CURTIS

Power Conversion

Battery Chargers

Model 1621

delta-q TECHNOLOGIES

Model 1621

Battery Chargers

The Curtis Model 1621 high frequency battery chargers are portable and allow easy charging of industrial vehicle batteries from 24 VDC to 96 VDC using any standard outlet in the world.

Curtis Model 1621 battery chargers are ideal for use in material handling, airport, golf, aerial lift, sweeper/scrubber, utility, Light-On-Road and general industrial battery-powered vehicles.

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 (90% 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.
- LEDs allow at-a-glance charge status determination.
- Battery temperature monitoring available via an optional temperature sensor input—allows more accurate measurement and charging.

See a 360° view of Model 1621 at:
curtisinstruments.com/360view

Model 1621

Battery Chargers

SPECIFICATIONS

	2411	3611	4811	7211	8411	9611
DC Output:						
DC Output Voltage - nominal	24 V	36 V	48 V	72 V	84 V	96 V
DC Output Voltage - maximum	34 V	51 V	68 V	100 V	120 V	135 V
DC Output Current - maximum	25 A	21 A	18 A	12 A	10 A	9 A
Interlock Current - maximum	1 A	1 A	1 A	0.5 A	0.5 A	0.5 A
Battery Type	Specific to selected algorithm					
Reverse Polarity	Electronic protection – auto-reset					
Short Circuit	Electronic current limit					
AC Input						
AC Input Voltage - range	85 - 265 VAC					
AC Input Voltage - nominal	120 VAC / 230 VAC rms					
AC Input Frequency	45 - 65 Hz					
AC Input Current - maximum/nominal	12 A / 9.5 A rms @ 120 VAC or 5 A rms @ 230 VAC					
AC Power Factor - nominal	> 0.99 @ 120 VAC / > 0.98 @ 230 VAC					
Mechanical						
Dimensions	28.0 x 24.6 x 11.0 cm (11 x 9.7 x 4.3")					
Weight	< 5 kg (< 11 lbs) w/standard output cord					
Environmental	Enclosure: IP66 (NEMA4)					
Operating Temperature	-30°C to +50°C (-22°F to 122°F), derated above 30°C (86°F), below 0°C (32°F)					
Storage Temperature	-40°C to +70°C (-40°F to 158°F)					
AC input connector	IEC320/C14 (require ≥ 1.8m localized cord)					
DC output connector	Anderson Power Connector SBS50 Deutsch Signal Connector DT 8-pin, DT06-08SA					

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SPECIFICATIONS continued

	2411	3611	4811	7211	8411	9611
Regulatory						
Safety	UL1564 2nd Edition, CSA-C22.2 No. 107.2, EN 60335-1/2-29					
Emissions	FCC Part 15/ICES 003 Class A, EN 55011, EN 61000-3-2, EN 61000-3-3					
Immunity	EN 61000-4-2/-3/-4/-5/-6/-11					
Operation						
AC ON	Solid YELLOW AC LED					
>80% Charge Indicator	Solid YELLOW Charge LED					
100% Charge Indicator	Solid GREEN Finish LED					
Fault Indicator	Flash RED Fault LED					
DC Ammeter	LED Bargraph (6 level)					
Long-term Storage Mode	Auto-restart if battery voltage < 2.1 V/cell or 30 days elapse					
Special Features						
Battery Temperature Monitoring	Temperature Sensor on negative ring terminal					
External Communications	PC-based configuration software for field programmability					
Options	OEM Specific DC Output Cord					
	Handle / Feet Kit					
	Localized AC Input Cord					
	Reverse or Dry Contact Interlocks					

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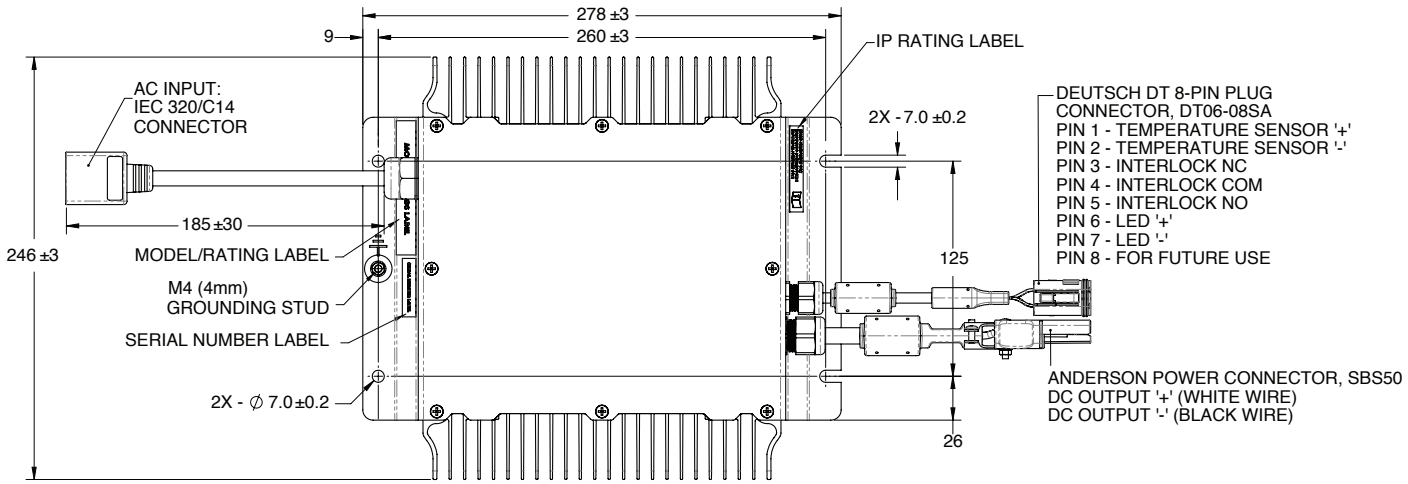
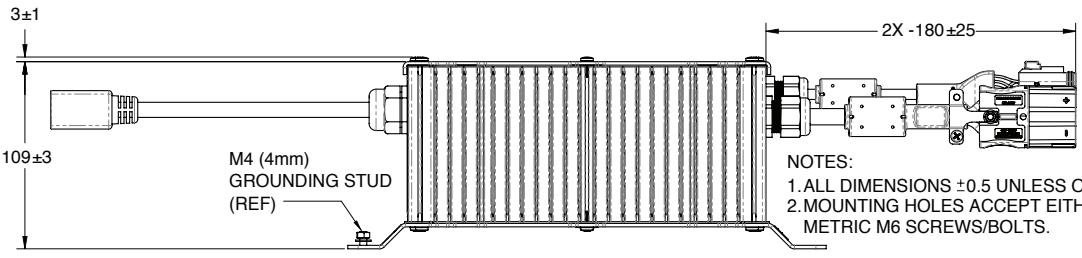
DIMENSIONS mm





NOTES:
1. ALL DIMENSIONS ±0.5 UNLESS OTHERWISE NOTED.
2. MOUNTING HOLES ACCEPT EITHER 1/4" OR METRIC M6 SCREWS/BOLTS.

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PANEL MOUNT MATING CONNECTOR SPECIFICATIONS

DC Output Connector				
Mating Housing (Anderson Power)	**Pin Number**	**Assignment**	**Min. Wire Gauge**	**Mating Sockets (Bushing)**
24V–SBS50RED 36V–SBS50GRY 48V–SBS50BLU 72V–SBS50GRN 96V–SBS50BRN (or PSBS series for chemically resistant)	– –	Battery Negative Battery Positive	24-36V: 12AWG 48-72V: 14AWG 96V: 16AWG	12AWG:1339G3 14-16AWG: 1339G2 (5913)

Signal Connector				
Mating Housing (Deutsch)	**Pin Number**	**Assignment**	**Min. Wire Gauge**	**Mating Sockets**
Deutsch DT04-08PA w/W8P wedge lock	1	Temp Sense +	18AWG	14–18AWG: 1060–16–0122 (Stamped & Formed)
	2	Temp Sense –	18AWG	
	3	Relay NC	18AWG	
	4	Relay COM	18AWG	16–18AWG: 0460–202–16141 (Solid)
	5	Relay NO	18AWG	
	6	LED +	18AWG	
	7	LED –	18AWG	
	8	Not used	**NOTE:** Use Sealing Plug (p/n 114017)	

DCi Connector				
Mating Housing (Anderson Power)	**Pin Number**	**Assignment**	**Min. Wire Gauge**	**Mating Sockets**
5916G4	Black	12V GND	12AWG	10-12AWG: 5953 (Low Detent)
5916	Blue	Switched O/P Enable	12AWG	
5916G7	Red	12V Un-Switched O/P	12AWG	
5916G5	White	12V Switched O/P	12AWG	

WARRANTY Two year limited warranty from time of delivery.

The Curtis Difference
You feel it when you drive it