



DESCRIPTION

The Curtis DME Switch-mode Chargers allow easy charging of electric vehicle batteries at any outlet. These chargers safely recover deeply discharged batteries as well as protect from overcharging.

1604CS: 24V, 4A, convection, sealed

1604FV: 24V, 8A, fan, vented

1608FS: 24V, 8A, fan, sealed

WARRANTY

Two Year Limited Warranty
(see terms of sale for specifics)

Application

The Curtis switch-mode battery chargers are ideal for charging Durable Medical Equipment and electric vehicles utilizing 24V power, such as scooters and wheel chairs.

Features

- Microprocessor control allows switch-mode operation for faster charging.
- Light weight and compact size offers space advantages over other chargers.
- All units feature Auto Voltage Select (AVS): One unit operates for 100VAC, 120VAC or 230VAC. Eliminates the need to service and stock multiple models.
- Power limit battery charging (using algorithm) depending on battery state of charge.
- 1604CS will charge 60 A.h battery in 8 hours. 1604FV and 1608FS will charge 100 A.h battery in 8 hours.
- Automatic shutoff and restart to compensate for battery self discharge.
- Reliable charging is achieved through a multi-stage, multi-mode charging algorithm.
- 1604CS has natural convection/conduction cooling that eliminates the need for a fan. 1604FV and 1608FS have forced air cooling with temperature regulation for long fan life.
- Thermal protection prevents damage from over temperature conditions.
- Input & output protected by fuse.
- Output current is limited so as not to exceed the maximum power and/or thermal capacity.
- Output is short circuit and reverse polarity protected.
- Suitable for lead acid or NiMH batteries.
- LEDs indicate AC Power ON, Charging Status and Fault Conditions.
- On-board/off-board interlock provided.
- Optional mounting kit (not shown).
- IP 54 electronics packaging on models 1604CS & 1608FS. (see note under Model Encodement)

Model Encodement

Model Number	Cooling	Sealing	Input Voltage (see note 1)	Output Voltage	Output Current
1604-CS-AVS/24/04-001	Convection	IP54	100 - 240 VAC (AVS)	24	4A
1604-FV-AVS/24/08-001	Fan	IP30	100 - 240 VAC (AVS)	24	8A
1608-FS-AVS/24/08-001	Fan	IP54 (see note 2)	100 - 240 VAC (AVS)	24	8A

Note 1: AVS = Auto Voltage Select

Note 2: Electronics protected to IP54, Fan protected to IP30

Specifications

Input:

Voltage:
Frequency Range:
Input Current:

Input Leakage:

1604CS

@120V	@230V
90-132 VAC	208-264 VAC
47-63 Hz	47-63 Hz
2.0 A-rms Max	1.0 A-rms Max
@ 60 Hz	@ 50 Hz
<500uA	<500uA

1604FV/1608FS

@120V	@230V
104-132 VAC	208-264 VAC
47-63Hz	47-63Hz
4.0 A-rms Max	2.0 A-rms Max
@ 60Hz	@ 50Hz
<500uA	<500uA

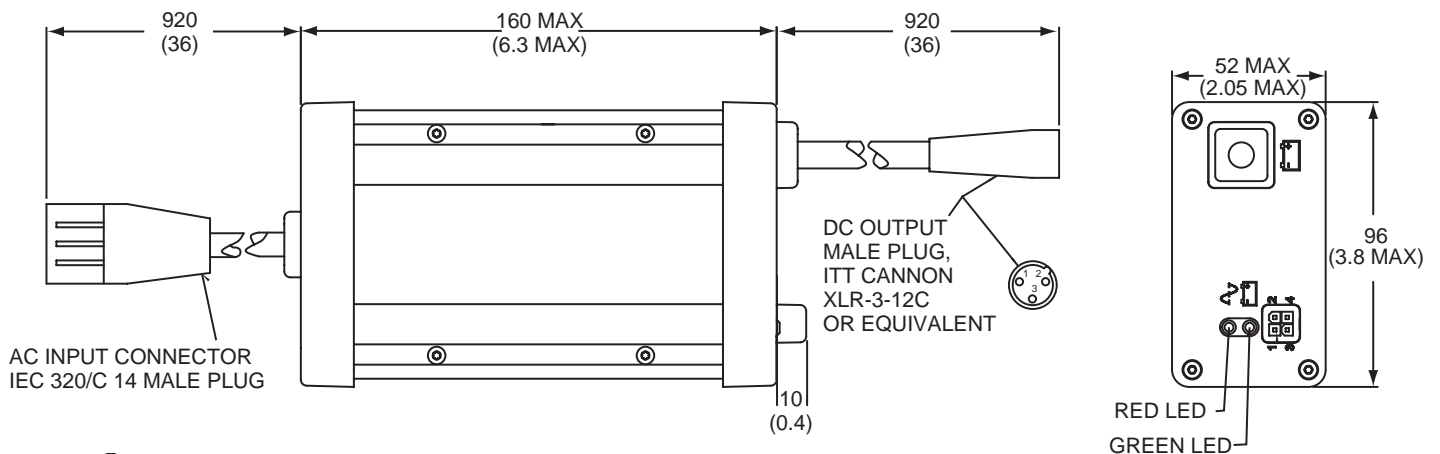
Output:

Voltage:
Current:
Power Max:
Power Nom:

12-30 VDC nominal
4.5 A Max
125W
100W

12-30 VDC nominal
8.5 A Max
250W
200W

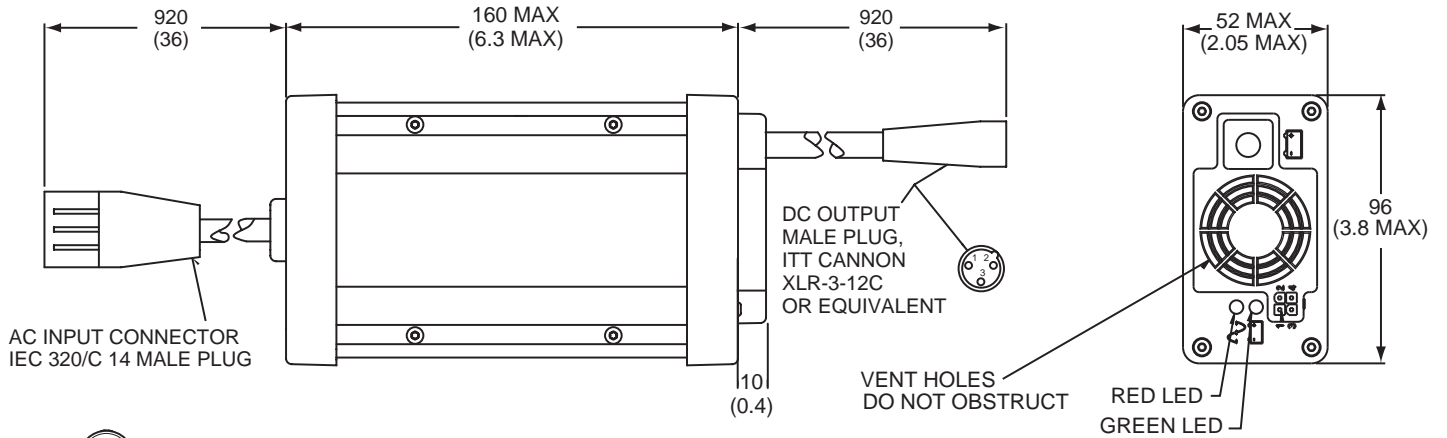
1604CS Dimensions: mm (inches)



OPTIONAL 3 PIN TO 6 PIN
DIN ADAPTOR

Note: Please specify Optional Curtis P/N 17604348-1 for cable to interface directly with Curtis MC-2 and Model 1288 motor controller.

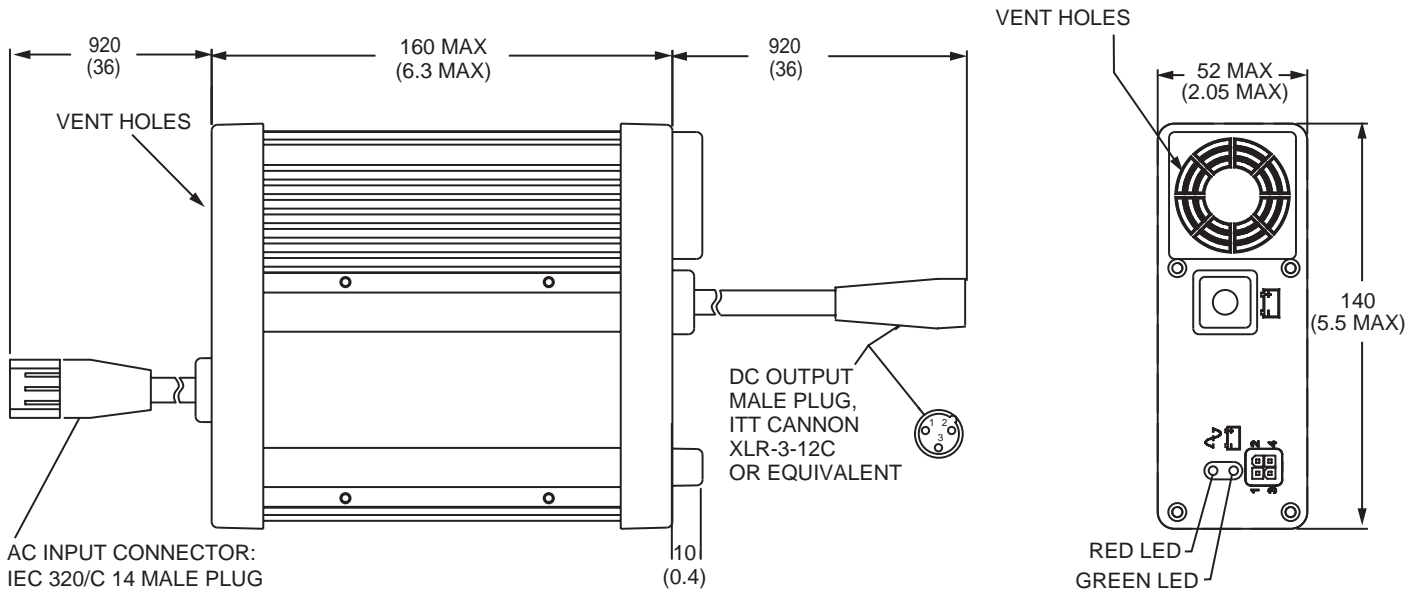
1604FV Dimensions: mm (inches)



OPTIONAL 3 PIN TO 6 PIN
DIN ADAPTOR

Note: Please specify Optional Curtis P/N 17604348-1 for cable to interface directly with Curtis MC-2 and Model 1288 motor controller.

1608FS Dimensions: mm (inches)



OPTIONAL 3 PIN TO 6 PIN
DIN ADAPTOR

Note: Please specify Optional Curtis P/N 17604348-1 for cable to interface directly with Curtis MC-2 and Model 1288 motor controller.

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