



- 3 Stage Charge Control (Fast/Normal/Float)
- Automatic transfer to Float Voltage on full charge
- Reverse Polarity Protected
- Short Circuit Output Protected
- Universal Input 100~240VAC 50/60Hz
- LED Charge Indicators included
- Comes with fused UK Mains Lead
- Compliant to LVD & EMC safety standards
- RoHS & CE Directive compliant

12V/24V DC Lead Acid Battery Charger fitted with crocodile as standard.

Models

Model Number	Output Power	Output Voltage	Output Current	Efficiency
31AC0212A	30W	14.6V DC	2A	82%
31AC0224A	59W	29.2V DC	2A	86%

Input Data

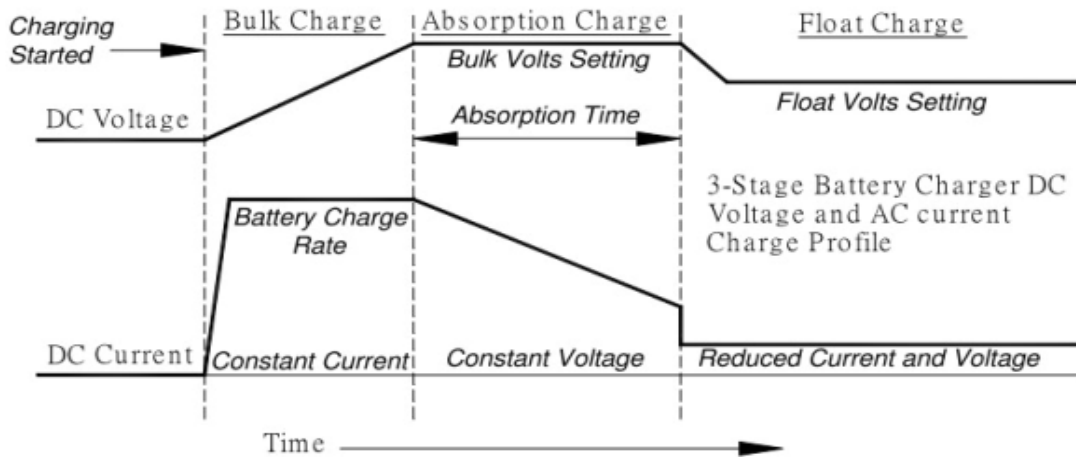
	Min	Typical	Max	Units	Notes
Input Voltage	90		264	V AC	100-240VAC +/- 10%
Input Frequency	47		63	Hz	50-60Hz +/- 5%
Input Current	0.8		1.6	A	115 / 230V AC
Inrush Current	15		30	A	At cold start, 115 / 230V AC
Leakage Current		12		mA	

Output Data

	Min	Typical	Max	Units	Notes
Output Voltage (for 12V)	13.7		14.6	V DC	Float charge / absorption charge
Output Voltage (for 24V)	27.4		29.2	V DC	Float charge / absorption charge
Charging Current		2		A	
Float Voltage Start Point	0.3		0.6	A	
Ripple & Noise		300		mA p-p	
Over Load Protection					Input to Output at 100-240Vac input, Auto Recovery
Short Voltage Protection					Lock output, manual on/off switch for Recovery
Over Voltage Protection					Resistor and Zener to limit voltage

Environmental Data					
	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	0		45	°C	
Storage Temperature	0		70	°C	
Operating Humidity	20		90	°C	
Storage Humidity	10		95	°C	
Other Information					
	Minimum	Typical	Maximum	Units	Notes
Isolation					Input isolate Chassis : 500M OHM
Fan Control					Fan on fast speed: Bulk/Absorption charge Fan on slow speed: Float charge
LED Indication					LED 1: Red -> Power on LED 2: Red -> charging, Green -> Full charge
MTBF		30,000		hrs	
Weight	0.5 kg				
Dimensions	119x61x37mm (refer to mechanical drawing)				

Charge Curve



EMC Emmisions (2014/30/EU)

	Standard	Test Level	Criteria	Notes
Conducted	EN 55032	Pass	B	
Radiated	EN 55032	Pass	B	
Harmonic Current	EN 61000-3-2	Pass	A	
Voltage Flicker	EN61000-3-2	Pass		

EMC Immunity (2014/30/EU)

	Standard	Test Level	Criteria	Notes
EMS	EN 55024	Pass	A	
ESD	IEC 61000-4-2	Pass	B	Contact: +/- 4KV; Air: +/- 8KV
RS	IEC 61000-4-3	Pass	A	Frequency: 80-1000MHz; Field Strength: 3V/M ' 80% AM (1KHz)
EFT	IEC 61000-4-4	Pass	B	1.0KV on input AC power ports
Surges	IEC 61000-4-5	Pass	B	Line to Line: +/- 1KV (peak); Line to F.G: +/- 2KV (peak)
Conducted	IEC 61000-4-6	Pass	A	150KHz to 80MHz 3Vms
PFMF	IEC 61000-4-8	Pass	A	50Hz, 60Hz, 1A/m
Dips and Interruptions	IEC 61000-4-11	Pass	Complies	0%, 70%, 0% of UT

Safety Approvals

	Safety standard
CE	EMC Directive 2014/35/EU, LVD Directive 2014/30/EU, RoHS Directive 2011/65/EU

Mechanical Drawings

