

LEX PRODUCTS POWERGATE™ COMPANY SWITCH – SPECIFICATION

1. GENERAL

- 1.1. The Company Switch shall provide a means for the connection of portable electrical equipment in a safe and efficient manner for entertainment, industrial and convention venues.
- 1.2. The Company Switch shall be available in versions for indoor (Type 1) and outdoor (Type 3R) use.

2. MECHANICAL

- 2.1. The Company Switch panels shall have an enclosure manufactured of .075 inch cold rolled steel.
- 2.2. The Company Switch shall not have enclosure dimensions that exceed 20.30" (51.56 cm) W x [SPECIFY EITHER: NEMA Type 1: 11.65" (25.60 cm) D OR NEMA Type 3R: 13.00" (33.02 cm) D].
- 2.3. The Company Switch shall not have enclosure heights that exceed:
 - 2.3.1. 400A panel: 46.50" (118.11 cm) H
 - 2.3.2. 200A panel: 38.50" (97.79 cm) H
 - 2.3.3. 100A panel: 38.50" (97.79 cm) H
 - 2.3.4. 60A panel: 38.50" (97.79 cm) H
- 2.4. The Company Switch shall include four (4) welded mounting tabs for wall mounting.
- 2.5. The Company Switch shall be comprised of an upper breaker chamber and a lower wiring chamber.
 - 2.5.1. The breaker chamber shall contain a single main breaker with internal lugs.
 - 2.5.2. The lower wiring chamber shall contain both direct wire lugs and [SPECIFY EITHER: single pole connectors OR a IEC 60309 pin-and-sleeve connector].
- 2.6. The Company Switch shall be equipped with guards to prevent accidental operation of the main circuit breaker.
- 2.7. The Company Switch finish shall be [SPECIFY EITHER: beige OR black] powder coat.

3. ELECTRICAL

- 3.1. The Company Switch shall have line input connections for 120/208 VAC 3Ø 4-wire and ground service.
- 3.2. The Company Switch design shall have been Hi-Pot tested at 1500 VAC for a period of no less than one (1) second.
- 3.3. INPUT
 - 3.3.1. The Company Switch shall have input connections to the main circuit breaker, neutral and ground using internal lugs that can accept up to 500MCM (300mm²) wire.
 - 3.3.2. The ground connection ships from the factory secured to the enclosure. The ground may be isolated from the enclosure. This is a field modification.
 - 3.3.3. The Company Switch shall contain a single 3-pole [SPECIFY EITHER: 60 Amp OR 100 Amp OR 200 Amp OR 400 Amp] electronic circuit breaker.
 - 3.3.4. The circuit breaker shall be 100% rated with a 65K AIC rating.

POWERGATE™ COMPANY SWITCH – SPECIFICATION (continued)

- 3.3.5. The circuit breaker shall be OSHA lockout-tagout equipped.
- 3.3.6. The circuit breaker shall be settable to trip at 40% - 100% of its rated capacity in the field.

3.4. OUTPUT

- 3.4.1. The Company Switch shall have output connections that contain both direct wire lugs and [**SPECIFY EITHER**: single pole connectors **OR** a IEC 60309 pin-and-sleeve connector] for external connections.
 - 3.4.1.1. Company Switches that have only one type of connection shall not be acceptable.
- 3.4.2. There shall be [**SPECIFY EITHER**: five (5) cams/lugs **OR** six (6) cams/lugs **OR** one (1) IEC 60309 pin-and-sleeve/five (5) lugs].
 - 3.4.2.1. [**If cams/lugs, SPECIFY EITHER**:
 - Provide all female cam receptacles (straight) **OR**
 - Provide female cam receptacles for the hot phases/ground and male receptacle(s) for the neutral (reverse neutral) **OR**
 - Provide female cam receptacles for the hot phases/neutral and male receptacle(s) for the ground (reverse ground) **OR**
 - Provide female cam receptacles for the hot phases and male receptacle(s) for the ground(s)/neutral(s) (reverse both).]
 - 3.4.2.2. [**If 6 cams/lugs, SPECIFY EITHER**: Provide double ground cams/lugs **OR** Provide double neutral cams/lugs.]
- 3.4.3. Connections shall be arranged so that cables drape downward when connected.
- 3.4.4. Cables shall enter and exit the wiring chamber from access holes in the bottom of the enclosure.
- 3.4.5. A lockable hinged access door shall restrict access to the wiring chamber for safety and security.
 - 3.4.5.1. The access door shall engage the shunt trip mechanism of the main circuit breaker whenever it is not fully closed, so that connections cannot be made or broken under load.
 - 3.4.5.2. Company Switches that do not provide shunt trip protection of a wiring chamber shall not be acceptable.
- 3.4.6. The Company Switch shall provide a spring loaded strain relief for lug cables exiting the bottom of the chamber.
- 3.4.7. Output lug connections shall accommodate a maximum of 500MCM (300mm²) cable.
- 3.4.8. A strip of white light-emitting diodes (LEDs) shall light the wiring chamber whenever the access door is open.
- 3.4.9. [**OPTION**] The Ground connection shall be isolated from the frame.

3.5. MAIN CIRCUIT BREAKER

- 3.5.1. The unit shall contain a single 3-pole [60Amp – **OR** – 100Amp – **OR** – 200Amp – **OR** – 400Amp] electronic circuit breaker.
- 3.5.2. The main breaker shall be 100% rated with a 65K AIC rating.

POWERGATE™ COMPANY SWITCH – SPECIFICATION (continued)

3.5.3. The main breaker shall be lockout-tagout equipped.

3.5.4. The main breaker shall be resettable to trip at 40% of its rated capacity.

4. INDICATORS

4.1. The Company Switch shall be equipped with light emitting diode indicator lights for each supply phase, labeled with an alphabetic description.

4.2. The unit shall be supplied with a light emitting diode indicator light indicating supply to ground continuity, labeled with an alphabetic description.

5. COMPLIANCE

5.1. The Company Switch must satisfy the requirements of NFPA 70 (National Electric Code)

5.1.1. Article 408 - Switchboards and Panelboards

5.1.2. Article 520 - Theaters, Audience Areas of Motion Picture and Television Studios and Similar Locations

5.1.3. Article 530 - Motion Picture and Television Studio and Similar Locations

5.2. Output panel connectors must specifically comply with:

5.2.1. Section 520.53(K) for Single-Pole Separable Connectors

5.2.2. Section 300.20(B) Induced Currents in Ferrous Metal Enclosures.

6. RECOGNITION

6.1. Panels shall be UL and cUL Listed. Labels shall be secured to the panel.

7. WARRANTY

7.1. The Company Switch shall carry a full two-year warranty from the time of shipment.

8. QUANTITIES

8.1. Provide Company Switches as scheduled.

9. APPROVED MANUFACTURER AND PRODUCTS

9.1. Switchboards shall be PowerGATE™ Company Switches, as manufactured by Lex Products, LLC of Shelton, CT.