

### A Global Leader in Charger Manufacture

### PowerFirst Technology Company Limited

深圳市顶尖电源科技有限公司

Address: Lantian Bld., Kaitian Science Park, Pinghu Street, Shenzhen, China.

地址:深圳市龙岗区平湖街道平安大道108号开田科学园蓝田大厦

Tel: +86 755 28441619 / Email: marketing@epowerfirst.com Web: www.epowerfirst.com

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

#### **CONTENTS:**

1	INTRODUCTION	1
2	DOCUMENT HISTORY	1
3	SPECIFICATION1-	-2
4	CHARGING ALGORITHM	3

#### 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.

☐ IUIa-Acd for Wet traction batteries	☐ IUIa-GEL for Exide-Sonnenschein GEL batteries
■ IUUa for Generac GEL and AGM batteries	☐ 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	



# A Global Leader in Charger Manufacture

### PowerFirst Technology Company Limited

深圳市顶尖电源科技有限公司

Address: Lantian Bld., Kaitian Science Park, Pinghu Street, Shenzhen, China.

地址:深圳市龙岗区平湖街道平安大道108号开田科学园蓝田大厦

Tel: +86 755 28441619 / Email: marketing@epowerfirst.com Web: 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 AC surge protection, Over temperature protection	
11	SAFETY/EMC/ROHS	CE, UL LVD: EN60335-2-29 EMC: EN55014 UL1310 and C22.2NO.223 ISO7176	
12	Output definition & connector (Customizable)	View is looking into the plug  Minus—  Inhibit 1  Plus  XLR Male Connector Pin 1 Positive Pin 2 Negative Pin 3 Inhibit (tied to negative)	Cable:2*1mm²*1.2m Connector: 3Pin XLR
13	AC input cable / connector (Customizable)	C7	Cable length: 1.8m
14	LED instruction	Red Flash = No battery connected or Low voltage  Red on = Normal charging  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	



## A Global Leader in Charger Manufacture

PowerFirst Technology Company Limited

深圳市顶尖电源科技有限公司

Address: Lantian Bld., Kaitian Science Park, Pinghu Street, Shenzhen, China.

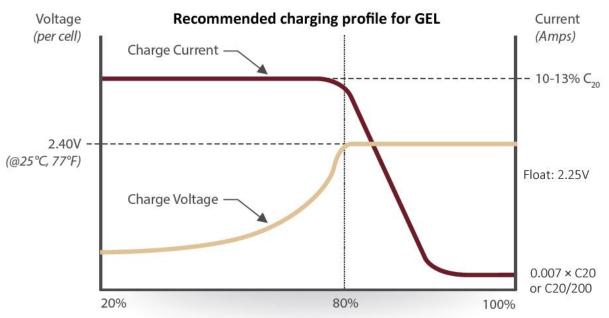
地址:深圳市龙岗区平湖街道平安大道108号开田科学园蓝田大厦

Tel: +86 755 28441619 / Email: marketing@epowerfirst.com Web: www.epowerfirst.com

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

### 4. **CHARGING ALGORITHM**

# IUUa for Generac GEL and AGM batteries



State of Charge (%)