

FLX

**SINGLE-PHASE UNINTERRUPTIBLE POWER
SUPPLIES (UPS)
RACK 19" / TOWER
ON LINE DOUBLE CONVERSION
SINEWAVE
from 1KVA to 10KVA**

TECHNICAL SPECIFICATION



Photos may include some options



On-line double conversion with Digital Signal Processor (DSP) digital control technology.

Among the main features that make this series highly efficient we point out:

- High PF in input and output
- Wide range of input tolerance (energy saving)
- Eco Mode (Economic operation mode)
- Flexibility and paralleling possibilities
- Energy return protection and dedicated filtering (Surge Protection)
- Monitoring and self-diagnosis at each start-up
- Cold Start
- by-pass
- Possibility of autonomy expansion with additional battery boxes
- USB port
- Contact EPO
- software included
- Intelligent SNMP network card slot

UNINTERRUPTIBLE POWER SUPPLIES FLX

MODEL		FLX01	FLX01.5	FLX03
Type Input/Output		Single-phase grounded		
Rated power		1000VA /900W	1500VA /1350W	3000VA /2700W
INPUT				
Voltage rating		208/220/230/240Vac		
Range of tension (Temp. Environment <40°C)	Low line transfer	176Vac±5% @100%-50% load 110Vac±5% @50%-0% load		
	Low line comeback	186Vac±5% @100%-50% load 120Vac±5% @50%-0% load		
	High line transfer	264Vac±5% @100%-50% load 300Vac±5% @50%-0% load		
	High line comeback	254Vac±5% @100%-50% load 290Vac±5% @50%-0% load		
Frequency Range **		40-70Hz		
Power factor		0.99@100% load (Rated input voltage)		
Bypass range		High voltage point Bypass 230-264: high voltage point setting in the LCD display from 230Vac to 264Vac. (Default: 264Vac) Low Voltage Point Bypass 176-220: Low voltage point setting on the LCD display from 176Vac to 220Vac. (Default: 176Vac)		
Connection Type		IEC		
Generator input		Supported		
OUTPUT				
Output Voltage *		208/220/230/240Vac		
Power factor		0.9		
Voltage regulation		±1%		
Frequency	Normal Mode	46-54Hz or 56-64Hz		
	Battery Mode	(50/60±0.1)Hz		
Crest factor		3:1		
Harmonic Distortion (THDv)		≤3% THD with linear load ≤5% THD with nonlinear load		
Waveform		Pure sine wave		
Switching time	Network <-> Battery	0 ms		
	Inverter <-> Bypass	4 ms (Typical)		
Efficiency		88% (AC mode) 85% (DC mode)	89% (AC mode) 86% (DC mode)	90% (AC mode) 87% (DC mode)
Connections		2x IEC 1x Schuko	6x IEC 1x Schuko – 1x Terminal Block L/W + T	

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BATTERY				
Type		12V/9Ah		
Quantity		2	3	6
Input Battery Voltage		24Vdc	36Vdc	72Vdc
Runtime		10min (refers to standard UPS only), for long-range UPS, the runtime time is determined by the battery capacity.		
Typical charging time (standard model)		4 hours at 90% capacity		
Charging voltage		27.4V ±1%	41.0 ±1%	82.1 ±1%
Charging current		1A		
SYSTEM FEATURES				
Overload	Normal Mode	105%~125%: UPS transfer to bypass after 1 minute when the network is normal 125%~130%: UPS transfer to bypass after 30 seconds when the network is normal >130%: UPS transfer to bypass immediately when the network is normal		
	Battery Mode	105%~125%: UPS after 1 minute shuts down; 125%~130%: UPS after 10 seconds shuts down; >130%: UPS shuts down immediately		
Short Circuit		Includes the entire system		
Overtemperature		Normal Mode: Switch to Bypass; Battery Mode: Immediately shuts down the UPS		
Low battery voltage		Alarm and shutdown		
EPO		Immediately turns off the UPS		
Visible and audible alarms		Mains failure, Low battery, Overcharge, System failure		
Communication interface		USB (or RS232), SNMP card (optional), Relay card (optional)		
ENVIRONMENT				
Operating Temperature		0°C~40°C		
Storage Temperature		-25°C~55°C		
Relative humidity		20-90 % RH @ 0- 40°C (non-condensing)		
Altitude		< 1500m		
Noise		Less than 55dBA at 1 Meter		
MECHANICAL SPECIFICATIONS				
Dimensions W×D×H (mm)		440*325*86.5 (2U)	440*460*86.5 (2U)	440*520*131 (3U)
Net weight (kg)		11.3	16.5	26.2
STANDARDS				
Safety		IEC/EN62040-1,IEC/EN60950-1		
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4, IEC61000-4-5,IEC61000-4-6,IEC61000-4-8		

* Downgrades to 80% rating when the output voltage is regulated to 208V AC

** Downgrade to 75% rating when the input frequency is out of range (50/60 $\pm$ 4Hz)

Product specifications are subject to change without further notice.

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MODEL		FLX06	FLX10
Stages		Single-phase grounded	
Power (VA/Watts)		6000VA / 5400W	10000VA / 9000W
ENTRANCE			
Rated voltage		208/220/230/240VAC	
Working Voltage Range	Low line transfer	187Vac±5% @ 100%-80% load 160Vac±5% @ 80%-70% load 140Vac±5% @ 70%-60% load 120Vac±5% @ 60%-50% load 110Vac±5% @ 50%-0% load (Ambient temperature. <35°C)	
	High line transfer	300Vac ±5%	
	High line comeback	290Vac ±5%	
Frequency range		50-60Hz	
Power Factor		≥0.99@100% load (rated input voltage)	
EXIT			
Output voltage		208/220/230/240Vac	
Power Factor		0,9	
Voltage regulation		±1%	
Frequency	On Network	50-60Hz	
	Battery	(50/60±0.1)Hz	
Crest factor		3:1	
Harmonic Distortion (THDv)		≤2% THD with linear load ≤5% THD with nonlinear load	
Waveform		Sinusoidale	
Transfer time	From mains to battery	Zero	
	Da inverter a bypass	4ms (typical)	
Efficiency		>94% (AC mode) >89% (DC mode)	>94.5% (AC mode) >89% (DC mode)
BATTERY			
Battery type		7Ah (in external battery cabinet)	9Ah (in external battery cabinet)
Number of batteries		16 (standard)	
Autonomy		It depends on the capacity of the batteries	
Charging time		4 hours at 90% capacity (typical)	
Charging voltage		219.2 VDC ±1%	
Charging current		12A max, can be set by LCD	
FEATURES			
Line Mode / Battery Mode		Ambient temperature <35°C 105%~110%: UPS shuts down after 60 minutes in battery mode or switches to Bypass with mains present. 110%~130%: UPS shuts down after 5 minutes in battery mode or switches to Bypass with mains present. >130%: UPS shuts down after 3 sec in battery mode or switches to Bypass with mains present. 35°C< Ambient temperature <40°C 105%~110%: UPS shuts down after 1 minute in battery mode or switches to Bypass with mains present.	

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	>110%: UPS shuts down after 3 sec in battery mode or switches to Bypass with network present.
Short Circuit	Entire system
Overtemperature	Normal Mode: Toggle to Bypass; Battery Mode: Immediately turns off the UPS
Low battery voltage	Alarm and Ups Turns Off
EPO (optional)	Immediately turns off the UPS
Visual and audible alarms	Mains failure, Low battery, Overcharge, Fault
Communication interfaces	USB / RS232, SNMP card (optional), Relay card (optional)

ENVIRONMENT	
Working Temperature	0°C~40°C
Storage Temperature	-25°C~55°C
Relative humidity	20-90 % RH @ 0- 40°C (non-condensing)
Altitude	< 1500m
Noise	Less than 50dBA at 1 Meter
MECHANICAL SPECIFICATIONS	
Dimensions W×H×D (mm)	440*132*450 (3U)
Net weight (kg)	15
STANDARDS	
Safety	IEC/EN62040-1, IEC/EN60950-1
EMC	IEC/EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8

CABINET BATTERY	
N° of batteries	16pcs max (7/9Ah)
Dimensions W×H×D (mm)	440*132*520 (3U)
Net weight (kg)	50
Remarks	Hot-swappable

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