



CURTIS

Power Conversion



Battery Chargers

Model 1624



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The Curtis Model 1624 is a high-frequency battery charger that is ideal for use in material handling, airport, golf, aerial lift, sweeper/scrubber, utility, Light-On-Road and general industrial battery-powered vehicles. Model 1624 provides 695 to 1000 Watts at output voltages of 24, 36, 48, 72 and 96 VDC.

FEATURES

- ▶ Wide range AC mains input (85–265 VAC) allows use of one charger anywhere in the world and eliminates the need to stock and service multiple models.
- ▶ Convection cooling eliminates the need for a cooling fan, thereby increasing reliability and eliminating the need for fan replacement/service.
- ▶ Advanced, high-frequency, switchmode design allows more efficient (93% typ), faster charging and optimal charging independent of battery type or condition.
- ▶ IP66 protection allows reliable operation in harsh environments.
- ▶ Power Factor of >0.99 minimizes utility surcharges and optimizes the use of AC line power.
- ▶ Select from an extensive list of approved charge algorithms (default I_1 , I_2 , U , I_3).
- ▶ The chargers can store 10 separate algorithms which can be selected to match the specific batteries in use, thereby eliminating the need for multiple models and resulting in lower operating costs.
- ▶ Lightweight and compact size allows on-board use and offers space advantages over ferro-resonant chargers in traditional off-board installations.
- ▶ Extensive safety features such as reverse polarity and short circuit protection ensure safe operation for both the operator and the charger itself.
- ▶ Multi-color LED allows at-a-glance charge status determination.
- ▶ Battery temperature monitoring allows more accurate measurement and charging.

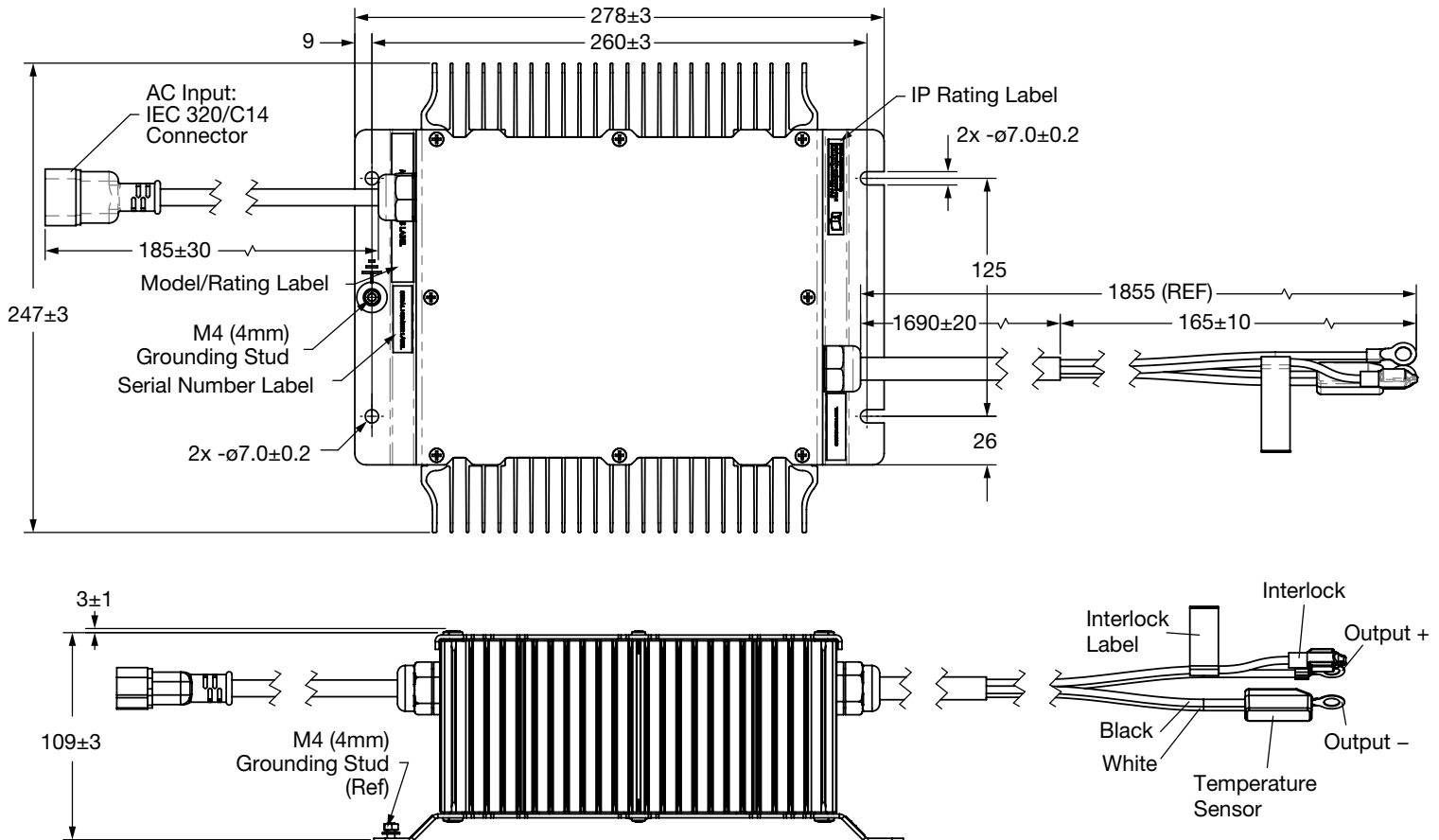


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DIMENSIONS mm



NOTES:

1. All dimensions ± 0.5 unless otherwise noted.
2. Mounting holes accept either 1/4" or metric M6 screws/bolts.
3. Interlock Terminal is protected by a sleeve of heatshrink tubing to prevent accidental short circuits. **Important: do not remove heatshrink if Interlock option is not utilized.**

White	Temperature Sensor
Black	Output - 3/8" Ring Terminal
Interlock (Green Wire)	0.250" Female Faston See Note 3
Red Wire	Output + 3/8" Ring Terminal

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SPECIFICATIONS

DC Output	24 VDC	36 VDC	48 VDC	72 VDC	96 VDC
Maximum DC output power	695 W	875 W	1000 W	1000 W	945 W
Maximum DC output current	25 A	21 A	18 A	12 A	8.5 A
Maximum DC output voltage	34 V	51 V	68 V	100 V	135 V
Deep discharge recovery (minimum voltage)	6 V	9 V	12 V	18 V	24 V
Maximum interlock current	1 A	1 A	1 A	0.5 A	0.5 A
Battery type	Lead acid (Wet / AGM / GEL), lithium ion				
Reverse polarity	Electronic protection with auto-reset				
Short circuit	Electronic current limit				

AC Input	
AC input voltage range	85–265 VAC
Nominal AC input voltage	120 VAC / 230 VAC
Supported AC sources	Single-phase
AC input frequency	45–65 Hz
Maximum / nominal AC input current	12 A / 9.5 A @120 VAC; 5 A rms @230 VAC
Nominal AC Power factor	>0.99 @ 120 VAC; >0.98 @ 230 VAC

Regulatory	
Efficiency	93%; California Energy Commission (CEC) compliant
Safety	UL approved to UL1564 3rd Ed. and CSA 107.2, EN 60335-2-29 Designed to meet UL2202 1st Ed.
Emissions	FCC Part 15 / ICES 003 Class A, EN 55011
Immunity	EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-4

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SPECIFICATIONS continued

Mechanical		
Dimensions	28.0 x 24.6 x 11.0 cm (10.9 x 9.7 x 4.3")	
Weight	< 5 kg. (<11 lbs.)	
AC input connector	IEC320/C14 (requires country-specific cord)	
DC output connector	OEM specific with 12 AWG wire	

Environmental		
Enclosure	IP66 (NEMA4)	
Operating temperature	-30°C to +50°C (-22°F to 122°F)	Derated at >30°C (86°F), <0°C (32°F)
Storage temperature	-40°C to +70°C (-40°F to 158°F)	

WARRANTY Two year limited warranty from time of delivery.

