V-Charger

Dual Port USB 2.0 Chargers

PRODUCT WEBPAGE

request sample, configure part, watch video

The USB V-Charger is designed to charge tablets, e-readers, mobile and gaming devices, digital cameras, as well as other compatible electronic devices. the V-Charger delivers fast charging times even in extreme temperatures from -40°C to +80°C. This innovative product safeguards its electronics with integrated over-current and thermal overload protection, as well as optional load dump circuitry, assuring prolonged safe and reliable operation. The center LED indicates charging is in progress.

1	**3.15**	**12-24**	**IP65 Sealing**
Pole	Amps	VDC	Above-Panel

Typical Applications

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

Design Features
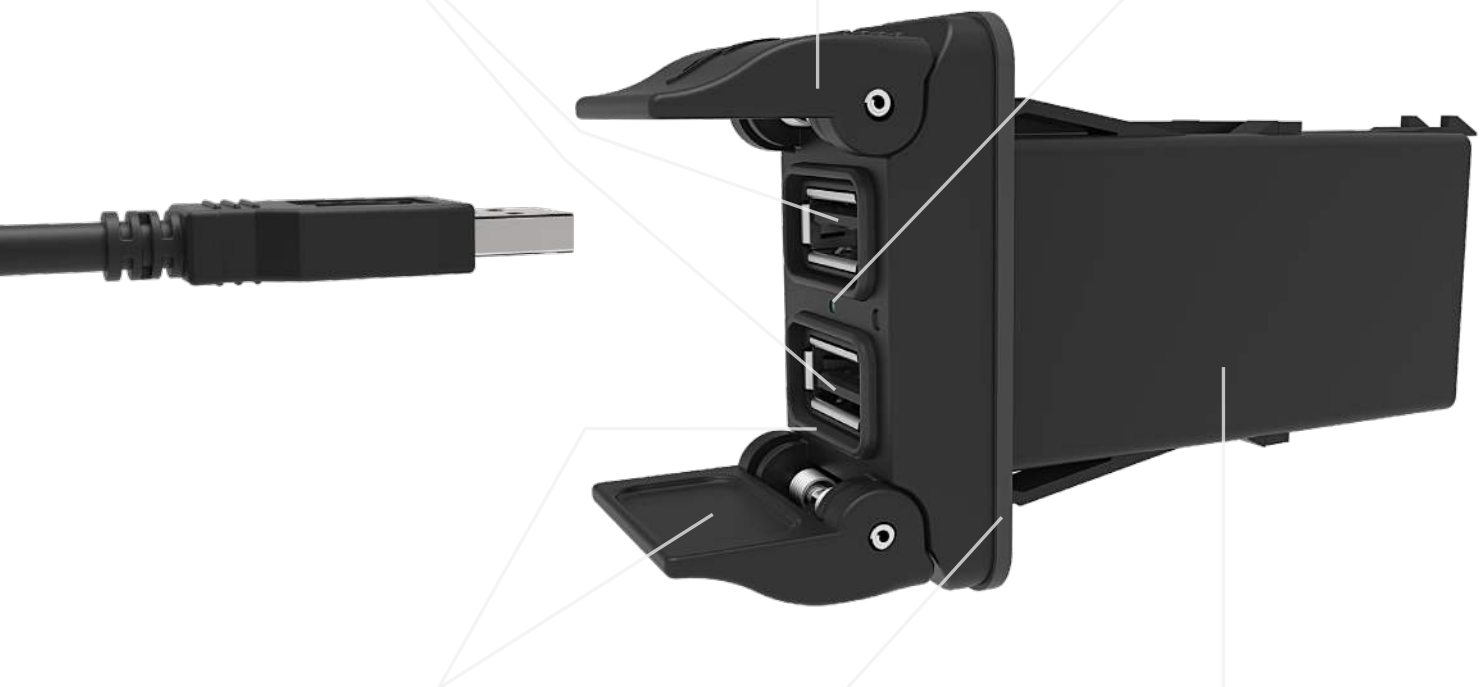
DUAL USB 2.0 PORTS
Total current of 3.15 amps, facilitating faster charges

SPRING LOADED DOORS
Stylish, curved or square double doors automatically close to cover and seal each port when not in use

LED
Green LED brightens to indicate charging is in progress

SEALING PROTECTION
Silicone rubber seal perfectly mates with door indent to provide sealing protection up to IP65 for above-panel components

PANEL SEAL
Prevents water ingress beneath panel to protect critical connections

MOUNTING
Fits industry standard panel opening size of 1.450" x .830"

Tech Specs

Electrical

USB Type	2.0
Number of USB Ports	2
Operating Voltage	12V/24V DC power systems (9 to 29 VDC)
Output Voltage	5.0 VDC
Max Output Current	3.15A DC Total
Current Draw (No Load)	12V: 1.5 mA, 24V: 3.5 mA
Compatibility	Charges mobile devices including iPad, iPhone, iPod, HTC, Galaxy, Blackberry, MP3 Players, Digital Cameras and PDA's
LED Indicator	Green LED brightens when charging is in progress.
Receptacle Insertion Life	10,000 operating cycles per port minimum
Terminals	Copper/silver plating 1/4" (6.3 mm) Quick Connect terminations
Reverse Polarity	Operational with correct polarity afterreverse polarity exposure
Output Protection	Short Circuit and Overload
Thermal Overload Protection	Operation will cease if internal temperature reaches 125ºC. Charging will resume after sufficient heat loss
ESD	15kV air, 8kV touch per ISO10605 for Operational; Packaging and Handling Tests
Load Dump Protection	ISO 7637-2 detailed data available. Consult factory for details.
Radiated Immunity	ISO 11452-2, 200 MHz to 2.7 GHz Field Strength for 200 MHz to 1 GHz: 60 V/m Field Strength for 1 to 2.7 GHz: 50 V/m Bulk Cable Injection ISO 11452-2, 1 to 400 MHz Field Strength: 80 mA
Emissions	FCC Part 15, Class B Radiated, Conducted and Far Field Emissions data available. Consult factory for details.

Mechanical

Endurance	10,000 open/close cycles minimum per door

Environmental

Sealing (when doors closed)	Curved Doors: IP65, for above-panel components of actual switch only Square Doors: IP64, for above-panel components of actual switch only
Operating Temperature	-40º to +60ºC at 3.15A -40º to +70ºC at 2.4A -40º to +80ºC at 2.1A
Vibration	MIL-STD 202G, Method 204D, Test Condition A. 0.06DA or 10G, 10-500 Hz
Shock	MIL-STD 202G, Method 213B, Test Condition K @ 30-G. No loss of circuit during test.
Chemical Exposure	Brush method with USB doors closed: diesel, gasoline, brake fluid, Windex, Armor All
Thermal Shock	MIL-STD 202G, Method 107G, Test Condition A, -40º to 85ºC. Test Criteria: Remains functional without damage.
Moisture Resistance	MIL-STD 202G, Method 106G. Test Criteria: Remains functional without damage
Thermal Cycling	25 Cycles -40º to 85ºC, 2 hours for each temperature every cycle
Salt Spray	MIL-STD 202G, Method 101E, Test Condition A
Blowing Dust	MIL-STD 810G Method 510.5, Air Velocity: 1750 ± 250 ft/min, Test Duration: 12 hours

Physical

Materials	Housing: Polycarbonate/PBT Doors: Polyester Light Pipe: Polycarbonate Torsion Springs Pins: Stainless Steel Door Seal: Silicone PCBA Gasket/Panel Gasket: Closed Cell Neoprene Terminals: Silver plated Copper Electronics: Two PCB Assemblies
Panel Opening	1.450" x .830"
Panel Thickness	.030 - .156 inches
Panel Mounting Method	Front Panel Insertion
Installation Insertion Force	12-28 lbs typical (dependent on panel design)
Panel Retention Force	Greater than 35 lbs (dependent on panel design)
Depth Behind Panel	See Dimensional Specs
Connectors	VC1, VC2
Weight	Approximately 45g (1.6 oz)
Styling Options	Curved or square USB port doors
Port Protection	Twin, self-closing doors

GPS-0005 Rev: G
*Manufacturer reserves the right to change product specification without prior notice.

Ordering Scheme

V	–	USB	–	24	–	G	1	1	–	1	B	B	1

Selection: 1   2   3   4   5   6   7   8   9   10

1. SERIES
V

2. PRODUCT TYPE
USB   Charger

3. SOURCE VOLTAGE
24   24 / 12 Volts DC

4. LED INDICATOR (VOLTAGE MATCHES SOURCE)
G   Green   **0**   Stealth (no LED)

5 CIRCUIT PROTECTION
1   Reverse Polarity, Thermal Overload & Overcurrent
2   Load Dump, Reverse Polarity, Thermal Overload & Overcurrent

6. TERMINATION
1   .250 Tab

7. DOOR STYLE
1   Curved   **2**   Square

8. DOOR COLOR
B   Black

9. FRAME COLOR
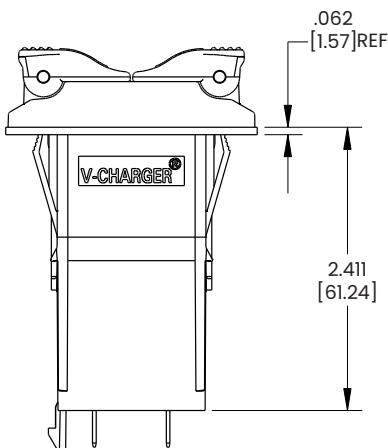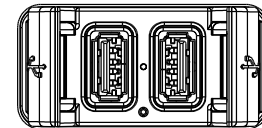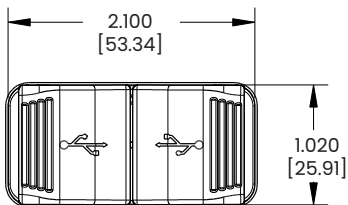**B**   Black

10. PANEL SEAL
1   Yes

⊗ **Configure Complete Part Number >**

Dimensional Specs

inches [millimeters]

Curved Door Style Option

2.100 [53.34]
1.020 [25.91]

SHOWN OPEN AND WITH CONNECTOR

.062 [1.57]REF
2.411 [61.24]
V-CHARGER

.680 [17.27]
2.722 [69.14]
.809 [20.55]
.311 [7.90]

3.331 [84.61]
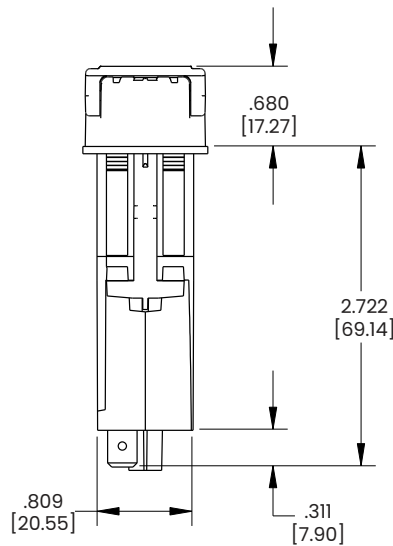PACKARD 630   VC1
AMP, PACKARD 58
7   4   5   6   9
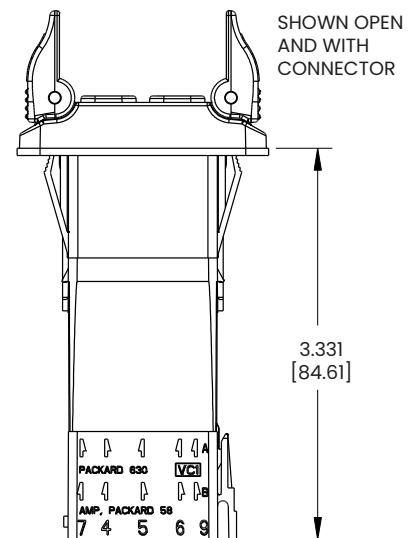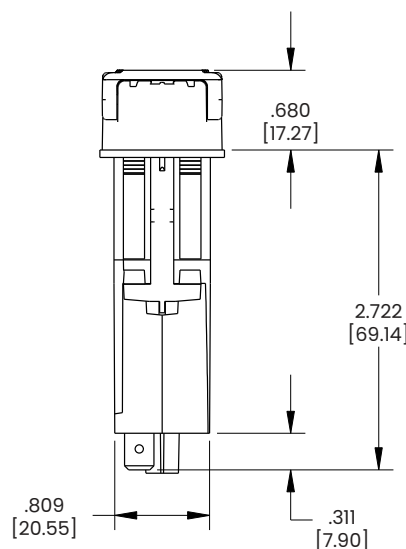
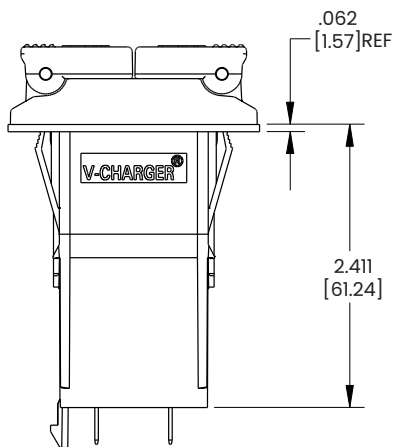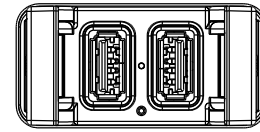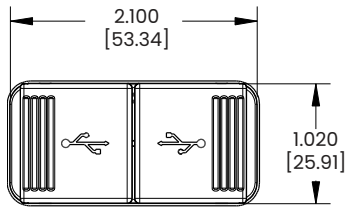**Notes:**
1   Charger to install into 1.450" X 0.830" panel opening

Dimensional Specs

inches [millimeters]

Square Door Style Option

2.100
[53.34]

1.020
[25.91]

.062
[1.57]REF

V-CHARGER

2.411
[61.24]

.680
[17.27]

2.722
[69.14]

.809
[20.55]

.311
[7.90]

SHOWN OPEN
AND WITH
CONNECTOR

3.331
[84.61]

PACKARD 630   VC-
AMP, PACKARD 58
7 4   5   6 9
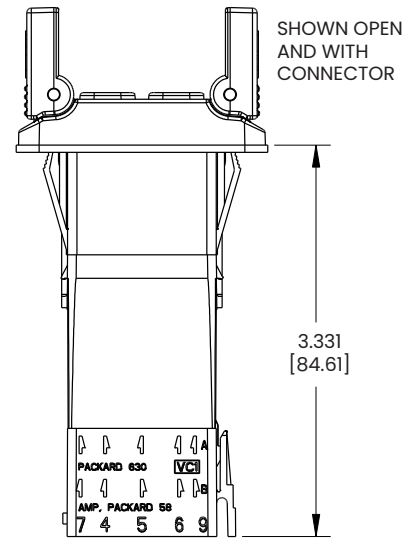
Notes:
1   Charger to install into 1.450" X 0.830" panel opening

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