

RRJVA_USB_C_PD

16.10.2024



General Data

| | |
|-----------------------------|--|
| Type reference: | RRJVA_USB_C_PD |
| Description: | USB PD charging jack |
| Approvals: | CE, UKCA |
| Degree of protection: | IP20 |
| Connection type: | rear: spring-load terminal 0.2 - 2.5 mm ² front: USB jack type C |
| Max. storage temperature: | -40°C ... 80°C |
| Max. operating temperature: | -25°C ... 40°C *1) |
| Mechanical life: | 10,000 mating cycles |

Technical data

| | |
|-----------------------------------|---|
| Mounting aperture: | 22.3 mm |
| Colour: | stainless steel |
| Operational voltage: | 12 V ... 30 V DC |
| Output voltage: | Device dependent: 5 V, 9 V, 15 V and 20 V |
| Max. output current: | see table USB-PD profiles |
| Panel thickness: | 1.5 ... 10.0 mm |
| Tightening torque (mounting nut): | 1.5 ... 2.2 Nm |

Note

USB-C Ladebuchse with Power Delivery Function

Functions:

BC 1.2 Adapter Detection

CC Adapter Detection

Supports: USB Type C V2.0:

USB-PD R3.0, V2.0, and PPS with PDO List;

QC 3.0, Huawei FCP Class A;

DCP Schemes for BC 1.2, 3A Divider Mode, and 1.2V / 1.2V Mode;

USB battery charging specification (BC1.2) / Chinese Telecommunications Industry Standard YD/T 1591 2009;

Apple 3A Divider Mode

Protection features:

- Current limitation of the output current
- Short-circuit protection
- Reverse polarity protection
- CCx, DP, DM Short to VBUS / VBATT Protection
- Battery Short to Ground Protection Driver

Standards: DIN EN IEC 61000-6-2

USB-PD-Profile:

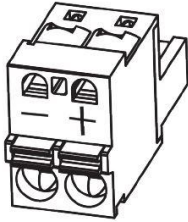
| Profiles | Output voltage / V | Output current / A | Power / W |
|----------|--------------------|--------------------|-----------|
| 1 | 5 | 0.1 - 3.0 | 15 |
| 2 | 9 | 1.67 - 3.0 | 15 - 27 |
| 3 | 15 | 1.8 - 3.0 | 27 - 45 |
| 4 | 20 | 2.25 | 45 |

Power Delivery Output current:

| Output voltage V / DC | Output current / A | Output current max. / A |
|-----------------------|--------------------|-------------------------|
| 5 | 2.0 | 3.0 |
| 9 | 2.0 | 3.0 |
| 15 | 2.0 | 3.0 |
| 20 | 2.0 | 2.3 |

*1)

The output power is thermally monitored in the charging socket and adjusted to the device being charged via the Power Delivery protocol and reduced if necessary. The power data mentioned correspond to continuous operation at an ambient temperature of 40°C.



Connector SV_FKC2,5:

| | |
|--|---|
| (+): | UIN+ = 12 - 30.0V |
| (-): | UIN- = 0V (GND) |
| Cable cross section AWG min/max: | 30 AWG / 12 AWG |
| Cable cross section rigid/flexible min/max.: | 0.2 mm ² / 2.5 mm ² |
| Tool: | Screwdriver 3.5 x 0.5 mm |

CAUTION: Risk of injury if operating personnel is insufficiently qualified! Improper handling by unqualified or insufficiently qualified personnel can result to injury of persons or damages of property. Work requiring prescribed special measures should only be carried out by trained personnel or skilled workers, in particular by qualified electricians.

WARNING: Short circuits and electric shocks in case of incorrect application of voltage! Impact currents can injure people and destroy the device. Disconnect the entire systems from the mains prior to commissioning and check the connections upon applying the voltage.

NOTE:

- Respect the ESD regulations.
- Use only certified components. This is the only way to ensure a reliable function of the device.
- Observe the applicable safety and accident prevention regulations as well as the general rules of technology during set-up and operation.

Data sheet RRSW_USB_C_PD / RRJ_USB_C_PD / RRJA_USB_C_PD (Art. 61540075)

Dimensional drawing

