

EPOS SERIES

DIREKTRONIK



Online UPS

10KVA-200KVA

Applications:



Data Center



Networking



Computer



Banking



Generator compatible

• DSP technology guarantees high reliability

A Digital Signal Processor (DSP) technology digitizes the data and mathematically manipulates them to provide an improved solution with higher performance.

• Output power factor 1 (Only for 10K-80K)

For critical applications, this 3-phase online UPS with output power factor 1.0 ensures higher efficiency and advanced performance. * Power Factor 0.9 only for 100K-200K models

• Active power factor correction in all phases

Power factor correction is active in all phases and it can improve the efficiency of input.

• Dual Inputs

EPOS series is also available for optional dual inputs to support various inputs to have flexibility for system configuration.

• 50Hz/60Hz frequency converter mode

Lock output frequency at 50Hz or 60Hz to suit power sensitive equipments.

• ECO mode operation for energy saving

ECO mode improves the efficiency up to 98% to cut energy usage & cost. In this mode, loads are supplied by the mains directly. While mains failure, the UPS will constantly supply the power to the connected device without any interruption.

• Emergency power off function (EPO)

In case of any emergency and fire, the EPO control mechanism can instantly shut down the system.

• Adjustable charging current

Users can adjust charging current via LCD setting based on applications.

• High overload capability

Supporting 110% overload capacity for 60 min and up to 1 min overload condition at 150% load.

• Very powerful charger

EPOS series is built-in 12A charger for 10K-40KVA models and 24A for 60K/80KVA models. It's to support very long runtime applications when connecting to big capacity of external battery cabinet.

• Optional parallel operation with common battery

The system can be operated in parallel, increasing the capacity and performance. Besides, this parallel UPS system can share common battery packs which might greatly reduce the expense and reach the same performance.

• Adjustable battery design

The number of connected batteries can be adjusted flexibly based on different power demands. This feature can allow UPS to keep running even when some battery packs are damaged.

TECHNICAL SPECIFICATIONS

MODEL	EPOS 3/1 10KL	EPOS 3/1 20KL	EPOS 3/3 10KL	EPOS 3/3 20KL	EPOS 3/3 30KL	EPOS 3/3 40KL
PHASE	3-Phase in/ 1-Phase out with Neutral			3-phase in/3-phase out with Neutral		
CAPACITY	10KVA/10KW	20KVA/20KW	10KVA/10KW	20KVA/20KW	30KVA/30KW	40KVA/40KW

PARALLEL CAPABILITY

3

INPUT

Nominal Voltage	3 x 400 VAC (3Ph+N)					
Voltage Range	110-300 VAC @ 50% load 176-276 VAC @ 100% load			190-520 VAC(3-phase) @ 50% load 305-478 VAC(3-phase) @ 100% load		
Frequency Range	46~54Hz or 56~64Hz					
Power Factor	≥ 0.99 @ 100% load					

OUTPUT

Output Voltage	208*/220/230/240 VAC (Ph-N)			3 x 360*/380/400/415 VAC (3Ph+N)		
AC Voltage Regulation (Batt. Mode)	± 1%					
Frequency Range (Synchronized Range)	46~54Hz or 56~64Hz					
Frequency Range (Batt. Mode)	50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz					
Current Crest Ratio	3:1 (max.)					
Harmonic Distortion	≥ 2 % @100% Linear Load; ≥ 5 % @100% Non-linear Load			≥ 2 % THD @100% Linear Load; ≥ 5 % THD @100% Non-linear Load		
Transfer Time	AC Mode to Batt. Mode			Zero		
	Inverter to Bypass			Zero		
Waveform (Batt. Mode)	Pure Sine wave					
Overload	AC Mode			100-110% for 60 min, 110-125% for 10 min, 125%~150% for 1min, >150% immediately		
	Battery Mode			100-110% for 60 min, 110-125% for 10 min, 125%~150% for 1min, >150% immediately		

EFFICIENCY

AC Mode	96%
ECO Mode	99%
Battery Mode	96%

BATTERY

Battery Type	Depending on the capacity of external batteries					
Numbers	20 PCS	32~40 pcs (Adjustable)	20 PCS		32 ~ 40 PCS	
Charging Current (max.)	1.0~12.0A ± 10% (Adjustable)	2.0~24.0A ± 10% (Adjustable)			1A ~ 12A (Adjustable)	
Charging Voltage	+/-13.65 VDC* N ± 1% (N = 10)	+/-13.65 VDC* N ± 1% (N = 16~20)	+/-136.5 VDC ± 10%		+/-13.65V*N (N=16~20)	

INDICATORS

LCD Display	UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions
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PHYSICAL

Long-run Model	Dimension, D x W x H (mm)	626 x 250 x 827		630 x 250 x 826		815 x 300 x 1000	
	Net Weight (kgs)	46,5	46,5	28	43	60	67

ENVIRONMENT

Operation Temperature	0-40°C		
Operation Humidity	< 95% and non-condensing		
Noise Level	Less than 55dB @ 1 Meter	Less than 58dB @ 1 Meter	Less than 70dB @ 1 Meter

MANAGEMENT

Smart RS-232 / USB	Supports Windows® 2000/2003/XP/Vista/2008, Windows® 7/8/10, Linux and MAC
Optional SNMP	Power management from SNMP manager and web browser

*If output voltage is set as 3 x 360VAC, the output power of the unit will be de-rated to 90%. Product specifications are subject to change without further notice.



Tower Battery Pack

Form Factor	Tower		
Model Name	BB +120V18Ah	BB +240V 18Ah 63A fuse for 20K	BB +240V 18Ah 100A fuse for 30/40K
Battery Type	12V / 9Ah	12V / 9Ah	12V / 9Ah
Battery Number	40	80	80
Dimension (DxWxH) mm	561 x 250 x 576	777 x 250 x 837	777 x 250 x 837
Net Weight (kgs)	122	244	244



TECHNICAL SPECIFICATIONS

MODEL	EPOS 3/3 60KL	EPOS 3/3 80KL	EPOS 3/3 100KL	EPOS 3/3 120KL	EPOS 3/3 160KL	EPOS 3/3 200KL	
PHASE	3-phase in/3-phase out with Neutral						
CAPACITY	60kVA / 60kW	80kVA / 80kW	100kVA / 90kW	120kVA / 108kW	160kVA / 144kW	200kVA / 180kW	
PARALLEL CAPABILITY	3			2			
INPUT							
Nominal Voltage	3 x 400 VAC (3Ph+N)						
Voltage Range	190-520 VAC @ 50% load 305-478 VAC @ 100% load			208-478 VAC(3-phase) @ 50% load 305-478 VAC(3-phase) @ 100% load			
Frequency Range	46~54Hz or 56~64Hz			40~70Hz or 56~64Hz			
Power Factor	≥ 0.99 @ 100% load						
OUTPUT							
Output Voltage	3 x 360*/380/400/415 VAC (3Ph+N)			3 x 380*/400/415 VAC (3Ph+N)			
AC Voltage Regulation (Batt. Mode)	± 1%						
Frequency Range (Synchronized Range)	46~54Hz or 56~64Hz						
Frequency Range (Batt. Mode)	50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz						
Current Crest Ratio	3:1 (max.)						
Harmonic Distortion	≥ 2 % @100% Linear Load; ≥ 5 % @100% Non-linear Load			≥ 2 % THD @100% Linear Load; ≥ 4 % THD @100% Non-linear Load			
Transfer Time	AC Mode to Batt. Mode			Zero			
	Inverter to Bypass			Zero			
Waveform (Batt. Mode)	Pure Sine wave						
Overload	AC Mode			105-110% for 60 min, 111-125% for 10 min, 125%~150% for 1min, >150% immediately			
	Battery Mode			105-110% for 60 min, 111-125% for 10 min, 126%~150% for 1min, >150% immediately			
EFFICIENCY							
AC Mode	96%			94%			
ECO Mode	99%			98%			
Battery Mode	96%			93%			
BATTERY							
Battery Type	Depending on the capacity of external batteries						
Numbers	32 ~ 40 PCS						
Long-run Model	Charging Current (max.)	2.0~24.0A (Adjustable)		24A	32A	40A	48A
	Charging Voltage	+/-13.65 VDC* N ± 1% (N = 10)			+/-13.7V*N (N=16~20)		
INDICATORS							
LCD Display	UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions						
PHYSICAL							
Long-run Model	Dimension, D x W x H (mm)	790 x 360 x 1010		940 x 567 x 1015		1040 x 567 x 1452	
	Net Weight (kgs)	108	113	194	229	306	340
ENVIRONMENT							
Operation Temperature	0-40°C						
Operation Humidity	< 95% and non-condensing						
Noise Level	Less than 75dB @ 1 Meter		Less than 70dB @ 1 Meter		Less than 73dB @ 1 Meter		
MANAGEMENT							
Smart RS-232 / USB	Supports Windows® 2000/2003/XP/Vista/2008, Windows® 7/8/10, Linux and MAC						
Optional SNMP	Power management from SNMP manager and web browser						

*If output voltage is set as 3 x 360VAC, the output power of the unit will be de-rated to 90%. Product specifications are subject to change without further notice.



Backup Time Table for EPOS Series		Backup Time with Load (Min)			
	Battery Bank	25 %	50 %	75 %	100 %
EPOS 3/1 10KL	+1BB +-120V 18Ah-240V/18Ah	49.8	22.3	13.2	9.0
EPOS 3/3 10KL	+2BB +-120V 18Ah-240V/36Ah	110	50.5	30.3	22.0
EPOS 3/1 20KL	+1BB +-240V 18Ah-480V/18Ah	49.3	21.9	13.3	9.5
EPOS 3/3 20KL	+2BB +-240V 18Ah-480V/36Ah	109	49.9	30.9	22.8
EPOS 3/3 30KL	+1BB +-240V 18Ah-480V/18Ah	29.9	13.1	7.7	5.1
	+2BB +-240V 18Ah-480V/36Ah	69.0	30.4	18.9	13.5
EPOS 3/3 40KL	+1BB +-240V 18Ah-480V/18Ah	21.5	9.1	4.9	3.1
	+2BB +-240V 18Ah-480V/36Ah	49.3	21.9	13.3	9.4

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