

PF 2408 (24V8A) Technical Specification (Confidential!)

CONTENTS:

1 INTRODUCTION.....1
 2 DOCUMENT HISTORY1
 3 SPECIFICATION 1-2
 4 Charge Profile3
 5 DC Output Connector definition3

1 INTRODUCTION

This document specifies the requirements of Battery charger for **Lead-Acid Battery** project. The charger shall charge a **Lead-Acid Battery with CC/CV/Floating profile**.

The baseline is PowerFirst model PF 2408 (complete sealed without fan) with active PFC

Product picture:

The physical product maybe varies depends on customer’s different requirement and product application.



Complete sealed without fan

2 DOCUMENT HISTORY

Table 2-1 Document History

Version	Date	Change record	Creator
1.0	12.04.13	Initial version	PowerFirst

3 SPECIFICATION

Table 3-1 Specification

No	Item	Technical specification	Remark
1	Rated input voltage	100 -240 VAC +/-10%	Universal
2	AC frequency	50-60Hz	
3	CC Output	8A +/-0.5A	I1
4	CV Output	28.2V ~ 28.8V (2.35/cell)	V2
5	Floating charge voltage	27.2V ~ 27.6V (2.3/cell)	
6.	Cooling	Without fan (the charger is complete sealed, non fan, so non noise during charging)	
7	Efficiency	Efficiency >=91.5% under 230V input	
8	OVP	Voltage limited to 28.8V + 0.4V (+ 0.05V/cell)	

PF 2408 (24V8A) Technical Specification (Confidential!)

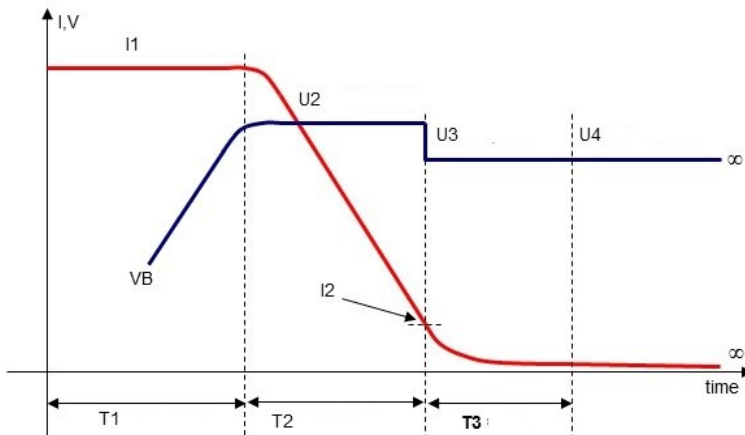
9	OCP	Over current protection	
10	Short circuit protection	Short circuit protection should be automatically recovery after remove the condition	
11	Reverse polarity protection	Reverse polarity protection should be automatically recovery after remove the condition	
12	Additional protection	Sparkless protection, AC surge protection, Over temperature protection	
13	Operating temperature	0°C ..40°C	
14	Environmental protection	IP21	
15	LVD/EMC/ROHS	EN60601-1:2006 (CE certified) UL60601-1:2003 CAN/CSA-C22.2 No.601.1-M90 (UL certificated) EMC compliance according to EN55011 and FCC Part 15 RoHS compliance according to 2011/65/EU	
No	Item	Technical specification	Remark
16	Output connector	DC Output: 3PIN XLR connector (optional) Cable length: 1.2M	Measured from case to connector (Extra length extending support if pay extra cost)
17	AC input cable/connector	IEC 320 (optional) AC power cord with European plug.	Affix separate AC cable per different market domain, the cable length can be optional
18	LED instruction	Y ○ Yellow on = Battery charging capacity G ○ Green on =Fully charged. Battery ready for use! O ○ Orange flash = Charger self-test fail – not operational Orange 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/Wrong battery/Bad battery	
19	Mechanical fixing	Off board with a plastic handle	
20	Dimensions	L190 x W145 x H65 mm	
21	Weight	2.0kg (exclude the AC power cord)	Maybe some tolerance

PF 2408 (24V8A) Technical Specification (Confidential!)

4. Charge Profile @ Figure 3-1

(Remarks: Microchip processor control, can be programmed per customer's specific charging curve request)

■ IUUa for Generac GEL and AGM batteries



5. DC Output Connector definition

Output Signal	Pin	Connector	Description	Type
Charge +	1	XLR 3 pin connector	PIN 1 B+	
Charge -	2		PIN 2 B-	Pin 2 bridge to Pin 3 for inhibit (forbidden the vehicle from moving during charging)