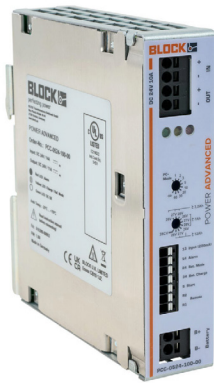




Battery Control Modules



PCC-0524-100-00

Overview

The PCC-0524 charge and control units offer maximum system availability through intelligent battery management and short charging times – even for large battery capacities. Usable in 24 VDC grids, they provide uninterrupted power up to 20A during a power failure. Continuous monitoring of connected batteries enables early warnings when service life is low. Compatible with any 24 VDC power supply, not just Block brand units.

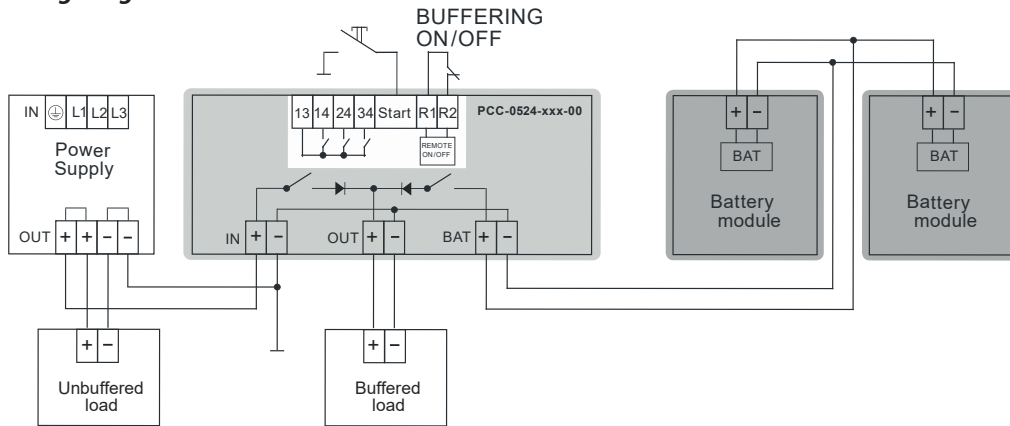
Features

- Up to 20A output current
- Up to 3A charging current for fast charging times
- Universal for all types of 24 VDC power supplies
- Start from battery
- Three potential-free signal contacts
- Decoupled output
- Reliable early warning signal for battery replacement
- Long battery life due to optimal charging management
- Safe supply of industrial PCs with the BLOCK IPC mode
- **Requires:** 24 VDC power supply, battery storage module, batteries

Battery Control Modules									
Part Number	Price	Input Voltage Range	Output Voltage Range	Number of Inputs	Amperage Rating	Connector Type	Housing Material	Dimensions H x W x D (mm [in])	Drawing Link
PCC-0524-100-00	\$150.00	18–30 VDC	18–30 VDC	1	10A	Push terminals	Metal	127.00 x 30.00 x 117.00 [5.00 x 1.18 x 4.60]	PDF
PCC-0524-200-00	\$166.00				20A			127.00 x 32.50 x 126.00 [5.00 x 1.28 x 4.96]	PDF

NOTE: Requires 24 VDC power supply, battery storage module, batteries.

Wiring Diagram



Additional Data		
Part Number	PCC-0524-100-00	PCC-0524-200-00
Weight g [oz]	360 [12.69]	405 [14.28]
Terminal Type	Push-in	
Bare Wire (Input/Output)	0.20–4 mm ² [AWG 24–12]	0.20–10 mm ² [AWG 24–8]
With Ferrule (Input/Output)	0.20–2.5 mm ² [AWG 24–14]	0.20–6 mm ² [AWG 24–10]
Stripping Length (Input/Output)	10mm	15mm
Bare Wire (Signaling)	0.14–1.5 mm ² [AWG 26–16]	
With Ferrule (Signaling)	0.25–1.5 mm ² [AWG 24–16]	
Stripping Length (Signaling)	8–9mm	

* Use 90°C rated copper conductors only.

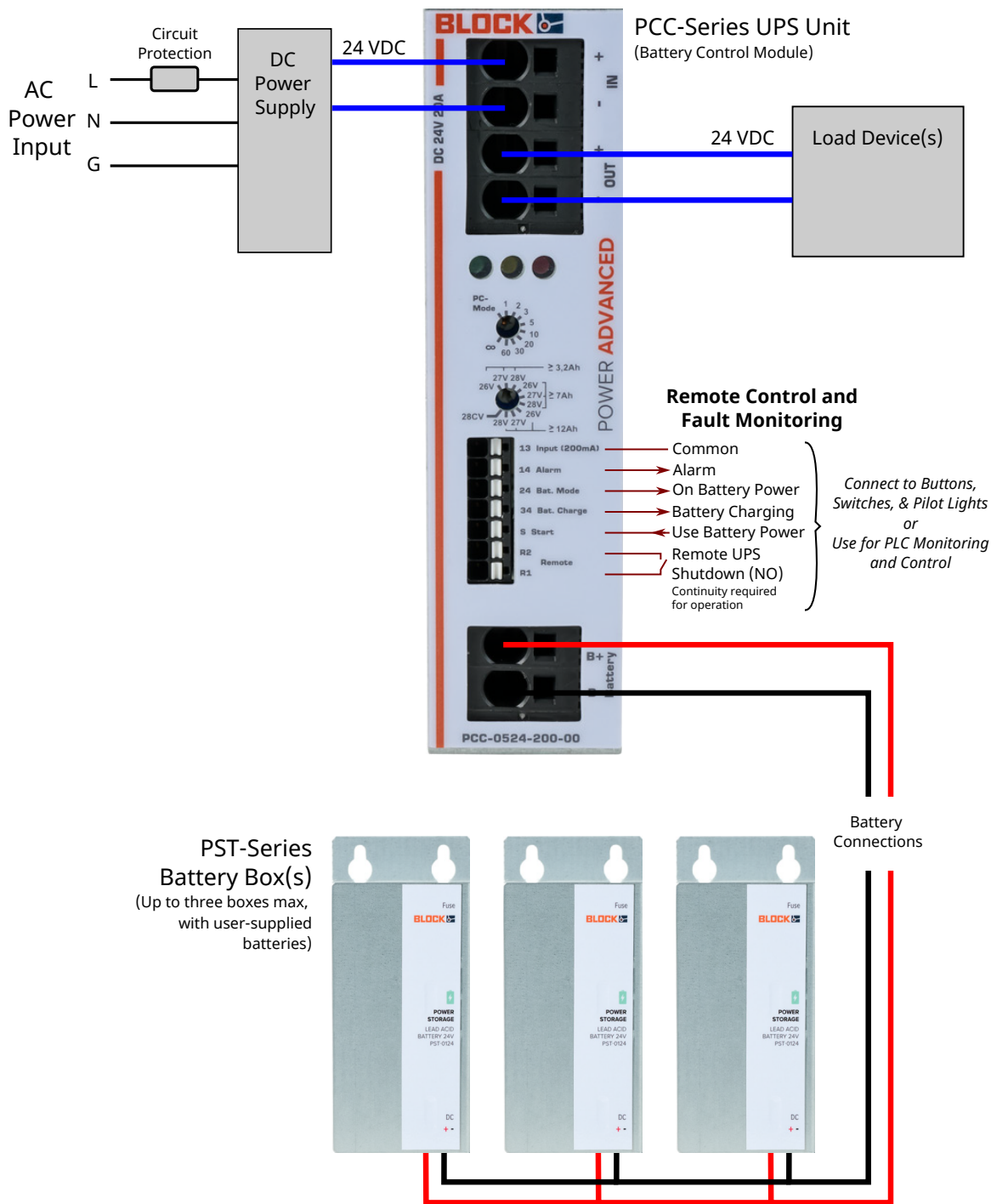


Battery Control Modules

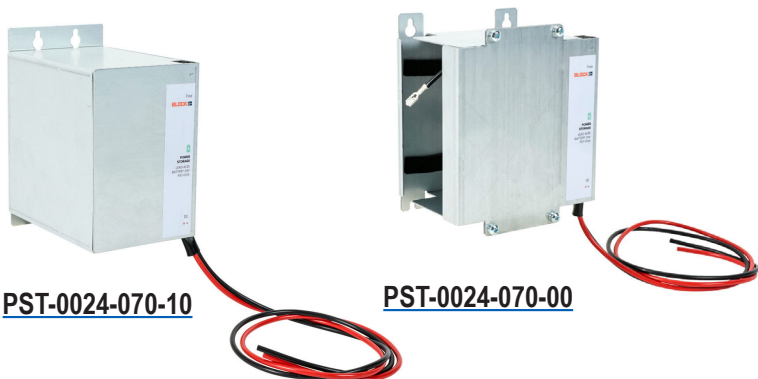
Specifications		
Input Specifications	<i>PCC-0524-100-00</i>	<i>PCC-0524-200-00</i>
Nominal Input Voltage	24 VDC	
Output Through Connection	≤23V	
Input Current at 24 VDC (Stand-by/Charging Process/Max.)	0.1A/3A/14A	0.1A/3A/25.8A
Output Specifications		
Nominal Output Voltage	24 VDC	
Operating Output Voltage (Normal Operation - Typical)	U _{in} - 0.25 VDC (Decoupling via MosFet)	
Operating Output Voltage (Buffer Operation - Typical)	Battery voltage - 0.25 VDC	
Operating Output Current	10A 11A boost continuous	20A 22A boost continuous
Overcurrent Protection with Hiccup Mode	15A/5s, 25A/55 ms	30A/5s, 50A/55 ms
Remote Power Off (Buffer Operation)	Yes	
Efficiency (Typical)	99%	
Max. Power Loss (Idling/Normal Load)	2W/12W	
Feedback Voltage (Max.)	35 VDC	
Storage Medium		
Rated Voltage	24 VDC	
Charging Voltage Upper Level	26–28 VDC (adjustable)	
Charging Current	0.8A/1.8A/3A (adjustable)	
Recommended Battery Storage Module	PST-0024-032-10, PST-0024-070-x0, PST-0024-120-x0	
Signaling		
LED	Green/Yellow/Red	
Potential Free Signal Contact (Configurable)	30 VDC / 0.1A	
Environment		
Operating Temperature	-25 to +70 °C [-13 to +158 °F]	
Storage Temperature	-25 to +85 °C [-13 to +185 °F]	
Cooling	Natural convection	
Humidity	5 to 96 % relative humidity with no dew	
Pollution Degree	2	
Operating Altitude	4,000m	
Mounting	35mm DIN rail - Vertical only	
Safety and Protection		
HV Test Voltage (Terminals and Enclosures)	500 VDC	
Construction	Enclosed for installation in switching cabinets	
Protection Rating	IP20 (EN 60529)	
Safety Extra-low Voltage (SELV/PELV)	EN 61140	
Safety Class	III	
Reverse Connection Protection	Yes	
Parallel Operation (Battery Module)	Yes, max. 3 to increase the buffer time	
Safety	EN 61010-1	
EMC	EN 61000-6-2, EN 61000-6-3	
Agency Approval	UL 61010-1, UL 61010-201, UL File E219022, CE	

BLOCK Battery Control Modules

Battery Control Module Wiring Diagram - Sample



BLOCK Battery Storage Modules



Overview

The PST-0024 is an empty battery enclosure designed to work with BLOCK's PCC-1024 and PCC-0524 UPS systems. The battery modules PST-0024 together with the battery control modules and a DC power supply, are used to create an uninterruptible 24 VDC power supply.

Features

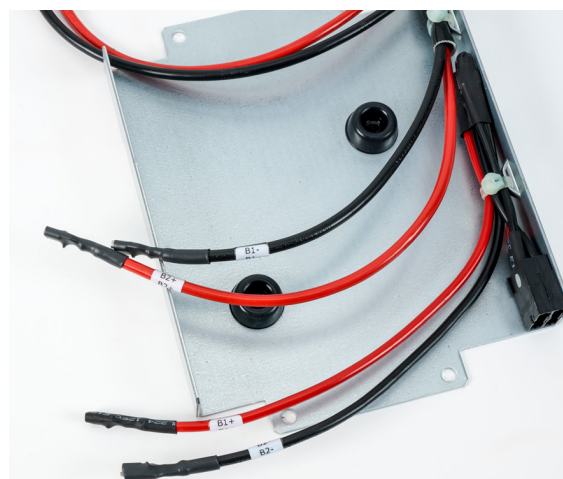
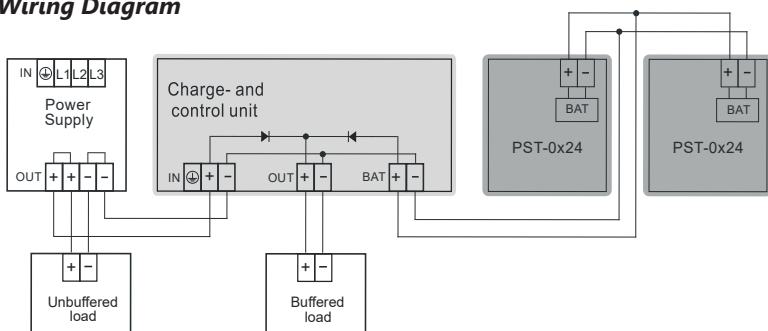
- Several capacity housings and profiles available to fit your installation.
- Prewired and labeled for quick battery and system installation

Battery Storage Modules									
Part Number	Price	Connection	Requires	Recommended Battery * (or equivalent)	Mounting	Housing Material	Dimensions H x W x D (mm [in])	Weight g [lb]	Drawing Link
PST-0024-032-10	\$107.00	14 AWG core wire	(2) 12 VDC - 3.2 Ah batteries	YUASA, NP3.2-12	Panel	Hot dip galvanized sheet metal	177.00 x 77.00 x 150.00 [6.90 x 3.03 x 5.90]	3200 [7.05]	PDF
PST-0024-070-00	\$138.00	12 AWG core wire	(2) 12 VDC - 7 Ah batteries	YUASA, NP7-12			190.00 x 150.00 x 111.00 [7.48 x 5.90 x 4.37]	5600 [12.34]	PDF
PST-0024-070-10	\$138.00	12 AWG core wire	(2) 12 VDC - 7 Ah batteries	YUASA, NP7-12			193.00 x 111.00 x 159.00 [7.59 x 4.37 x 6.25]	5800 [12.78]	PDF
PST-0024-120-00	\$166.00	12 AWG core wire	(2) 12 VDC - 12 Ah batteries	YUASA, NP12-12			190.00 x 216.00 x 111.00 [7.48 x 8.50 x 4.37]	10,000 [22.04]	PDF
PST-0024-120-10	\$166.00	12 AWG core wire	(2) 12 VDC - 12 Ah batteries	YUASA, NP12-12			193.00 x 110.00 x 225.00 [7.59 x 4.33 x 8.85]	9400 [20.72]	PDF

NOTE: * purchase batteries separately, not available from AutomationDirect.com

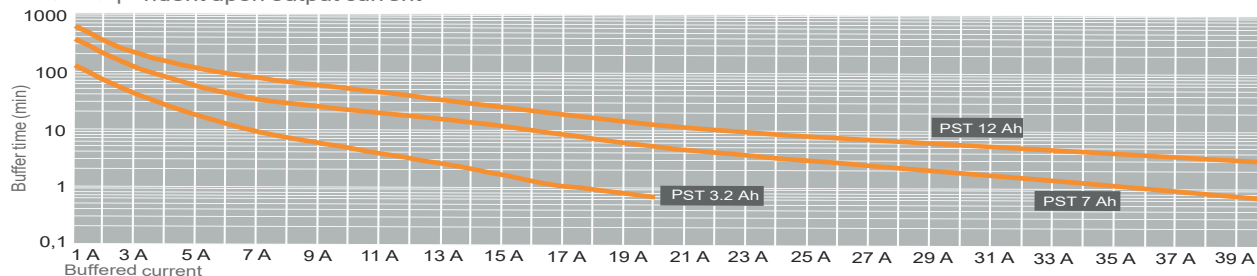
The PST-0024-xxx-xx variants are empty enclosures without battery modules. The specified values assume customer-side installation of the battery modules listed under Recommended Battery (or equivalent).

Wiring Diagram



Buffer Time

Buffer times dependent upon output current





Battery Storage Modules

Specifications					
Part Number	<i>PST-0024-032-10</i>	<i>PST-0024-070-00</i>	<i>PST-0024-070-10</i>	<i>PST-0024-120-00</i>	<i>PST-0024-120-10</i>
Input Specifications					
Nominal Input Voltage	24 VDC				
Nominal Capacity	3.2 Ah	7 Ah		12 Ah	
Recommended Max. Charging Current	0.8A	1.8A		3A	
Recommended End of Charging Voltage (at 25 °C)	27 VDC				
Output Specifications					
Nominal Output Voltage	24 VDC				
Nominal Output Current	20A	40A			
Internal Fuse Type	25 AT	2 x 25 AT			
Connection in Parallel	Yes				
Environment					
Operating Temperature	-15 to +40 °C [+5 to +104 °F]				
Operating Temperature Discharge	-20 to +40 °C [-4 to +104 °F]				
Storage Temperature	-20 to +40 °C [-4 to +104 °F]				
Service Life	5 years at 20 °C, 4 years at 30 °C, 2 years at 40 °C				
Max. Charging Interval	6 months				
Self Discharge	3%/month at 20 °C				
Safety and Protection					
Protection Rating	IP20				
Safety Class	III				
Terminals and Mounting					
Input/Output	Connection cables 2.5 mm ² [AWG 14]		Connection cables 6 mm ² [AWG 10]		
Mounting	Panel mount				
Agency Approval	UR E219022, CE				

BLOCK 24 VDC UPS Power Systems

Find the Right Solution for Your Application



Brief Backup

- Seconds of protection
- Ride through momentary losses

Recommended Solution

Capacitive UPS System (PC-0424)

This system provides 90–100 seconds of backup using internal capacitor storage.

Recommended Components:

[PC-0424-010-00](#) - Capacitive UPS Mod
24 VDC Power Supply

Key Benefits:

- No battery maintenance required
- Fast recharge (90s)
- Compact installation



Standard Backup

- Minutes of protection
- Controlled shutdown time

Recommended Solution

Battery UPS System (PCC-0524)

This system provides 1–60 minutes of configurable backup time with intelligent battery management.

Recommended Components:

[PCC-0524-100-00](#) - UPS Controller (10A)
24 VDC Power Supply
[PST-0024-070-10](#) - Battery Module (7 Ah)

Key Benefits:

- Configurable backup duration
- Battery health monitoring
- Can parallel up to 3 battery modules



Extended Backup

- Hours of protection
- Continue operations during outages

Recommended Solution

Extended Battery UPS System

Perfect for extended runtime. Use 3 parallel battery modules to triple your backup capacity.

Recommended Components:

[PCC-0524-100-00](#) - UPS Controller (10A)
24 VDC Power Supply
(3) [PST-0024-120-10](#) - Battery Modules (12 Ah each)

Key Benefits:

- Up to several hours of backup
- 36 Ah total battery capacity
- Ideal for critical applications

System Comparison

Feature	Capacitive UPS PC-0424	Battery UPS PCC-0524	Combo UPS PCC-1024
Best For	Brief ride-through	Extended backup	Simplified installation
Backup Duration	90–100s	1–60 min (configurable) *	1–60 min (configurable) *
Requires Battery Module	Built-in capacitor	Yes	Yes
Requires Power Supply	Separate unit	Separate unit	Built-in
Number of Components	2 (PS + UPS)	3 (PS + UPS + Battery)	2 (Combo + Battery)
Setup Complexity	Simple	Moderate	Easy
Output Current	Up to 20A	10A or 20A	5A or 10A
Battery Parallel Capability	N/A	Up to 3 modules	Up to 3 modules

*NOTE: Fixed via selector switch or continuous until the battery discharge protection is reached.