

FERRUPS CTO Configuration Guide



FERRUPS FE2.1kVA 60 HZ

Invensys Powerware Division
2727 Kurtz Street
San Diego, CA 92110 U.S.A.
800.356.5794
www.powerware.com

FER07GDE
FEBRUARY 15, 2002


POWERWARE®
UNINTERRUPTIBLE POWER SYSTEMS

FE2.1kVA 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: FG000CC3A0A0A0A. See page 2.1k-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
FE2.1kVA, 60 Hz Tower	FG	\$2710

Input / Output Voltage			
Input Voltage	Output Voltage	CTO Order Code	Base Price
120	120	0	\$0
208	120/208	1	\$161
208	120/240	2	\$161
240	120/240	3	\$161
240	240 (International Models)	6	\$161
220	127/220	7	\$161

Battery and Battery Charger			
Battery Configuration	Battery Charger	CTO Order Code	Option Price
9 minute internal	standard	0	\$449
66 minute internal	standard	1	\$793
Set up for internal (less batteries)	standard	3	\$233
set up for external battery pack ¹	standard	4	\$98
set up for external battery pack ¹	15 amp internal upgrade ²	6	\$743

¹ Includes External Battery Connector

Order desired external battery pack as a separate line. See page 2.1k-5.

² Required for external battery packs 12me – 15me

Internal Maintenance Bypass Switch		
Internal Maintenance Bypass Switch	CTO Order Code	Option Price
No internal maintenance bypass switch option available ¹	0	\$0

¹ 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-5.

FE2.1kVA CTO Configuration Guide

Input Connection			
Input Voltage Selected	Input Connection	CTO Order Code	Option Price
Any	Hardwired ¹	A	\$43
120 volt	5-20P ²	C	\$ 0
	5-50P ³	D	\$90 ³
	L5-20P ²	I	\$25
	L5-30P ²	J	\$60
208, 220, 240	6-15P ²	E	\$ 0
	L6-20P ⁴	K	\$60
	L6-30P ⁵	L	\$60
	IEC320 – Jumper Cord ^{2,6}	O	\$15
	IEC309 16A ^{6,7}	S	\$60

¹ Hardwired input requires hardwired output

² Cannot be used with 15 Amp battery charger

³ 5-50P option price is \$0 if 15 Amp battery charger is selected. Cannot be used with 66 minute internal runtime.

⁴ L6-20P option price is \$0 if 15 Amp battery charger and 220 or 240 volt input is selected. Cannot be used with 15 Amp battery charger and 208 volt input.

⁵ L6-30P option price is \$0 if 15 Amp battery charger and 208 volt input is selected.

⁶ Limits output connections to two panels

⁷ Cannot be used with standard battery charger

FE2.1kVA CTO Configuration Guide

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 2.1k-6.

- Three output slots available when a NEMA line cord is selected
- Two output slots available when an international line cord 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 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 ¹	A	___	\$0
120 volt Choose up to three panels	5-15R Duplex	B	___	\$50
	5-20R Duplex (UL) ²	C	___	\$50 ²
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
208, 220, 240 only Choose up to two panels	IEC320 10A (Qty 2 per panel)	u	___	\$50
Receptacle Output Connection CTO Order Code		__	__	__
Hardwire Output Connection CTO Order Code		A	0	A

¹ Hardwired output requires hardwired input

² If three 5-20R (UL), CTO Order Code C3A0A0A0, are selected option price is \$0.

FE2.1kVA CTO Configuration Guide

Internal Options		
Option	CTO Order Code	Option Price
No other option	A	\$0
DVR (recommended when loads contain PFC power supplies)	B	\$150
Caster Kit (if ordered with unit)	C	\$145
Anchor Kit for structural slab floor	D	\$215
Anchor Kit for raised or access floor	E	\$215
Caster Kit and Anchor Kit for structural slab floor	F	\$323
Caster Kit and Anchor Kit for raised or access floor	G	\$323
DVR and Caster Kit	H	\$295
DVR and Anchor Kit for structural slab floor	I	\$365
DVR and Anchor Kit for raised or access floor	J	\$365
DVR, Caster Kit and Anchor Kit for structural slab floor	K	\$473
DVR, Caster Kit and Anchor Kit for raised or access floor	L	\$473
Neutral to Ground bond removal (For Shipboard Use)	Q	\$25
Neutral to Ground bond removal and DVR (For Shipboard Use)	R	\$175

FE2.1kVA 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.

External Battery Packs			
Runtime Full/Half	Battery Charger Required ¹	Order Number	List Price
1h41m/3h54m	Standard Battery Charger ¹ 15 Amp Battery Charger Upgrade Optional	9me	\$1,430
2h50m/6h37m	Standard Battery Charger ¹ 15 Amp Battery Charger Upgrade Optional	10me	\$2,421
4h03m/9h10m	Standard Battery Charger ¹ 15 Amp Battery Charger Upgrade Optional	11me	\$3,075
4h46m/11h08m	15 Amp Battery Charger Upgrade ¹	12me	\$3,524
6h42m/15h04m	15 Amp Battery Charger Upgrade ¹	13me	\$4,504
9h33m/21h36m	15 Amp Battery Charger Upgrade ¹	14me	\$6,149
15h12m/36h28m	15 Amp Battery Charger Upgrade ¹	15me	\$8,471

¹Order battery charger as part of UPS. See page 2.1k-1.

External Battery Accessories		
Option	Order Number	List Price
External Battery Connector Extension Required for all external battery configurations except 9me – 15me.	BCS-0108	\$50

External Maintenance Bypass Switches ¹ (Recommended for hardwired units)			
UPS Input Voltage	Switch Type	Order Number	List Price
120	MBB (Make Before Break)	BPE01MBB1A	\$400
	MBB, with AS/400 (iSeries) Option	BPE01MBBAS1A	\$400
208, 220	BBM (Break Before Make)	BPE02BBM1A	\$450
	BBM with AS/400 (iSeries) Option	BPE02BBMAS1A	\$450
	BBM with Locking Handle	BPE02BBM1A/L	\$650
240	MBB (Make Before Break)	BPE02MBB1A	\$550
	MBB with AS/400 (iSeries) Option	BPE02MBBAS1A	\$550
	MBB with Locking Handle	BPE02MBB1A/L	\$750

¹Bypass Switch must be mounted on the wall near the UPS.

FE2.1kVA CTO Configuration Guide

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-1199	\$560
Casters (if ordered as separate item)	CAA-0006	\$145
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

FE2.1kVA Quote Sheet

The UPS CTO Worksheet									
	UPS CTO Order Code						List Price	Discount	Net Price
Base Unit: FE2.1kVA, 60 Hz Tower	FG								
Input / Output Voltage									
Battery and Battery Charger									
Internal Maintenance Bypass Switch				0			–	–	–
Input Connection									
Output Connection									
Internal Options									
Complete UPS CTO Number	FG			0					
UPS Subtotal									
External Battery Pack									
Battery Pack Selected:									
External Maintenance Bypass Switch									
External Maintenance Bypass Switch Selected:									
Other External Options									
Voltage Matching Transformer						TRN-1199			
Casters (if ordered as separate item)						CAA-0006			
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:									