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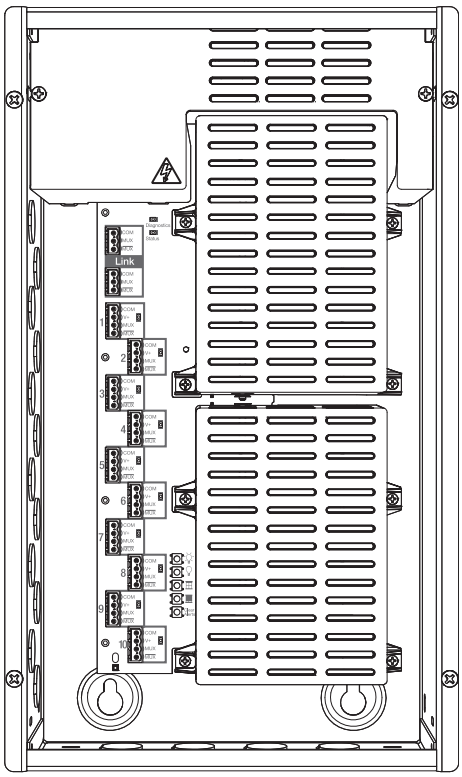
10-Output Sivoia QS Smart Panel

The Sivoia QS Smart Panel simplifies wiring and organizes installations with multiple Sivoia QS window treatments and other system devices and interfaces.

The Sivoia QS Smart Panel is designed to be hardwired into a standard 120 - 240 V~ circuit. Each panel contains ten NEC® Class 2/PELV outputs that provide power and communication to connected devices.



Features

- Ten NEC® Class 2/PELV outputs capable of operating Lutron Sivoia QS shades, drapery drive units, keypads & accessories
- Contains power supplies which are compliant with U.S. Department of Energy Efficiency Level VI
- No replaceable fuses required for overload/miswire protection
- Simple wiring topology to connect QS communication between shades and other system components
- Smart diagnostics verify system communication and reduce installation time
- Easy system testing with manual override buttons for shades and lighting

Models

- QSPS-10PNL: 10-Output Smart Panel
- QSPS-10PNL-LID: Replacement Front Cover

Job Name:	Model Numbers:
Job Number:	

Specifications

Power

- Input: 120 - 240 V~ 50/60 Hz 10 A
- Each output: 35 V⎓ 143 mA 5 W
- Each output is capable of powering one Sivoia QS shade or drapery drive unit, OR up to 8 QS PDUs; see Wiring Rules

Input Wiring

- 14 AWG - 10 AWG (2.5 mm^2 - 4.0 mm^2) single wire, solid or stranded
- Torque terminal screws to: 5 in-lbs (0.5 N•m)
- Strip length: 5⁄16 in (8 mm)
- Maximum 1 panel per 15 A circuit breaker (limiting factor is inrush current)
- Maximum 2 panels per 20 A circuit breaker (limiting factor is inrush current)

Output Terminal Wiring

- 22 AWG–12 AWG (0.5 mm2-4.0 mm2) single wire, solid or stranded (wire gauge affects allowable length of run; see Wiring Rules)
- Torque terminal screws to: 5 in-lbs (0.5 N•m)
- Strip length: ¼ in (6 mm)
- Ten (10) output terminals for shade power/communication (4-conductor)
- Two (2) link terminals for communication pass-through (3-conductor)

Regulatory Approvals

- cULus Listed
- IEC Compliant (CE Marked)
- NOM Certified
- Contains U.S. Department of Energy Level VI compliant power supplies
- RoHS Compliant
- FCC Part 15 Subpart B Class B
- ICES 003 Class B

Environment

- Ambient Temperature Operating Range: 32 °F to 104 °F (0 °C to 40 °C)
- Relative humidity: 0% to 90% non-condensing
- For indoor use only
- Thermal dissipation
  - with 1 window treatment and keypad per output: 20 BTU/hr
  - with load of 5 W per output: 52 BTU/hr
- Can be installed in accordance with NEC® Article 300.22(c) “Other spaces used for environmental air.”

Performance

- +/- 6 kV surge protection (ANSI/IEEE C62.41 - 1991)
- +/- 16 kV ESD protection (EIC 61000 - 4 - 2 air discharge)
- Self-recoverable short circuit/miswire protection on power output terminals per output
- Self-recoverable overload/over temperature protection per output

Warranty

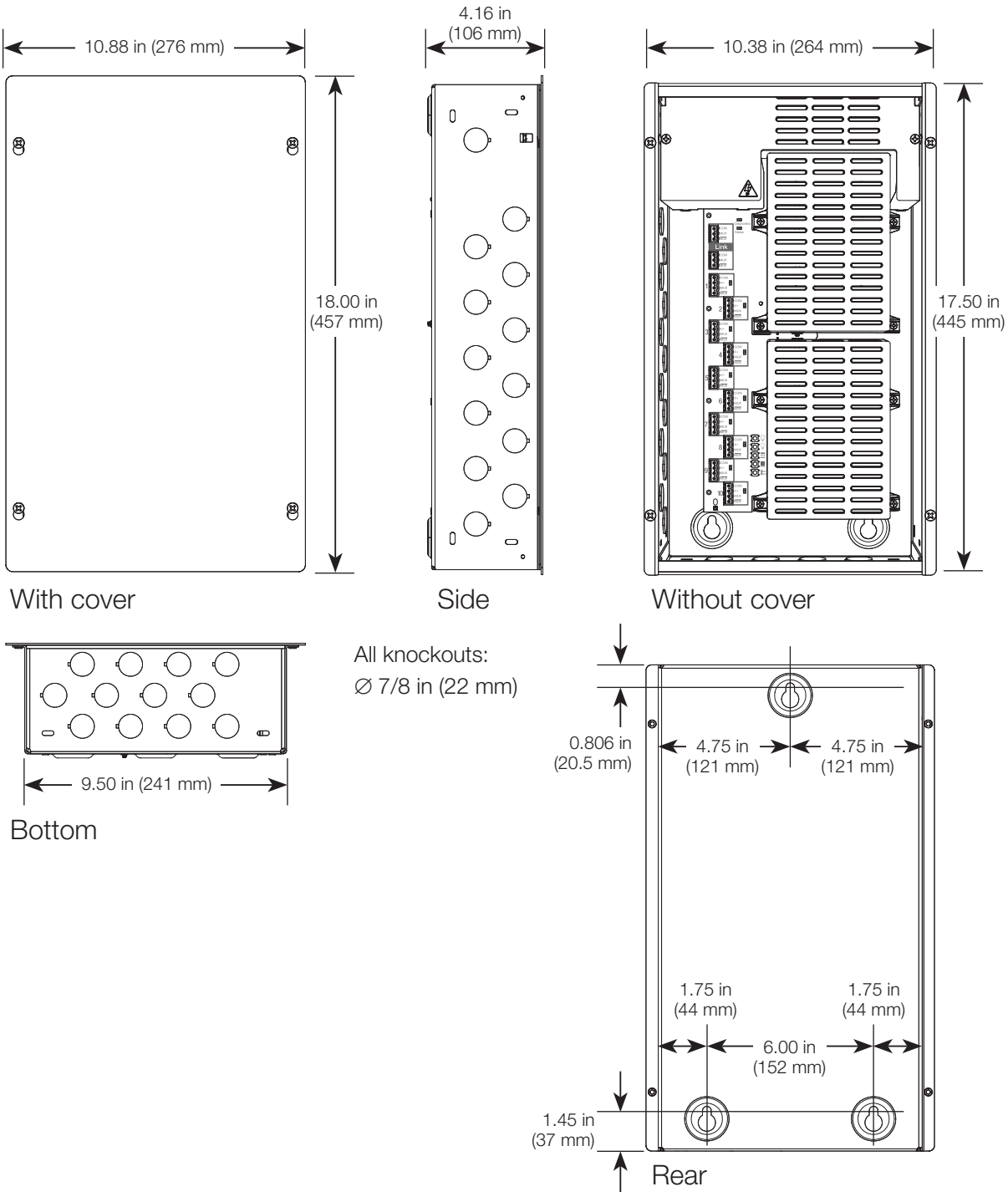
- Covered by Lutron Shading Solutions standard warranty; see: www.lutron.com/TechnicalDocumentLibrary/Window Systems Warranty.pdf

Job Name:	Model Numbers:
Job Number:	

Mounting

- Weight: 15 lb (6.8 kg)
- May be surface mounted or recess mounted at a location within allowable distance to powered devices, limited by wire gauge used; see the section titled: Wiring Rules

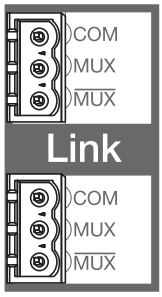
Dimensions



Job Name:	Model Numbers:
Job Number:	

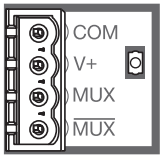
Wiring Rules

Link Terminals:



- All wiring is NEC® Class 2/PELV. Follow all applicable local and national codes for proper circuit separation and protection.
- COM: 12 - 18 AWG (4.0-1.0 mm²)
- MUX and $\overline{\text{MUX}}$: 22 AWG (0.5 mm²) twisted/shielded pair
- Total length of wiring on communication link must not exceed 2000 ft (610 m)
- Maximum of 100 devices in each Sivoia QS system (panel outputs and link pass-through combined; each QSPS-10PNL counts as 1 of the 100 devices)

NOTE: The 3-pin link terminals must be used when interconnecting multiple Smart Enclosures. Smart Enclosures cannot be interconnected using the 4-pin output terminals.



Output Terminals:

- All wiring is NEC® Class 2/PELV. Follow all applicable local and national codes for proper circuit separation and protection.
- V+ and COM: 12 - 18 AWG (4.0-1.0 mm²)
- MUX and $\overline{\text{MUX}}$: 22 AWG (0.5 mm²) twisted/shielded pair
- Power (V+) terminals must NEVER be connected between outputs

Maximum devices powered per output			Maximum total length of wiring based on wire gauge		
Shades	+	Devices	12 AWG (4.0 mm²)	16 AWG (1.5 mm²)	18 AWG (1.0 mm²)
None	+	Up to 8 PDUs*	2000 ft (610 m)	1000 ft (305 m)	600 ft (183 m)
Any 1 shade/drapery drive unit	+	Up to 1 PDU*	500 ft (152 m)**	200 ft (61 m)	125 ft (38 m)
2 Palladiom, ≤ 30 sq ft (2.75 sq m) each	+	Up to 1 PDU*	N/A**	75 ft (23 m)	50 ft (15 m)
3 Palladiom, ≤ 20 sq ft (1.8 sq m) each	+	Up to 1 PDU*	N/A**	75 ft (23 m)	50 ft (15 m)
2 Sivoia QS roller 64, ≤ 30 sq ft (2.75 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)	50 ft (15 m)
3 Sivoia QS roller 64, ≤ 20 sq ft (1.8 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)	50 ft (15 m)
2 Sivoia QS roller 100, ≤ 50 sq ft (4.6 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)	50 ft (15 m)

*PDU = Power Draw Unit. For more information, refer to the QS Link Power Draw Unit Specification Submittal (P/N 369405).
** The connector supplied with Palladiom shades is not sized to accept 12 AWG wire.

Options available from Lutron with power and communication conductors in one cable:

Gauge	Lutron Model Number	
	Standard	For Plenum Installation
12 AWG (4.0 mm²)	QSH-CBL-L-500	QSH-CBLP-L-500
16 AWG (1.5 mm²)	QSH-CBL-M-500	QSH-CBLP-M-500
18 AWG (1.0 mm²)	GRX-CBL-346S-500	N/A

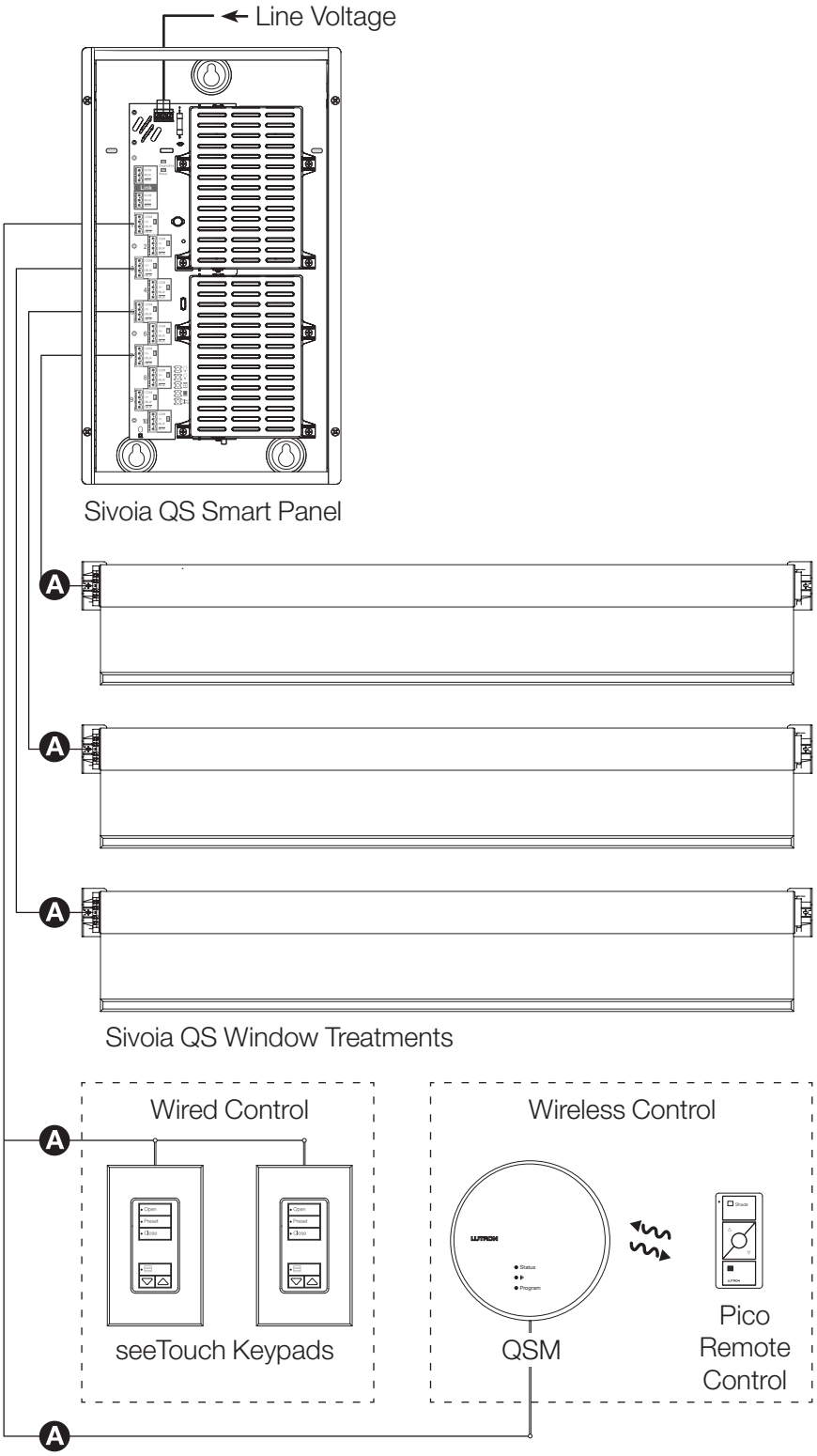
Job Name:	Model Numbers:
Job Number:	

Application Example

Standalone System

A Power and communication link (4 conductor)

Provides power and communication to QS shades and/or keypads



Job Name:	Model Numbers:
Job Number:	

Application Example

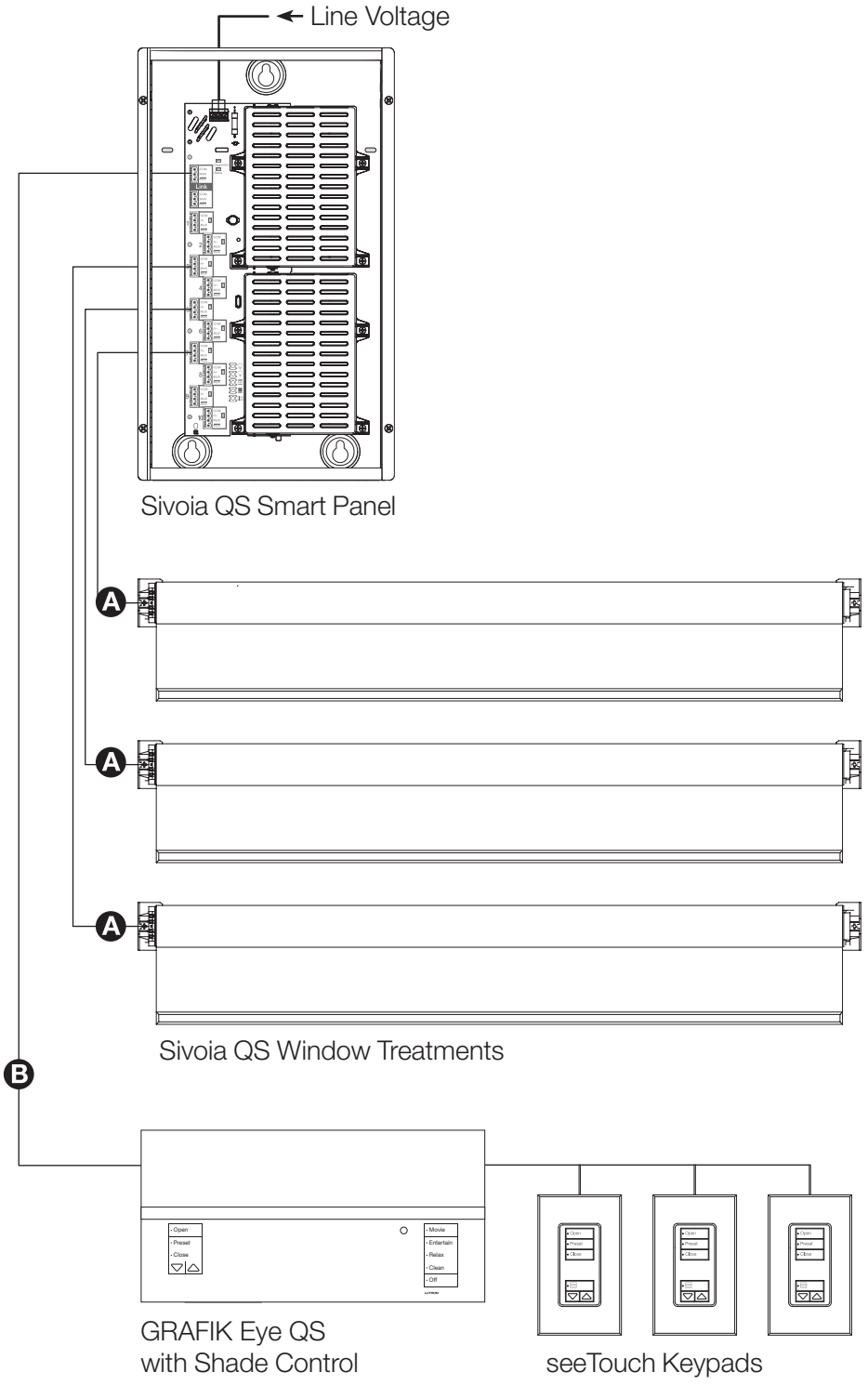
GRAFIK Eye QS System

A Power and communication link (4 conductor)

Provides power and communication to QS shades and/or keypads

B Communication link (3 conductor)

Used as a communications pass-through connection for QS Link devices



Job Name:	Model Numbers:
Job Number:	

Application Example

Linking Multiple Smart Panels in Large Systems (Quantum, HomeWorks QS)

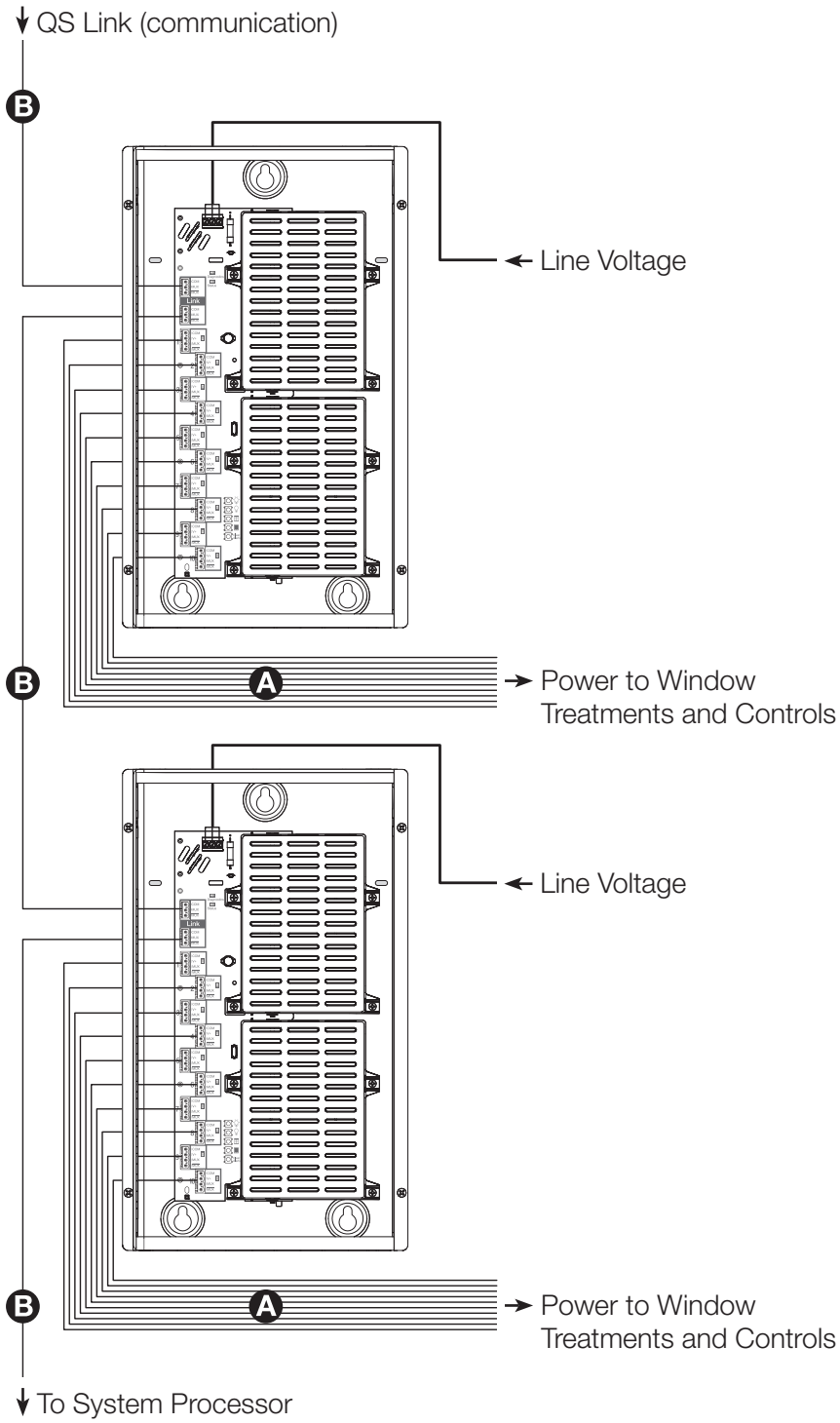
A Power and communication link (4 conductor)

Provides power and communication to QS shades and/or keypads

B Communication link (3 conductor)

Used as a communications pass-through connection for QS Link devices

NOTE: The 3-pin link terminals must be used when interconnecting multiple Smart Panels. Smart Panels cannot be interconnected using the 4-pin output terminals.



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Job Name:	Model Numbers:
Job Number:	