

POWER UP WHILE YOU WORK

ALLOWS FOR USB-C POWER
DELIVERY

P-C2-B3RX



CHARGING STATION

The GracePort® USB-C Power Delivery (PD) charger provides device connectivity for service technicians and PLC programmers to safely charge their laptops and other handheld devices from outside the door using a USB-C charging cable.

In addition to USB-C component options, GracePort® offers USB-A and USB-C receptacle power options. The USB Charger Duplex Receptacle features an all-in-one solution for both USB and electrical power. Available in both Type A and Type C variants, this power-packed receptacle can charge two devices simultaneously, providing convenience and efficiency. The built-in USB port door enables power when open, ensuring a "zero" no-load draw when closed for increased energy efficiency.



USB-C connections are quickly becoming an industry standard for transmitting both data and power within a single cable. In the case of our GracePort® configurations, we wanted to create a more efficient option of providing power for laptops and other essential devices while on the job.

APPLICATION

Control panel design engineers are constantly working to simplify their designs and increase safety in their control panels. By removing 120 VAC power through the panel, they can eliminate the risk of both shock and arc flash hazard as per NFPA 70E. With the emerging USB-C PD standard, laptops and other electronic devices are now able to be quickly charged using a USB-C PD charging port powered by a 24 VDC connection. GracePorts® (housing sizes may vary).

BENEFITS

- **Safety:** Voltages operating at below 50 Volts do not require guarding against accidental contact which is required by OSHA under 29 CFR 1910.303(g)(2) (i). USB-C components remove the need for GFCI protected outlets on the door.

- **Cost:** USB-C cables are more affordable than laptop chargers, making them much more cost-effective, interchangeable for use, and replaceable.
- **Space Savings:** A smaller alternative housing for power transfer in lieu of a 120V power outlet placed within a larger housing.
- **Labor Savings:** Smaller GracePort® housings with fewer components means less installation time. Connections are easily made from an existing 24 VDC auxiliary supply within a panel.
- **Convenience:** Less for engineers and maintenance to carry (i.e. no large laptop chargers).
- **Energy Efficiency:** The USB Charger Duplex Receptacle maximizes LEED and energy efficiency as the receptacle eliminates all current flow when not in use.
- **Combine:** Add other components and power options to the mix from our full line of customizable GracePorts (housing sizes may vary).
- **Customize:** Each GracePort® is tailored to your specific needs including the option to add special text and your own company logo to the faceplate.

COMPLIANCE

Under OSHA directives and NFPA 70E guidelines, there must be 50 Volts or above for shock hazards to exist in a typical work environment, and voltages operating at below 50 Volts do not require guarding against accidental contact which is required by OSHA under 29 CFR 1910.303(g)(2)(i).

Having a 24VDC-powered USB-C PD charging option eliminates shock hazard risk and gives users a unique ability to transition from their current GFCI protected outlets to a much safer and compact option with minimal wiring complexities.

VERSIONS

- **USB-C Component (C1):** The standard C1 component charging board provides one USB Type-C PD port (60W max) and one USB Type-A QC 3.0 port (18W max) for legacy charging. The C1 component can charge most laptops, phones and other handheld devices (refer to the power input/output specifications table).



- **USB-C Component (C2):** This charging board provides one USB Type-C PD port (60 W max) that is manufactured to feature a low-profile on the back of the housing, saving space within the cabinet.



- **USB Charger Duplex Receptacle Power Option (RAC):** Dual USB components and standard electrical power outlets that provide a high power 3.1 Amp, 5 Volt USB output and supports both USB Type A and Type C USB connections simultaneously.



- **USB Charger Duplex Receptacle Power Option (RDC):** Dual USB-A components and standard electrical power outlets featuring the same high power output as the RAC and supports two USB Type A device connections at a time.



			
PRODUCT DETAILS	USB-A (C1)	USB-C (C1)	USB-C (C2)
Power Input Specifications	24VDC, 3.5A minimum (85W)		24VDC, 2.7A minimum (65W)
Power Output Specifications	18 Watts USB-A QC 3.0 (12V/1.5A, 9V/2A, 5V/3A)	60 Watts USB-C PD (5V/3A, 9V/3A, 15V/3A, 20V/3A)	
Input Power Wire	16 Gauge Wire (16 AWG)		
Temperature Range	Ambient Operation: 0°C to 40°C		
Device Compatibility	Negotiated Maximum Power Device Draw: 60W, 20V@3A		

		
PRODUCT DETAILS	RAC Power Option	RDC Power Option
Power Input Specifications	24VDC, 3.5A minimum (85W)	24VDC, 2.7A minimum (65W)
Power Output Specifications	3.1 Amp, 5 Volt USB Output	
USB Ports	(1) Type A Port, (1) Type C Port	(2) Type A Ports
Input Power Wire	14-10 Gauge Wire (14-10 AWG)	
Temperature Range	Ambient Operation: -40°C to 75°C	
Certifications	UL 94V-2, UL 498, CSA, and complies with USB BC1.2 Battery Charging and 3.0 PD Specifications	