

# **FERRUPS CTO Configuration Guide**



**FERRUPS FER1.8kVA 60 HZ Rackmount**  
**FERRUPS FES1.8kVA 60 HZ Rackmount**

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**POWERWARE®**  
UNINTERRUPTIBLE POWER SYSTEMS

# FER(S)1.8kVA 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: RD000CB2A0A0A0A. See page 1.8k-5 for a CTO worksheet.

External 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
FER1.8kVA, 60 Hz Rackmount (Long Cabinet)	RG	\$2,567
FES1.8kVA, 60 Hz Rackmount (Short Cabinet)	RD	\$2,717

Input / Output Voltage			
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$0
208	120/208	1	\$150
208	120/240	2	\$150
240	120/240	3	\$150
240	240 (International Models)	6	\$150

Battery and Battery Charger			
<b>FER Rackmount (Long Cabinet)</b>			
Battery Configuration	Cabinet / Battery Charger	CTO Order Code	Option Price
31 minute internal (73 m half load)	long / standard	0	\$432
Set up for internal (less batteries)	long / standard	3	\$216
set up for external battery pack <sup>1</sup>	long / standard	4	\$ 0
<b>FES Rackmount (Short Cabinet)</b>			
Battery Configuration	Cabinet / Battery Charger	CTO Order Code	Option Price
9 minute internal (23 m half load)	short / standard	0	\$432
Set up for internal (less batteries)	short / standard	3	\$216
set up for external battery pack <sup>1</sup>	short / standard	4	\$ 0
<sup>1</sup> Includes External Battery Connector Order desired external battery pack as a separate line. See page 1.8k-4.			

Internal Maintenance Bypass Switch		
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.

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

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

<sup>2</sup> Limits output connections to two slots

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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 of the receptacles.

- Three output slots available with line cord input connection.
- Two output slots available with hardwire input connection.
- 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 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	5-15R Duplex	B	___	\$50
	5-20R Duplex (UL)	C	___	\$50
208 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 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
Receptacle Output Connection CTO Order Code		__	__	__
Hardwire Output Connection CTO Order Code		A	0	A

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

## Internal Options

Option	CTO Order Code	Option Price
No other option	A	\$0
DVR <sup>1</sup> (recommended when loads contain PFC power supplies)	B <sup>1</sup>	\$150
Neutral to Ground bond removal (For shipboard use)	Q	\$25

<sup>1</sup> Cannot be used with short rackmount cabinet option or internal or less battery options.

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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<sup>1</sup>

Runtime Full/Half	Battery Charger Required	Order Number	List Price
2h12m/4h53m	Standard Battery Charger	1re	\$1,830
3h38m/8h22m	Standard Battery Charger	2re	\$3,092

<sup>1</sup> UPS must be ordered set up for external battery pack. See page 1.8k-1.

### External Battery Accessories

Option	Order Number	List Price
External Battery Connector Extension Required for all external battery configurations except 1re and 2re.	BCS-0108	\$50

### 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)	BPE01MBB1A	\$400
	MBB, with AS/400 (iSeries) Option	BPE01MBBAS1A	\$400
208 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.

### 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-1175	\$490
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

# FER(S)1.8kVA Quote Sheet

The UPS CTO Worksheet									
	UPS CTO Order Code						List Price	Discount	Net Price
Base Unit: FER(S)1.8kVA 60Hz Rack	R_								
Input / Output Voltage									
Battery and Battery Charger									
Internal Maintenance Bypass Switch				0			—	—	—
Input Connection									
Output Connection									
Internal Options									
Complete UPS CTO Number	R_			0					
UPS Subtotal									
<b>External Battery Pack</b>									
Battery Pack Selected:									
<b>External Maintenance Bypass Switch</b>									
External Maintenance Bypass Switch Selected:									
<b>Other External Options</b>									
Voltage Matching Transformer	TRN-1175								
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								
Sub Total									
							Freight		
							Insurance		
							Tax/Duty		
							Quote Total		
Special Instructions:									