

# FERRUPS CTO Configuration Guide



## FERRUPS FE7kVA 60 HZ

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**POWERWARE**<sup>®</sup>  
UNINTERRUPTIBLE POWER SYSTEMS

# FE7kVA CTO Configuration Guide

## 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: FK300FC4A0A0A0A. See page 7k-7 for a CTO worksheet.

External battery packs, bypass switches and other external options will need to be ordered as separate line items.

Base Unit		
Base Model, Frequency, Cabinet Style	CTO Order Code	Base Price
FE7kVA, 60 Hz Tower	FK	\$6490

Input / Output Voltage			
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$269
208	120/208	1	\$0
208	120/240	2	\$0
240	120/240	3	\$0
220	220	4	\$269
240	240 (International Models)	6	\$0

Battery and Battery Charger			
Battery Configuration	Battery Charger	CTO Order Code	Option Price
12 minute internal (33 m half load)	standard	0	\$776
18 minute internal (50 m half load)	standard	1	\$1080
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-5.

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

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

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Internal Maintenance Bypass Switch		
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
Internal maintenance bypass switch option – MBB with iSeries <sup>2,3</sup>	3	\$900
Internal maintenance bypass switch option – BBM with iSeries <sup>3</sup>	4	\$800

<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-5.

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

<sup>3</sup> iSeries option formerly referred to as AS/400 option

Input Connection			
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired	A	\$0
208, 220, 240 volt	6-50P <sup>1</sup>	F	\$120
	14-50P <sup>2</sup>	G	\$155
	IEC309 63A <sup>3</sup>	T	\$280

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

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

<sup>3</sup> Use with internal maintenance bypass switch limits output voltage to 208, 220, or 240 only

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## Output Connection

Output Connection Configuration is 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. Additional output connections can be achieved by ordering external power distribution units. See page 7k-6.

- Two or four output slots available without internal maintenance bypass switch option.
- Up to eight output slots available when internal maintenance bypass switch option is selected.
- If multiple quantities of one type of receptacle is desired, 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		A0	A0	A0	A0

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

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

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<b>Internal Options</b>		
<b>Option</b>	<b>CTO Order Code</b>	<b>Option Price</b>
No other option	A	\$0
DVR (recommended when loads contain PFC power supplies)	B	\$200
Anchor Kit for structural slab floor	D	\$323
Anchor Kit for raised or access floor	E	\$323
DVR and Anchor Kit for structural slab floor	I	\$523
DVR and Anchor Kit for raised or access floor	J	\$523
Neutral to Ground bond removal (For shipboard use)	Q	\$25
Neutral to Ground bond removal and DVR (For shipboard use)	R	\$225

All Prices F.O.B. Necedah, Wisconsin U.S.A. in U.S. dollars.  
Product and pricing subject to change without notice.

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## 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.

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	\$2,421
48m/2h13m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	3fe	\$3,075
60m/2h33m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	4fe	\$3,524
1h32m/3h41m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	5fe	\$4,504
2h16m/5h14m	20 Amp Battery Charger Upgrade <sup>1</sup>	6fe	\$6,149
3h45m/8h39m	20 Amp Battery Charger Upgrade <sup>1</sup>	7fe	\$8,471

<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	\$650
	MBB with AS/400 (iSeries) Option	BPE04MBBAS1A	\$650
	MBB with Locking Handle	BPE04MBB1A/L	\$850
208, 220 volt	BBM (Break Before Make)	BPE02BBM1A	\$450
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$450
	BBM with Locking Handle	BPE02BBM1A/L	\$650
240 volt	MBB (Make Before Break)	BPE02MBB1A	\$550
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$550
	MBB with Locking Handle	BPE02MBB1A/L	\$750

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

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Other External Options		
Option	Order Number	List Price
Voltage Matching Transformer – 208V input, 120/240V output Required for applications using MBB bypass with source voltage of 208V.	TRN-0239	\$965
IBM AS/400 (iSeries) Interface Kit – UPS without maintenance bypass switch	IPK-0001	\$95
IBM AS/400 (iSeries) Interface Kit – UPS with maintenance bypass switch	IPK-0002	\$120
EnviroCom™ I	ENV-0100	\$439
EnviroCom II	ENV-0200	\$949
BestLink SNMP/WEB Adapter	IPK-0318	\$349
Hand-held Remote Control Panel with Cable	RCK-0007	\$250
Signal Splitter Box	IPK-0022	\$199

PDU (Power Distribution Unit)				
Voltage	Input Connection	Output Connections	Order Number	List Price
120/240	6 ft. line cord with L14-30P	(4) 5-15R, (8) 6-15R	PDU-0007	\$600
120/240	6 ft. line cord with L14-30P	(4) 5-15R, (3) L6-30R	PDU-0008	\$400
120/240	6 ft. line cord with L14-30P	(12) 5-15R	PDU-0009	\$300
208 or 240	6 ft. line cord with L6-30P	(3) L6-20R, (1) L6-30R	PDU-0010	\$600
208 or 240	6 ft. line cord with L6-30P	(4) L6-30R	PDU-0011	\$400
120	6 ft. line cord with L5-30P	(8) 5-15R	PDU-0012	\$300

# FE7kVA Quote Sheet

The UPS CTO Worksheet							
	UPS CTO Order Code				List Price	Discount	Net Price
Base Unit: FE7kVA, 60 Hz Tower	FK						
Input / Output Voltage							
Battery and Battery Charger							
Internal Maintenance Bypass Switch					-	-	-
Input Connection							
Output Connection							
Internal Options							
Complete UPS CTO Number	FK						
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							
Voltage Matching Transformer				TRN-0239			
IBM AS/400 (iSeries) Interface Kit – UPS without maintenance bypass switch				IPK-0001			
IBM AS/400 (iSeries) Interface Kit – UPS with maintenance bypass switch				IPK-0002			
EnviroCom™ I				ENV-0100			
EnviroCom II				ENV-0200			
BestLink SNMP/WEB Adapter				IPK-0318			
Hand-held Remote Control Panel with Cable				RCK-0007			
Signal Splitter Box				IPK-0022			
PDU (Power Distribution Unit)				PDU-____			
Sub Total							
						Freight	
						Insurance	
						Tax/Duty	
						Quote Total	
Special Instructions:							