

2240 SERIES

3 Step Battery Charger: 15 Watts



Features

- 3-Step charge control with **current detection** as charge termination
- Universal input: 90 - 264VAC
- LED indicates charger state
- Available in 6V, 12V and 24V Lead Acid batteries
- Customer special specifications available on request
- Medical approval EN60601
- CE marked and EMC approval
- 2-pin IEC320 mains input
- Optional mounting bracket
- **IP67** waterproof option

General Specifications

Input Voltage:	90 - 264VAC
Output Power:	15 watts
Output Voltage:	6 - 36VDC (other voltages on request)
Voltage Range	Fixed
Load Regulation:	±1%
Line Regulation:	±0.5%
Insulation:	2pin IEC320 Class II
Isolation:	Input - Output: 4000VAC
Safety:	EN60950, EN60601-1, EN60335-2
EMC:	Medical: EN60601-1-2 Emission: EN61000-6-3 Immunity: EN61000-6-1
Operating Temp:	-20°C to +40°C
Efficiency:	Model dependent, typically 80%
LED:	<ul style="list-style-type: none"> • Orange = charge current • Orange = charge voltage • Green = charge terminated
Protection:	Reverse polarity and short circuit protection
Dimensions/Weight:	90 x 45 x 32mm. 115g

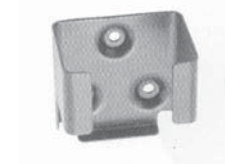
Description

The 2240 series battery charger is a 15 watt low power unit, for use with 6V, 12V, 24V, and 36V Lead Acid batteries. Charge control is with **current detection** as charge termination and an LED indicates the condition of the 3-step charge. Models with **Medical** approvals available as well with waterproof **IP67** case.

Options

Input Connector:	Standard mains input: 2 pin IEC320. Fixed mains power cord option (special orders).
Output Plug:	A variety of output plugs available, consult office for details
Waterproof:	Models with IP67 waterproof rating
Mounting Bracket:	Bracket for panel mounting P/N: 202906

Mounting Bracket option



LED Indicator	Model Charge	2240 - 6V Output	2240 - 12V Output	2240 - 24V Output	2241 - 36V Output
Step 1 - Orange	Charge Current	1.3A +5 -7%	1.0A +5 -7%	0.5A +5 -7%	0.35A +5 -7%
Step 2 - Orange	Charge Voltage	7.35V	14.7V	29.4V	44.1V
Step 3 - Green	Charge Termination	250mA ±20%	250mA ±20%	250mA ±20%	150mA ±20%
Standby Voltage		6.85V	13.7V	27.4V	41.1V
Battery Capacity		4 - 12AH	3 - 12AH	1.5 - 12AH	1 - 7AH

9640 SERIES

3 Step Battery Charger: 40 Watts

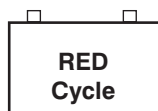


Features

- 3-step charge control with timer
- Plug-in switch mode design
- LED indicator with three different colours
- Medical safety approval: Model **9641** option
- Optional battery clips or various barrel plug connectors
- Fully isolated input - output
- Overload and short circuit protection
- EMC approved, CE marked

General Specifications

Input Voltage:	230 VAC (190 - 264 VAC)
Output Power:	40 watts
Output Voltage:	6V models: 6.9V float, 12V models: 13.8V float, 24V models: 27.6V float 36V models: 41.4V float
Efficiency:	Typically 81%
Load Regulation:	±1%
Line Regulation:	±0.5%
Insulation:	2 pin Australian plug Class II
Isolation:	Input - Output: 4000VAC
Safety:	EN60950, AS/NZ60950, EN60335-2- 29
EMC:	Emission: EN61000-6-3 Immunity: EN61000-6-1
Operating Temp:	-10°C to +40°C
Protection:	Current limiting and short circuit protection. Automatically resettable fuse protects the charger against wrong polarity
LED Indicator:	<ul style="list-style-type: none"> • Red = constant current • Yellow = constant voltage timer on • Green = constant voltage float mode
Dimensions/Weight:	100 x 51 x 63mm. 250g



Model	Output Cycle	Voltage Float	A	Battery Capacity
9640 - 6	7.35V	6.9V	2.7A	11 - 60AH
9640 - 12	14.7V	13.8V	2.7A	11 - 60AH
9640 - 24	29.5V	27.6V	1.5A	6 - 30AH
9640 - 36	44.1V	41.4V	1.0A	4 - 20AH

Description

The 9640 series is part of a family of **3-Step** chargers from 10 - 240 watts. These 3-step chargers are designed for **Cyclic** applications, where the need to re-charge a battery as quickly as possible is the main requirement.

The charger operates in a boost/timer mode for approximately 4½ hours. At the end of the timer period, the charger will return to a Float Voltage level, where it can be left on indefinitely.

The timer is automatically activated when the AC power is switched on.

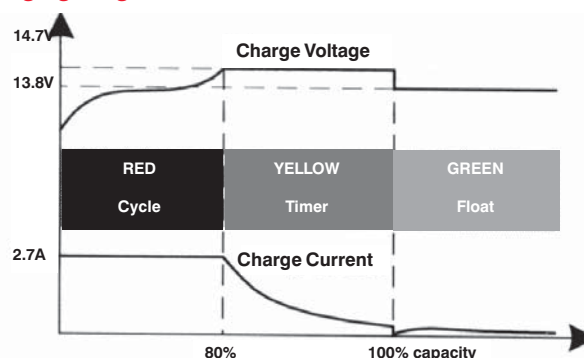
Options

Timer:	Units can be offered with different timer periods including zero timer. In this case the charger operates in the float mode, making it suitable for standby applications, where battery and load are connected to the charger.
Medical:	Model 9641 available with medical approvals, contact office. Minimum order applies.
Li-ion:	Model Li-9641 available for use with Li-ion batteries.

- **6V and 36V models, not stock models, require a minimum order of 30 pieces.**



Charging Diagram



9940 SERIES

3 Step Battery Charger: 40 Watts

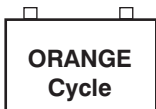


Features

- 3-step charge control with timer
- Universal input 90~264 VAC
- LED indicators with three different colours
- Medical safety approval
- Optional battery clips or various barrel plug connectors
- Fully isolated input - output
- Overload and short circuit protection
- EMC and CE marked
- Optional mounting bracket
- IP67 waterproof option

General Specifications

Input Voltage:	90 - 264VAC
Output Power:	40 watts
Output Voltage:	12V models: 13.8V float 24V models: 27.6V float 36V models: 41.4V float
Efficiency:	Typically 81%
Load Regulation:	±1%
Line Regulation:	±0.5%
Insulation:	2pin IEC320 Class II
Isolation:	Input - Output: 4000VAC
Safety:	EN60950, AS/NZ60950, EN60335-2-29 EN60601, UL60601-1
EMC:	Medical: EN60601-1-2 Emission: EN61000-6-3 Immunity: EN61000-6-1
Operating Temp:	-10°C to +40°C
Protection:	Current limiting and short circuit protection. Automatically resettable fuse protects the charger against wrong polarity.
LED Indicator:	<ul style="list-style-type: none"> • Orange = constant current • Yellow = constant voltage timer on • Green = constant voltage float mode
Dimensions:	107 x 67 x 37mm. 250g



Model	Output Cycle	Voltage Float	A	Battery Capacity
9940 - 12	14.7V	13.8V	2.3A	9 - 60AH
9940 - 24	29.5V	27.6V	1.3A	4 - 30AH
9940 - 36	44.1V	41.4V	0.9A	3.20AH

Description

The 9940 series is part of a family of **3-Step** chargers from 10 - 240 watts. These 3-step chargers are designed for **Cyclic** applications, where the need to re-charge a battery as quickly as possible is the main requirement.

The charger operates in a boost/timer mode for approximately 2 - 3 hours. At the end of the timer period, the charger will return to a Float Voltage level, where it can be left on indefinitely.

The timer is automatically activated when the AC power is switched on.

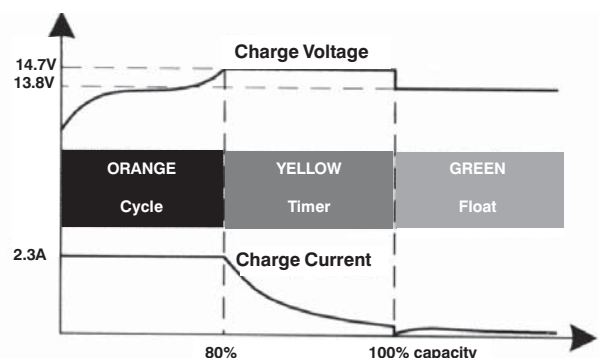
Options

- Timer:** Units can be offered with different timer periods including **zero** timer. In this case the charger operates in the float mode, making it suitable for standby applications, where battery and load are connected to the charger.
- Power Cord:** IEC320 input connector with power cable is standard. Optional **fixed** mains power cable.
- Mounting Bracket:** Optional bracket for panel mounting **P/N:201565**
• (36V models not stock model)

Mounting Bracket option



Charging Diagram



2040 SERIES

3 Step Battery Charger: 50 Watts



Features

- 3-step charge control with timer
- Universal input 90 - 264 VAC
- LED indicators with three different colours
- Medical safety approval
- Wide range of output connector options
- Fully isolated input - output
- Overload and short circuit protection
- Waterproof (IP67) models on request
- Optional mounting bracket

General Specifications

Input Voltage:	90 - 264VAC
Output Power:	50 watts
Output Voltage:	12V models: 13.8V float 24V models: 27.6V float 36V models: 41.4V float
Efficiency:	Typically 81%
Load Regulation:	±1%
Line Regulation:	±0.5%
Insulation:	3 pin IEC320 Class I
Isolation:	Input - Output: 4000VAC
Safety:	EN60601, EN60950 EN60335-2-29
EMC:	Medical: EN60601-1 Emission: EN61000-6-3 Immunity: EN61000-6-1
Operating Temp:	-10°C to +40°C
Protection:	Current limiting and short circuit protection. Automatically resettable fuse protects the charger against wrong polarity.
LED Indicator:	<ul style="list-style-type: none"> • Orange = constant current • Yellow = constant voltage timer on • Green = constant voltage float mode
Dimensions/Weight:	135 x 80 x 44mm. 350g



Description

The 2040 series is part of a family of **3-Step** chargers from 10 - 240 watts. These 3-step chargers are designed for **Cyclic** applications, where the need to re-charge a battery as quickly as possible is the main requirement.

The charger operates in a boost/timer mode for approximately 2 - 3 hours. At the end of the timer period, the charger will return to a Float Voltage level, where it can be left on indefinitely.

The timer is automatically activated when the AC power is switched on.

Options

Timer: Units can be offered with different timer periods including **zero** timer. In this case the charger operates in the float mode, making it suitable for standby applications, where battery and load are connected to the charger.

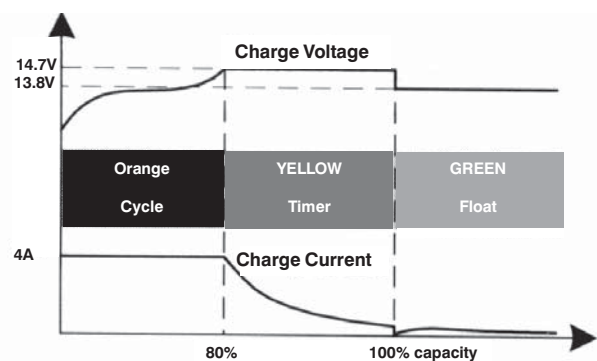
Waterproof: Optional **IP67** waterproof case available

Mounting Bracket: Optional bracket for panel mounting **P/N:201970**

Mounting Bracket option



Charging Diagram



Model	Output Cycle	Voltage Float	A	Battery Capacity
2040 - 12	14.7V	13.8V	4.0A	15 - 90AH
2040 - 24	29.5V	27.6V	2.0A	7 - 45AH
2040 - 36	44.1V	41.4V	1.4A	5 - 30AH

2047 SERIES

3 Step Battery Charger: 130 Watts



Features

- 3-step charge control with timer
- LED indicator with three different colours
- Wide input 190 - 264 VAC
- Charge current not affected by input voltage fluctuations
- Protected against reverse polarity
- Fully isolated input - output
- Overload and short circuit protection
- EMC approved, CE marked
- Mounting bracket options

General Specifications

Input Voltage:	190 - 264 VAC
Output Power:	130 watts
Output Voltage:	12V models: 13.7V float, 24V models: 27.4V float 36V models: 40.8V float 48V models: 54.8V float
Efficiency:	Typically 81%
Load Regulation:	±1%
Line Regulation:	±0.5%
Insulation:	Class I
Isolation:	Input - Output: 4000VAC
Safety:	EN60335-2
EMC:	Emission: EN61000-6-3 Immunity: EN61000-6-1, EN55014
Operating Temp:	-20°C to +50°C
Protection:	Short circuit protection & reverse polarity protection.
LED Indicator:	<ul style="list-style-type: none"> • Red = constant current • Yellow = constant voltage timer on • Green = constant voltage float mode
Dimensions/Weight:	192 x 109 x 54mm. 980g

Description

The 2047 series is part of a family of **3-Step** chargers from 10 - 240 watts. These 3-step chargers are designed for **Cyclic** applications, where the need to re-charge a battery as quickly as possible is the main requirement.

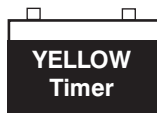
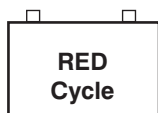
The charger operates in a boost/timer mode for approximately 4½ hours. At the end of the timer period, the charger will return to a Float Voltage level, where it can be left on indefinitely.

The timer is automatically activated when the AC power is switched on.

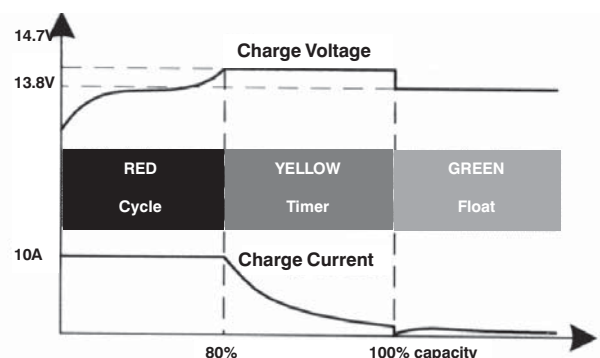
Options

Timer: Units can be offered with different timer periods including **zero** timer. In this case the charger operates in the float mode, making it suitable for standby applications, where battery and load are connected to the charger.

Mounting Brackets: Bracket for panel mounting P/N: FCS-207773



Charging Diagram



Model	Output Cycle	Voltage Float	A	Battery Capacity
2047 - 12	14.7V	13.7V	10A	40 - 400AH
2047 - 24	29.5V	27.4V	5A	20 - 200AH
2047 - 36	44.1V	40.8V	3.3A	15 - 150AH
2047 - 48	58.8V	54.8V	2.5A	100 - 100AH

9840, 9740, 2045 SERIES

3 Step Battery Charger: 75 - 240 Watts



Features

- 3-step charge control with timer
- LED indicators with three different colours
- Variety of output voltage options: 12 - 48V models
- Fully isolated input - output
- Overload and short circuit protection
- Waterproof (IP67) models on request
- Medical and safety approved models
- EMC and CE marked
- IP21 enclosure, with flange mounting
- Battery clips standard, other output connector options on request

General Specifications

Input Voltage:	190 - 264VAC
Output Power:	75 - 240 watts
Output Voltage:	12V models: 13.7V float, 24V models: 27.4V float 36V models: 40.8V float 48V models: 54.8V float
Efficiency:	Typically 81%
Load Regulation:	±1%
Line Regulation:	±0.5%
Insulation:	Class I
Isolation:	Input - Output: 4000VAC
Safety:	EN60335-2 (EN60601-1: 9740 & 9840)
EMC:	Emission: EN61000-6-3 Immunity: EN610006-1
Operating Temp:	-25°C to +50°C
Protection:	Current limiting and short circuit protection. Reverse polarity protection.
LED Indicator:	<ul style="list-style-type: none"> • Orange = constant current • Yellow = constant voltage timer on • Green = constant voltage float mode
Dimensions/Weight:	9480: 158 x 171 x 54mm. 1.27Kg 9740: 184 x 171 x 54mm. 1.5Kg 2045: 215 x 186 x 64mm. 2.4Kg

Description

The 9840, 9740 and 2045 series is part of a family of **3-Step** chargers from 10 - 240 watts. These 3-step chargers are designed for **Cyclic** applications, where the need to re-charge a battery as quickly as possible is the main requirement.

The charger operates in a boost/timer mode for approximately 4½ hours. At the end of the timer period, the charger will return to a Float Voltage level, where it can be left on indefinitely.

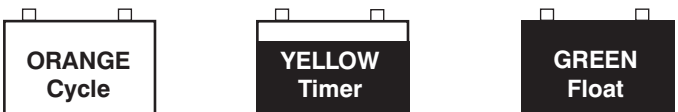
The timer is automatically activated when the AC power is switched on.

Options

Timer: Units can be offered with different timer periods including **zero** timer. In this case the charger operates in the float mode, making it suitable for standby applications, where battery and load are connected to the charger.

Waterproof: Optional **IP67** waterproof case available, models 9740 and 2045

Medical: Medical approved models: 9740 and 9840



Model	Output Cycle	Voltage Float	A	Battery Capacity
9740 - 12	14.7V	13.7V	10A	40 - 400AH
9740 - 24	29.4V	27.4V	5A	20 - 200AH
9740 - 36	44.1V	41.1V	3.3A	15 - 150AH
9740 - 48	58.8V	54.8V	2.5A	10 - 100AH
9840 - 12	14.7V	13.7V	5A	20 - 120AH
9840 - 24	29.4V	27.4V	2.5A	10 - 60AH
2045 - 12	14.7V	13.7V	20A	100 - 1000AH
2045 - 24	29.4V	27.4V	10A	50 - 500AH
2045 - 36	44.1V	41.1V	6.7A	35 - 350AH
2045 - 48	58.8V	54.8V	5A	25 - 250AH

Charging Diagram

