

# **FERRUPS CTO Configuration Guide**



## **FERRUPS FE5.3kVA 60 HZ**

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**POWERWARE®**  
UNINTERRUPTIBLE POWER SYSTEMS

# FE5.3kVA 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: FJ000DC4A0A0A0A. See page 5.3k-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
FE5.3kVA, 60 Hz Tower	FJ	\$4920

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
20 minute internal (50 m half load)	standard	0	\$776
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-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	\$825
Internal maintenance bypass switch option - BBM	2	\$725
Internal maintenance bypass switch option – MBB with iSeries <sup>2,3</sup>	3	\$825
Internal maintenance bypass switch option – BBM with iSeries <sup>3</sup>	4	\$725

<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-5.

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

<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
120 volt	5-50P <sup>1</sup>	D	\$120
208, 220, 240 volt	6-50P <sup>4</sup>	F	\$120
	14-50P <sup>5</sup>	G	\$155
	L6-30P <sup>2,3,4</sup>	L	\$100
	L14-30 <sup>2,3,5</sup>	M	\$125
	IEC309 32A <sup>2,6</sup>	T	\$200

<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.

<sup>6</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 5.3k-6.

- Two or four output slots available without internal maintenance bypass switch option.
- Up to four 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		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

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Internal Options		
Option	CTO Order Code	Option Price
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

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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
27m/1h14m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	1fe	\$1,914
49m/2h10m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	2fe	\$2,421
1h12m/3h8m	Standard Battery Charger <sup>1</sup> 10 or 20 Amp Battery Charger Upgrade Optional	3fe	\$3,075
1h27m/3h39m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	4fe	\$3,524
2h13m/5h11m	10 Amp Battery Charger Upgrade <sup>1</sup> 20 Amp Battery Charger Upgrade Optional	5fe	\$4,504
3h8m/7h22m	20 Amp Battery Charger Upgrade <sup>1</sup>	6fe	\$6,149
5h10m/12h10m	20 Amp Battery Charger Upgrade <sup>1</sup>	7fe	\$8,471

<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	\$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

# FE5.3kVA Quote Sheet

The UPS CTO Worksheet										
	UPS CTO Order Code						List Price	Discount	Net Price	
Base Unit: FE5.3kVA, 60 Hz Tower	FJ									
Input / Output Voltage										
Battery and Battery Charger										
Internal Maintenance Bypass Switch							—	—	—	
Input Connection										
Output Connection										
Internal Options										
Complete UPS CTO Number	FJ									
UPS Subtotal										
<b>External Battery Pack</b>										
Battery Pack Selected:										
Other External Battery Options Selected:										
<b>External Maintenance Bypass Switch</b>										
External Maintenance Bypass Switch Selected:										
<b>Other External Options</b>										
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:										