

# CTO Configuration Guide



*Powering Business Worldwide*

## Eaton<sup>®</sup> Ferrups<sup>®</sup> FE 60Hz Tower Series

FER01GDE  
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## Configuring Your FERRUPS UPS

FERRUPS must be ordered using a Configure To Order (CTO) Number that reflects the cabinet style, VA rating, voltages, runtime, and other options pertaining to the FERRUPS configuration. As you select the options needed, they will become part of the CTO number.

Sample CTO Number: FA000BB2A0A0A0A.

External battery packs, bypass switches and other external options should be ordered as separate items.

The UPS CTO Worksheet															
	UPS CTO Order Code						List Price	Discount	Net Price						
Base Unit	F_														
Input / Output Voltage															
Battery and Battery Charger															
Internal Maintenance Bypass Switch															
Input Connection															
Output Connection															
Internal Options															
Complete UPS CTO Number	F_														
UPS Subtotal															
External Battery Pack															
Battery Pack Selected:															
Other External Battery Options Selected:															
External Maintenance Bypass Switch															
External Maintenance Bypass Switch Selected:															
Other External Options															
<b>Note:</b> Eaton offers a complete line of <b>Power Distribution Units (PDUs)</b> . Please contact your sales representative or visit our websites, <a href="http://powerquality.eaton.com">powerquality.eaton.com</a> and <a href="http://www.epdu.com">www.epdu.com</a> , for details.															
Sub Total															
								Freight							
								Insurance							
								Tax/Duty							
								Quote Total							

# Ferrups 60Hz Tower Series Quick Reference

Note: **Not all options are available on each base unit.** Options restrictions exist. Please consult information in this guide for further detail.

## FG 000 C C3A0A0A0 A

Base Unit (1-2)	
FD =	1.15kVA
FE =	1.4kVA
FF =	1.8kVA
FG =	2.1kVA
FH =	3.1kVA
FI =	4.3kVA
FJ =	5.3kVA
FK =	7kVA
FL =	10kVA
FM =	12.5kVA
FN =	18kVA

*Models FD – FH have no front panel display. An optional RCK-0007 display can be ordered to provide display function via RS232 port. See page 50.*

Input/Output Voltage (3)	
0 =	120V in; 120V out
1 =	208V in; 120/208V out
2 =	208V in; 120/240V out
3 =	240V in; 120/240V out
4 =	220V in; 220V out
5 =	230V in; 230V out
6 =	240V in; 240V out
7 =	220V in; 127/220V out

  

Internal Bypass (5)	
0 =	None
1 =	Make Before Break
2 =	Break Before Make

*AS400 (I Series) contacts included with options 1 & 2*

Input (6)	
A =	Hardwired
B =	5-15P
C =	5-20P
D =	5-50P
E =	6-15P
F =	6-50P I
=	L5-20P
J =	L5-30P
K =	L6-20P
L =	L6-30P
M =	L14-30P

Output (7-14)		
Type	Qty	
A=	None- HW	0
B=	5-15R Duplex	1
C=	5-20R Duplex	2
D=	6-15R Duplex	3
E=	6-20R Duplex	4
G=	L5-15R Duplex	6
H=	L5-20R	7
I=	L5-30R	8
J=	L6-15R Duplex	
K=	L6-20R	
L=	L6-30R	
M=	L14-20R	
N=	L14-30R	
V=	15A/ 1P CB	
W=	15A/ 2P CB	
X=	20A/ 1P CB	
Y=	20A/ 2P CB	
Z=	30A/ 1P CB	
2=	30A/ 2P CB	

*Enter receptacle types alphabetically, followed by the qty desired, and complete necessary digits with "A0"*

*Each receptacle type consumes one slot on the rear panel of the UPS*

Battery / Battery Charger (4)	
0 =	Standard Battery/ Standard Charger
1 =	ERT Internal Battery/ Standard Charger
2 =	ERT Internal Battery/ Standard Charger
3 =	Setup for Internal w/o Battery/ Std Charger
4 =	External Battery/ Standard Charger
5 =	External Battery/ 10A Charger
6 =	External Battery/ 15A Charger <sup>1</sup>
7 =	External Battery/ 20A Charger

Internal Options (15)	
A =	None
B =	AVR/ DVR (recommended for PFC loads)
D =	Anchor Kit for structural slab floor
E =	Anchor Kit for raised of access floor
I =	AVR/DVR with Anchor kit for slab
J =	AVR/DVR with Anchor kit for access floor
Q =	Neutral to ground bond removal (shipboard)
R =	Neutral to ground removed & AVR/DVR

# FE1.15kVA CTO Configuration Guide

## Ferrups 1.15kVA 60Hz Tower General Specifications

Capacity:	1.15kVA/ 800W	Dimensions:	15.1" x 15.2" x 20.2"
Input Voltage:	120, 208, 220, 240 V	(HxWxD)	385mm x 390mm x 515mm
Output Voltage:	120, 120/208, 120/240, 240, 127/240 V	Weight (with batteries <sup>1</sup> ):	102lb / 46kg
		Weight (without batteries):	92lb / 42kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

1. Weights are approximate for standard batteries, option 0 for digit4.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE1.15kVA, 60 Hz Tower	FD	\$3,919

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$0
208	120/208	1	\$130
208	120/240	2	\$130
240	120/240	3	\$130
240	240 (International Models)	6	\$130
220	127/220	7	\$130

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
8 minute internal (22m half load)	standard	0	\$267
30 minute internal (85m half load)	standard	1	\$562
70 min internal (197m half load)	standard	2	\$660
Set up for internal (less batteries)	standard	3	\$83
set up for external battery pack <sup>1</sup>	standard	4	\$39

<sup>1</sup> Includes External Battery Connector. Order desired external battery pack as a separate line.

See page 1.15k-3.

<sup>2</sup> Required for external battery pack 10me

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option available <sup>1</sup>	0	\$0

<sup>1</sup> External maintenance bypass switch available for hardwired systems. Order desired maintenance bypass switch as a separate line item on your order. See page 1.15k-3.

# FE1.15kVA CTO Configuration Guide

Input Connection			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired <sup>1</sup>	A	\$41
120 volt	5-15P w/6' Line Cord <sup>2</sup>	B	\$ 0
	5-20P w/6' Line Cord <sup>2</sup>	C	\$25 <sup>3</sup>
208, 220, 240	6-15P w/6' Line Cord	E	\$ 0
	L6-20P w/6' Line Cord	K	\$60
	L6-30P w/6' Line Cord	L	\$60

<sup>1</sup> Hardwired input requires hardwired output

<sup>2</sup> Cannot be used with 15 Amp battery charger

## Output Connection Digits 7-14

Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Three output slots available when a NEMA line cord is selected
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all four receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection	CTO Order Code		Option Price per Panel	
		Type	Qty		
Any	Hardwired <sup>1</sup>	A	___	\$0	
120 volt Choose up to three panels	5-15R Duplex	B	___	\$0	
	5-20R Duplex (UL)	C	___	\$50	
208, 220, or 240 volt Choose up to three panels	6-15R Duplex	D	___	\$75	
	6-20R Duplex	E	___	\$75	
120 volt Choose up to three panels	L5-15R Duplex	G	___	\$75	
	L5-20R	H	___	\$75	
	L5-30R	I	___	\$75	
208, 220, or 240 volt Choose up to three panels	L6-15R Duplex	J	___	\$75	
	L6-20R	K	___	\$75	
	L6-30R	L	___	\$75	
120/240 volt Choose up to three panels	L14-20R	M	___	\$75	
	L14-30R	N	___	\$75	
Receptacle Output Connection CTO Order Code		__	__	__	<u>A0</u>
Hardwire Output Connection CTO Order Code		A0	A0	A0	A0

<sup>1</sup> Hardwired output requires hardwired input

# FE1.15kVA CTO Configuration Guide

Internal Options		Digit 15
Option	CTO Order Code	Option Price
No other option	A	\$0
AVR (recommended when loads contain PFC power supplies)	B*	\$85
Anchor Kit for structural slab floor	D	\$170
Anchor Kit for raised or access floor	E	\$170
AVR and Anchor Kit for structural slab floor	I*	\$255
AVR and Anchor Kit for raised or access floor	J*	\$255
Neutral to Ground bond removal (For Shipboard Use)	Q	\$25
Neutral to Ground bond removal and AVR (For Shipboard Use)	R*	\$110

\* AVR board only available on the 120V (input) model. No AVR board on high voltage models.

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

External Battery Packs			
Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
3h15m/9h11m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	8me	\$4,477
3h50m/10h50m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	9me	\$4,888
6h30m/18h23m	15 Amp Battery Charger Upgrade <sup>1</sup>	10me	\$8,403

<sup>1</sup>Order battery charger as part of UPS. See page 1.15k-1.

## External Battery Accessories

Option	Order Number	List Price
External Battery Connector Extension (72") Also recommended for third-party external battery configurations.	BCS-0108	\$131

## External Maintenance Bypass Switches<sup>1</sup> (Recommended for hardwired units)

UPS Input Voltage	Switch Type	Order Number	List Price
120	MBB (Make Before Break)	BPE01MBB1A	\$663
	MBB, with AS/400 (iSeries) Option	BPE01MBBAS1A	\$690
208, 220	BBM (Break Before Make)	BPE02BBM1A	\$909
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$950
240	MBB (Make Before Break)	BPE02MBB1A	\$909
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$950

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

# FE1.4kVA CTO Configuration Guide

## Ferrups 1.4kVA 60Hz Tower General Specifications

Capacity:	1.4kVA/ 1.0kW	Dimensions:	15.1" x 15.2" x 20.2"
Input Voltage:	120, 208, 220, 240 V	(HxWxD)	385mm x 390mm x 515mm
Output Voltage:	120, 120/208, 120/240, 240, 127/240 V	Weight (with batteries <sup>1</sup> ):	122lb / 55kg
		Weight (without batteries):	106lb / 48kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

1. Weights are approximate for standard batteries, option 0 for digit4.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE1.4kVA, 60 Hz Tower	FE	\$4,313

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$0
208	120/208	1	\$130
208	120/240	2	\$130
240	120/240	3	\$130
240	240 (International Models)	6	\$130
220	127/220	7	\$130

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
11 minute internal (31m half load)	standard	0	\$249
22 minute internal (62m half load)	standard	1	\$516
45 min internal (127m half load)	standard	2	\$630
Set up for internal (less batteries)	standard	3	\$75
set up for external battery pack <sup>1</sup>	standard	4	\$17

<sup>1</sup> Includes External Battery Connector. Order desired external battery pack as a separate line. See page 1.4k-3.

<sup>2</sup> Required for external battery pack 10me

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option available <sup>1</sup>	0	\$0

<sup>1</sup> External maintenance bypass switch available for hardwired systems. Order desired maintenance bypass switch as a separate line item on your order. See page 1.4k-3.



# FE1.4kVA CTO Configuration Guide

Input Connection			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired <sup>1</sup>	A	\$41
120 volt	5-15P w/6' Line Cord <sup>2</sup>	B	\$ 0
	5-20P w/6' Line Cord <sup>2</sup>	C	\$25 <sup>3</sup>
208, 220, 240	6-15P w/6' Line Cord	E	\$ 0
	L6-20P w/6' Line Cord	K	\$60
	L6-30P w/6' Line Cord	L	\$60

<sup>1</sup> Hardwired input requires hardwired output

<sup>2</sup> Cannot be used with 15 Amp battery charger

Output Connection	Digits 7-14
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Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Three output slots available when a NEMA line cord is selected
- Two output slots available when an international line cord is selected.
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all four receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection	CTO Order Code		Option Price per Panel
		Type	Qty	
Any	Hardwired <sup>1</sup>	A	0	\$0
120 volt Choose up to three panels	5-15R Duplex	B	___	\$0
	5-20R Duplex (UL)	C	___	\$50
208, 220, or 240 volt Choose up to three panels	6-15R Duplex	D	___	\$75
	6-20R Duplex	E	___	\$75
120 volt Choose up to three panels	L5-15R Duplex	G	___	\$75
	L5-20R	H	___	\$75
	L5-30R	I	___	\$75
208, 220, or 240 volt Choose up to three panels	L6-15R Duplex	J	___	\$75
	L6-20R	K	___	\$75
	L6-30R	L	___	\$75
120/240 volt Choose up to three panels	L14-20R	M	___	\$75
	L14-30R	N	___	\$75
Receptacle Output Connection CTO Order Code		__	__	__
Hardwire Output Connection CTO Order Code		A 0	A 0	A 0

<sup>1</sup> Hardwired output requires hardwired input

# FE1.4kVA CTO Configuration Guide

Internal Options		Digit 15
Internal Options	CTO Order Code	Option Price
No other option	A*	\$0
AVR (recommended when loads contain PFC power supplies)	B	\$85
Anchor Kit for structural slab floor	D	\$170
Anchor Kit for raised or access floor	E	\$170
AVR and Anchor Kit for structural slab floor	I*	\$255
AVR and Anchor Kit for raised or access floor	J*	\$255
Neutral to Ground bond removal (For Shipboard Use)	Q	\$25
Neutral to Ground bond removal and AVR (For Shipboard Use)	R*	\$110

\* AVR board only available on the 120V (input) model. No AVR board on high voltage models

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

External Battery Packs			
Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
2h20m/6h35m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	8me	\$4,477
3h10m/8h57m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	9me	\$4,888
5h20m/15h5m	15 Amp Battery Charger Upgrade <sup>1</sup>	10me	\$8,403
5h09m/11h30m	Standard Battery Charger <sup>1</sup>	11me	\$9,307
6h07m/14h06m	15 Amp Battery Charger Upgrade <sup>1</sup>	12me	\$12,380
8h30m/18h53m	15 Amp Battery Charger Upgrade <sup>1</sup>	13me	\$15,113
12h08m/27h06m	15 Amp Battery Charger Upgrade <sup>1</sup>	14me	\$18,548
18h52m/44h45m	15 Amp Battery Charger Upgrade <sup>1</sup>	15me	\$25,081

<sup>1</sup>Order battery charger as part of UPS. See page 1.4k-1.

## External Battery Accessories

Option	Order Number	List Price
External Battery Connector Extension (72") Also recommended for third-party external battery configurations.	BCS-0108	\$131

# FE1.4kVA CTO Configuration Guide

<b>External Maintenance Bypass Switches<sup>1</sup> (Recommended for hardwired units)</b>			
<b>UPS Input Voltage</b>	<b>Switch Type</b>	<b>Order Number</b>	<b>List Price</b>
120	MBB (Make Before Break)	BPE01MBB1A	\$663
	MBB, with AS/400 (iSeries) Option	BPE01MBBAS1A	\$690
208, 220	BBM (Break Before Make)	BPE02BBM1A	\$909
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$950
240	MBB (Make Before Break)	BPE02MBB1A	\$909
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$950

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

# FE1.8kVA CTO Configuration Guide

## Ferrups 1.8kVA 60Hz Tower General Specifications

Capacity:	1.8kVA/ 1.25kW	Dimensions:	21.2" x 15.25" x 22.9"
Input Voltage:	120, 208, 220, 240 V	(HxWxD)	540mm x 390mm x 585mm
Output Voltage:	120, 120/208, 120/240, 240, 127/240 V	Weight (with batteries <sup>1</sup> ):	176lb / 80kg
		Weight (without batteries):	120lb / 54kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

1. Weights are approximate for standard batteries, option 0 for digit4.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE1.8kVA, 60 Hz Tower	FF	\$5,864

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$0
208	120/208	1	\$145
208	120/240	2	\$145
240	120/240	3	\$145
240	240 (International Models)	6	\$145
220	127/220	7	\$145

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
11 minute internal (30m half load)	standard	0	\$615
86 min internal (206m half load)	standard	1	\$1,136
Set up for internal (less batteries)	standard	3	\$210
set up for external battery pack <sup>1</sup>	standard	4	\$88

<sup>1</sup> Includes External Battery Connector. Order desired external battery pack as a separate line. See page 1.8k-4.

<sup>2</sup> Required for external battery packs 12me – 15me

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option available <sup>1</sup>	0	\$0

<sup>1</sup> External maintenance bypass switch available for hardwired systems.

Order desired maintenance bypass switch as a separate line item on your order. See page 1.8k-4.

# FE1.8kVA CTO Configuration Guide

Input Connection			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired <sup>1</sup>	A	\$41
120 volt	5-20P w/6' Line Cord <sup>2</sup>	C	\$ 0
	5-50P w/6' Line Cord	D	\$90
	L5-20P w/6' Line Cord <sup>2</sup>	I	\$25
	L5-30P w/6' Line Cord <sup>2</sup>	J	\$60
208, 220, 240	6-15P w/6' Line Cord <sup>2</sup>	E	\$ 0
	L6-20P w/6' Line Cord	K	\$60
	L6-30P w/6' Line Cord	L	\$60

<sup>1</sup> Hardwired input requires hardwired output

<sup>2</sup> Cannot be used with 15 Amp battery charger

Output Connection	Digits 7-14
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Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Three output slots available when a NEMA line cord is selected
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all four receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection	CTO Order Code		Option Price per Panel	
		Type	Qty		
Any	Hardwired <sup>1</sup>	A	___	\$0	
120 volt Choose up to three panels	5-15R Duplex	B	___	\$50	
	5-20R Duplex (UL)	C	___	\$50 <sup>2</sup>	
208, 220, or 240 volt Choose up to three panels	6-15R Duplex	D	___	\$75	
	6-20R Duplex	E	___	\$75	
120 volt Choose up to three panels	L5-15R Duplex	G	___	\$75	
	L5-20R	H	___	\$75	
	L5-30R	I	___	\$75	
208, 220, or 240 volt Choose up to three panels	L6-15R Duplex	J	___	\$75	
	L6-20R	K	___	\$75	
	L6-30R	L	___	\$75	
120/240 volt Choose up to three panels	L14-20R	M	___	\$75	
	L14-30R	N	___	\$75	
Receptacle Output Connection CTO Order Code		__	__	__	A0
Hardwire Output Connection CTO Order Code		A0	A0	A0	A0

<sup>1</sup> Hardwired output requires hardwired input

# FE1.8kVA CTO Configuration Guide

Internal Options		Digit 15
Internal Options	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor	I	\$195
DVR and Anchor Kit for raised or access floor	J	\$195
Neutral to Ground bond removal and DVR (For Shipboard Use)	R	\$25

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

External Battery Packs			
Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
2h12m/4h53m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	9me	\$4,888
3h38m/8h22m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	10me	\$8,403
5h09m/11h30m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	11me	\$9,307
6h07m/14h06m	15 Amp Battery Charger Upgrade <sup>1</sup>	12me	\$12,380
8h30m/18h53m	15 Amp Battery Charger Upgrade <sup>1</sup>	13me	\$15,113
12h08m/27h06m	15 Amp Battery Charger Upgrade <sup>1</sup>	14me	\$18,548
18h52m/44h45m	15 Amp Battery Charger Upgrade <sup>1</sup>	15me	\$25,081

<sup>1</sup>Order battery charger as part of UPS. See page 1.8k-1.

External Battery Accessories		
Option	Order Number	List Price
External Battery Connector Extension (72") Also recommended for third-party external battery configurations.	BCS-0108	\$131

External Maintenance Bypass Switches <sup>1</sup> (Recommended for hardwired units)			
UPS Input Voltage	Switch Type	Order Number	List Price
120	MBB (Make Before Break)	BPE01MBB1A	\$663
	MBB, with AS/400 (iSeries) Option	BPE01MBBAS1A	\$690
208, 220	BBM (Break Before Make)	BPE02BBM1A	\$909
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$950
240	MBB (Make Before Break)	BPE02MBB1A	\$909
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$950

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

# FE2.1kVA CTO Configuration Guide

## Ferrups 2.1kVA 60Hz Tower General Specifications

Capacity:	2.1kVA/ 1.5kW	Dimensions:	21.2" x 15.25" x 22.9"
Input Voltage:	120, 208, 220, 240 V	(HxWxD)	540mm x 390mm x 585mm
Output Voltage:	120, 120/208, 120/240, 240, 127/240 V	Weight (with batteries <sup>1</sup> ):	188lb / 85kg
		Weight (without batteries):	132lb / 60kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

1. Weights are approximate for standard batteries, option 0 for digit4.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE2.1kVA, 60 Hz Tower	FG	\$6,553

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$0
208	120/208	1	\$145
208	120/240	2	\$145
240	120/240	3	\$145
240	240 (International Models)	6	\$145
220	127/220	7	\$145

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
9 minute internal (25m half load)	standard	0	\$626
66 min internal (163m half load)	standard	1	\$1,137
Set up for internal (less batteries)	standard	3	\$210
set up for external battery pack <sup>1</sup>	standard	4	\$88

<sup>1</sup> Includes External Battery Connector

Order desired external battery pack as a separate line. See page 2.1k-4.

<sup>2</sup> Required for external battery packs 12me – 15me

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option available <sup>1</sup>	0	\$0

<sup>1</sup> External maintenance bypass switch available for hardwired systems.

Order desired maintenance bypass switch as a separate line item on your order. See page 2.1k-4.

# FE2.1kVA CTO Configuration Guide

Input Connection			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired <sup>1</sup>	A	\$41
120 volt	5-20P w/6' Line Cord <sup>2</sup>	C	\$ 0
	5-50P w/6' Line Cord	D	\$90
	L5-20P w/6' Line Cord <sup>2</sup>	I	\$25
	L5-30P w/6' Line Cord <sup>2</sup>	J	\$60
208, 220, 240	6-15P w/6' Line Cord <sup>2</sup>	E	\$ 0
	L6-20P w/6' Line Cord	K	\$60
	L6-30P w/6' Line Cord	L	\$60

<sup>1</sup> Hardwired input requires hardwired output

<sup>2</sup> Cannot be used with 15 Amp battery charger

Output Connection	Digits 7-14
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Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Three output slots available when a NEMA line cord is selected.
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all four receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0.

Output Voltage Required	Output Connection	CTO Order Code		Option Price per Panel	
		Type	Qty		
Any	Hardwired <sup>1</sup>	A	___	\$0	
120 volt Choose up to three panels	5-15R Duplex	B	___	\$50	
	5-20R Duplex (UL)	C	___	\$50 <sup>2</sup>	
208, 220, or 240 volt Choose up to three panels	6-15R Duplex	D	___	\$75	
	6-20R Duplex	E	___	\$75	
120 volt Choose up to three panels	L5-15R Duplex	G	___	\$75	
	L5-20R	H	___	\$75	
	L5-30R	I	___	\$75	
208, 220, or 240 volt Choose up to three panels	L6-15R Duplex	J	___	\$75	
	L6-20R	K	___	\$75	
	L6-30R	L	___	\$75	
120/240 volt Choose up to three panels	L14-20R	M	___	\$75	
	L14-30R	N	___	\$75	
Receptacle Output Connection CTO Order Code		__	__	__	A0
Hardwire Output Connection CTO Order Code		A0	A0	A0	A0

<sup>1</sup> Hardwired output requires hardwired input



# FE2.1kVA CTO Configuration Guide

Internal Options		Digit 15
Internal Options	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor	I	\$195
DVR and Anchor Kit for raised or access floor	J	\$195
Neutral to Ground bond removal and DVR (For Shipboard Use)	R	\$25

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

## External Battery Packs

Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
1h41m/3h54m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	9me	\$4,888
2h50m/6h37m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	10me	\$8,403
4h03m/9h10m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	11me	\$9,307
4h46m/11h08m	15 Amp Battery Charger Upgrade <sup>1</sup>	12me	\$12,380
6h42m/15h04m	15 Amp Battery Charger Upgrade <sup>1</sup>	13me	\$15,113
9h33m/21h36m	15 Amp Battery Charger Upgrade <sup>1</sup>	14me	\$18,548
15h12m/36h28m	15 Amp Battery Charger Upgrade <sup>1</sup>	15me	\$25,081

<sup>1</sup>Order battery charger as part of UPS. See page 2.1k-1.

## External Battery Accessories

Option	Order Number	List Price
External Battery Connector Extension (72") Also recommended for third-party external battery configurations.	BCS-0108	\$131

## External Maintenance Bypass Switches<sup>1</sup> (Recommended for hardwired units)

UPS Input Voltage	Switch Type	Order Number	List Price
120	MBB (Make Before Break)	BPE01MBB1A	\$663
	MBB, with AS/400 (iSeries) Option	BPE01MBBAS1A	\$690
208, 220	BBM (Break Before Make)	BPE02BBM1A	\$909
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$950
240	MBB (Make Before Break)	BPE02MBB1A	\$909
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$950

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

# FE3.1kVA CTO Configuration Guide

## Ferrups 3.1kVA 60Hz Tower General Specifications

Capacity:	3.1kVA/ 2.2kW	Dimensions:	21.2" x 15.25" x 22.9"
Input Voltage:	120, 208, 220, 240 V	(HxWxD)	540mm x 390mm x 585mm
Output Voltage:	120, 120/208, 120/240, 240, 127/240 V	Weight (with batteries <sup>1</sup> ):	248lb / 112kg
		Weight (without batteries):	144lb / 65kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

1. Weights are approximate for standard batteries, option 0 for digit4.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE3.1kVA, 60 Hz Tower	FH	\$8,364

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$0
208	120/208	1	\$145
208	120/240	2	\$145
240	120/240	3	\$145
240	240 (International Models)	6	\$145
220	127/220	7	\$145

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
14 minute internal (35m half load)	standard	0	\$680
37 minute internal (98m half load)	standard	1	\$1,140
Set up for internal (less batteries)	standard	3	\$210
set up for external battery pack <sup>1</sup>	standard	4	\$88

<sup>1</sup> Includes External Battery Connector

Order desired external battery pack as a separate line. See page 3.1k-3.

<sup>2</sup> Required for external battery packs 12me – 15me

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option available <sup>1</sup>	0	\$0

<sup>1</sup> External maintenance bypass switch available for hardwired systems.

Order desired maintenance bypass switch as a separate line item on your order. See page 3.1k-4.

# FE3.1kVA CTO Configuration Guide

Input Connection			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired <sup>1</sup>	A	\$41
120 volt	5-50P w/6' Line Cord	D	\$90
	L5-30P w/6' Line Cord <sup>2</sup>	J	\$ 0
208, 220, 240	6-15P w/6' Line Cord <sup>2,3</sup>	E	\$ 0
	L6-20P w/6' Line Cord <sup>2</sup>	K	\$60
	L6-30P w/6' Line Cord	L	\$60

<sup>1</sup> Hardwired input requires hardwired output

<sup>2</sup> Cannot be used with 15 Amp battery charger

<sup>3</sup> Cannot be used with 208 volt input

## Output Connection Digits 7-14

### Output Connection Configuration

Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Three output slots available when a NEMA line cord is selected
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all four receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection	CTO Order Code		Option Price per Panel	
		Type	Qty		
Any	Hardwired <sup>1</sup>	A	0	\$0	
120 volt Choose up to three panels	5-15R Duplex	B	___	\$50	
	5-20R Duplex (UL)	C	___	\$50 <sup>2</sup>	
208, 220, or 240 volt Choose up to three panels	6-15R Duplex	D	___	\$75	
	6-20R Duplex	E	___	\$75	
120 volt Choose up to three panels	L5-15R Duplex	G	___	\$75	
	L5-20R	H	___	\$75	
	L5-30R	I	___	\$75	
208, 220, or 240 volt Choose up to three panels	L6-15R Duplex	J	___	\$75	
	L6-20R	K	___	\$75	
	L6-30R	L	___	\$75	
120/240 volt Choose up to three panels	L14-20R	M	___	\$75	
	L14-30R	N	___	\$75	
Receptacle Output Connection CTO Order Code		__	__	__	A0
Hardwire Output Connection CTO Order Code		A0	A0	A0	A0

<sup>1</sup> Hardwired output requires hardwired input

# FE3.1kVA CTO Configuration Guide

Internal Options		Digit 15
Internal Options	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor	I	\$195
DVR and Anchor Kit for raised or access floor	J	\$195
Neutral to Ground bond removal and DVR (For Shipboard Use)	R	\$25

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

External Battery Packs			
Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
57m/2h27m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	9me	\$4,888
1h41m/4h03m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	10me	\$8,403
2h29m/5h44m	Standard Battery Charger <sup>1</sup> 15 Amp Battery Charger Upgrade Optional	11me	\$9,307
2h52m/6h50m	15 Amp Battery Charger Upgrade <sup>1</sup>	12me	\$12,380
4h07m/9h27m	15 Amp Battery Charger Upgrade <sup>1</sup>	13me	\$15,113
5h52m/13h30m	15 Amp Battery Charger Upgrade <sup>1</sup>	14me	\$18,548
9h41m/22h18m	15 Amp Battery Charger Upgrade <sup>1</sup>	15me	\$25,081

<sup>1</sup>Order battery charger as part of UPS. See page 3.1k-1.

## External Battery Accessories

Option	Order Number	List Price
External Battery Connector Extension (72") Also recommended for third-party external battery configurations.	BCS-0108	\$131

## External Maintenance Bypass Switches<sup>1</sup> (Recommended for hardwired units)

UPS Input Voltage	Switch Type	Order Number	List Price
120 <sup>2</sup>	MBB (Make Before Break)	BPE01MBB1A	\$663
	MBB, with AS/400 (iSeries) Option	BPE01MBBAS1A	\$690
208, 220	BBM (Break Before Make)	BPE02BBM1A	\$909
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$950
240	MBB (Make Before Break)	BPE02MBB1A	\$909
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$950

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

<sup>2</sup> Use 240 volt maintenance bypass switch if 15 Amp battery charger is selected. See page 3.1k-1.

# FE4.3kVA CTO Configuration Guide

## Ferrups 4.3kVA 60Hz Tower General Specifications

Capacity:	4.3kVA/ 3.0kW	Dimensions:	29.5" x 15.5" x 25"
Input Voltage:	120, 208, 220, 240 V	(HxWxD)	750mm x 395mm x 635mm
Output Voltage:	120, 120/208, 120/240, 240	Weight (with batteries <sup>1</sup> ):	348lb / 158kg
		Weight (without batteries):	243lb / 110kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

1. Weights are approximate for standard batteries, option 0 for digit4.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE4.3kVA, 60 Hz Tower	FI	\$12,525

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$279
208	120/208	1	\$0
208	120/240	2	\$0
240	120/240	3	\$0
220	220	4	\$279
240	240 (International Models)	6	\$0

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
10 minute internal (24 m half load)	standard	0	\$673
27 minute internal (66 m half load)	standard	1	\$1,209
Set up for internal (less batteries)	standard	3	\$216
set up for external battery pack	standard	4	\$0
set up for external battery pack <sup>1</sup>	10 amp internal upgrade <sup>2</sup>	5	\$270
set up for external battery pack <sup>1</sup>	20 amp internal upgrade <sup>3</sup>	7	\$624

<sup>1</sup> Order desired external battery pack as a separate line. See page 4.3k-4.

<sup>2</sup> Required for external battery packs 4fe – 5fe

<sup>3</sup> Required for external battery packs 6fe – 7fe

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option <sup>1</sup>	0	\$0
Internal maintenance bypass switch option – MBB <sup>2</sup>	1	\$725
Internal maintenance bypass switch option - BBM	2	\$625

AS/400 (iSeries) contacts included with Options 1 and 2.

<sup>1</sup> External maintenance bypass switch also available for hardwired systems.

Order desired maintenance bypass switch as a separate line item on your order. See page 4.3k-4.

<sup>2</sup> Cannot be used with 208 or 220 input voltage.

# FE4.3kVA CTO Configuration Guide

Input Connection			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired	A	\$0
120 volt	5-50P w/6' Line Cord	D	\$120
208, 220, 240 volt	6-50P w/6' Line Cord <sup>1</sup>	F	\$120
	L6-30P w/6' Line Cord <sup>1</sup>	L	\$100
	L14-30 w/6' Line Cord <sup>2</sup>	M	\$125

<sup>1</sup> Cannot be used with internal maintenance bypass switch.

<sup>2</sup> UPS must have internal maintenance bypass switch.

# FE4.3kVA CTO Configuration Guide

## Output Connection

Digits 7-14

Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Four output slots available.
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection	CTO Order Code		Option Price per Panel
		Type	Qty	
Any	Hardwired <sup>1</sup>	A	0	\$0
120 volt	5-15R Duplex	B	___	\$50
	5-20R Duplex (UL)	C	___	\$50
208, 220, or 240 volt	6-15R Duplex	D	___	\$75
	6-20R Duplex	E	___	\$75
120 volt	L5-15R Duplex	G	___	\$75
	L5-20R	H	___	\$75
	L5-30R	I	___	\$75
208, 220, or 240 volt	L6-15R Duplex	J	___	\$75
	L6-20R	K	___	\$75
	L6-30R	L	___	\$75
120/240 volt	L14-20R	M	___	\$75
	L14-30R	N	___	\$75
120 volt	15 Amp / 1 pole Circuit Breaker <sup>2</sup>	V	___	\$60
All voltages except 120 volt	15 Amp / 2 pole Circuit Breaker <sup>2</sup>	W	___	\$60
120 volt	20 Amp / 1 pole Circuit Breaker <sup>2</sup>	X	___	\$60
All voltages except 120 volt	20 Amp / 2 pole Circuit Breaker <sup>2</sup>	Y	___	\$60
120 volt	30 Amp / 1 pole Circuit Breaker <sup>2</sup>	Z	___	\$60
All voltages except 120 volt	30 Amp / 2 pole Circuit Breaker <sup>2</sup>	2	___	\$60
Receptacle Output Connection CTO Order Code		__	__	
Hardwire Output Connection CTO Order Code		A 0	A 0	

<sup>1</sup> Hardwired output requires hardwired input

<sup>2</sup> Internal maintenance bypass switch option required for circuit breaker output connections

## Internal Options

Digit 15

Internal Options	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor	I	\$323
DVR and Anchor Kit for raised or access floor	J	\$323
Neutral to Ground bond removal and DVR (For shipboard use)	R	\$25

# FE4.3kVA CTO Configuration Guide

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

### External Battery Packs

Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
40m/1h42m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	1fe	\$6,038
1h11m/2h51m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	2fe	\$8,456
1h49m/4h5m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	3fe	\$9,371
2h6m/4h49m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	4fe	\$12,494
3h4m/6h46m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	5fe	\$15,269
4h27m/9h39m	20 Amp Battery Charger Upgrade <sup>1</sup>	6fe	\$18,379
7h12m/15h56m	20 Amp Battery Charger Upgrade <sup>1</sup>	7fe	\$25,382

<sup>1</sup>Order battery charger as part of UPS. See page 4.3k-1.

### External Maintenance Bypass Switches<sup>1</sup> (Recommended for hardwired units)

UPS Input Voltage	Switch Type	Order Number	List Price
208, 220 volt	BBM (Break Before Make)	BPE02BBM1A	\$909
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$950
120, 240 volt	MBB (Make Before Break)	BPE02MBB1A	\$909
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$950

<sup>1</sup>Bypass Switch must be mounted on the wall near the UPS.



# FE5.3kVA CTO Configuration Guide

## Ferrups 5.3kVA 60Hz Tower General Specifications

Capacity:	5.3kVA/ 3.7kW	Dimensions:	29.5" x 15.5" x 25"
Input Voltage:	120, 208, 220, 240 V	(HxWxD)	750mm x 395mm x 635mm
Output Voltage:	120, 120/208, 120/240, 240	Weight (with batteries <sup>1</sup> ):	484lb / 220kg
		Weight (without batteries):	268lb / 122kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

1. Weights are approximate for standard batteries, option 0 for digit4.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE5.3kVA, 60 Hz Tower	FJ	\$13,786

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$279
208	120/208	1	\$0
208	120/240	2	\$0
240	120/240	3	\$0
220	220	4	\$279
240	240 (International Models)	6	\$0

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
20 minute internal (50 m half load)	standard	0	\$1,166
Set up for internal (less batteries)	standard	3	\$388
set up for external battery pack	standard	4	\$0
set up for external battery pack <sup>1</sup>	10 amp internal upgrade <sup>2</sup>	5	\$270
set up for external battery pack <sup>1</sup>	20 amp internal upgrade <sup>3</sup>	7	\$624

<sup>1</sup> Order desired external battery pack as a separate line. See page 5.3k-4.

<sup>2</sup> Required for external battery packs 4fe – 5fe

<sup>3</sup> Required for external battery packs 6fe – 7fe

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option <sup>1</sup>	0	\$0
Internal maintenance bypass switch option – MBB <sup>2</sup>	1	\$825
Internal maintenance bypass switch option - BBM	2	\$725

AS/400 (iSeries) contacts included with Options 1 and 2.

<sup>1</sup> External maintenance bypass switch also available for hardwired systems.

Order desired maintenance bypass switch as a separate line item on your order. See page 5.3k-4.

<sup>2</sup> Cannot be used with 208 or 220 input voltage.

# FE5.3kVA CTO Configuration Guide

<b>Input Connection</b>			<b>Digit 6</b>
<b>Input Voltage Selected</b>	<b>Input Connection</b>	<b>CTO Order Code</b>	<b>Option Price</b>
Any	Hardwired	A	\$0
120 volt	5-50P w/6' Line Cord <sup>1</sup>	D	\$120
208, 220, 240 volt	6-50P w/6' Line Cord <sup>4</sup>	F	\$120
	L6-30P w/6' Line Cord <sup>2,3,4</sup>	L	\$100
	L14-30 w/6' Line Cord <sup>2,3,5</sup>	M	\$125

<sup>1</sup> Cannot be used with 10 or 20 Amp battery charger.

<sup>2</sup> Cannot be used with 208 volt and 20 Amp battery charger.

<sup>3</sup> Cannot be used with 220 volt and 20 Amp battery charger.

<sup>4</sup> Cannot be used with internal maintenance bypass switch.

<sup>5</sup> UPS must have internal maintenance bypass switch.

# FE5.3kVA CTO Configuration Guide

## Output Connection

Digits 7-14

Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Four output slots available.
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection	CTO Order Code		Option Price per Panel
		Type	Qty	
Any	Hardwired <sup>1</sup>	A	0	\$0
120 volt	5-15R Duplex	B	___	\$50
	5-20R Duplex (UL)	C	___	\$50
208, 220, or 240 volt	6-15R Duplex	D	___	\$75
	6-20R Duplex	E	___	\$75
120 volt	L5-15R Duplex	G	___	\$75
	L5-20R	H	___	\$75
	L5-30R	I	___	\$75
208, 220, or 240 volt	L6-15R Duplex	J	___	\$75
	L6-20R	K	___	\$75
	L6-30R	L	___	\$75
120/240 volt	L14-20R	M	___	\$75
	L14-30R	N	___	\$75
120 volt	15 Amp / 1 pole Circuit Breaker <sup>2</sup>	V	___	\$60
All voltages except 120 volt	15 Amp / 2 pole Circuit Breaker <sup>2</sup>	W	___	\$60
120 volt	20 Amp / 1 pole Circuit Breaker <sup>2</sup>	X	___	\$60
All voltages except 120 volt	20 Amp / 2 pole Circuit Breaker <sup>2</sup>	Y	___	\$60
120 volt	30 Amp / 1 pole Circuit Breaker <sup>2</sup>	Z	___	\$60
All voltages except 120 volt	30 Amp / 2 pole Circuit Breaker <sup>2</sup>	2	___	\$60
Receptacle Output Connection CTO Order Code		__	__	__
Hardwire Output Connection CTO Order Code		A 0	A 0	A 0

<sup>1</sup> Hardwired output requires hardwired input

<sup>2</sup> Internal maintenance bypass switch option required for circuit breaker output connections

# FE5.3kVA CTO Configuration Guide

Internal Options		Digit 15
Internal Options	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor	I	\$323
DVR and Anchor Kit for raised or access floor	J	\$323
Neutral to Ground bond removal and DVR (For shipboard use)	R	\$25

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

External Battery Packs			
Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
27m/1h14m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	1fe	\$6,038
49m/2h10m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	2fe	\$8,456
1h12m/3h8m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	3fe	\$9,371
1h27m/3h39m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	4fe	\$12,494
2h13m/5h11m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	5fe	\$15,269
3h8m/7h22m	20 Amp Battery Charger Upgrade <sup>1</sup>	6fe	\$18,379
5h10m/12h10m	20 Amp Battery Charger Upgrade <sup>1</sup>	7fe	\$25,382

<sup>1</sup>Order battery charger as part of UPS. See page 5.3k-1.

External Maintenance Bypass Switches <sup>1</sup> (Recommended for hardwired units)			
UPS Input Voltage	Switch Type	Order Number	List Price
120 volt	MBB (Make Before Break)	BPE04MBB1A	\$1,202
	MBB with AS/400 (iSeries) Option	BPE04MBBAS1A	\$1,202
	MBB with Locking Handle	BPE04MBB1A/L	\$1,475
208, 220 volt	BBM (Break Before Make)	BPE02BBM1A	\$909
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$950
240 volt	MBB (Make Before Break)	BPE02MBB1A	\$909
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$950

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

# FE7kVA CTO Configuration Guide

## Ferrups 7.0kVA 60Hz Tower General Specifications

Capacity:	7.0kVA/ 5.0kW	Dimensions:	36.5" x 19.0" x 32.0"
Input Voltage:	120, 208, 220, 240 V	(HxWxD)	930mm x 485mm x 815mm
Output Voltage:	120, 220, 120/208, 120/240, 240	Weight (with batteries <sup>1</sup> ):	578lb / 262kg
		Weight (without batteries):	362lb / 164kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

1. Weights are approximate for standard batteries, option 0 for digit 4.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE7kVA, 60 Hz Tower	FK	\$17,866

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$279
208	120/208	1	\$0
208	120/240	2	\$0
240	120/240	3	\$0
220	220	4	\$279
240	240 (International Models)	6	\$0

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
12 minute internal (33 m half load)	standard	0	\$1,126
18 minute internal (50 m half load)	standard	1	\$1,690
Set up for internal (less batteries)	standard	3	\$388
set up for external battery pack	standard	4	\$0
set up for external battery pack <sup>1</sup>	10 amp internal upgrade <sup>2</sup>	5	\$270
set up for external battery pack <sup>1</sup>	20 amp internal upgrade <sup>3</sup>	7	\$624

<sup>1</sup> Order desired external battery pack as a separate line. See page 7k-3.

<sup>2</sup> Required for external battery packs 4fe – 5fe

<sup>3</sup> Required for external battery packs 6fe – 7fe

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option <sup>1</sup>	0	\$0
Internal maintenance bypass switch option – MBB <sup>2</sup>	1	\$900
Internal maintenance bypass switch option - BBM	2	\$800

AS/400 (iSeries) contacts included with Options 1 and 2.

<sup>1</sup> External maintenance bypass switch also available for hardwired systems.

Order desired maintenance bypass switch as a separate line item on your order. See page 7k-3.

<sup>2</sup> Cannot be used with 208 or 220 volt input

# FE7kVA CTO Configuration Guide

Input Connection			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired	A	\$0
208, 220, 240 volt	6-50P w/6' Line Cord <sup>1</sup>	F	\$120

<sup>1</sup> Cannot be used with internal maintenance bypass switch.

Output Connection	Digits 7-14
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Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Up to four output slots available without internal maintenance bypass switch option.
- Up to eight output slots available when internal maintenance bypass switch option is selected.
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection	CTO Order Code		Option Price per Panel
		Type	Qty	
Any	Hardwired <sup>1</sup>	A	0	\$0
120 volt	5-15R Duplex	B	___	\$50
	5-20R Duplex (UL)	C	___	\$50
208, 220, or 240 volt	6-15R Duplex	D	___	\$75
	6-20R Duplex	E	___	\$75
120 volt	L5-15R Duplex	G	___	\$75
	L5-20R	H	___	\$75
	L5-30R	I	___	\$75
208, 220, or 240 volt	L6-15R Duplex	J	___	\$75
	L6-20R	K	___	\$75
	L6-30R	L	___	\$75
120/240 volt	L14-20R	M	___	\$75
	L14-30R	N	___	\$75
120 volt	15 Amp / 1 pole Circuit Breaker <sup>2</sup>	V	___	\$60
All voltages except 120 volt	15 Amp / 2 pole Circuit Breaker <sup>2</sup>	W	___	\$60
120 volt	20 Amp / 1 pole Circuit Breaker <sup>2</sup>	X	___	\$60
All voltages except 120 volt	20 Amp / 2 pole Circuit Breaker <sup>2</sup>	Y	___	\$60
120 volt	30 Amp / 1 pole Circuit Breaker <sup>2</sup>	Z	___	\$60
All voltages except 120 volt	30 Amp / 2 pole Circuit Breaker <sup>2</sup>	2	___	\$60
Receptacle Output Connection CTO Order Code		--	--	--
Hardwire Output Connection CTO Order Code		A 0	A 0	A 0

<sup>1</sup> Hardwired output requires hardwired input

<sup>2</sup> Internal maintenance bypass switch option required for circuit breaker output connections

# FE7kVA CTO Configuration Guide

Internal Options		Digit 15
Internal Options	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor	I	\$323
DVR and Anchor Kit for raised or access floor	J	\$323
Neutral to Ground bond removal and DVR (For shipboard use)	R	\$25

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

External Battery Packs			
Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
34m/1h28m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	2fe	\$8,456
48m/2h13m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	3fe	\$9,371
60m/2h33m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	4fe	\$12,494
1h32m/3h41m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	5fe	\$15,269
2h16m/5h14m	20 Amp Battery Charger Upgrade <sup>1</sup>	6fe	\$18,379
3h45m/8h39m	20 Amp Battery Charger Upgrade <sup>1</sup>	7fe	\$25,382

<sup>1</sup>Order battery charger as part of UPS. See page 7k-1.

External Maintenance Bypass Switches <sup>1</sup> (Recommended for hardwired units)			
UPS Input Voltage	Switch Type	Order Number	List Price
120 volt	MBB (Make Before Break)	BPE04MBB1A	\$1,202
	MBB with AS/400 (iSeries) Option	BPE04MBBAS1A	\$1,202
	MBB with Locking Handle	BPE04MBB1A/L	\$1,475
208, 220 volt	BBM (Break Before Make)	BPE02BBM1A	\$909
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$950
240 volt	MBB (Make Before Break)	BPE02MBB1A	\$909
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$950

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

# FE10kVA CTO Configuration Guide

## Ferrups 10.0kVA 60Hz Tower General Specifications

Capacity:	10.0kVA/ 7.5kW	Dimensions:	36.5" x 19.0" x 32.0"
Input Voltage:	208, 240 V	(HxWxD)	930mm x 485mm x 815mm
Output Voltage:	120/208, 120/240, 240	Weight (with batteries):	N/A
		Weight (without batteries):	442lb / 200kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE10kVA, 60 Hz Tower	FL	\$21,065

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
208	120/208	1	\$0
208	120/240	2	\$0
240	120/240	3	\$0
240	240 (International Models)	6	\$0

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
set up for external battery pack <sup>1</sup>	standard	4	\$0
set up for external battery pack <sup>1</sup>	10 amp internal upgrade <sup>2</sup>	5	\$435
set up for external battery pack <sup>1</sup>	20 amp internal upgrade <sup>3</sup>	7	\$775

<sup>1</sup> Order desired external battery pack as a separate line. If UPS is to be used with other than a Ferrups battery pack, also order DC Disconnect DCU-0001. See page 10k-3.

<sup>2</sup> Required for external battery packs 12fe – 13fe

<sup>3</sup> Required for external battery packs 14fe – 15fe

Internal Maintenance Bypass Switch			Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price	
No internal maintenance bypass switch option <sup>1,2</sup>	0	\$0	
Internal maintenance bypass switch option – MBB <sup>3</sup>	1	\$900	
Internal maintenance bypass switch option - BBM	2	\$800	

AS/400 (iSeries) contacts included with Options 1 and 2.

<sup>1</sup> Internal maintenance bypass switch required for receptacle or circuit breaker output connections.

<sup>2</sup> External maintenance bypass switch also available. Order desired maintenance bypass switch as a separate line item on your order. See page 10k-3.

<sup>3</sup> Cannot be used with 208 or 220 volt input

Input Connection <sup>1</sup>			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired	A	\$0

<sup>1</sup> Line Cord input connection not available for 10kVA models



# FE10kVA CTO Configuration Guide

## Output Connection

Digits 7-14

Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Internal maintenance bypass switch required for receptacle or circuit breaker output connections.
- Up to eight output slots available when internal maintenance bypass switch option is selected.
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection <sup>1</sup>	CTO Order Code		Option Price per Panel	
		Type	Qty		
Any	Hardwired	A	0	\$0	
120 volt	5-15R Duplex	B	___	\$50	
	5-20R Duplex (UL)	C	___	\$50	
208, 220, or 240 volt	6-15R Duplex	D	___	\$75	
	6-20R Duplex	E	___	\$75	
120 volt	L5-15R Duplex	G	___	\$75	
	L5-20R	H	___	\$75	
	L5-30R	I	___	\$75	
208, 220, or 240 volt	L6-15R Duplex	J	___	\$75	
	L6-20R	K	___	\$75	
	L6-30R	L	___	\$75	
120/240 volt	L14-20R	M	___	\$75	
	L14-30R	N	___	\$75	
120 volt	15 Amp / 1 pole Circuit Breaker	V	___	\$60	
All voltages except 120 volt	15 Amp / 2 pole Circuit Breaker	W	___	\$60	
120 volt	20 Amp / 1 pole Circuit Breaker	X	___	\$60	
All voltages except 120 volt	20 Amp / 2 pole Circuit Breaker	Y	___	\$60	
120 volt	30 Amp / 1 pole Circuit Breaker	Z	___	\$60	
All voltages except 120 volt	30 Amp / 2 pole Circuit Breaker	2	___	\$60	
Receptacle Output Connection CTO Order Code		__	__	__	__
Hardwire Output Connection CTO Order Code		A 0	A 0	A 0	A 0

<sup>1</sup> Internal maintenance bypass switch required for receptacle or circuit breaker output connections

# FE10kVA CTO Configuration Guide

## Internal Options

Internal Options	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor <sup>1</sup>	I	\$300
DVR and Anchor Kit for raised or access floor <sup>1</sup>	J	\$300
Neutral to Ground bond removal and DVR (For shipboard use)	R	\$25

1. Anchor Kits cannot be used with Floor Saver Battery Option

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

## External Battery Packs

Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
11m/26m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	EBPS10F	\$6,693
27m/1h10m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	8fe	\$9,292
41m/1h48m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	9fe	\$12,248
1h13m/2h59m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	10fe	\$18,646
1h51m/4h16m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	11fe	\$20,676
2h09m/5h02m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	12fe	\$27,767
3h07m/7h04m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	13fe	\$35,407
4h26m/10h04m	20 Amp Battery Charger Upgrade <sup>1</sup>	14fe	\$41,112
7h20m/16h38m	20 Amp Battery Charger Upgrade <sup>1,2</sup>	15fe	\$59,721

<sup>1</sup>Order battery charger as part of UPS. See page 10k-1.

<sup>2</sup>Eaton has announced the End of Life of this Ferrups option. Product will be available while supplies last.

## External Battery Accessories

Option	Order Number	List Price
External DC Disconnect Required for all non-Ferrups battery packs.	DCU-0001	\$956

# FE10kVA CTO Configuration Guide

<b>External Maintenance Bypass Switches<sup>1</sup> (Recommended for hardwired units)</b>			
<b>UPS Input Voltage</b>	<b>Switch Type</b>	<b>Order Number</b>	<b>List Price</b>
208, 220, 240 volt	BBM (Break Before Make)	BPE04BBM1A	\$1,086
	BBM with AS/400 (iSeries) Option	BPE04BBMAS1A	\$1,086
	BBM with Locking Handle	BPE04BBM1A/L	\$1,359
240 volt	MBB (Make Before Break)	BPE04MBB1A	\$1,202
	MBB with AS/400 (iSeries) Option	BPE04MBBAS1A	\$1,202
	MBB with Locking Handle	BPE04MBB1A/L	\$1,475

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

# FE12.5kVA CTO Configuration Guide

## Ferrups 12.5kVA 60Hz Tower General Specifications

Capacity:	12.5kVA/ 10.0kW	Dimensions:	36.5" x 19.0" x 32.0"
Input Voltage:	208, 240 V	(HxWxD)	930mm x 485mm x 815mm
Output Voltage:	120/208, 120/240, 240	Weight (with batteries):	N/A
		Weight (without batteries):	505lb / 229kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE12.5kVA, 60 Hz Tower	FM	\$22,492

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
208	120/208	1	\$0
208	120/240	2	\$0
240	120/240	3	\$0
240	240 (International Models)	6	\$0

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
set up for external battery pack <sup>1</sup>	standard	4	\$0
set up for external battery pack <sup>1</sup>	10 amp internal upgrade <sup>2</sup>	5	\$435
set up for external battery pack <sup>1</sup>	20 amp internal upgrade <sup>3</sup>	7	\$775

<sup>1</sup> Order desired external battery pack as a separate line. If UPS is to be used with other than a Ferrups battery pack, also order DC Disconnect DCU-0001. See page 12.5k-3.

<sup>2</sup> Required for external battery packs 12fe – 13fe

<sup>3</sup> Required for external battery packs 14fe – 15fe

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option <sup>1,2</sup>	0	\$0
Internal maintenance bypass switch option – MBB <sup>3</sup>	1	\$900
Internal maintenance bypass switch option - BBM	2	\$800

AS/400 (iSeries) contacts included with Options 1 and 2.

<sup>1</sup> Internal maintenance bypass switch required for receptacle or circuit breaker output connections.

<sup>2</sup> External maintenance bypass switch also available. Order desired maintenance bypass switch as a separate line item on your order. See page 12.5k-3.

<sup>3</sup> Cannot be used with 208 or 220 volt input

Input Connection <sup>1</sup>		Digit 6	
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired	A	\$0

<sup>1</sup> Line Cord input connection not available for 12.5kVA models

# FE12.5kVA CTO Configuration Guide

## Output Connection

Digits 7-14

Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Internal maintenance bypass switch required for receptacle or circuit breaker output connections.
- Up to eight output slots available when internal maintenance bypass switch option is selected.
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection <sup>1</sup>	CTO Order Code		Option Price per Panel	
		Type	Qty		
Any	Hardwired	A	0	\$0	
120 volt	5-15R Duplex	B	___	\$50	
	5-20R Duplex (UL)	C	___	\$50	
208, 220, or 240 volt	6-15R Duplex	D	___	\$75	
	6-20R Duplex	E	___	\$75	
120 volt	L5-15R Duplex	G	___	\$75	
	L5-20R	H	___	\$75	
	L5-30R	I	___	\$75	
208, 220, or 240 volt	L6-15R Duplex	J	___	\$75	
	L6-20R	K	___	\$75	
	L6-30R	L	___	\$75	
120/240 volt	L14-20R	M	___	\$75	
	L14-30R	N	___	\$75	
120 volt	15 Amp / 1 pole Circuit Breaker	V	___	\$60	
All voltages except 120 volt	15 Amp / 2 pole Circuit Breaker	W	___	\$60	
120 volt	20 Amp / 1 pole Circuit Breaker	X	___	\$60	
All voltages except 120 volt	20 Amp / 2 pole Circuit Breaker	Y	___	\$60	
120 volt	30 Amp / 1 pole Circuit Breaker	Z	___	\$60	
All voltages except 120 volt	30 Amp / 2 pole Circuit Breaker	2	___	\$60	
Receptacle Output Connection CTO Order Code		__	__	__	__
Hardwire Output Connection CTO Order Code		A 0	A 0	A 0	A 0

<sup>1</sup> Internal maintenance bypass switch required for receptacle or circuit breaker output connections

# FE12.5kVA CTO Configuration Guide

Internal Options		Digit 15
Option	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor <sup>1</sup>	I	\$300
DVR and Anchor Kit for raised or access floor <sup>1</sup>	J	\$300
Neutral to Ground bond removal and DVR (For shipboard use)	R	\$25

1. Anchor Kits cannot be used with Floor Saver Battery Option

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

External Battery Packs			
Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
18m/48m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	EBPS12F	\$9,238
27m/1h13m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	9fe	\$12,248
49m/2h07m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	10fe	\$18,646
1h12m/3h04m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	11fe	\$20,676
1h38m/4h05m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	12fe	\$27,767
2h12m/5h05m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	13fe	\$35,407
3h08m/7h14m	20 Amp Battery Charger Upgrade <sup>1</sup>	14fe	\$41,112
5h10m/11h57m	20 Amp Battery Charger Upgrade <sup>1,2</sup>	15fe	\$59,721

<sup>1</sup> Order battery charger as part of UPS. See page 12.5k-1.

<sup>2</sup> Eaton has announced the End of Life of this Ferrups option. Product will be available while supplies last.

## External Battery Accessories

Option	Order Number	List Price
External DC Disconnect Required for all non-Ferrups battery packs.	DCU-0001	\$956

## External Maintenance Bypass Switches<sup>1</sup> (Recommended for hardwired units)

UPS Input Voltage	Switch Type	Order Number	List Price
208, 220, 240 volt	BBM (Break Before Make)	BPE04BBM1A	\$1,086
	BBM with AS/400 (iSeries) Option	BPE04BBMAS1A	\$1,086
	BBM with Locking Handle	BPE04BBM1A/L	\$1,359
240 volt	MBB (Make Before Break)	BPE04MBB1A	\$1,202
	MBB with AS/400 (iSeries) Option	BPE04MBBAS1A	\$1,202
	MBB with Locking Handle	BPE04MBB1A/L	\$1,475

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

# FE18kVA CTO Configuration Guide

## Ferrups 18kVA 60Hz Tower General Specifications

Capacity:	18.0kVA/ 15.0kW	Dimensions:	36.5" x 19.0" x 32.0"
Input Voltage:	208, 240 V	(HxWxD)	930mm x 485mm x 815mm
Output Voltage:	120/208, 120/240, 240	Weight (with batteries):	N/A
		Weight (without batteries):	625lb / 283kg

See Eaton® Ferrups® FE Series 60Hz Datasheet (LTP0368) for additional product specification.

Base Unit		Digits 1-2
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE18kVA, 60 Hz Tower	FN	\$28,934

Input / Output Voltage			Digit 3
Input Voltage	Output Voltage	CTO Order Code	Base Price
208	120/208	1	\$0
208	120/240	2	\$0
240	120/240	3	\$0
240	240 (International Models)	6	\$0

Battery and Battery Charger			Digit 4
Battery Configuration	Battery Charger	CTO Order Code	Option Price
set up for external battery pack <sup>1</sup>	standard	4	\$0
set up for external battery pack <sup>1</sup>	10 amp internal upgrade <sup>2</sup>	5	\$435
set up for external battery pack <sup>1</sup>	20 amp internal upgrade <sup>3</sup>	7	\$775

<sup>1</sup> Order desired external battery pack as a separate line. If UPS is to be used with other than a Ferrups battery pack, also order DC Disconnect DCU-0001. See page 18k-3.

<sup>2</sup> Required for external battery packs 19fe – 20fe

<sup>3</sup> Required for external battery packs 21fe – 22fe

Internal Maintenance Bypass Switch		Digit 5
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option <sup>1,2</sup>	0	\$0
Internal maintenance bypass switch option – MBB <sup>3</sup>	1	\$1,075
Internal maintenance bypass switch option - BBM	2	\$975

AS/400 (iSeries) contacts included with Options 1 and 2.

<sup>1</sup> Internal maintenance bypass switch required for receptacle or circuit breaker output connections.

<sup>2</sup> External maintenance bypass switch also available. Order desired maintenance bypass switch as a separate line item on your order. See page 18k-3.

<sup>3</sup> Cannot be used with 208 or 220 volt input

# FE18kVA CTO Configuration Guide

Input Connection <sup>1</sup>			Digit 6
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired	A	\$0

<sup>1</sup> Line Cord input connection not available for 18kVA models

## Output Connection Digits 7-14

### Output Connection Configuration

Designated by 8 digits within the unit CTO number. These eight digits allow selection of the type and quantity for up to four different types of receptacles.

- Internal maintenance bypass switch required for receptacle or circuit breaker output connections.
- Up to eight output slots available when internal maintenance bypass switch option is selected.
- For multiple quantities of one receptacle type, enter the type once with the total quantity (ex: B2 not B1B1).
- Always enter the receptacle types alphabetically (ex: B1C1 not C1B1).
- If hardwire output is desired, select type "A", quantity "0" for all receptacle types (ex: A0A0A0A0).
- If fewer than four types of receptacle are selected, complete the remaining receptacle digits with A0 (ex: B1C1A0A0).

Output Voltage Required	Output Connection <sup>1</sup>	CTO Order Code		Option Price per Panel	
		Type	Qty		
Any	Hardwired	A	0	\$0	
120 volt	5-15R Duplex	B	___	\$50	
	5-20R Duplex (UL)	C	___	\$50	
208, 220, or 240 volt	6-15R Duplex	D	___	\$75	
	6-20R Duplex	E	___	\$75	
120 volt	L5-15R Duplex	G	___	\$75	
	L5-20R	H	___	\$75	
	L5-30R	I	___	\$75	
208, 220, or 240 volt	L6-15R Duplex	J	___	\$75	
	L6-20R	K	___	\$75	
	L6-30R	L	___	\$75	
120/240 volt	L14-20R	M	___	\$75	
	L14-30R	N	___	\$75	
120 volt	15 Amp / 1 pole Circuit Breaker	V	___	\$60	
All voltages except 120 volt	15 Amp / 2 pole Circuit Breaker	W	___	\$60	
120 volt	20 Amp / 1 pole Circuit Breaker	X	___	\$60	
All voltages except 120 volt	20 Amp / 2 pole Circuit Breaker	Y	___	\$60	
120 volt	30 Amp / 1 pole Circuit Breaker	Z	___	\$60	
All voltages except 120 volt	30 Amp / 2 pole Circuit Breaker	2	___	\$60	
Receptacle Output Connection CTO Order Code		__	__	__	__
Hardwire Output Connection CTO Order Code		A 0	A 0	A 0	A 0

<sup>1</sup> Internal maintenance bypass switch required for receptacle or circuit breaker output connections



# FE18kVA CTO Configuration Guide

Internal Options		Digit 15
Option	CTO Order Code	Option Price
DVR (recommended when loads contain PFC power supplies)	B	\$0
DVR and Anchor Kit for structural slab floor <sup>1</sup>	I	\$300
DVR and Anchor Kit for raised or access floor <sup>1</sup>	J	\$300
Neutral to Ground bond removal and DVR (For shipboard use)	R	\$25

1. Anchor Kits cannot be used with Floor Saver Battery Option

## External Options

External battery packs, bypass switches and other external options are not a part of the CTO number and will need to be ordered as separate line items. Some external options require that the UPS be configured for use with the option. More options are listed in the Additional External Options section of this guide.

External Battery Packs			
Runtime Full/Half	Battery Charger Required <sup>1</sup>	Order Number	List Price
10m/26m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	EBPS18F	\$9,238
14m/39m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	16fe	\$11,526
27m/1h10m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	17fe	\$17,694
37m/1h46m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	18fe	\$19,032
48m/2h04m	10 Amp Battery Charger Upgrade <sup>1,2</sup> 20 Amp Battery Charger Upgrade Optional	19fe	\$26,676
1h13m/3h01m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	20fe	\$35,059
1h49m/4h17m	20 Amp Battery Charger Upgrade <sup>1</sup>	21fe	\$39,965
3h04m/7h05m	20 Amp Battery Charger Upgrade <sup>1</sup>	22fe	\$59,754

<sup>1</sup>Order battery charger as part of UPS. See page 18k-1.

<sup>2</sup>Eaton has announced the End of Life of this Ferrups option. Product will be available while supplies last.

## External Battery Accessories

Option	Order Number	List Price
External DC Disconnect Required for all non-Ferrups battery packs.	DCU-0001	\$956

# FE18kVA CTO Configuration Guide

<b>External Maintenance Bypass Switches<sup>1</sup> (Recommended for hardwired units)</b>			
<b>UPS Input Voltage</b>	<b>Switch Type</b>	<b>Order Number</b>	<b>List Price</b>
208, 220, 240 volt	BBM (Break Before Make)	BPE05BBM1A	\$1,338
	BBM with AS/400 (iSeries) Option	BPE05BBMAS1A	\$1,338
240 volt	MBB (Make Before Break)	BPE05MBB1A	\$1,502
	MBB with AS/400 (iSeries) Option	BPE05MBBAS1A	\$1,502
	MBB with Locking Handle	BPE05MBB1A/L	\$1,761

<sup>1</sup> Bypass Switch must be mounted on the wall near the UPS.

## Additional Ferrups External Options

### Voltage Matching Transformers

208V in – 120/240V out (required for applications using MBB bypass with source voltage of 208V)			
Transformer Description	For use with Ferrups models:	Order Number	List Price
7.5kVA Transformer	FC - FK (.850kVA - 7kVA)	TRN-0239	\$2,219
10kVA Transformer	FL <sup>1</sup> (10kVA)	TRN-0240	\$2,356
15kVA Transformer	FL <sup>2</sup> , FM (10kVA – 12kVA)	TRN-0245	\$3,276
25kVA Transformer	FN (18kVA)	TRN-0599	\$4,641
480/240V in – 120/240V out			
Transformer Description	For use with Ferrups models:	Order Number	List Price
10kVA Transformer	FL <sup>1</sup> (10kVA)	TRN-1194	Note <sup>3</sup>
15kVA Transformer	FL <sup>2</sup> , FM (10kVA – 12kVA)	TRN-1192	Note <sup>3</sup>

<sup>1</sup> Use with 10kVA UPS models having a 5 Amp battery charger.

<sup>2</sup> Use with 10kVA UPS models having a 10 or 20 Amp battery charger.

<sup>3</sup> Contact Customer Support for pricing and lead time.

### Caster Kits

For use with Ferrups models:	Order Number	List Price
FF, FG, FH (1.8kVA – 3.1kVA)	CAA-0006	\$199

### Connectivity

Option	Order Number	List Price
Hand-held Remote Control Panel with Cable	RCK-0007	\$423
IBM AS/400 (iSeries) Interface Kit – UPS w/o maintenance bypass switch	IPK-0001	\$131
Serial RS-232 CheckUPS Cable DB25M to DB9F	INT-0035	\$ 67
BestLink SNMP/WEB Adapter	116750225-001	\$388

### Software

Arriving bundled with every Ferrups UPS is the Eaton Intelligent Power Software Suite. The software suite includes links to LanSafe and NetWatch software.

Eaton's latest release of our free LanSafe® software is fully supportive of the Ferrups product line. Ferrups customers can use LanSafe to deliver comprehensive UPS support including graceful, remote shutdown of UPS systems and network monitoring tools via a serial connection. The most recent release of LanSafe software is available for download on our website [powerquality.eaton.com](http://powerquality.eaton.com).



NetWatch Clients UPS software enables users to shutdown a server or workstation and acts as a network-monitoring tool through the BestLink SNMP/WEB Adapter that monitors and controls it. During an extended power outage, the SNMP/WEB adapter informs all registered NetWatch Clients that it is time to shut down their respective operating systems, thus preparing them for the removal of AC power.

Ferrups products are also compatible with the Eaton PowerXpert Software, geared toward end users with mostly Eaton power distribution products such as switchgear, UPSs, breakers, PDUs, RPPs, meters, and relays amongst others. PowerXpert has web based views including Trend Viewer, Layout Manager and Quality Manager Modules.

Additionally, the CheckUPS® Software Suite is available for download under legacy software at [powerquality.eaton.com](http://powerquality.eaton.com). This product remains in Eaton's portfolio and is still used in a number of applications but is not under further development.

For more information on Eaton software products, visit [powerquality.eaton.com/Support/Software-Drivers](http://powerquality.eaton.com/Support/Software-Drivers).

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France: 33.1.6012.7400  
Germany: 49.7841.666.0  
Italy: 39.02.66.04.05.40  
Norway: 47.23.03.65.50  
Sweden: 46.8.598.940.00  
United Kingdom: 44.1753.608.700

ASIA PACIFIC  
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