CET POWER
Leading Conversion Technology for Power Resilience

Flexa 200 - 400/400 with SBP

technology inside

Reliable, compact and flexible modular UPS to best meet your needs.
Smart by-pass included for increased reliability and conversion efficiency.

Telecom | Datacom | Mass transport | Industry | Power Utilities | Renewable

AC In 3x400 Vac+N

DC 408 Vdc

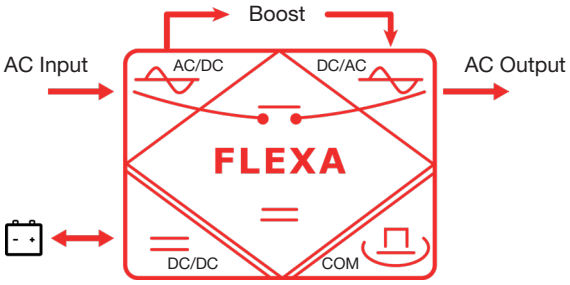
AC Out 3x400 Vac+N

Power 20 kVA / kW

up to 580 kW

Description

Flexa 200 is a compact and modular UPS using smart topology with 3P input/output. It provides a pure sine wave with **96%** conversion efficiency and up to **98%** with the Smart by-pass. Our technology offers a **0ms transfer time** (from grid to batteries), integrates the **static switch function**, **limited boost** capability (to trigger downstream breakers while protecting upstream ones) and is **easy to maintain** (24kg hot-swappable modules):



Always powered

Flexa 200 operates **without master/slave** configuration, includes a **redundant communication** BUS and is IPC9592B certified. Efficient **battery management** makes it possible to always be ready to secure loads thanks to fast battery charging (up to 17kW), low ripple voltage and different charging modes.

Smart by-pass (SBP)

In combination with a Flexa SBP, we guarantee AC output within your tolerances with a **98% conversion efficiency**. When the grid is out of tolerance, the system automatically switches to the Flexa 200 modules to ensure a **pure sine wave** and protect your loads. The Flexa SBP is a 200 kW module of only 3U high.

Flexa SBP

Flexibility

Flexa 200 can be configured in 50Hz or 60Hz and also exists in 3P to 1P topology (Flexa 200 - 400/230). Cabinets can be **customized** on-demand, modules can be integrated into **third-party cabinets** or reused existing ones. Everything to be as flexible as possible.

Applications

Flexa 200 is used in many applications to protect IT loads in datacenters and edge computing sites. Flexa 200 is also used and suitable for industrial, renewables, oil and gas, power utilities and in harsh environment (up to IP54).

Key features:

- Flexibility
- 98% conversion efficiency
- Pure sine guaranteed
- Battery management
- Industrial design (up to IP54)
- Easy to maintain
- Compact and lightweight

Illustrations are non-binding and may include customized fittings.

Flexa 200 - 400/400 with SBP

		80 kVA/kW	160 kVA/kW	200 kVA/kW	400 kVA/kW	580 kVA/kW
General						
Module Part Number		T451970112				
EMC (immunity)		EN 61000-4-2 / EN 61000-4-3 / EN 61000-4-4 / EN 61000-4-5 / EN 61000-4-6 / EN 61000-4-8				
EMC (emission) (class)		EN 55022 (A)				
Safety		EN 62040-1-1				
EN62040-3 performance level		VFI-SS-111				
MTBF / Cooling		240 000 hrs / Forced				
True Redundant Systems – compliant		3 disconnection levels on AC out and DC in power ports / 4 disconnection levels on AC in port				
RoHS		Compliant				
Vibration		GR63 office vibration 0 to 100 hz-0.1 g / transport vibration 5-100 Hz 0.5 g 100 to 500 hz-1.5 g / Drop test				
Operating conditions		Designed for installation in an IP20 or IP21 environment. When installed in a dusty or corrosive environment, appropriate measures (air filtering, …) must be taken.				
Altitude above sea without de-rating		< 1500 m / derating > 1500 m – 0.8 % per 100 m				
Ambient / storage temperature / relative humidity		-10 to 40 °C / -40 to 70 °C / 95%, non-condensing				
Material (casing)		Coated steel-ALU ZINC-Front plate coated black RAL9005				
Power						
DC Input Data						
Nominal voltage (DC)		408 Vdc (204 cells VRLA) or 336 cells (NiCd)				
Voltage range (DC)		336 Vdc to 490 Vdc				
Nominal current (at 408 Vdc)		206 A	395 A	520 A	1030 A	1500 A
Maximum input current (for 5 seconds) / voltage ripple		201 A / < 400m V rms	536 A / < 400m V rms	670 A / < 400m V rms		2144 A / < 400m V rms
Input voltage boundaries		User selectable with T4S interface				
AC Input Data						
Nominal voltage (AC)		3x380 / 400 / 415+Neutral 5 wires for 3 phases				
Voltage range (AC)		150 Vac to 275 Vac Line to Neutral (derating 150 to 220 Vac)				
Power factor		> 99%				
Frequency range / synchronization range		50 or 60 Hz (selectable) / range 30 to 70 Hz adjustable				
AC Output Data						
Efficiency (Typical): AC / AC - DC / AC		96% - 96% (certfiied by SGS at 45% load)				
Nominal voltage (AC*)		3x380 / 400 / 415+Neutral 5 wires for 3 phases				
Frequency / frequency accuracy		50 - 60 Hz / 0.03 %				
Nominal output power (kVA) / (kW)		80 / 80	160 / 160	200 / 200	400 / 400	580 / 580
Short time overload capacity (@PF 0.9)		150% - 15s | 130% - 30s | 120% - 60s | 110% permanent				
Admissible load power factor		Full power rating from 0 inductive to 0 capacitive				
Total harmonic distortion (resistive load)		< 1.5 %				
Load impact recovery time		0.4 ms				
Turn on delay		20 s to 40 s depending on the number of module installed				
Nominal current at 230 Vac per phase		116 A	232 A	289 A	609 A	842 A
Crest factor at nominal power		2.8 : 1 with short circuit management and protection				
Short circuit clear up capacity		2900 A 20 ms per SBP module, above which the system will shut down if short-circuit still present				
Internal temperature management and switch off		Yes				
Signaling & Supervision						
Display		Synoptic LED on module, and GUI with Catena				
Alarms output / supervision		Dry contacts on T4S / MODBUS, TCP-IP, SNMP				
Remote ON / OFF		On rear terminal of the shelf via T4S				
Smart By Pass (SBP) module						
Nominal output power		200 kVA / 200 kW				
SBP in same cabinet / external cabinet		Standard / Option	Standard / Option	NA / Standard	NA / Standard	NA / Standard
Number of SBP modules	1 (200 kVA)	Standard	Standard	Standard	NA	NA
	2 (400 kVA)	Option	Option	Option	Standard	NA
	3 (580 kVA)	Option	Option	Option	Option	Standard
Transfer time		Flexa to SBP - max 5 ms, typically 2 ms | SBP to Flexa - 0 ms				
Short time overload capacity		1 x SBP : 300kVA for 10 minutes / 400kVA for 1 minute 2 x SBP : 600kVA for 10 minutes / 800kVA for 1 minute 3 x SBP: 900kVA for 10 minutes / 1200kVA for 1 minute				
Cabinets						
Dimensions (WxHxD) with external MBP		600 x 1800 x 800 mm	600 x 2100 x 800 mm	1200 x 2100 x 800 mm	1800 x 2100 x 800 mm	2400 x 2100 x 800 mm
Number of cabinets		1	1	1+1 (for external MBP)	2+1 (for external MBP)	2+1 (for external MBP)

* Operation within lower voltage networks leads to de-rating of power performances.