

# **FERRUPS CTO Configuration Guide**



## **FERRUPS FE1.15kVA 60 HZ**

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**POWERWARE®**  
UNINTERRUPTIBLE POWER SYSTEMS

# FE1.15kVA 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: FD000BB2A0A0A0A. See page 1.15k-6 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 |
| FE1.15kVA, 60 Hz Tower               | FD             | \$1589     |

| 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      |
| 220                    | 127/220                    | 7              | \$150      |

| Battery and Battery Charger                   |                                      |                |              |
|-----------------------------------------------|--------------------------------------|----------------|--------------|
| Battery Configuration                         | Battery Charger                      | CTO Order Code | Option Price |
| 8 minute internal                             | standard                             | 0              | \$200        |
| 30 minute internal                            | standard                             | 1              | \$428        |
| 70 minute internal                            | standard                             | 2              | \$478        |
| Set up for internal (less batteries)          | standard                             | 3              | \$98         |
| set up for external battery pack <sup>1</sup> | standard                             | 4              | \$46         |
| set up for external battery pack <sup>1</sup> | 15 amp internal upgrade <sup>2</sup> | 6              | \$691        |

<sup>1</sup> Includes External Battery Connector  
Order desired external battery pack as a separate line.  
See page 1.15k-5.

<sup>2</sup> Required for external battery pack 10me

| 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 1.15k-5.

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| Input Connection       |                                   |                |                   |
|------------------------|-----------------------------------|----------------|-------------------|
| Input Voltage Selected | Input Connection                  | CTO Order Code | Option Price      |
| Any                    | Hardwired <sup>1</sup>            | A              | \$40              |
| 120 volt               | 5-15P <sup>2</sup>                | B              | \$ 0              |
|                        | 5-20P <sup>3</sup>                | C              | \$25 <sup>3</sup> |
| 208, 220, 240          | 6-15P                             | E              | \$ 0              |
|                        | L6-20P                            | K              | \$60              |
|                        | L6-30P                            | L              | \$60              |
|                        | IEC320 – Jumper Cord <sup>4</sup> | O              | \$15              |

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

<sup>2</sup> Cannot be used with 15 Amp battery charger

<sup>3</sup> 5-20P option price is \$0 if 15 Amp battery charger is selected

<sup>4</sup> Limits output connections to two panels

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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.

- 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 <sup>1</sup>       | A              | ___ | \$0                    |
| 120 volt<br>Choose up to three panels              | 5-15R Duplex                 | B              | ___ | \$0                    |
|                                                    | 5-20R Duplex (UL)            | C              | ___ | \$50                   |
| 208, 220, or 240 volt<br>Choose up to three panels | 6-15R Duplex                 | D              | ___ | \$75                   |
|                                                    | 6-20R Duplex                 | E              | ___ | \$75                   |
| 120 volt<br>Choose up to three panels              | L5-15R Duplex                | G              | ___ | \$75                   |
|                                                    | L5-20R                       | H              | ___ | \$75                   |
|                                                    | L5-30R                       | I              | ___ | \$75                   |
| 208, 220, or 240 volt<br>Choose up to three panels | L6-15R Duplex                | J              | ___ | \$75                   |
|                                                    | L6-20R                       | K              | ___ | \$75                   |
|                                                    | L6-30R                       | L              | ___ | \$75                   |
| 120/240 volt<br>Choose up to three panels          | L14-20R                      | M              | ___ | \$75                   |
|                                                    | L14-30R                      | N              | ___ | \$75                   |
| 208, 220, 240 only<br>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          |                              |                |     |                        |

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

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| Internal Options                                           |                |              |
|------------------------------------------------------------|----------------|--------------|
| Option                                                     | CTO Order Code | Option Price |
| No other option                                            | A              | \$0          |
| AVR (recommended when loads contain PFC power supplies)    | B              | \$100        |
| Caster Kit (if ordered with unit)                          | C              | \$120        |
| Anchor Kit for structural slab floor                       | D              | \$200        |
| Anchor Kit for raised or access floor                      | E              | \$200        |
| Caster Kit and Anchor Kit for structural slab floor        | F              | \$300        |
| Caster Kit and Anchor Kit for raised or access floor       | G              | \$300        |
| AVR and Caster Kit                                         | H              | \$220        |
| AVR and Anchor Kit for structural slab floor               | I              | \$300        |
| AVR and Anchor Kit for raised or access floor              | J              | \$300        |
| AVR, Caster Kit and Anchor Kit for structural slab floor   | K              | \$400        |
| AVR, Caster Kit and Anchor Kit for raised or access floor  | L              | \$400        |
| Neutral to Ground bond removal (For Shipboard Use)         | Q              | \$25         |
| Neutral to Ground bond removal and AVR (For Shipboard Use) | R              | \$125        |

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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 |
| 3h15m/9h11m            | Standard Battery Charger <sup>1</sup><br>15 Amp Battery Charger Upgrade Optional | 8me          | \$1,230    |
| 3h50m/10h50m           | Standard Battery Charger <sup>1</sup><br>15 Amp Battery Charger Upgrade Optional | 9me          | \$1,430    |
| 6h30m/18h23m           | 15 Amp Battery Charger Upgrade <sup>1</sup>                                      | 10me         | \$2,421    |

<sup>1</sup>Order battery charger as part of UPS. See page 1.15k-1.

| External Battery Accessories                                                                                |              |            |
|-------------------------------------------------------------------------------------------------------------|--------------|------------|
| Option                                                                                                      | Order Number | List Price |
| External Battery Connector Extension<br>Required for all external battery configurations except 8me – 10me. | BCS-0108     | \$50       |

| External Maintenance Bypass Switches <sup>1</sup> (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      |

<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<br>Required for applications using MBB bypass with source voltage of 208V. | TRN-1175     | \$490      |
| Castors (if ordered as separate item)                                                                                                 | CAA-0005     | \$120      |
| 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      |

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

# FE1.15kVA Quote Sheet

| The UPS CTO Worksheet                                                         |                    |  |  |   |  |          |             |          |           |
|-------------------------------------------------------------------------------|--------------------|--|--|---|--|----------|-------------|----------|-----------|
|                                                                               | UPS CTO Order Code |  |  |   |  |          | List Price  | Discount | Net Price |
| Base Unit: FE1.15kVA, 60 Hz Tower                                             | FD                 |  |  |   |  |          |             |          |           |
| Input / Output Voltage                                                        |                    |  |  |   |  |          |             |          |           |
| Battery and Battery Charger                                                   |                    |  |  |   |  |          |             |          |           |
| Internal Maintenance Bypass Switch                                            |                    |  |  | 0 |  |          | —           | —        | —         |
| Input Connection                                                              |                    |  |  |   |  |          |             |          |           |
| Output Connection                                                             |                    |  |  |   |  |          |             |          |           |
| Internal Options                                                              |                    |  |  |   |  |          |             |          |           |
|                                                                               |                    |  |  |   |  |          |             |          |           |
| Complete UPS CTO Number                                                       | FD                 |  |  | 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 |             |          |           |
| Casters (if ordered as separate item)                                         |                    |  |  |   |  | CAA-0005 |             |          |           |
| IBM AS/400 (iSeries) Interface Kit<br>– UPS without maintenance bypass switch |                    |  |  |   |  | IPK-0001 |             |          |           |
| IBM AS/400 (iSeries) Interface Kit<br>– 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:                                                         |                    |  |  |   |  |          |             |          |           |