MODEL		SLC CUBE4 R
TECHNOLOGY		On-line, double conversion, HF, DSP control
INPUT	Rated voltage	Three-phase 3 × 380 / 3 × 400 / 3 × 415 V (3F + N) <sup>(1)</sup>
	Voltage range	110 ÷ 300V (F-N)
	Rated frequency	50 / 60 Hz
	Frequency range	7,5 ÷ 20kVA: 40 ÷ 70Hz <sup>(2)</sup> / 30 ÷ 80kVA: 45 ÷ 65Hz
	Total harmonic distortion (THDi)	<4%
	Power factor	1 from 10% load
	Rectifier topology	Three-phase IGBT full wave, soft start, PFC, transformerless
OUTPUT	Power factor	1
	Rated voltage	Three-phase 3 × 380 / 3 × 400 / 3 × 415 V (3F + N) <sup>(1)</sup>
	Dynamic accuracy	±10%
	Static accuracy	±1%
	Synchronised frequency	50/60 Hz ±5 Hz (selectable)
	Free running frequency	50/60 Hz ±0,05%
	Frequency	50 / 60 Hz
	Total performance in On-line mode	>95%
	Performance in Smart Eco-mode	98%
	Admissible overloads	110% for 60 min / 110~125 % for 10 min / 110~125 % for 60 s / >150% for 1 s
	Crest factor	3:1
MANUAL BYPASS	Type	Uninterrupted
STATIC BYPASS	Type and activation criteria	Solid state
	Transfer times in Smart Eco-mode (ms)	<10 ms
	Transfer to bypass	Immediate, for overloads exceeding 150%
	Retransfer	Automatic, after alarm deactivation
BATTERY	Battery type	Pb-Ca, VRLA, lead acid, gel, Ni-Cd, Li-Ion
	Charging voltage regulation	Batt-Watch
COMMUNICATION	Ports	1xRS232 + 1xUSB
	Relay interface	6 relays
	Intelligent slot	2 Slots: SNMP, NIMBUS, RS232, RS485, USB, AS400
	Backlit LCD display	5" colour touch screen
GENERAL	Operating temperature	0° C ÷ +40° C <sup>(3)</sup>
	Relative humidity	Up to 95%, non-condensing
	Maxium operating altitude	2,400 masl <sup>(4)</sup>
	Acoustic noise at 1 metre	<59dB
STANDARDS	Safety	IEC/EN 62040-1
	Electromagnetic compatibility (EMC)	IEC/EN 62040-2 C3
	Operation	VFI-SS-11 (EN-62040-3)
	Corporate cerification	ISO 9001, ISO 14001, ISO 45001

(1) 1/1 options with power derating and 3/1 (under request)

(2) According to the selected operating mode

(3) Up to 55°C with power derating

(4) Power degradation for temperature altitudes, up to a maximum of 5,000 masl

Information subject to change without notice.

