



PowerFirst Technology Company Limited

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## Technical Specification for PF2403SL / PF2404SL / PF2405SL (Confidential)

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## 1 INTRODUCTION

This document specifies the requirements of Battery charger for models PF2403SL, PF2404SL, PF2405SL. This series of chargers are widely used in wheelchair & mobility. The default set charging algorithm is as follows with “■” mark. Other types of profiles are optional.

- |  |  |
|--|--|
| <input type="checkbox"/> IUIa-Acd for Wet traction batteries               | <input type="checkbox"/> IUIa-GEL for Exide-Sonnenschein GEL batteries |
| <input checked="" type="checkbox"/> IUUa for Generac GEL and AGM batteries | <input type="checkbox"/> Algorithm for customized application          |

Below product picture is for reference only, it is based on the standard specification sheet, customization is available subject to customer's specific request.



## 2 DOCUMENT HISTORY

Table 2-1 Document History

| Version | Date     | Change record           | Creator    |
|---------|----------|-------------------------|------------|
| V.01    | 20.03.13 | 1 <sup>st</sup> version | PowerFirst |

## 3 SPECIFICATION

Table 3-1 Specification

| No | Item                   | Technical specification | Remark               |
|----|------------------------|-------------------------|----------------------|
| 1  | Rated input voltage    | 100 -240 VAC +/-10%     | Universal wide range |
| 2  | AC frequency           | 50-60Hz                 | Universal            |
| 3  | Nominal output voltage | 24V                     |                      |
| 4  | CC                     | 3A / 4A / 5A            |                      |





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Tel: +86 755 28441619 / Email: [marketing@epowerfirst.com](mailto:marketing@epowerfirst.com) Web: [www.epowerfirst.com](http://www.epowerfirst.com)**Technical Specification for PF2403SL / PF2404SL / PF2405SL (Confidential)**

| No | Item  | Technical specification  | Remark   |
|----|---|--|--|
| 5  | CV  | 28.8V (2.4Vpc)   |  |
| 6  | Floating charge voltage                         | 27~27.6V (2.25~2.3Vpc)   |  |
| 7  | Peak Efficiency                                 | 85% @220VAC/24VDC, 83% @110VAC/24VDC   |  |
| 8  | Inhibit Function                                | Output Pin 2 shorted with Pin 3  | XLR connector  |
| 9  | Short circuit protection                        | Short circuit protection, automatically recover  |  |
| 10 | Additional protection                           | Sparks protection<br>AC surge protection,<br>Over temperature protection   |  |
| 11 | SAFETY/EMC/ROHS                                 | CE, UL<br>LVD: EN60335-2-29<br>EMC: EN55014<br>UL1310 and C22.2NO.223<br>ISO7176   |  |
| 12 | Output definition & connector<br>(Customizable) | <br>View is looking into the plug<br>Minus -<br>Inhibit<br>+ Plus<br>XLR Male Connector<br>Pin 1 Positive<br>Pin 2 Negative<br>Pin 3 Inhibit (tied to negative) | Cable: 2*1mm <sup>2</sup> *1.2m<br>Connector: 3Pin XLR |
| 13 | AC input cable / connector<br>(Customizable)    | <br>C7  | Cable length: 1.8m                                     |
| 14 | LED instruction                                 | Red Flash = No battery connected<br>or Low voltage<br>Red on = Normal charging<br>Green on = Fully charged   |  |
| 15 | Cooling method                                  | Fan-cooled   |  |
| 16 | Mechanical fixing                               | Portable for off-board application   |  |
| 17 | Dimensions                                      | L160 x W86 x H55.5 mm  |  |
| 18 | Weight  | 0.3Kg  | Maybe some tolerance                                   |
| 19 | Color   | Black  |  |
| 20 | Housing   | Plastic  |  |



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**4. CHARGING ALGORITHM**

**IUUa for Generac GEL and AGM batteries**

