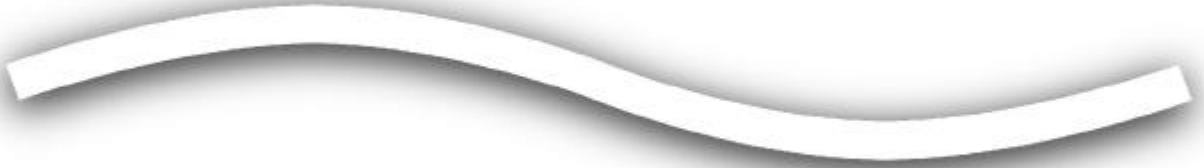


FERRUPS CTO Configuration Guide



FERRUPS FE18kVA 60 HZ

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FER14GDE
February 15, 2002


POWERWARE[®]
UNINTERRUPTIBLE POWER SYSTEMS

FE18kVA 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: FN340AA0A0A0A0A. See page 18k-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
FE18kVA, 60 Hz Tower	FN	\$10,630

Input / Output Voltage			
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			
Battery Configuration	Battery Charger	CTO Order Code	Option Price
4 minute internal (10m half load) Floor Saver Cabinet	standard	0	\$2820
set up for external battery pack ¹	standard	4	\$0
set up for external battery pack ¹	10 amp internal upgrade ²	5	\$435
set up for external battery pack ¹	20 amp internal upgrade ³	7	\$775

¹ Order desired external battery pack as a separate line. See page 18k-5.

² Required for external battery packs 19fe – 20fe

³ Required for external battery packs 21fe – 22fe

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Internal Maintenance Bypass Switch		
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option ^{1,2}	0	\$0
Internal maintenance bypass switch option – MBB ³	1	\$1,075
Internal maintenance bypass switch option - BBM	2	\$975
Internal maintenance bypass switch option – MBB with iSeries ^{3,4}	3	\$1,075
Internal maintenance bypass switch option – BBM with iSeries ⁴	4	\$975

¹ Internal maintenance bypass switch required for receptacle or circuit breaker output connections.

² External maintenance bypass switch also available. Order desired maintenance bypass switch as a separate line item on your order. See page 18k-5.

³ Cannot be used with 208 volt input

⁴ iSeries option formerly referred to as AS/400 option

Input Connection ¹			
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired	A	\$0
¹ Line Cord input connection not available for 18kVA models			

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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 18k-6.

- Internal maintenance bypass switch required for receptacle or circuit breaker output connections
- 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 ¹	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	

¹ Internal maintenance bypass switch required for receptacle or 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	\$300
Anchor Kit for raised or access floor	E	\$300
DVR and Anchor Kit for structural slab floor	I	\$500
DVR and Anchor Kit for raised or access floor	J	\$500
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 ¹	Order Number	List Price
10m/26m	Standard Battery Charger ¹ 10 or 20 Amp Battery Charger Upgrade Optional	EBPS18F	\$2,640
14m/39m	Standard Battery Charger ¹ 10 or 20 Amp Battery Charger Upgrade Optional	16fe	\$3,650
27m/1h10m	Standard Battery Charger ¹ 10 or 20 Amp Battery Charger Upgrade Optional	17fe	\$5,280
37m/1h46m	Standard Battery Charger ¹ 10 or 20 Amp Battery Charger Upgrade Optional	18fe	\$6,800
48m/2h04m	10 Amp Battery Charger Upgrade ¹ 20 Amp Battery Charger Upgrade Optional	19fe	\$7,920
1h13m/3h01m	10 Amp Battery Charger Upgrade ¹ 20 Amp Battery Charger Upgrade Optional	20fe	\$10,450
1h49m/4h17m	20 Amp Battery Charger Upgrade ¹	21fe	\$13,600
3h04m/7h05m	20 Amp Battery Charger Upgrade ¹	22fe	\$20,400

¹Order battery charger as part of UPS. See page 18k-1.

External Maintenance Bypass Switches ¹ (Recommended for hardwired units)			
UPS Input Voltage	Switch Type	Order Number	List Price
208, 240 volt	BBM (Break Before Make)	BPE05BBM1A	\$725
	BBM with AS/400 (iSeries) Option	BPE05BBMAS1A	\$725
	BBM with Locking Handle	BPE05BBM1A/L	\$925
240 volt	MBB (Make Before Break)	BPE05MBB1A	\$825
	MBB with AS/400 (iSeries) Option	BPE05MBBAS1A	\$825
	MBB with Locking Handle	BPE05MBB1A/L	\$1,025

¹ 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-0599	\$2,190
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

FE18kVA Quote Sheet

The UPS CTO Worksheet									
	UPS CTO Order Code						List Price	Discount	Net Price
Base Unit: FE18kVA, 60 Hz Tower	FN								
Input / Output Voltage									
Battery and Battery Charger									
Internal Maintenance Bypass Switch							—	—	—
Input Connection									
Output Connection									
Internal Options									
Complete UPS CTO Number	FN								
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-0599			
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:									