

# Easy UPS 3S for Internal Batteries

10-40 kVA 208 V

## Technical Specifications

3/2021



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# Important Safety Instructions — SAVE THESE INSTRUCTIONS

Read these instructions carefully and look at the equipment to become familiar with it before trying to install, operate, service or maintain it. The following safety messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety message indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages with this symbol to avoid possible injury or death.

## DANGER

**DANGER** indicates a hazardous situation which, if not avoided, **will result in death or serious injury.**

**Failure to follow these instructions will result in death or serious injury.**

## WARNING

**WARNING** indicates a hazardous situation which, if not avoided, **could result in death or serious injury.**

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## CAUTION

**CAUTION** indicates a hazardous situation which, if not avoided, **could result in minor or moderate injury.**

**Failure to follow these instructions can result in injury or equipment damage.**

## NOTICE

**NOTICE** is used to address practices not related to physical injury. The safety alert symbol shall not be used with this type of safety message.

**Failure to follow these instructions can result in equipment damage.**

## Please Note

Electrical equipment should only be installed, operated, serviced, and maintained by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

## Safety Precautions

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- The product must be installed according to the specifications and requirements as defined by Schneider Electric. It concerns in particular the external and internal protections (upstream circuit breakers, battery circuit breakers, cabling, etc.) and environmental requirements. No responsibility is assumed by Schneider Electric if these requirements are not respected.
- After the UPS system has been electrically wired, do not start up the system. Start-up must only be performed by Schneider Electric.

**Failure to follow these instructions will result in death or serious injury.**

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

The UPS System must be installed according to local and national regulations. Install the UPS according to:

- IEC 60364 (including 60364-4-41- protection against electric shock, 60364-4-42 - protection against thermal effect, and 60364-4-43 - protection against overcurrent), **or**
- NEC NFPA 70

depending on which one of the standards apply in your local area.

**Failure to follow these instructions will result in death or serious injury.**

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Install the UPS system in a temperature controlled area free of conductive contaminants and humidity.
- Install the UPS system on a non-flammable, level, and solid surface (e.g. concrete) that can support the weight of the system.

**Failure to follow these instructions will result in death or serious injury.**

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

The UPS is not designed for and must therefore not be installed in the following unusual operating environments:

- Damaging fumes
- Explosive mixtures of dust or gases, corrosive gases, or conductive or radiant heat from other sources
- Moisture, abrasive dust, steam or in an excessively damp environment
- Fungus, insects, vermin
- Salt-laden air or contaminated cooling refrigerant
- Pollution degree higher than 2 according to IEC 60664-1
- Exposure to abnormal vibrations, shocks, and tilting
- Exposure to direct sunlight, heat sources, or strong electromagnetic fields

**Failure to follow these instructions will result in death or serious injury.**

## ***NOTICE***

### **RISK OF OVERHEATING**

Respect the clearance requirements around the UPS system and do not cover the product's ventilation openings when the UPS system is in operation.

**Failure to follow these instructions can result in equipment damage.**

## ***NOTICE***

### **RISK OF EQUIPMENT DAMAGE**

The UPS must use an external regenerative braking kit to dissipate energy when connected to regenerative loads including photovoltaic systems and speed drives.

**Failure to follow these instructions can result in equipment damage.**

# System Overview

## Model List

All models may not be available in all regions.

### UPSs

- E3SUPS10KFB: Easy UPS 3S 10 kVA 208 V 3:3 UPS for internal batteries
- E3SUPS10KFBS: Easy UPS 3S 10 kVA 208 V 3:3 UPS for internal batteries, start-up 5x8
- E3SUPS15KFB: Easy UPS 3S 15 kVA 208 V 3:3 UPS for internal batteries
- E3SUPS15KFBS: Easy UPS 3S 15 kVA 208 V 3:3 UPS for internal batteries, start-up 5x8
- E3SUPS20KFB: Easy UPS 3S 20 kVA 208 V 3:3 UPS for internal batteries
- E3SUPS20KFBS: Easy UPS 3S 20 kVA 208 V 3:3 UPS for internal batteries, start-up 5x8
- E3SUPS30KFB: Easy UPS 3S 20 kVA 208 V 3:3 UPS for internal batteries
- E3SUPS30KFBS: Easy UPS 3S 20 kVA 208 V 3:3 UPS for internal batteries, start-up 5x8
- E3SUPS40KFB: Easy UPS 3S 30 kVA 208 V 3:3 UPS for internal batteries
- E3SUPS40KFBS: Easy UPS 3S 30 kVA 208 V 3:3 UPS for internal batteries, start-up 5x8

**NOTE:** Batteries are sold separately.

### Maintenance Bypass Panels

- E3SBPSU10K20F: Easy UPS 3S Maintenance Bypass Panel, single unit, 10-20 kVA 208 V
- E3SBPSU30K40F: Easy UPS 3S Maintenance Bypass Panel, single unit, 30-40 kVA 208 V
- E3SBPAR10K40F: Easy UPS 3S Parallel Maintenance Bypass Panel for 3 UPSs, 10-40 kVA 208 V

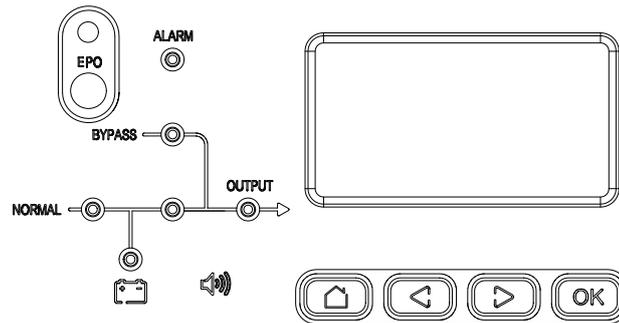
### Batteries

- E3SXR7: Easy UPS 3S Modular Battery Cabinet 208 V
- E3SFBTH2: Easy UPS 3S High Capacity Battery String 208 V
- E3SFBTHU: Easy UPS 3S High Capacity Battery Module 208 V

### Options

- E3SOPT010: Easy UPS 3S Dry Contact Card
- E3SOPT014: Easy UPS 3S Cold Start Kit 10-40 kVA 208 V
- E3SOPT015: Easy UPS 3S Kirk Key Kit
- E3SOPT001: Easy UPS 3S Series Network Card
- E3SOPT002: Easy UPS 3S Parallel Kit

## User Interface



## Keys

Home	Previous	Next	Confirm

## EPO

Only use the EPO button in case of emergency.

It can be configured whether, when the EPO is activated, the UPS should:

- turn off the rectifier, inverter, charger, and static bypass and stop supplying the load immediately (default), or
- transfer to static bypass mode and continue supplying the load.

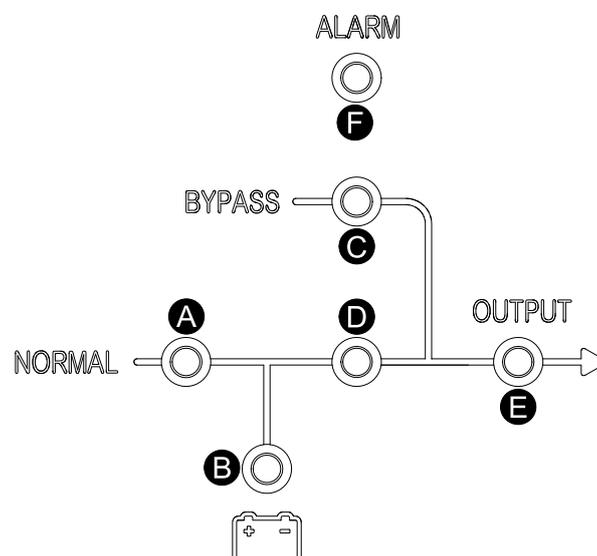
**⚠ DANGER**

**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

The UPS control circuit will remain active after the EPO has been pushed if utility/mains is available.

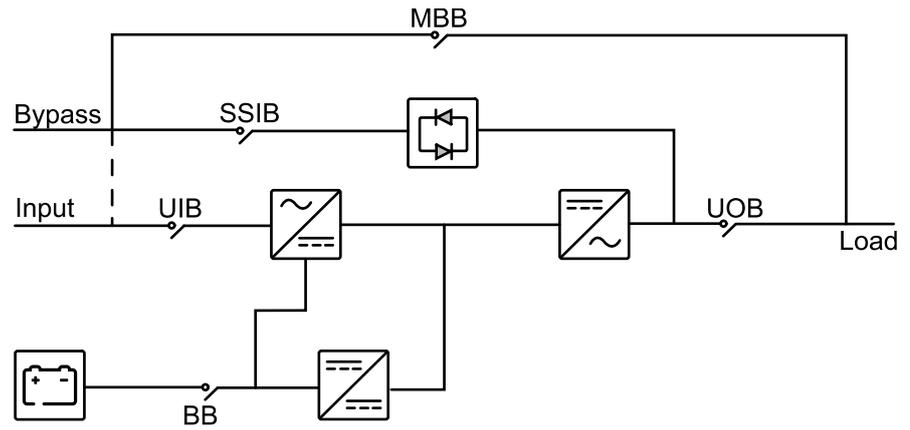
**Failure to follow these instructions will result in death or serious injury.**

## Status LEDs



	LED	Status
A	Rectifier	<p>Green : Rectifier is working correctly.</p> <p>Flashing green : Rectifier is starting up.</p> <p>Red : Rectifier is inoperable.</p> <p>Flashing red : Utility/mains is unavailable.</p> <p>OFF : Rectifier is off.</p>
B	Battery	<p>Green : Battery is charging.</p> <p>Flashing green : Battery is discharging.</p> <p>Red : Battery is inoperable.</p> <p>Flashing red : Battery low voltage.</p> <p>OFF : Battery and battery charger are OK, battery is not charging or discharging.</p>
C	Bypass	<p>Green : Load supplied by bypass source.</p> <p>Red : Bypass source is unavailable or static bypass switch is inoperable.</p> <p>Flashing red : Bypass voltage is out of tolerance.</p> <p>OFF : Bypass source is OK.</p>
D	Inverter	<p>Green : Load supplied by inverter.</p> <p>Flashing green : Inverter on, start, synchronization or standby (ECO mode).</p> <p>Red : Load not supplied by inverter, inverter is inoperable.</p> <p>Flashing red : Load supplied by inverter, but an inverter alarm is present.</p> <p>OFF : Inverter is off.</p>
E	Load	<p>Green : UPS output is on.</p> <p>Red : Overload on UPS output for too long, or output has shorted, or no output power present.</p> <p>Flashing red : Overload on UPS output.</p> <p>OFF : UPS output is off.</p>
F	Status	<p>Green : UPS is OK.</p> <p>Red : Inoperable status.</p>

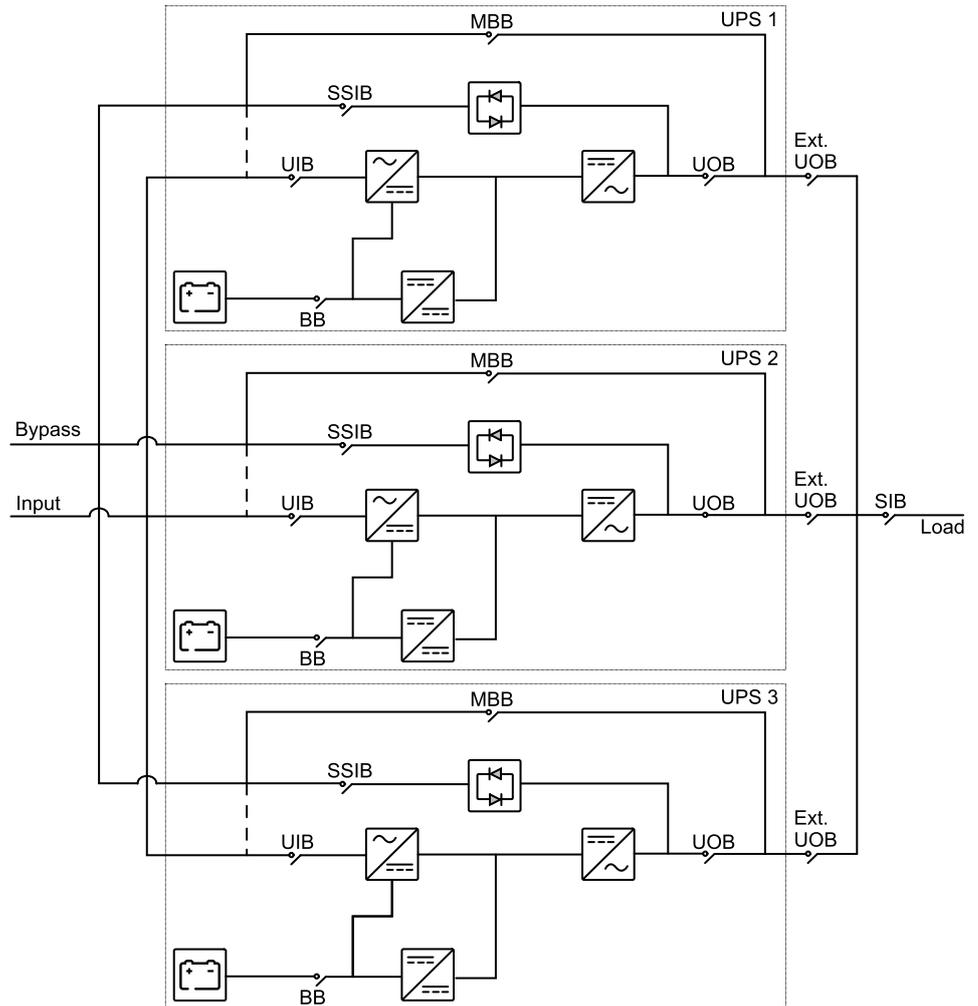
## Overview of Single UPS



UIB	Unit input breaker
SSIB	Static switch input breaker
UOB	Unit output breaker
MBB	Maintenance bypass breaker
BB	Battery relay

## Overview of Parallel System

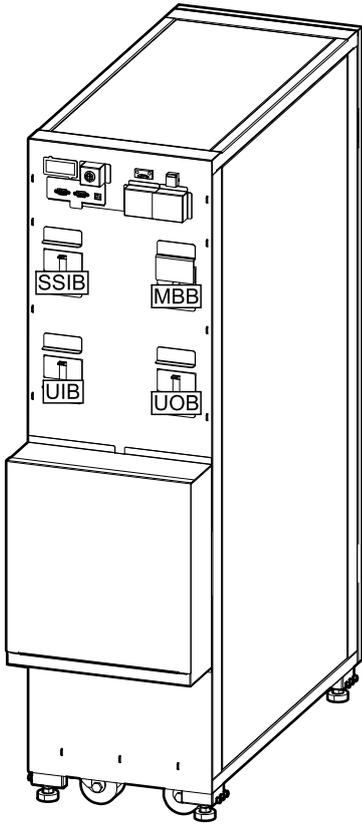
**NOTE:** In parallel systems with an external maintenance bypass breaker Ext. MBB, the maintenance bypass breakers MBB must be padlocked in the open position.



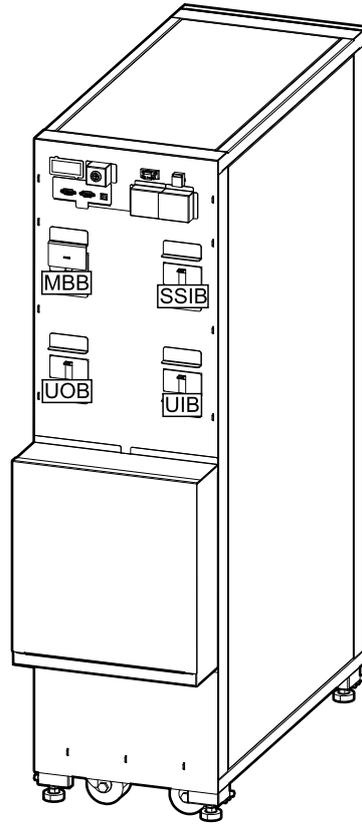
MIB	Mains input breaker
BIB	Bypass input breaker
UIB	Unit input breaker
SSIB	Static switch input breaker
UOB	Unit output breaker
Ext. UOB	External unit output breaker
MBB	Maintenance bypass breaker
Ext. MBB	External maintenance bypass breaker
SIB	System isolation breaker
BB	Battery relay

# Location of Breakers

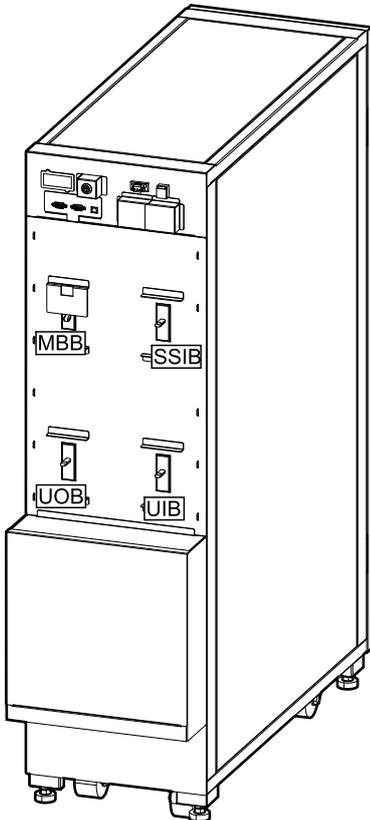
10 kVA UPS



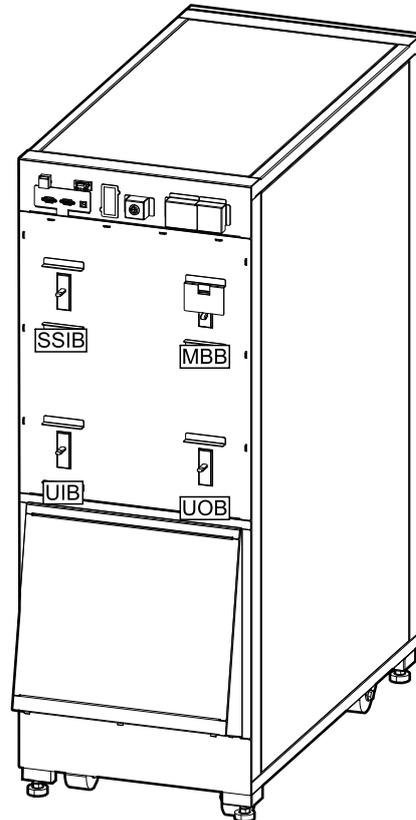
15-20 kVA UPS



30 kVA UPS



40 kVA UPS



# Technical Data

## Input Power Factor

UPS rating	10 kVA	15 kVA	20 kVA	30 kVA	40 kVA
25% load	0.9653	0.9538	0.9666	0.9732	0.9799
50% load	0.9924	0.9896	0.9944	0.9938	0.9966
75% load	0.9973	0.9966	0.9982	0.9978	0.9992
100% load	0.9989	0.9981	0.9994	0.9992	0.9996

## Efficiency

### Normal Mode

UPS rating	10 kVA	15 kVA	20 kVA	30 kVA	40 kVA
25% load	92.3	92.73	93.31	93.68	94.23
50% load	93.39	94.05	94.13	94.11	94.37
75% load	92.82	93.91	93.7	93.53	93.75
100% load	92.21	93.82	93.26	92.95	93.03

### ECO mode

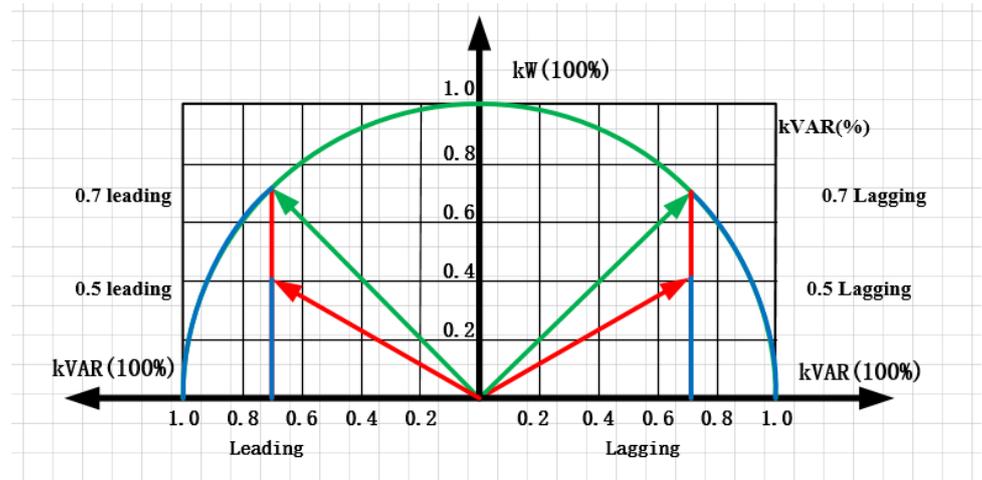
UPS rating	10 kVA	15 kVA	20 kVA	30 kVA	40 kVA
25% load	94.65	95.19	95.92	96.05	96.85
50% load	96.82	96.99	97.45	97.40	97.91
75% load	97.24	97.37	97.67	97.62	98.08
100% load	97.63	97.73	97.90	98.00	98.21

### Battery operation

UPS rating	10 kVA	15 kVA	20 kVA	30 kVA	40 kVA
25% load	91.69	91.61	92.97	93.57	93.61
50% load	93.43	93.54	93.97	94.29	94.28
75% load	93.18	93.67	93.71	93.92	93.93
100% load	92.84	93.73	94.42	93.57	93.34

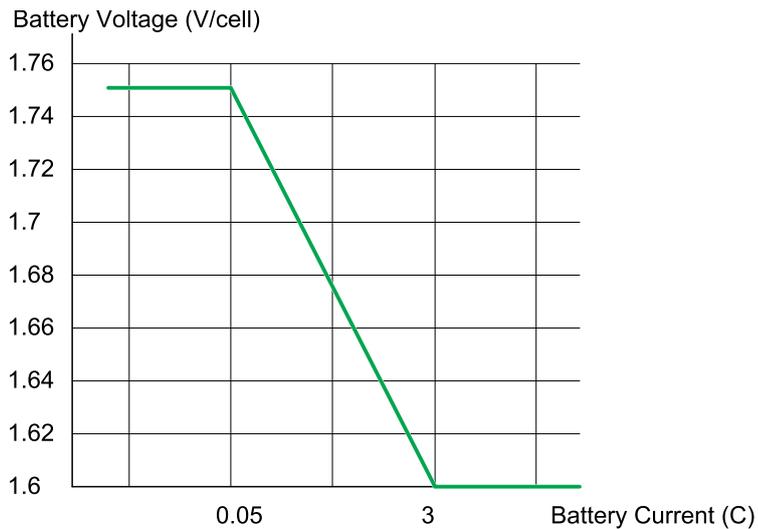
## Derating Due to Load Power Factor

From 0.7 leading to 0.7 lagging without derating.  
 From 0.5 leading to 0.5 lagging with derating



## Batteries

### End of Discharge Voltage



## Compliance

Safety	UL 1778:2014 5th Edition, Uninterruptible Power Systems. CSA C22.2 No. 107.3-14 + G11, 3rd Edition, Uninterruptible Power Systems
EMC/EMI/RFI	IEC 62040-2: 2005-10, 2nd edition Uninterruptible Power Systems (UPS) - Part 2: Electromagnetic compatibility (EMC) requirements FCC Part15 Subpart B / ANSI C63.4 2014
Performance	IEC 62040-3: 2011-03, 2nd edition Uninterruptible Power Systems (UPS) - Part 3: Method of specifying the performance and test requirements
Environmental	IEC 62040-4: 2013-04, 1st edition Uninterruptible Power Systems (UPS) - Part 4: Environmental aspects – Requirements and reporting
Markings	CTUVus
Transportation	ISTA 2B

# Facility Planning

## Input Specifications

	10 kVA		15 kVA		20 kVA		30 kVA		40 kVA	
Voltage (V)	208	220	208	220	208	220	208	220	208	220
Connections	L1, L2, L3, N, G									
Input voltage range (V)	176–253									
Frequency range (Hz)	40–70									
Nominal input current (A)	31	30	46	44	61	58	92	86	120	113
Maximum input current (A)	37	35	54	51	72	69	107	102	143	136
Input current limitation (A)	58		85		114		169		225	
Total harmonic distortion (THDI)	≤4% at 100% linear load (symmetrical)									
Input power factor	≥0.99 at loads >75%									
Maximum short circuit rating	10 kA RMS symmetrical									
Protection	Built-in backfeed protection and fuses									
Ramp-in	30 seconds									

## Bypass Specifications

	10 kVA		15 kVA		20 kVA		30 kVA		40 kVA	
Voltage (V)	208	220	208	220	208	220	208	220	208	220
Connections	L1, L2, L3, N, G									
Overload capacity	110% continuous 125% for 10 minutes 150% for 1 minute >150% for 300 milliseconds									
Minimum bypass voltage (V)	125	132	125	132	125	132	125	132	125	132
Maximum bypass voltage (V)	260	275	260	275	260	275	260	275	260	275
Frequency (Hz)	50 or 60									
Frequency range (Hz)	±1, ±3, ±5 (user selectable)									
Nominal bypass current (A)	29	28	43	41	57	54	86	81	113	107
Maximum short circuit rating	10 kA RMS symmetrical									
Protection	Built-in backfeed protection									

## Output Specifications

	10 kVA		15 kVA		20 kVA		30 kVA		40 kVA	
Voltage (V)	208	220	208	220	208	220	208	220	208	220
Connections	L1, L2, L3, N, G									
Overload capacity	110% for 60 minutes 125% for 10 minutes 150% for 1 minute >150% for less than 200 milliseconds									
Output voltage regulation	± 1% at symmetrical load									
Dynamic load response	± 5% after 20 milliseconds									
Output power factor	1.0									
Nominal output current (A)	28	26	42	40	56	52	83	79	111	105
Total harmonic distortion (THDU)	<1.5% at 100% linear load <6% at 100% non-linear load									
Output frequency (Hz)	50/60 Hz bypass synchronized – 50/60 Hz ± 0.1% free-running									
Output performance classification (according to IEC62040-3)	VFI-SS-121									
Load power factor	From 0.7 leading to 0.7 lagging without derating									
Load crest factor	2.5:1									

## Battery Specifications

	10 kVA		15 kVA		20 kVA		30 kVA		40 kVA	
Charging power	Programmable from 1% to 15% of UPS capacity. Default is 10%.									
Maximum charging power (W)	1500		2250		3000		4500		6000	
Nominal battery voltage (20 blocks) (VDC)	± 120									
Nominal float voltage (20 blocks) (VDC)	± 136									
End of discharge voltage (20 blocks) (≥ 3C) (VDC)	± 96									
End of discharge voltage (20 blocks) (≤ 0.05C) (VDC)	± 105									
Battery current at full load and nominal battery voltage (20 blocks) (A)	46		68		91		136		182	
Battery current at full load and minimum battery voltage (20 blocks) (A)	57		85		114		170		227	
Temperature compensation (per cell)	Programmable from 0 to 5 mV. Default is 3 mV if the battery temperature is above 25 °C (77 °F).									
Ripple current	< 5% C20									
Battery test	Manual/automatic (selectable)									

## Required Upstream Protection and Cable Sizes

### ⚠ DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

All wiring must comply with all applicable national and/or electrical codes. The maximum allowable cable size is 4/0.

**Failure to follow these instructions will result in death or serious injury.**

**NOTE:** Overcurrent protection and cable lugs are to be provided by others.

Cable sizes in this manual are based on Table 310.15 (B)(16) of the National Electrical Code (NEC) with the following assertions:

- 90 °C (194 °F) conductors (75 °C (167 °F) termination)
- An ambient temperature of 30 °C (86 °F)
- Use of copper conductors
- Installation method C

If the ambient temperature is greater than 30 °C (86 °F), larger conductors are to be selected in accordance with the correction factors of the NEC.

Equipment grounding conductors are sized in accordance with NEC Article 250.122 and Table 250.122.

**NOTE:** The battery cable sizes given here are recommendations. Always follow the specific instructions in the battery solution documentation for battery +/- and battery G cable sizes.

**NOTE:** Neutral conductor is sized to handle 1.73 times phase current in case of high harmonic content from non-linear loads. If few or no harmonic currents are expected, neutral conductor can be sized as phase conductor. In dual mains systems, the input neutral conductor can be sized as the input phase conductor.

UPS rating	10 kVA	15 kVA	20 kVA	30 kVA	40 kVA
Input phases (AWG/kcmil)	8	6	4	1	2/0
Input G (AWG/kcmil)	10	8	8	6	6
Bypass/output phases (AWG/kcmil)	8	6	4	1	2/0
Bypass G/output G (AWG/kcmil)	10	8	8	6	6
Neutral (AWG/kcmil)	4	3	1/0	2x1/0	2x2/0
Battery +/-N (AWG/kcmil)	4/0	4/0	4/0	4/0	4/0
Battery G (AWG/kcmil)	10	8	8	6	6

## Trip Settings

UPS rating	Source	Breaker type	li (x In) setting
10 kVA	Input	BDF36045	400 A fixed
	Bypass	BDF36035	400 A fixed
15 kVA	Input	BGF36070	640 A fixed
	Bypass	BGF36060	640 A fixed
20 kVA	Input	BGF36090	1000 A fixed
	Bypass	BGF36070	640 A fixed

UPS rating	Source	Breaker type	li (x In) setting
30 kVA	Input	HGF36110C	1250
	Bypass	HGF36090C	1250
40 kVA	Input	HJF36150C	1250
	Bypass	HJF36125C	1250

## Recommended Bolts and Cable Lugs

<b>NOTICE</b>
<b>RISK OF EQUIPMENT DAMAGE</b>
Use only UL approved compression cable lugs.
<b>Failure to follow these instructions can result in equipment damage.</b>

UPS rating		10 kVA	15 kVA	20 kVA	30 kVA	40 kVA
Ground	Cable Size (AWG/kcmil)	10	8	8	6	6
	Bolt Size	M6	M6	M6	M8	M6
	Cable Lug Type	LCA10-14-L	LCA8-14-L	LCA8-14-L	LCA6-56-L	LCA6-56-L
Phases	Cable Size (AWG/kcmil)	8	6	4	1	2/0
	Bolt Size	M6	M8	M8	M8	M10
	Cable Lug Type	LCA8-14-L	LCA6-56-L	LCA4-56-L	LCA1-56-E	LCA2/0-38-X
Neutral	Cable Size (AWG/kcmil)	4	3	1/0	2x1/0	2x2/0
	Bolt Size	M6	M8	M8	M10	M10
	Cable Lug Type	LCAN4-14-L-01	LCA3-56-L	LCA1/0-56-X	LCA1/0-56-X	LCA2/0-38-X
Battery	Cable Size (AWG/kcmil)	4/0	4/0	4/0	4/0	4/0
	Bolt Size	M10	M10	M10	M10	M10
	Cable Lug Type	LCA4/0-38-X	LCA4/0-38-X	LCA4/0-38-X	LCA4/0-38-X	LCA4/0-38-X

## Torque Specifications

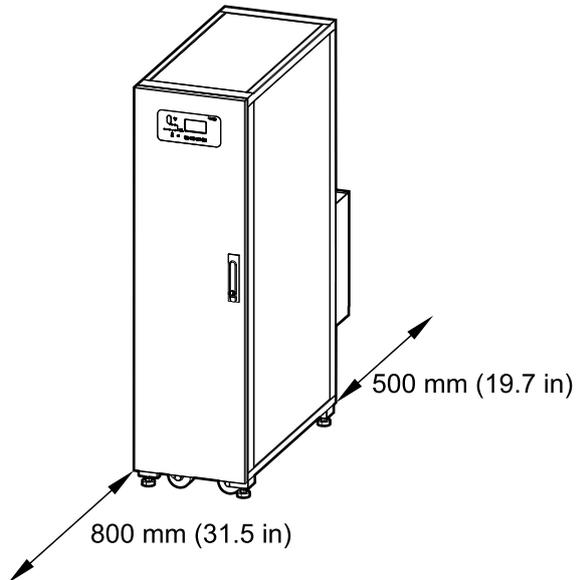
UPS rating	Bolt Size	Torque
10 kVA	M6	5.59 Nm (4.12 lb-ft)
	M10	15 Nm (11.06 lb-ft)
15 kVA/20 kVA	M8	5.59 Nm (4.12 lb-ft)
	M10	15 Nm (11.06 lb-ft)
30 kVA	M8	12 Nm (8.85 lb-ft)
	M10	15 Nm (11.06 lb-ft)
40 kVA	M10	15 Nm (11.06 lb-ft)

## Clearance

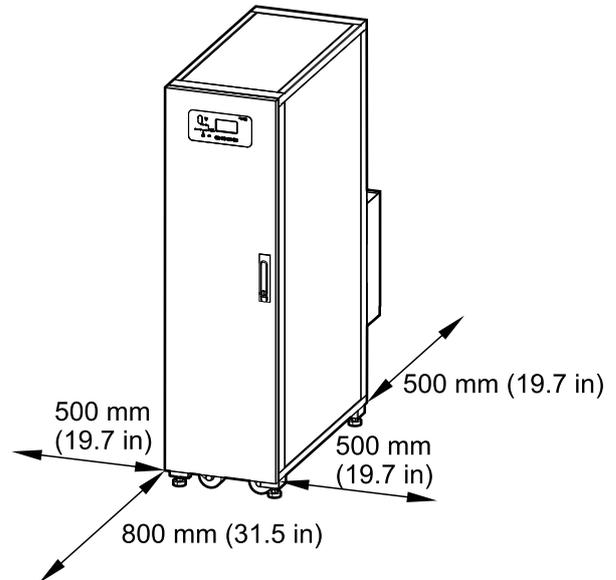
**NOTE:** Clearance dimensions are published for airflow and service access only. Consult with the local safety codes and standards for additional requirements in your local area.

**NOTE:** If the UPS is installed without side access (Option A), the length of the cables connected to the UPS must allow for rolling out the UPS.

Option A



Option B



## Environmental

	Operation	Storage
Temperature	0 °C to 40 °C (32 °F to 104 °F) <sup>1</sup>	-15 °C to 40 °C (5 °F to 104 °F) for systems with batteries -25 °C to 55 °C (-13 °F to 131 °F) for systems without batteries
Relative humidity	0–95% non-condensing	
Elevation derating according to IEC 62040–3	Designed for operation in 0-2000 m (0-6600 feet) elevation.  Power derating required from 1000-2000 m: Up to 1000 m (3300 feet): 1.000 Up to 1500 m (5000 feet): 0.975 Up to 2000 m (6600 feet): 0.950	< 15000 m (50000 feet) above sea level (or in an environment with equivalent air pressure)
Audible noise	10 kVA: ≤65 dBA at full load 15-30 kVA: ≤68 dBA at full load 40 kVA: ≤70 dBA at full load	
Protection class	IP20 (dust filter as standard)	
Color	RAL 9003	

## Heat Dissipation

	10 kVA	15 kVA	20 kVA	30 kVA	40 kVA
Normal mode (W)	700	1050	1400	2100	2800
Battery mode (W)	750	1125	1500	2250	3000
ECO mode (W)	200	300	400	600	800

1. The optimal operation temperature for batteries is 20 °C to 25 °C (68 °F to 77 °F)

# Weights and Dimensions

## UPS Weights and Dimensions

UPS rating	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
10 kVA	120 (265) <sup>2</sup>	1400 (55.12)	380 (14.97)	960 (37.80)
15 kVA	132 (291) <sup>2</sup>	1400 (55.12)	380 (14.97)	960 (37.80)
20 kVA	132 (291) <sup>2</sup>	1400 (55.12)	380 (14.97)	960 (37.80)
30 kVA	155 (342) <sup>2</sup>	1400 (55.12)	380 (14.97)	1050 (41.34)
40 kVA	187 (412) <sup>2</sup>	1400 (55.12)	500 (19.69)	1092 (43.00)

## Modular Battery Cabinet Weights and Dimensions

Commercial reference	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
E3SXR7	160 (353) <sup>2</sup>	1400 (55.12)	500 (19.69)	940 (37.01)

## Maintenance Bypass Panel Weights and Dimensions

Commercial reference	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
E3SBPSU10K20F	30 (66)	600 (23.62)	550 (21.65)	260 (10.24)
E3SBPSU30K40F	65 (143)	900 (35.43)	800 (31.50)	320 (12.60)

## Parallel Maintenance Bypass Panel Weights and Dimensions

Commercial reference	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
E3SBPAR10K40F	70 (154)	1000 (39.37)	700 (27.56)	330 (12.99)

2. Weight without batteries. Each battery module weighs 27 kg (60 lbs).

# Shipping Weights and Dimensions

## UPS Shipping Weights and Dimensions

UPS rating	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
10 kVA	152 (335)	1595 (62.80)	800 (31.50)	1200 (47.24)
15 kVA	165 (364)	1595 (62.80)	800 (31.50)	1200 (47.24)
20 kVA	165 (364)	1595 (62.80)	800 (31.50)	1200 (47.24)
30 kVA	188 (414)	1595 (62.80)	800 (31.50)	1200 (47.24)
40 kVA	220 (485)	1595 (62.80)	800 (31.50)	1200 (47.24)

## Modular Battery Cabinet Shipping Weights and Dimensions

Commercial reference	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
E3SXR7	172 (379) <sup>3</sup>	1595 (62.80)	800 (31.50)	1200 (47.24)

## Maintenance Bypass Panel Shipping Weights and Dimensions

Commercial reference	Weight kg (lbs)	Height mm (in) <sup>4</sup>	Width mm (in)	Depth mm (in)
E3SBPSU10K20F	42 (92.59)	500 (19.69)	800 (31.5)	1200 (47.24)
E3SBPSU30K40F	86 (189.59)	556 (21.89)	1000 (39.37)	1200 (47.24)

## Parallel Maintenance Bypass Panel Shipping Weights and Dimensions

Commercial reference	Weight kg (lbs)	Height mm (in) <sup>4</sup>	Width mm (in)	Depth mm (in)
E3SBPAR10K40F	92 (202.82)	566 (22.28)	800 (31.5)	1200 (47.24)

3. Weight without batteries. Each battery module weighs 27 kg (60 lbs).

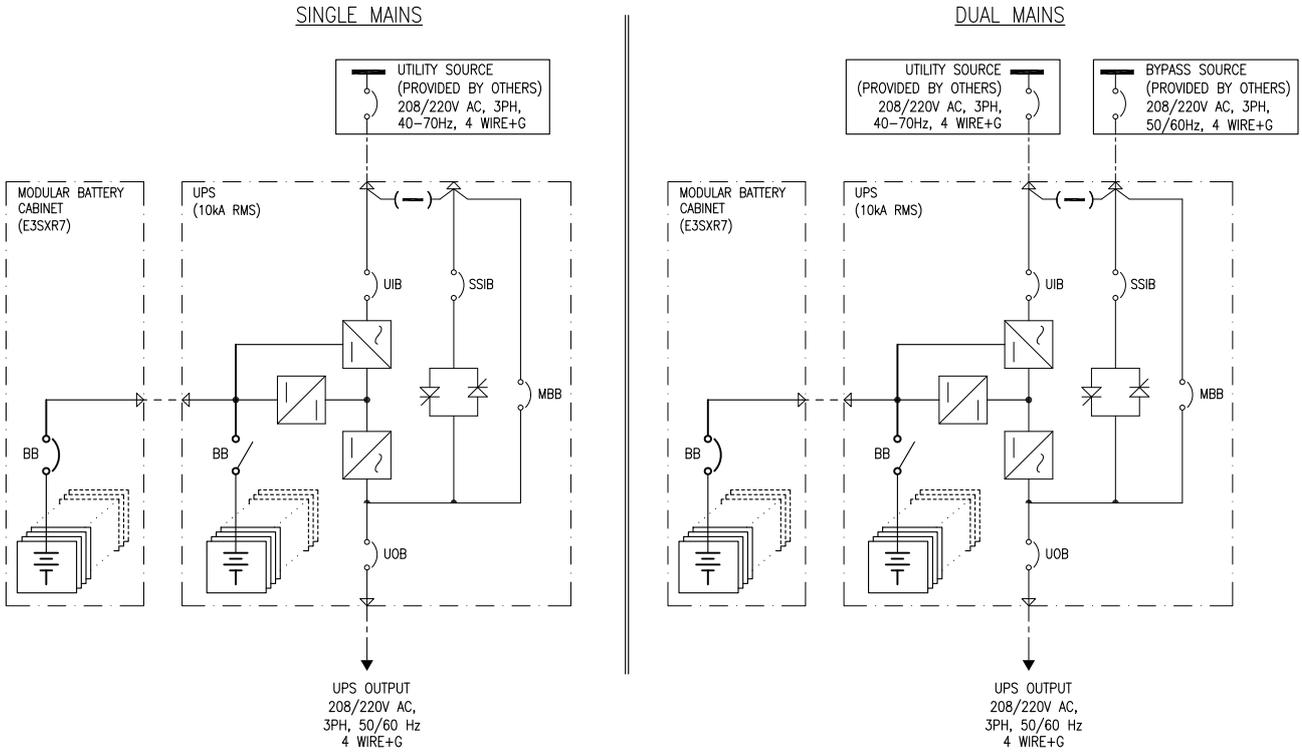
4. The product is packaged in a horizontal position, so the shipping height and depth dimensions differ from the product itself.

# Drawings

**NOTE:** A comprehensive set of drawings is available on [www.se.com](http://www.se.com).

**NOTE:** These drawings are for reference ONLY – subject to change without notice.

## Easy UPS 3S for Internal Batteries 10-40 kVA 208 V



# Options

## Configuration Options

- Single or dual mains
- Bottom cable entry
- Up to four UPSs in parallel
- ECO mode

## Settings

Setting	Default Value	Available Settings
LCD contrast	60	0 to 100
Date and Time	05/07/2013 08:55:55	Year > 2000
Language	English	English, Spanish, Portuguese Brazilian, and French
Input voltage (LN)	120 V	120 V/127 V
Input frequency	60 Hz	50 Hz/60 Hz
Output voltage (LN)	120 V	120 V/127 V
Output frequency	60 Hz	50 Hz/60 Hz
EPO transfer to bypass	Enable	Disable
Auto boost	Disable	Enable
Auto maint	Disable	Enable
System mode	single	parallel/ECO/parallel ECO/self aging
United number	1	1 to 4
System ID	0	0 to 3
Adjusted output voltage	120	Output voltage $\pm 5$ V
Frequency slew rate	2 Hz/s	0.1 to 3.0 Hz/s
Frequency synchronization window	3 Hz	0.5 to 5.0 Hz
Monochrome LCD time (min)	10	1/3/5/10/20/30
Bypass voltage upper limit (%)	20	10/20/25
Bypass voltage lower limit (%)	-20	-10/-15/-30/-40
Bypass frequency limited (Hz)	$\pm 5$	$\pm 1/\pm 3/\pm 5$
System restart mode after end of discharge	Normal	Normal/Bypass only/No output
Fan maintenance period	34560 hours (48 months)	0 to 60000 hours
DC capacitor maintenance period	34560 hours (48 months)	0 to 60000 hours
Warranty period	9 months	1 to 36 months
AC capacitor maintenance period	120 months	60 to 120 months
APS maintenance period	84 months	36 to 120 months
Dust filter maintenance period	12 months	0/3/4/5/12 months
Battery maintenance reminding period	1440 days (48 months)	100 to 300 days
Battery number	20	20
Battery AH	9	1 to 30000
Float charge voltage/cell (V)	2.25	2.10 to 2.35

<b>Setting</b>	<b>Default Value</b>	<b>Available Settings</b>
Boost charge voltage/cell (V)	2.25	2.20 to 2.45
End of discharge voltage/cell, at 3 C current (V)	1.6	1.60 to 1.85
End of discharge voltage/cell, at 0.05 C current (V)	1.75	1.65 to 1.90
PM charge current percent limit (%)	10	1 to 15
Battery temperature compensation	0	0 to 5 mV/°C
Boost charge time limit	12 hours	1 to 48 hours
Auto boost period	2160 hours (3 months)	720 to 30000 hours, available when auto boost is enabled
Auto maintenance discharge period	6480 hours (9 months)	720 to 30000 hours, available when auto maintenance is enabled

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## One-Year Factory Warranty

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990-6408-001