

Flexa 200 UPS with SBP



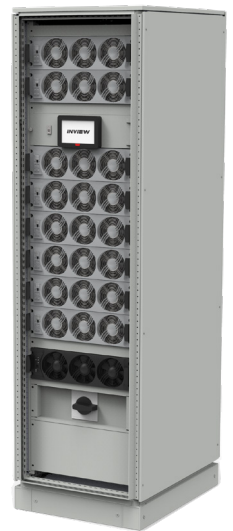
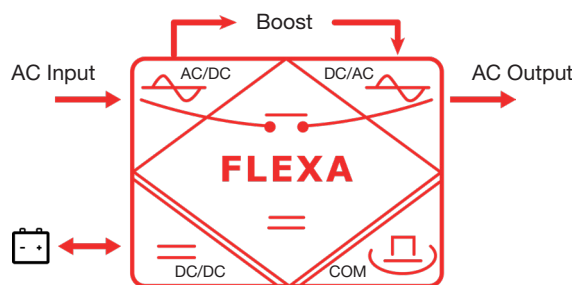
Reliable, compact and flexible modular UPS to best meet your needs.
Smart by-pass included for increased reliability and conversion efficiency.

Telecom Datacom Mass transport Industry Power Utilities Renewable



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.



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 - 3P/1P- 400/230 and 3P-3P- 400/400 with SBP

	80 kVA/kW 3P/1P	80 kVA/k W3P/3P	160 kVA/kW	360 kVA/kW	520 kVA/kW
General					
Module Part Number	P10014-F01C0_v01 T451970212		P10014-F02C0-v02 T451970312		
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 / Audible noise	240 000 hrs / Forced / <65 dBA @1meter (100% load at 25°C)				
True Redundant Systems – compliant	3 disconnection levels on AC out and DC in power ports / 4 disconnection levels on AC in port				
RoHS / Material (casing)	Compliant / Coated steel-ALU ZINC-Front plate coated black RAL9005				
Operating T° / Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-3 Class 3.1 -20°C to 65°C, power de-rating from 40°C to 65°C / Max RH 95% for 96 hours per year				
Storage T° / Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-1 Class 1.2 -40°C to 70°C / Max RH 95% for 96 hours per year				
Public transport T°/ Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-2 Class 3.1 -40°C to 70°C / Max RH 95% for 96 hours per year				
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				
Altitude above sea without de-rating	< 1500 m / derating > 1500 m – 0.8 % per 100 m				
Power					
DC Input Data					
Nominal voltage (DC)	408 Vdc (204 cells VRLA) or 336 cells (NiCd)				
Voltage range (DC)	340 Vdc to 490 Vdc				
Nominal current (at 408 Vdc)	208 A	208 A	416 A	930 A	1341 A
Maximum input current (for 15 seconds) / voltage ripple	312 A / < 400m V rms	312 A / < 400m V rms	624 A / < 400m V rms	1395 A / < 400m V rms	2015 A / < 400m V rms
AC Input Data					
Nominal voltage (AC)	3x380 / 400 / 415+Neutral 5 wires for 3 phases				
Voltage range (AC)	150 Vac to 270 Vac Line to Neutral (derating < 222 to 150 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% (certified by SGS at 45% load)				
Nominal voltage (AC*)	220 / 230 / 240 Vac L-N 3 wires	3x380 / 400 / 415+Neutral 5 wires for 3 phases			
Frequency / frequency accuracy	50 - 60 Hz / 0.03 %				
Nominal output power (kVA) / (kW)	80 / 80	80 / 80	160 / 160	360 / 360	520 / 520
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	348 A	116 A	232 A	522 A	754 A
Crest factor at nominal power	2.1 : 1 with short circuit management and protection				
Short circuit clear up capacity on battery per phase	750 A for 10 ms, 520 A 10 ms to 15 s	252 A for 10 ms, 174 A 10 ms to 15 s	504 A for 10 ms, 348 A 10 ms to 15 s	1130 A for 10 ms, 783 A 10 ms to 15 s	1638 A for 10 mS 1131 A 10 mS to 15 s
Signaling & Supervision					
Display	Synoptic LED on module, and GUI with Inview X				
Alarms output / supervision	Dry contacts on T4S / MODBUS, TCP/IP, SNMP				
Remote ON / OFF	On hub board via T4S				
Smart By Pass (SBP) module					
Module Part Number	T451970010				
Nominal output power	200 kVA / 200 kW				
SBP in cabinet	Same cabinet	Same cabinet	External cabinet	External cabinet	External cabinet
Number of SBP modules	1	1	1	2	3
Transfer time	Flexa to SBP - max 5 ms, typically 2 ms SBP to Flexa - 0 ms				
Short time overload capacity	1 x SBP : 300 kVA for 10 minutes / 400 kVA for 1 minute 2 x SBP : 600 kVA for 10 minutes / 800 kVA for 1 minute 3 x SBP: 900 kVA for 10 minutes / 1200 kVA for 1 minute				
Cabinets					
Dimensions (WxHxD) with MBP/ IP	600 x 2100 x 800 mm / IP20	600 x 2100 x 800 mm / IP20	1200 x 2100 x 800 mm	1800 x 2100 x 800 mm/ IP20	2400 x 2100 x 800 mm
Number of cabinets	1	1	1	2+1 (for external MBP & SBP + AC out MCCB))	3+1 (for external MBP & SBP + AC out MCCB)

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