

# INDRIVETEC AG

"bricks up" flexible energy storage systems

"BRICK" FlexConvert-PCS Battery Inverter Indoor

## Technical data

AC connection on-grid and off-grid	FC320	FC500	FC750	FC1000	FC1500	FC2000
Nominal AC Power	320 kW	500 kW	750 kW	1000 kW	1500 kW	2000 kW
Rated apparent power	350 kVA	550 kVA	825 kVA	1100 kVA	1650 kVA	2200 kVA
Voltage Fault Ride Through	ARN 4110 and BDEW, other upon request					
Power factor cos ( $\varphi$ )	$\pm 0 - 1.0$ (four-quadrant operation)					
AC nominal operating voltage	480 V					
Minimum AC voltage	180 V (see power capability table)					
Maximal AC voltage	550 V (690 VAC; see power capability table)					
AC nominal operating current	385 A	630 A	900 A	1260 A	1890 A	2520 A
Maximal AC current	420 A	700 A	990 A	1400 A	2100 A	2800 A
Grid frequency	50 Hz/60 Hz					
Grid structure	IT, other upon request					
Harmonic distortion (THD $I_{AC}$ )	< 3 %					
Max. efficiency	98.4 %					
Partial load efficiency > 10% PN	> 96.5 %					
External auxiliary power supply	3 x 400 VAC 1 x 230 VAC 50/60 Hz (DC supply from energy storage on request)					
<b>DC connection</b>						
Max. allowable short circuit current	100 kA (4.5kA to 10kA with external protective circuit)					
Number of battery inputs	1	1	1	1	2	2
Max. DC current	420 A	650 A	1000 A	1350 A	1950 A	2600 A
Minimum DC voltage	780 V (300 V; see power capability table)					
Maximal DC voltage	1100 V, other upon request					
Compatible storage	Lithium-Ion, SoS, Redox-Flow, Lead Acid, SoNiCl, Ni-MH / Ni-Cd, Hydrogen fuel cells					
<b>General data</b>						
Dimensions (W x D x H)	800 x 800 x 2000 mm	1600 x 800 x 2000 mm	1200 x 900 x 2000 mm	2200 x 800 x 2000 mm	3000 x 800 x 2000 mm	3400 x 800 x 2000 mm
Weight	600 kg	1300 kg	1350 kg	2100 kg	2800 kg	3300 kg
Ambient temperature	-25... +45°C (extended range upon request)					
Humidity	95 % indoor noncondensing, 100 % outdoor					
Enclosure type	IP54 indoor, IP55 outdoor (according EN60529)					
Noise level	< 78 dB(A) at 1 m distance					
Max. working altitude	1500 m (higher altitudes available upon request)					
Cooling	Fully closed cabinet with liquid cooling (no additional air condition required). FC320 as fully air-cooled version available.					
<b>Standards</b>						
CE conformity / EMC	CE, others and UL/UR, CSA upon request					
Applicable standards	EN61000-6-2, EN61000-6-4, EN62477-1, IEC62103					
Grid connection	BDEW, VDE ARN 4110 (medium voltage), 4105 (low voltage), FGW TR3, TR4, TR8					
<b>User Interface</b>						
Communication interfaces	Profibus, CAN, Modbus RTU, Modbus TCP, Profinet, IEC61850, other upon request					

Technical data are subject to change, even for reasons on country-specific deviations.  
Indrivetec assumes no liability for errors and omissions.

# INDRIVETEC AG

## “BRICK” FlexConvert-PCS Battery Inverter Indoor

### FlexConvert-PCS Battery Inverter Indoor

the flexible and versatile power conversion system for energy storage systems

#### System advantages

Bidirectional power conversion system with full four-quadrant operation

Battery charge and discharge management

Reliable power supply and energy storage for a large range of on-grid and off-grid applications.

Black start and island grid / grid forming function

Compact and energy-efficient cooling concept, smallest unit volume and lowest weight per kW

Frequency and voltage regulation and reactive power control

#### Power capability table FlexConvert

Nom. AC voltage VAC	Min. DC voltage VDC	Max. DC voltage VDC	Rated active power at cos phi: 0,9						
			FC250	FC320	FC500	FC750	FC1000	FC1500	FC2000
180	300	1100	100	120	200	300	400	600	800
330	540	1100	175	220	350	525	700	1050	1400
400	650	1100	200	270	450	675	900	1350	1800
<b>480</b>	<b>780</b>	<b>1100</b>	<b>250</b>	<b>320</b>	<b>500</b>	<b>750</b>	<b>1000</b>	<b>1500</b>	<b>2000</b>
600	980	1100	300	400	650	950	1300	1950	2600
690	1100	1100	350	460	750	1075	1500	2250	3000

### Innovation 2022 - 2023

#### FlexConvert-PCS-ISC

Battery inverter with inertia and short circuit control

**Inertia control:** provides stability against dynamic losses of load and generation. Acts faster than Enhanced Frequency Response.

**Short circuit power control:** Enables protection devices in the grid to operate as designed in the case of a grid fault. Protects the unaffected portions of the grid (“selectivity”)

**Voltage control:** Conditions the voltage level in order to direct the power flow in the grid and to provide customers with the required voltage level

