



## Features

- Universal input 100-240VAC
- Output Power: 24-48W
- Plastic Enclosure
- Approved to UKCA, CE
- LVD & EMC Class B Certified, RoHS & REACH compliant
- 12V Lead Acid 3 Stage Control (Fast/Normal/Float)
- OVP, OCP, OTP, SCP
- Dimensions: Dependent on Model
- Weight: Dependent on Model

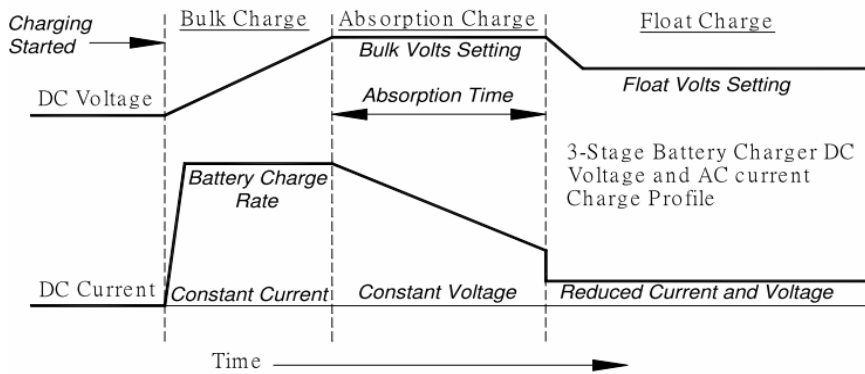


Ideal Power's 31ACWW12\_24A Range of 12-24V Lead Acid Battery Chargers Series are certified to UKCA, CE, RoHS, REACH & EN 62368-1 Standards and comply with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

Models	31AC0212A	31AC0224A
Input Voltage	100V ~ 240V universal	
Input Frequency	47Hz ~ 63Hz	
Output Max Current	2Amp	2Amp
Output Volts	12V	24V
Output Power	24W	48W
Max Charging Current	2A +/- 0.2A	
Working Temperature	0 ~ 50 °C	
Hold up Time	8 ms at full load output power and 115 Vac input	
Battery Application	Lead Acid Battery	
LED - Charging	Red	
LED - Charged	Green	
Mains Lead	1.8M EURO Plug + 1.8M UK Fuse Plug	
DC Cable	SPT2, 2C, 18AWG, 1.8M mount clips	
Dimensions	119 x 61 x 37 (LxWxH) mm	
Weight	0.5 (Kgs)	
Safety	CE, CUL	
Specifications are subject to change without notice.		

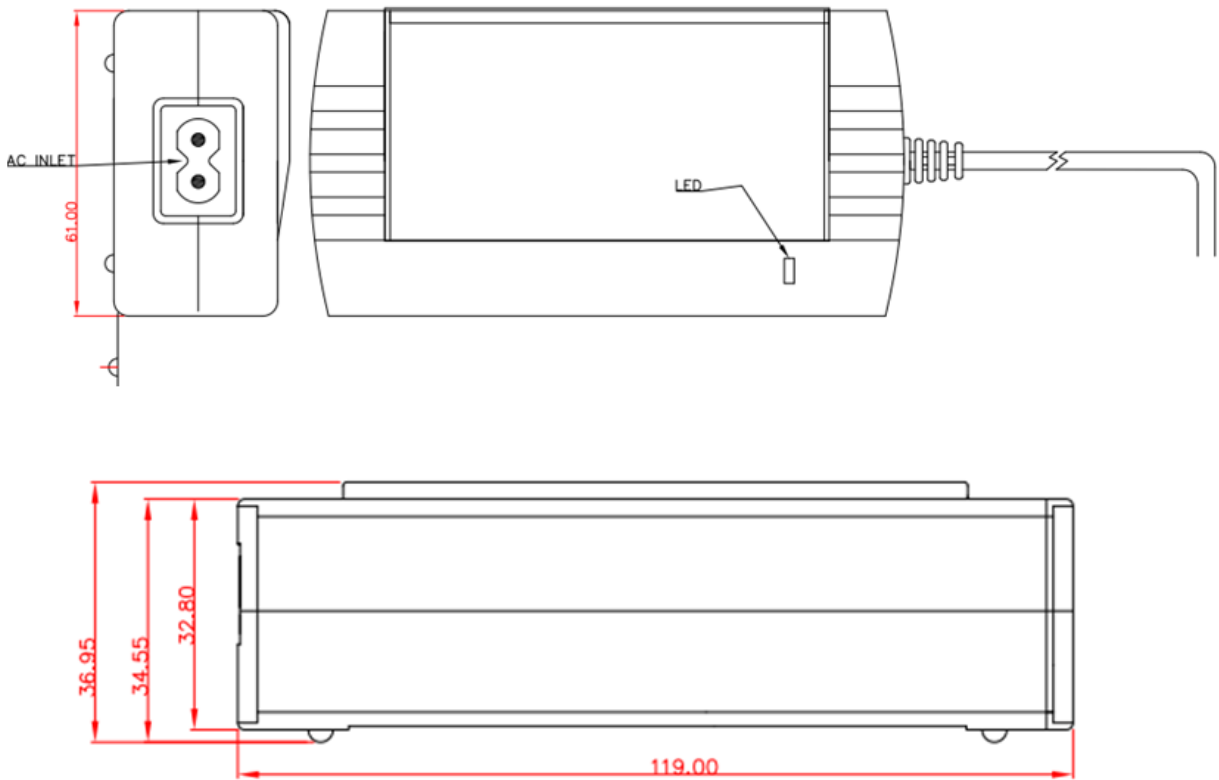


**Three Steps of Charging & Charge Curve**



Step 1	Bulk charge – bring batteries to 75% capacity fast. During this stage charging occurs at full power, which means maximum current, until the battery voltage reached the set limit.
Step 2:	Absorption Charge, boost – slow the current flow, adjusting for maximum efficiency and gently topping off batteries. During absorption charging the current decreases as the battery approached full charge.
Step 3	Trickle Charge – for longer period, maintains fully charged batteries without harmful effects of overcharging and cooking. Trickle charge is intended to keep the battery in a fully charged state and compensates for self-discharge. When the current reaches setting point the battery switches to a maintenance charge at a constant voltage. Should the battery be in use and the charge current subsequently exceed setting point the charger will automatically return to the beginning of the three-step charge characteristic.

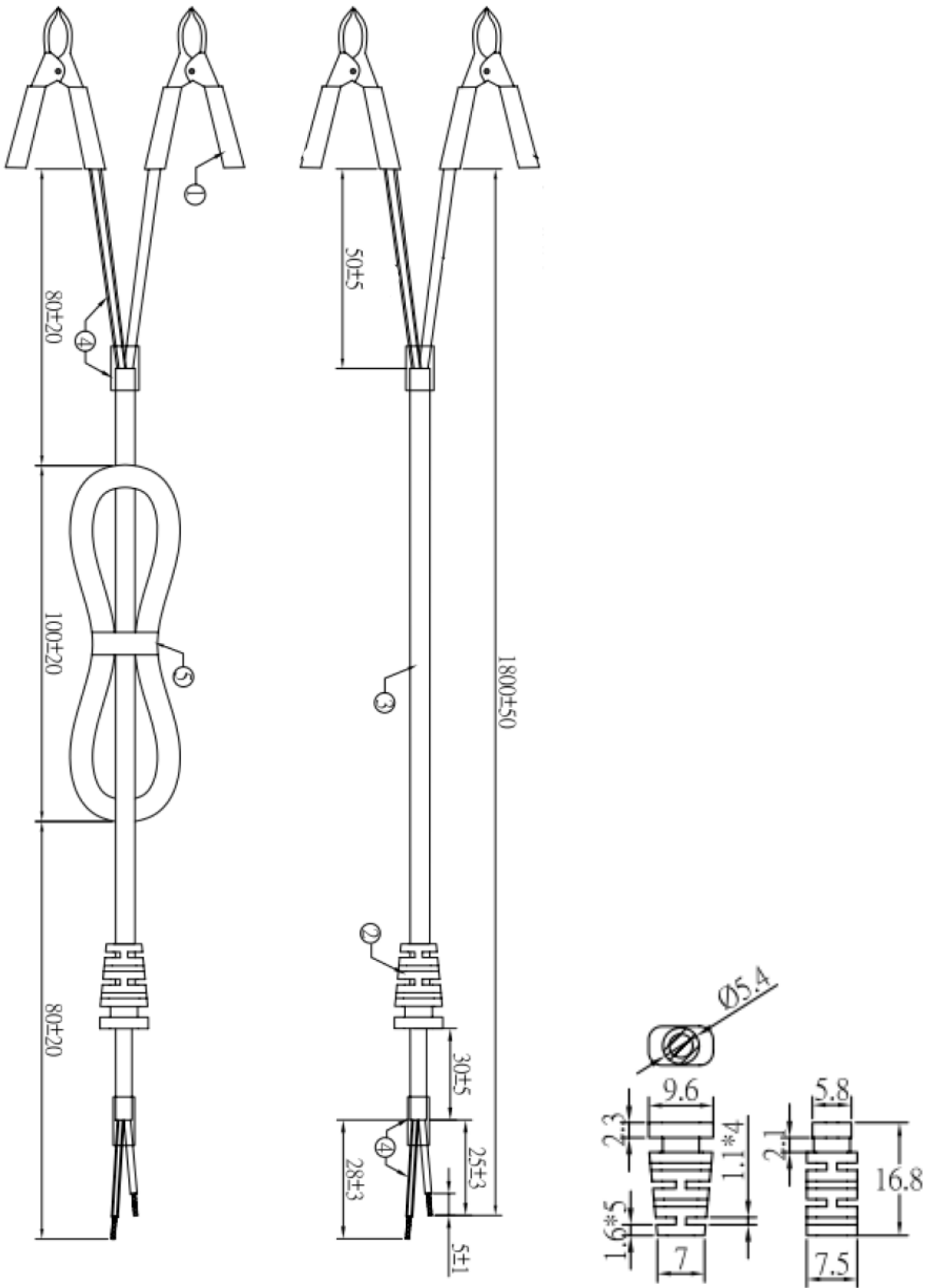
**Case Drawing**



AC – DC



Cables



AC - DC



### Mains Lead

**PLUG MARK**

**CONNECTOR MARK**

N16494  
BS EN60320  
Licence No. 1881/2018

PHINO  
PHS-204  
2.5A 250V~

1. PVC MOLDED PLUG: PHP-318 ( FUSE=3A, BLACK )  
 2. PVC FLEXIBLE CORD: H03VVH2-F 2X0.75mm<sup>2</sup> (BLACK)  
 3. ELLIPTIC TIE (BLACK)  
 4. PVC MOLDED CONNECTOR: PHS-204 (BLACK)

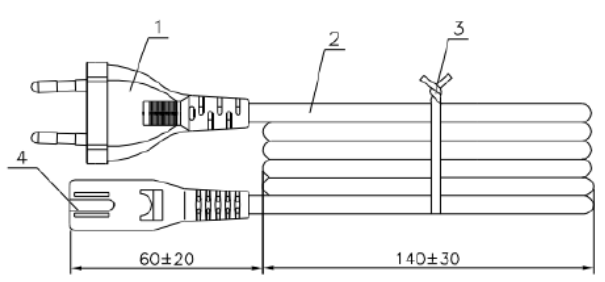
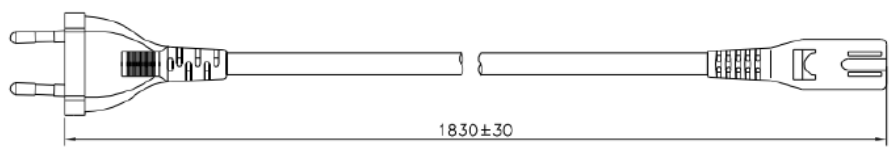
NOTE: ALL MATERIALS ARE RoHS COMPLIANCE.

**CORD SECTION:**

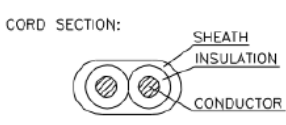
**CORD MARKING:**

PHINO Cabo H03VVH2-F 2X0.75mm<sup>2</sup> <NDE> KEMA-KEUR IEMMEQU +0+0+0+0 <DVE>  
 CE BEC (S) (N) (D) (F) SABS SANS 60227-5 60227 IEC 52 300/300V CE -LF- ROLL NO: 1,2,3... CHINA FACTORY

PART NO.		TITLE	POWER SUPPLY CORD PHP-318 TO PHS-204		
		INTERNAL NO.	P318-0447-1		
DESIGNED	ZhangGuangLuo 2017.10.27	UNIT	MM	SCALE	FREE
CHECKED	[Signature]	MATERIAL			<b>PHINO</b>
APPROVED	[Signature]	PROJECTION			



1. PVC MOLDED PLUG: PHP-205 (BLACK)  
 2. PVC FLEXIBLE CORD: H03VVH2-F 2X0.75MM<sup>2</sup> (BLACK)  
 3. VINYL TIE (BLACK)  
 4. PVC MOLDED CONNECTOR: PHS-204 (BLACK)



**CORD MARKING:**

PHINO H03VVH2-F 2X0.75mm<sup>2</sup> <NDE> KEMA-KEUR IEMMEQU +0+0+0+0  
 <DVE> CE BEC (S) (N) (D) (F) LTSA-2F N18895 SABS 1574:2001 227 IEC 52  
 CE -LF- ROLL NO: 1,2,3... CHINA FACTORY

AC - DC