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CV-Charger

Single-Port 2.0 and 3.1 USB Charger

PRODUCT WEBPAGE

Request sample, Configure part

The USB CV-Charger is designed to charge electronic devices compatible with 2.0 or 3.1 USB types. The CV-Charger delivers fast charging times even in extreme temperatures from -40 °C to +85 °C. This innovative product features a spring-loaded access door that automatically closes to safeguard its electronics, assuring prolonged safe and reliable operation. The center LED indicates charging is in progress.

3.6A
Fast Charging

9-32V
Operating Voltage

IP64 Sealing
For Above-Panel Components

Typical Applications

- On/Off-Highway Equipment
- Golf Carts
- Lawn & Garden Equipment
- Marine
- Military

Tech Specs

Electrical

USB Type	2.0 for type A (4 pins) 3.1 for type C (16 pins)
Number of USB Ports	1
Operating Voltage	9-32VDC
Max. Output Power	18W for single port A, 18W for single port C
Max. Output Current	3.6A
Charging Protocol	BC1.2, Apple, Samsung, Qualcomm QC2.0/QC3.0, MTK PE1.1/2.0, Huawei FCP/SCP, Samsung AFC for single port A.
LED Indicator	Green LED brightens when charging is in progress.
Reverse Polarity	ISO 16750-2: 2012 4.7; Apply power supply with -28 VDC for 60s
ESD	ISO 10605: 2008; ±15kV air discharges, ±8kV contact discharges
Electrical Endurance	5000 cycles USB plug push in pull out with charging
Over Voltage	ISO 16750-2: 2012 4.3; Power up with 36VDC for 60 min at 65 °C
Withstand Voltage	ISO 16750-2: 2012 4.11; Apply 500VRMS with a duration of 60s
Insulation Resistance	ISO 16750-2: 2012 4.12; Measure with 500VDC for 60s, resistance value >10MΩ

Physical

Mounting Method	Snap
Panel Opening	.83" x 1.45"; 21.08mm x 36.83mm
Panel Thickness	0.76mm to 3.96mm
Connectors	Carling VC2, VC1 housing Two pin connectors
Mating Terminal	Tyco/AMP .25 QC faston series for VC2 housing, Delphi GT 630 series for VC1
Weight	196 grams [.43 lbs]
Size	L47.73 X W25.9 X H64.2mm

Mechanical

Life Cycles	5000 cycles for USB port; 30,000 cycles for door

Agency Certifications

CE Mark	2014/30/EU EN 50498:2010

Environmental

Sealing Protection (when doors closed)	IEC 60529: 2013; IP64, for above-panel components of the actual switch only
Operating Temperature	- 40 °C to + 85 °C
Storage Temperature	ISO 16750-4: 2010; - 50 °C to + 95 °C
Thermal, Hot Soak	IEC 60068-2-2: 2007; Test Bb, +85 °C for 24 hours
Thermal, Cold Soak	IEC 60068-2-1: 2007; Test Ab, -40 °C for 24 hours
Thermal Shock	IEC 60068-2-14: 2009; Test Na -40 °C to +85 °C, soak for 1hrs at each extreme and transfer within 3min, repeat 10 cycles
Thermal Cycling	IEC 60068-2-14: 2009; Test Nb, -40 °C to 85 °C, dwell for 2h at each extremes with transfer rate 3 °C/min, 2 cycles
Humidity, Soak	IEC 60068-2-78: 2012; Test Cab, +40 °C at 93±3% RH for 4 days
Damp Heat Cyclic	IEC 60068-2-30: 2005; Test Db Method 1, 25 °C to 55 °C cycling change with 93± 3% RH for 6 cycles, totally 144h
Salt Spray	IEC 60068-2-11:1981; Salt mist with 35°C, totally 48h
Chemical Resistance (Resistance to Solvents)	ISO 16750-5: 2010; Brushing engine oil, hydraulic oil, diesel fuel, urea at 85°C for 22hrs. Dipping battery fluid for 22hrs and alcohol for 10min at 25°C
Vibration, Random	IEC 60068-2-64: 2008; Range:10~2000Hz. Acceleration 57.088m/s2 (RMS), Duration 8h per axial
Vibration, Resonance	IEC 60068-2-6: 2007; Sweep 10Hz~500Hz per axis with amplitude 0.5mm (10~50Hz) and 19.6m/s2 (50~500Hz). Apply 100 m/s2 at resonance point for 1h
Vibration, Sinusoidal	IEC 60068-2-6: 2007; Sweep 10Hz~500Hz with amplitude 0.75mm (10~58.1Hz), 100m/s2 (58.1~200Hz) for 4h at Z axis and 2h at X/Y axis
Mechanical Shock	IEC 60068-2-27: 2008; Acceleration: 500m/s2, dwell 11ms. 3 pulse per axial, Total 18 times
Mechanical Bump	IEC 60068-2-27: 2009; Acceleration: 400m/s2, dwell 6ms. 100 pulse per axial, total 600 times
Drop test	IEC 60068-2-31: 2008; Test Ec Free Fall -Procedure 1 drop in each direction of the 3 axis (6 total drops) from 1000mm

GPS-0029 Rev: B

Ordering Scheme

Sample Part Number	CHG	-	A	2	A	-	001	
Selection	1		2	3	4		5	

1. SERIES

CHG CV-Charger

2. POWER

A 18W

3. PORT TYPE

1 Single Port A (2.0 USB) **2** Single Port C (3.1 USB)

4. INDICATOR LIGHT COLOR

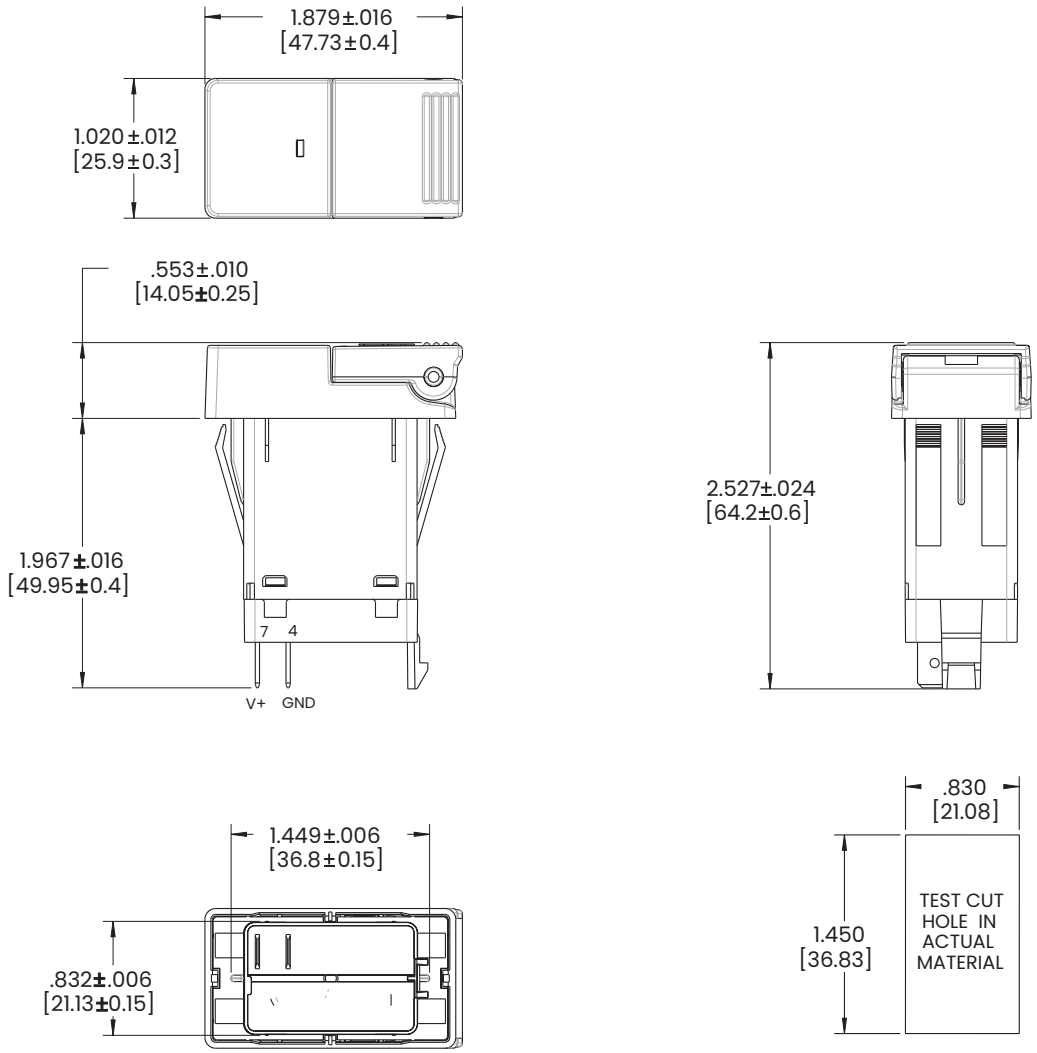
A Green

5. LEGEND

000 No Legend
001 Legend 1

Dimensional Specs

inches [millimeters]



COS-0120 Rev: B, CLA-0168 Rev: A

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CHG-A1A-001 CHG-A2A-001