



PowerFirst Technology Company Limited

深圳市顶尖电源科技有限公司

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Technical Specification for PF2408 & PF2410 (Confidential)

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1 INTRODUCTION

This document specifies the requirements of Battery charger for mobility market sealed series PF24×× with derivative models of PF2408 and PF2410. The charging curve is pre-set in the factory. A factory default set charging algorithm will be settled down per customer’s primary requirement, and we’ll clearly marked as “■”.

- IUUa for MK Gel & AGM batteries
- IUUa for Generac GEL and AGM batteries
- IUIa-GEL for Exide-Sonnenschein GEL batteries
- Algorithm for customized application

Product picture (For reference only per the standard specification sheet, physical product maybe different subject to customer’s specific request):



2 DOCUMENT HISTORY

Table 2-1 Document History

Version	Date	Change record	Creator
V.01	20.03.06	1 st version	PowerFirst
V.02	18.05.11	2 nd version	PowerFirst
V.03	23.10.15	3 rd 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	8A / 10A	



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No	Item	Technical specification	Remark
5	CV	29.2V (2.43Vpc)	
6	Floating charge voltage	27.6V (2.30Vpc)	
7	Peak Efficiency	93% @220VAC/24VDC, 91% @110VAC/24VDC	
8	Inhibit Function	Output Pin 2 shorted with Pin 3	XLR connector
9	Short circuit protection	Short circuit protection should automatically recover after removing the condition	
10	Reverse polarity protection	Reverse polarity protection should automatically recover after removing the condition	
11	Additional protection	Sparks protection AC surge protection, Over temperature protection	
12	SAFETY/EMC/ROHS	CE (EU) EN60601-1 by TUV EN60335-2-29 by TUV EN60601-1-2, EN61000-3, ISO7176-21 by Nemko UL (USA & CANADA) UL 60601-1 by TUV CAN/CSA-C22.2 NO.60601-1 by TUV <u>REACH: (EC) No 1907/2006 by SGS</u> <u>ROHS: Directive 2011/65/EU by SGS</u>	
13	Output definition & connector (Customizable)	 <p>View is looking into the plug</p>  <p>Minus - 2 3 1 0 + Plus</p> <p>XLR Male Connector Pin 1 Positive Pin 2 Negative Pin 3 Inhibit (tied to negative)</p>	Cable: 2*1.5mm ² *1.2m Connector: 3Pin XLR
14	AC input cable / connector (Customizable)	<p>STANDARD C18</p>  	Cable length: 1.8m
15	LED instruction	<p>LEDs controls and indicators:</p> <p>LED color: Y G O R</p>  <p>30% 50% 70% 85% 100% Power Alarm On / off</p> <p>Y ○ Yellow on - Battery charging capacity G ○ Green on - Fully charged O ○ Orange flash + no yellow LED on - Charger self-test fail - not operational Orange on but no yellow LED on - Charger not connected to battery Orange on + Yellow on - Normal charging R ○ Red flash - Battery connected in wrong polarity Red on - Low battery voltage or Wrong battery or Bad battery</p>	



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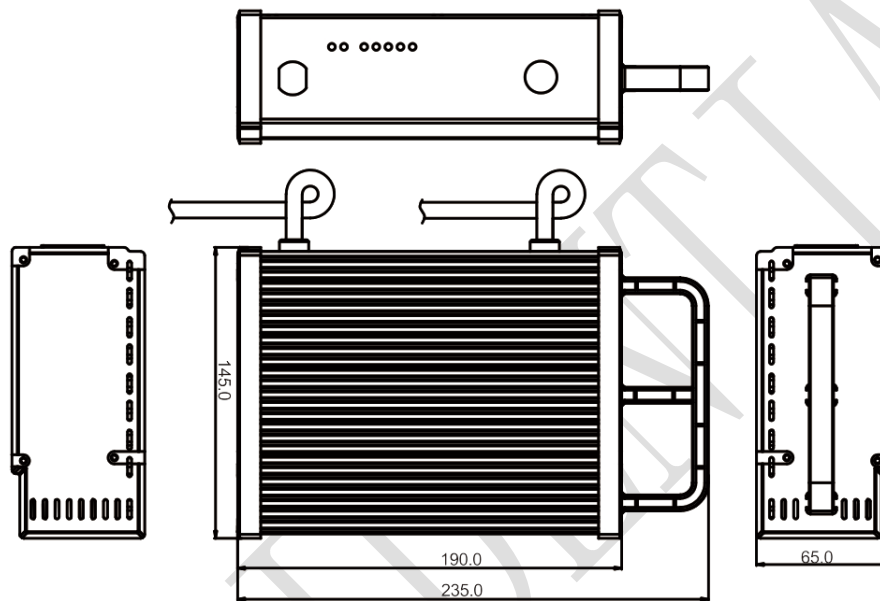
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No	Item	Technical specification	Remark
16	Cooling method	Sealed, without fan, cooled via heat sink	
17	Mechanical fixing	Portable for off-board application	Customizable
18	Dimensions	L190 x W145 x H65 mm	
19	Weight	2Kg	Maybe some tolerance
20	Color	Black	

4. PRODUCT OUTLINE DRAWING



**5. CHARGING ALGORITHM
IUUa for MK Gel & AGM batteries**

