12-Port USB Type C Hi-Power Charging Station

User's Manual

USB-CH12TC

Table of Contents

Introduction

The 12-Port USB Type C Hi-Power Charging Station is a solution for quick charging up to 12 USB Type C devices.

This is a perfect tool to effectively save energy and cool down the unit's heat. Also is ideal for large capacity USB station in-house that enables charging at a time; automatically recharging once the devices connected have consumed their power with remaining 90% (approximately) after fully charged. Places such as school's classroom, businesses conference or meeting in organizations.

Features

- Supports Downstream Facing Port (DFP).
- Compliant with USB Type C Spec 1.2 & USB Battery Charging Spec 1.2
- Enables to provide up to 5V 3A output current on each port; Supports iOS, Android devices.
- Enables Green Energy function automatically shutdown the hub when all devices are fully charged at Charge mode.
- Supports Over-Current Protection & Short Circuit Protection on each port.
- For the Over Temperature Protection, if the unit's high temperature is over the setting, it would cut off all the output current immediately. At the meantime, the whole 12 ports LED would be green blinking.
- Supports ±15kV (air), ±8kV (contact) ESD protection on each port.
- Supports 40A (5/50ns) & Peak Pulse Power 60W (8/20 us) Surge and Transient spikes protection on each port.
- The rear fans spec: SUNON Vapo DC Fan; Life Expectancy: 60,000 hours
- Enables to start/cut off the fans automatically according to the temperature's setup. If the board's temperature is higher than the setting, it would start the fans automatically. On the contrary, if the board's temperature is lower from the setting, it would turn off the fans automatically as well.

Specification

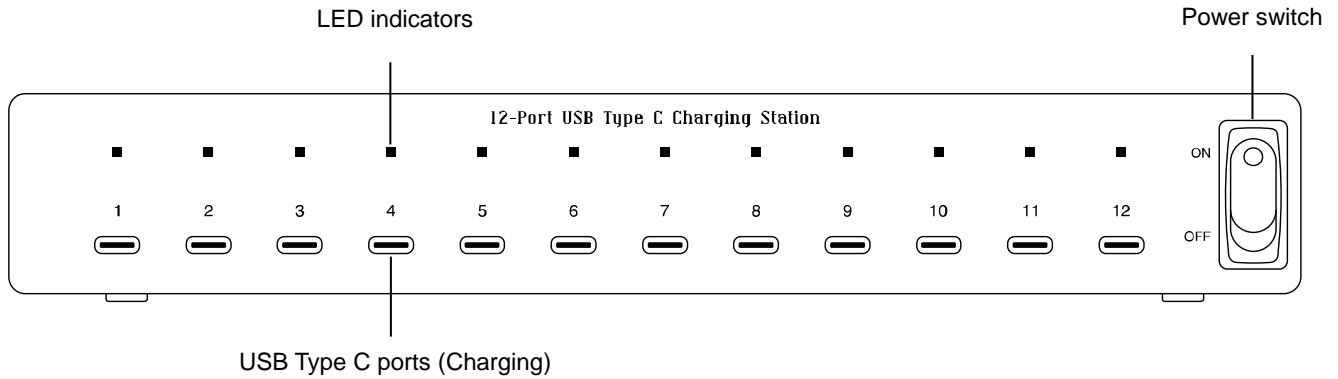| Model No.		USB-CH12TC
Current per Port		DC5V 3A
Charging Specification		USB Type C Spec 1.2 & USB Battery Charging Spec 1.2
Connector		USB Type C Female x 12
Power Supply		DC12V 24A (288W)
Green Energy		Green Energy Button
LED	Charge mode	Charging in progress: Red Color x 12
		Disconnected or Fully charged: Green Color x 12
	Over current protection	Red blinking X12
	Short circuit protection	Red/Green Alternate blinking X12
	Over temp. protection	Green blinking X12
Environmental	Operating Temperature	0 ~ 40℃
	Storage Temperature	0 ~ 60℃
	Humidity	0-80% RH, Non-condensing
Cooling Fan		SUNON Vapo DC Fan x 2
Housing		Metal
Dimension (L x W x H)		268 x 102 x 40 mm

*Note:
When it detects there are 4 ports or more deliver current over 3.6A each port, the unit would enable Over Current Protection immediately. All the 12 ports LED activate Red blinking and shutdown the unit power.
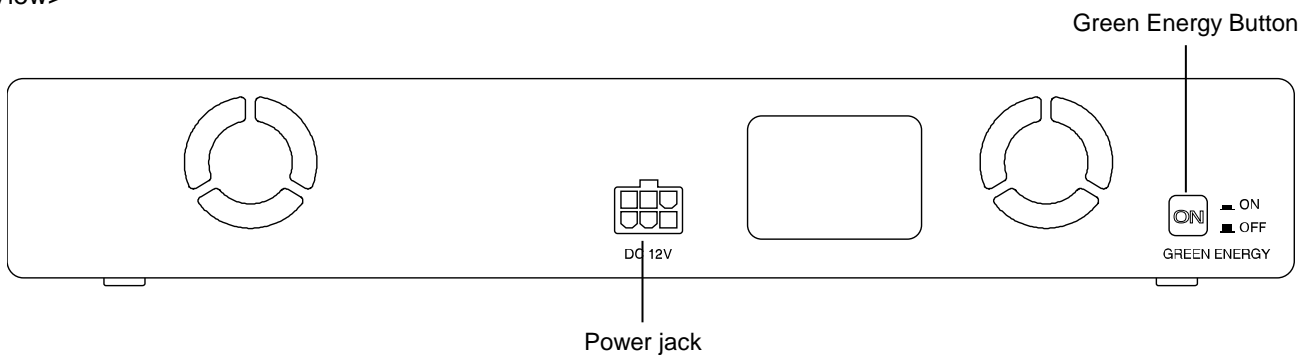
Package Contents

1. 12-Port USB Type C Hi-Power Charging Station
2. 12VDC 24A Power adaptor with power cord
3. Mounting brackets with screws
4. User manual

Physical Diagram

<Front View>

LED indicators

Power switch

12-Port USB Type C Charging Station

1 2 3 4 5 6 7 8 9 10 11 12

ON

OFF

USB Type C ports (Charging)

<Rear View>

Green Energy Button

DC 12V

ON
OFF
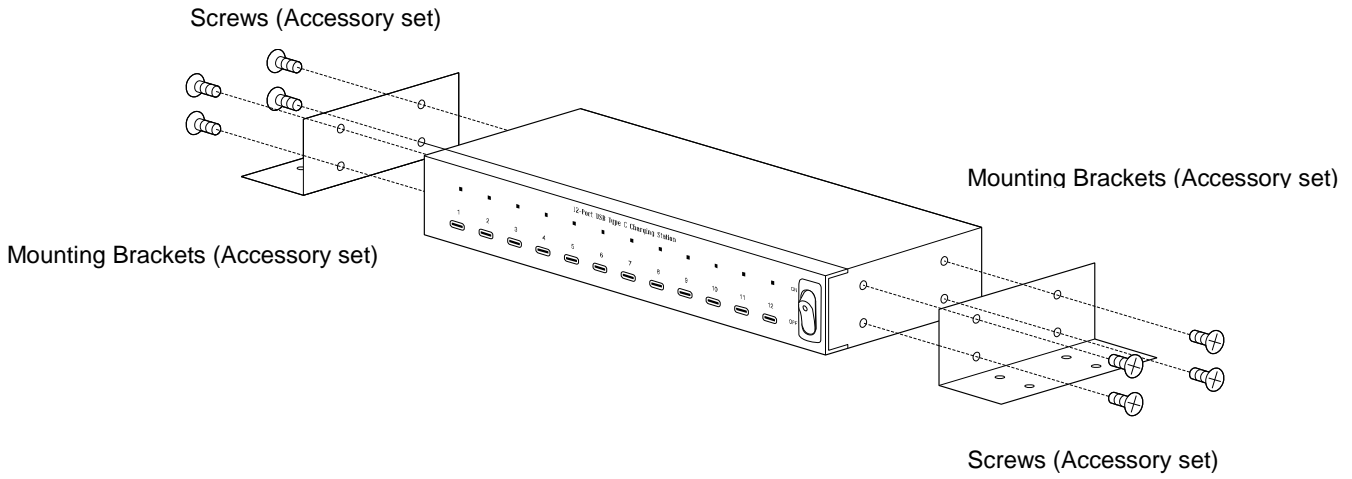
GREEN ENERGY

Power jack

1. USB Type C Ports (Charging) - Allows connecting MacBook or USB Type C devices
   - Beware that this unit does not require a host computer connected to the unit for it to charge compatible devices.
   - This unit does not contain accessory set of cables for MacBook or USB Type C devices. Please check with your distributor regarding of using appropriate cable.

2. LED Indicators
   - LED illuminates (Red): indicates which MacBook or USB Type C device is connected successfully.
   - LED lights (Green): indicates the specific port is disconnected or the USB Type C device is fully charged.
   - LED displays Red blinking: the unit is functioning Over Current Protection
   - LED displays Red/Green Alternate blinking: the unit is functioning Short Circuit Protection
   - LED displays Green blinking: the unit is functioning Over temperature Protection
   - The LED may not illuminate when the unit is connecting with some specific USB devices, but it is still working on charging.

3. Power switch
   - User may switch power to on / off.

4. Power jack
   - To use with power adaptor provided.

5. Green Energy button
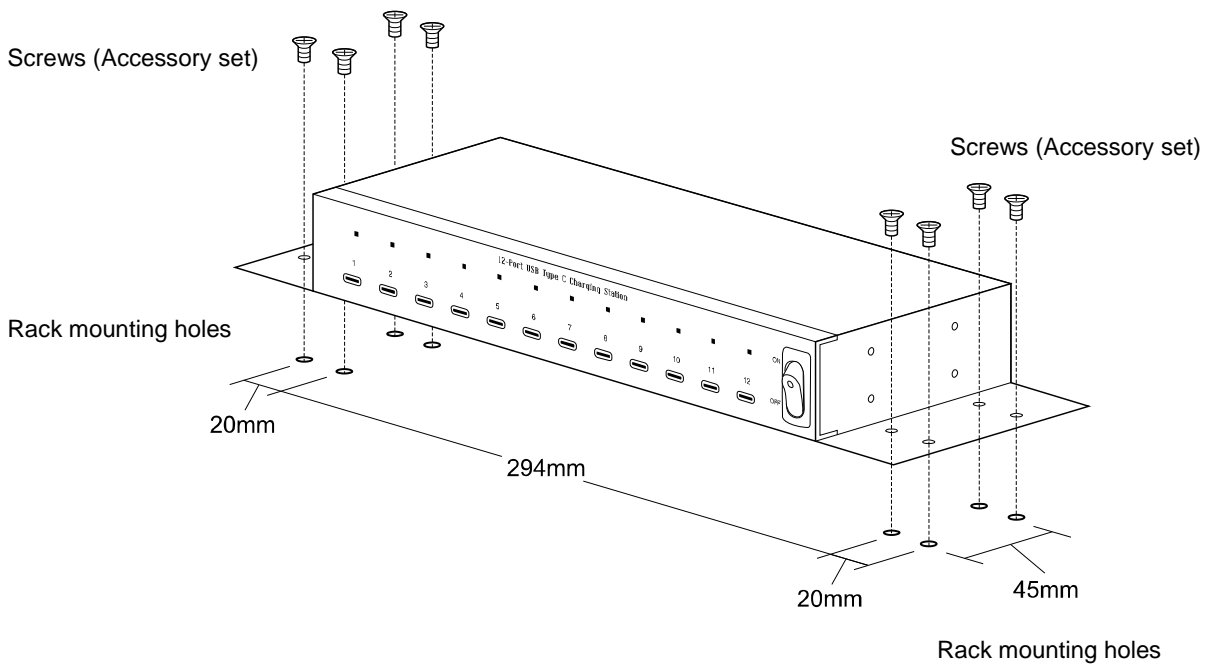   - It is available to automatically shutdown upon fully charged.

3

Rack Mounting

To install, attach the mounting brackets to the unit's side panels (one on each side) and secure them with the screws provided.
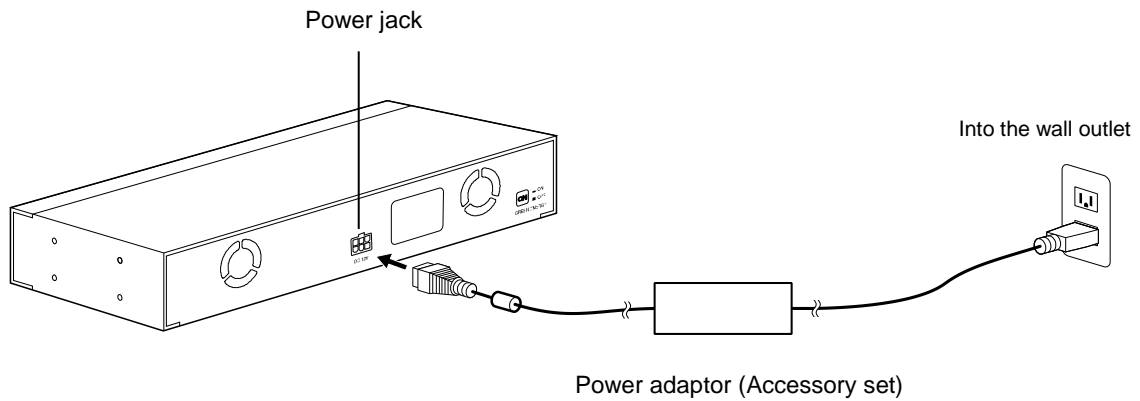
(1) Use the mounting brackets and screws onto rack.

Screws (Accessory set)

Mounting Brackets (Accessory set)

Mounting Brackets (Accessory set)

12-Port USB Type C Charging Station

Screws (Accessory set)

(2) User may install on the applicable cabinet, rack environments such as a cage or trolley cart.

Screws (Accessory set)

Screws (Accessory set)

12-Port USB Type C Charging Station

Rack mounting holes
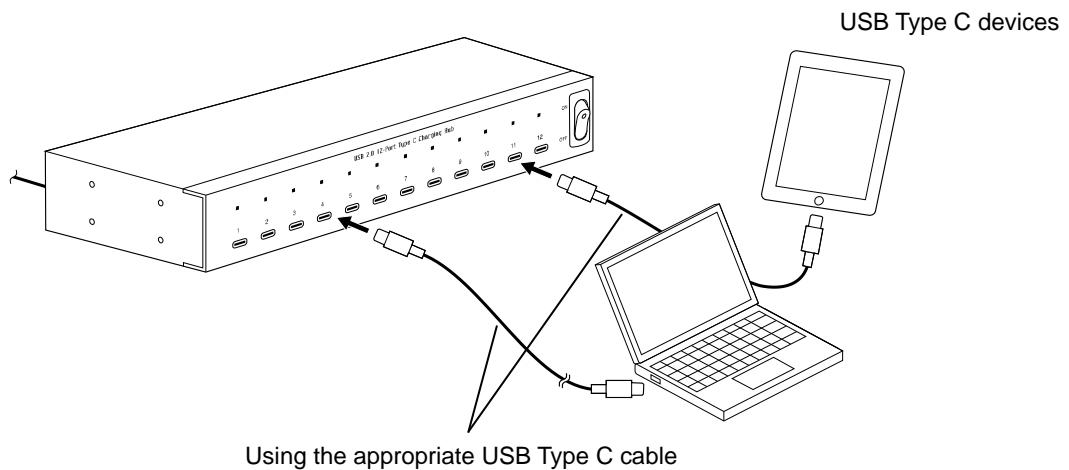
20mm

294mm

20mm

45mm

Rack mounting holes

Connection

(1) Plug the power adaptor to the unit's power jack.

(2) Put the plug of power adaptor into the wall outlet.

<Rear Panel>

Power jack

Into the wall outlet

Power adaptor (Accessory set)

(3) To use USB Type C cable and connects with MacBook or USB Type C devices to the USB Type C ports.

<Front Panel>

USB Type C devices

Using the appropriate USB Type C cable

Charging

Please follow below ways for charging USB Type C devices.

(1) Connect your USB Type C devices to the USB Type C ports on the unit.
- This unit does not contain accessory set of cables for USB Type C devices. Please check with your distributor regarding of using appropriate cable.

- ➢ The hub will shutdown in 60 seconds at Green Energy function (the Green Energy button is pressed ON) if it idles without devices connected. You may manually turn on the power switch and start charging again.
- ➢ The ports of charging in progress: Red LED illuminates; fully charged or devices disconnected: Green LED illuminates
- ➢ When all the charging ports are fully charged at Green energy mode (the Green energy button is pressed ON), the unit would cut off all the output current and turn to sleep immediately.
- ➢ It enables automatically recharging once the devices connected have consumed their power with battery remaining 90% (approximately) after fully charged.

(2) Restart the Charging station
- ➢ The user may turn on the power switch and start charging.

(3) The Green Energy function

The charging station is designed with a Green Energy function (push button at the rear panel) that may cut off the power when all the charging is finished.

- Green energy ON: Button's green LED illuminating. When all devices are fully charged, the charging station will shutdown automatically. You may manually turn on the power switch and start charging again.
- Green energy OFF: Button's green LED lights off. When all devices are fully charged, the unit still keeps operating; and the port LEDs keep green illuminating. Once it senses the device's battery consumed, the unit starts recharging.

Additional info:

When it detects there are 4 ports or more deliver current over 3.6A each port, the unit would enable Over Current Protection immediately. All the 12 ports LED activate Red blinking and shutdown the unit power.

The Charging station may start/cut off the fans automatically when the unit temperature goes higher/lower limits. (Not recommend putting the unit at places of high temperature such as computer facilities, boiler/steam room, glass workshop, casting work, kiln plants etc.)

For the High-temp protection, if the unit's heat is over the setting, it would cut off all of the output current immediately. At the meantime, the whole LEDs of the 12 ports would be Green blinking.

If you still cannot diagnose the problem, please call your distributor for technical support.

Regulatory Compliance

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CE Certification

This equipment complies with the requirements relating to electromagnetic compatibility.
It has been manufactured under the scope of RoHS compliance.

FCC Compliance Statement

This equipment generates and uses radio frequency and may cause interference to radio and television reception if not installed and used properly. This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation

WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose or any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.