

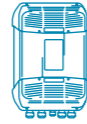
Xtender series

Xtender multi-functional battery inverters offer an optimal management of all energy sources that can be found in off-grid, on-grid and hybrid systems. With 30+ years of experience from manufacturing power electronics in Switzerland, Studer Innotec designed the Xtender to provide reliable power to any application and to work with all types of battery technology. The **Xtender** has a 10-year warranty.

Technical data

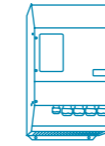


XTS



XTM

	XTS900-12	XTS1200-24	XTS1400-48	XTM1500-12	XTM2000-12	XTM2400-24	XTM2600-48	XTM3500-24	XTM4000-48
Inverter									
Nominal battery voltage	12 Vdc	24 Vdc	48 Vdc	12 Vdc	24 Vdc	48 Vdc	24 Vdc	48 Vdc	
Input voltage range	9.5 - 17 Vdc	19 - 34 Vdc	38 - 60 Vdc	9.5 - 17 Vdc	19 - 34 Vdc	38 - 60 Vdc	19 - 34 Vdc	38 - 60 Vdc	
Continuous power @ 25°C	650*/500 VA	800*/650 VA	900*/750 VA	1500 VA	2000 VA	2400 VA	2600 VA	3500 VA	3500 VA
Power 30 min. @ 25°C	900*/700 VA	1200*/1000 VA	1400*/1200 VA	1500 VA	2000 VA	2400 VA	2600 VA	3500 VA	4000 VA
Power 5 sec. @ 25°C	2.3 kVA	2.5 kVA	2.8kVA	3.4 kVA	4.8 kVA	6 kVA	6.5 kVA	9 kVA	10.5 kVA
Maximum load	Up to short-circuit								
Asymmetric load	Up to Pcont.								
* Load detection (stand-by)	2 to 25 W								
Cos j	0.1-1								
Maximum efficiency	93 %	93 %	93 %	93 %	94 %	96 %	94 %	96 %	
Consumption OFF/Stand-by/ON [W]	1.1/1.4/7	1.2/1.5/8	1.3/1.6/8	1.2/1.4/8	1.2/1.4/10	1.4/1.6/9	1.8/2/10	1.4/1.6/12	1.8/2.1/14
* Output voltage	Pure sine wave 230 Vac (± 2 %)/120 Vac ⁽¹⁾								
* Output frequency	Adjustable 45 - 65 Hz ⁽¹⁾ ± 0.05 % (crystal controlled)								
Harmonic distortion	< 2 %								
Overload and short-circuit protection	Automatic disconnection with 3 time restart attempt								
Overheat protection	Warning before shut-off - with automatic restart								
Battery charger									
* Charge Characteristic	6 steps: Bulk, Absorption, Floating, Equalization, reduced floating, periodic absorption Number of steps, thresholds, end current and times completely adjustable with the RCC-02/-03								
* Maximum charging current	35 A	25 A	12 A	70 A	100 A	55 A	30 A	90 A	50 A
* Temperature compensation	With BTS-01 or BSP 500/1200								
Power Factor Correction (PFC)	EN 61000-3-2								
General data									
* Input voltage range	150 to 265 Vac/50 to 140 Vac ⁽¹⁾								
Input frequency	45 to 65 Hz								
Input current max. (transfer relay)/ Output current max.	16 Aac/20 Aac			50 Aac/56 Aac					
Transfer time	< 15 ms								
Multifunction contacts	Module ARM-02 with 2 contacts, in option Module RCM-10, with 1 remote entry, in option			2 independent contacts (potential free 3 points, 16Aac/5Aac) Module RCM-10 with 1 remote entry, in option					
Weight	8.2 kg	9 kg	9.3 kg	15 kg	18.5 kg	16.2 kg	21.2 kg	22.9 kg	
Dimension h/w/l [mm]	110/210/310			133/322/466					
Protection index	IP54			IP20					
Conformity	Low Voltage Directive (LVD) 2014/35/EU: EN/IEC 62477-1, 62109-1, 62109-2, 62040-1 Electromagnetic Compliance (EMC) Directive 2014/30/EU: EN/IEC 61000-3-2, 61000-3-3, 61000-6-2, 61000-6-4, 62040-2								
Operating temperature range	-20 to 55°C								
Relative humidity in operation	100 %			95 % without condensation					
Ventilation	Optional cooling module ECF-01			Forced from 55°C					
Acoustic level	< 40 dB/ < 45 dB (without/with ventilation)								



XTH

	XTH3000-12	XTH5000-24	XTH6000-48	XTH8000-48
Inverter				
Nominal battery voltage	12 Vdc	24 Vdc	48 Vdc	
Input voltage range	9.5 - 17 Vdc	19 - 34 Vdc	38 - 60 Vdc	
Continuous power @ 25°C	2500 VA	4500 VA	5000 VA	7000 VA
Power 30 min. @ 25°C	3000 VA	5000 VA	6000 VA	8000 VA
Power 5 sec. @ 25°C	7.5 kVA	12 kVA	15 kVA	21 kVA
Maximum load	Up to short-circuit			
Asymmetric load	Up to Pcont.			
* Load detection (stand-by)	2 to 25 W			
Cos j	0.1-1			
Maximum efficiency	93 %	94 %	96 %	
Consumption OFF/Stand-by/ON [W]	1.2/1.4/14	1.4/1.8/18	1.8/2.2/22	1.8/2.4/30
* Output voltage	Pure sine wave 230 Vac (± 2 %)/120 Vac ⁽¹⁾			
* Output frequency	Adjustable 45 - 65 Hz ⁽¹⁾ ± 0.05 % (crystal controlled)			
Harmonic distortion	< 2 %			
Overload and short-circuit protection	Automatic disconnection with 3 time restart attempt			
Overheat protection	Warning before shut-off - with automatic restart			
Battery charger				
* Charge Characteristic	6 steps: Bulk, Absorption, Floating, Equalization, reduced floating, periodic absorption Number of steps, thresholds, end current and times completely adjustable with the RCC-02/-03			
* Maximum charging current	160 A	140 A	100 A	120 A
* Temperature compensation	With BTS-01 or BSP 500/1200			
Power Factor Correction (PFC)	EN 61000-3-2			
General data				
* Input voltage range	150 to 265 Vac/50 to 140 Vac ⁽¹⁾			
Input frequency	45 to 65 Hz			
Input current max. (transfer relay)/ Output current max.	50 Aac/56 Aac		50Aac/80Aac	
Transfer time	< 15 ms			
Multifunction contacts	2 independent contacts (potential free 3 points, 16Aac/5Aac) 1 programmable remote entry			
Weight	34 kg	40 kg	42 kg	46 kg
Dimension h/w/l [mm]	230/300/500			
Protection index	IP20			
Conformity	Low Voltage Directive (LVD) 2014/35/EU: EN/IEC 62477-1, 62109-1, 62109-2, 62040-1 Electromagnetic Compliance (EMC) Directive 2014/30/EU: EN/IEC 61000-3-2, 61000-3-3, 61000-6-2, 61000-6-4, 62040-2			
Operating temperature range	-20 to 55°C			
Relative humidity in operation	95 % without condensation			
Ventilation	Forced from 55°C			
Acoustic level	< 40 dB/ < 45 dB (without/with ventilation)			

Quality, flexibility and reliability in one product

- Outstanding efficiency and overload capacity
- Parallel and three-phase combination, up to 9 units (72kVA) in the same communication bus
- Distributed mini-grid function for larger systems (up to 380kW)
- Self-consumption strategies, battery priority (or to renewable sources)
- Powerful multi-stage PFC charger
- Ultra-short transfer time (from 0 to 15ms max.)
- Perfect AC source management: peak power shaving, active load filtering
- Automatic and efficient stand-by
- Compatible with AC coupling and all battery technologies (incl. lithium)

Combine with a range of accessories

- Display, programming and data logging remote control **(RCC-02/-03)**
- Communication sets **(Xcom-LAN/Xcom-GSM)**
- Communication module **(Xcom-232i/Xcom-CAN)**
- Battery temperature sensor **(BTS-01)**
- Battery Status Processor **(BSP)**
- Communication with lithium battery BMS **(Xcom-CAN)**
- Three-phase mounting frame for XTH **(X-Connect)**

Certifications & Warranty

100% manufactured and tested in Switzerland (Europe). ISO certified factory 9001:2008/14001:2004. All our products include a 10-year warranty (5+5).

⁽¹⁾ 120Vac/60Hz on request. Available for all Xtenders except XTH8000-48
* Adjustable with the RCC-02/-03
** These features are valid only when using the cooling module ECF-01
Data may change without any notice

Call our specialists **+41 27 205 60 80** or
visit **studer-innotec.com**.

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