

INDRIVETEC AG

"bricks up" flexible energy storage systems

INNOVATION "BRICK" FlexConvert-PCS-1500

Technical data

AC connection on-grid and off-grid	FC720-ML	FC1440-ML	FC2160-ML	FC2880-ML	FC3600-ML	FC4320-ML
Nominal AC Power	650 kW	1300 kW	1950 kW	2600 kW	3250 kW	3900 kW
Rated apparent power	720 kVA	1440 kVA	2160 kVA	2880 kVA	3600 kVA	4320 kVA
Grid Support	L/HVRT, L/HFRT, active & reactive power control and power ramp rate control					
Power factor cos (φ)	± 0 - 1.0 (four-quadrant operation)					
AC nominal operating voltage	690 V					
Minimum AC voltage	620 V (other upon request, see power capability table)					
Maximal AC voltage	800 V (other upon request, see power capability table)					
AC nominal operating current	550 A	1100 A	1650 A	2200 A	2750 A	3300 A
Maximal AC current	600 A	1200 A	1800 A	2400 A	3000 A	3600 A
Grid frequency	50 Hz/60 Hz					
Grid structure	IT, other upon request					
Maximum THD I _{AC} current	< 3 % at nominal power (on-grid)					
Maximum THD U _{AC} voltage	< 3 % at linear load (off-grid)					
DC voltage component	< 0.5 % Un linear balance load (off-grid)					
Unbalance load capacity	100 % (off-grid)					
Max. efficiency	98.6 %					
External auxiliary power supply	3 x 400 VAC 1 x 230 VAC 50/60 Hz (DC supply from energy storage on request)					
DC connection						
Maximal DC power	700 kW	1400 kW	2100 kW	2800 kW	3500 kW	4200 kW
Number of battery inputs	1	1	1	1	1	1
Maximal DC current	700 A	1400 A	2100 A	2800 A	3500 A	4200 A
Minimum DC voltage	1000 V (other upon request, see power capability table)					
Maximal DC voltage	1500 V					
Protection						
DC input protection	Disconnecter + fuses + contactors + active monitoring					
AC output protection	Disconnecter + fuses + contactors + active monitoring					
Overvoltage protection	DC Type II and AC Type II					
Grid monitoring	Yes					
Insulation monitoring	Yes					
General data						
Dimensions (W x D x H)	1600 x 800 x 2000 mm	2200 x 800 x 2000 mm	3000 x 800 x 2000 mm	3600 x 800 x 2000 mm	4200 x 800 x 2000 mm	4800 x 800 x 2000 mm
Weight	1400 kg	2100 kg	2800 kg	3300 kg	4000 kg	4700 kg
Ambient temperature	-25... +45°C (extended range upon request)					
Humidity	95 % indoor noncondensing, 100 % outdoor					
Enclosure type	IP54 indoor, IP55 outdoor (according EN60529)					
Cooling	Fully closed cabinet with liquid cooling (no additional air condition required)					
CE conformity / EMC	CE, others and UL/UR, CSA upon request					
Applicable standards	EN61000-6-2, EN61000-6-4, EN62477-1, IEC62103					
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

INNOVATION “BRICK” FlexConvert-PCS-1500

FlexConvert-PCS-1500

the flexible and versatile power conversion system for high voltage battery system

System advantages

Multi-level topology for maximum efficiencies and low harmonics

Compatible with high voltage battery system

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

Inertia control and short circuit power control

Power capability table FlexConvert

Nominal AC voltage	Minimum DC voltage	Maximum DC voltage	Rated active power at cos phi: 0,9					
			FC720	FC1440	FC2160	FC2880	FC3600	FC4320
400 VAC	650 VDC	1500 VDC	380 kW	760 kW	1140 kW	1520 kW	1900 kW	2280 kW
450 VAC	725 VDC	1500 VDC	430 kW	860 kW	1290 kW	1720 kW	2150 kW	2580 kW
500 VAC	820 VDC	1500 VDC	475 kW	950 kW	1425 kW	1900 kW	2375 kW	2850 kW
550 VAC	900 VDC	1500 VDC	525 kW	1050 kW	1575 kW	2100 kW	2625 kW	3150 kW
600 VAC	975 VDC	1500 VDC	575 kW	1150 kW	1725 kW	2300 kW	2875 kW	3450 kW
630 VAC	1025 VDC	1500 VDC	600 kW	1200 kW	1800 kW	2400 kW	3000 kW	3600 kW
660 VAC	1075 VDC	1500 VDC	630 kW	1260 kW	1890 kW	2520 kW	3150 kW	3780 kW
690 VAC	1120 VDC	1500 VDC	650 kW	1300 kW	1950 kW	2600 kW	3250 kW	3900 kW
750 VAC	1220 VDC	1500 VDC	720 kW	1440 kW	2160 kW	2880 kW	3600 kW	4320 kW
800 VAC	1300 VDC	1500 VDC	760 kW	1520 kW	2280 kW	3040 kW	3800 kW	4560 kW
900 VAC	1450 VDC	1500 VDC	860 kW	1720 kW	2580 kW	3440 kW	4300 kW	5160 kW

