Powell Manufacturing facilities located in:
Houston, TX USA - North Canton, OH USA - Northlake, IL USA
Edmonton, Alberta Canada - Bradford, United Kingdom
www.powellind.com

Flexgear™ - LV Enclosed Switchgear

600V CLASS ANSI METAL ENCLOSED SWITCHGEAR, ARC RESISTANT AND NON ARC RESISTANT

DESIGN CONCEPT

FlexGear™ LV metal enclosed switchgear is a universal design platform that can accommodate Eaton PXR, Siemens WL or Schneider Masterpact MTZ drawout air circuit breaker elements. The bolt together assembly uses self-forming screws for all connections within the front cell and rear cell sub-assemblies. The basic structure is constructed of 12-guage HRPO steel. Each vertical section has (4) compartments that accommodate the circuit breaker cradle assembly(s), instrument compartment(s), and other optional assemblies. Standard finish is ANSI-61 gray, electrostatically applied polyester powder coat paint finish.

APPLICATION

FlexGear™ LV switchgear is available in one-high breaker construction up to four-high construction. Main bus available in 1600A, 2000A, 3200A, 4000A and 5000A ratings. Standard NEMA 1 indoor enclosure with arc resistant features.

INDUSTRY STANDARDS

FlexGear LV switchgear is designed to comply with ANSI, IEEE, UL and NEC standards including ANSI C37.20.1 and UL 1558. It is tested per ANSI C37.20.1, C37.51 and C37.20.7. Certified design test reports for standard configurations and bus ratings are available upon request.

RATINGS

Standard enclosure design is Non Arc Resistant. Arc Resistant enclosure can be provided with minor modifications to the standard construction. The arc resistant rating comes from IEEE C37.20.7, accessibility type 2B. Internal arcing short time short-circuit current is 85kA. Arcing duration is 0.5 seconds. Overhead plenum is optional for arc resistant designs. FlexGear LV switchgear may be UL listed in approved configurations. When AR rating is required, the equipment is UL Classified for the AR rating. CSA labeling can be provided with an on-site or factory inspection visit. Modifications can be made to meet ABS requirements.





High Resistance Grounding Monitoring and Detection
Powell's high resistance grounding system can be installed integral to any 600V class FlexGear line-up.

Solving your toughest problems.
We're with you every step of the way,
from project inception to product delivery.
Powered By Safety®

Powell Corporate Headquarters
Electrical Division Houston
8550 Mosley Road, Houston, Texas 77075
Phone: +1 713.944.6900 | Fax: +1 713.947.4453

MAIN BUS RATINGS & BRACING

FlexGear™ LV uses the same rear bus compartment in all configurations.

- Short-Time Withstand Current – 85kA for 1s
- Short-Circuit Current Withstand – 100kA (230kA peak) – 4 cycles
- All currents are RMS symmetrical

Amperage	Riser Bus assembly	Main Bus assembly
800A - 2000A	85kA	100kA
3200A - 5000A	85kA	100kA

CIRCUIT BREAKER RATINGS

The breaker frame and cradle sizes used in Flexgear LV Switchgear are limited to 800A, 1600A, 2000A, 3200A, 4000A and 5000A. Breaker ratings vary by manufactures as indicated below:

SCHNEIDER MASTERPACT MTZ BREAKER ELEMENTS

Amperes	Breaker/Frame Type	Cubicle Width	rms Symmetrical Current Rating kA 50/60 Hz			Short Time With-stand Rating
			Interrupting at 254 Vac	Interrupting at 508 Vac	Interrupting at 635 Vac	
400-3200	MTZ2 H2, H3	24″	85 100	85 100	85 100	85 85
4000-5000	MTZ3 H2, H3	36″	85 100	85 100	85 100	85 85

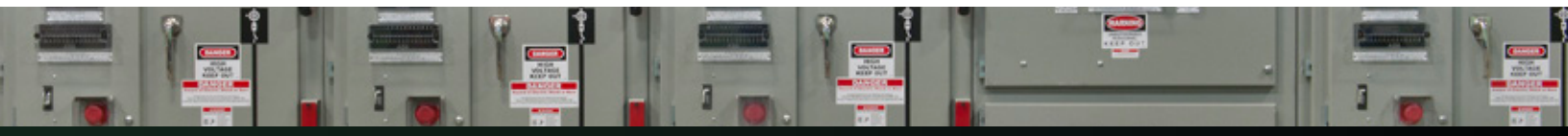
EATON PXR BREAKER ELEMENTS

Amperes	Frame Type 6, 8, C	Cubicle Width	rms Symmetrical Current Rating kA 50/60 Hz			Short Time With-stand Rating
			Interrupting at 254 Vac	Interrupting at 508 Vac	Interrupting at 635 Vac	
400-3200	Standard	24″	85 100	85 100	85 100	85 85
4000-5000	Double Narrow	34″	85 100	85 100	85 100	85/100 85/100

SIEMENS WL BREAKER ELEMENTS

Amperes	Breaker Type	Cubicle Width	rms Symmetrical Current Rating kA 50/60 Hz			Short Time With-stand Rating
			Interrupting at 254 Vac	Interrupting at 508 Vac	Interrupting at 635 Vac	
800-3200	S, H, L	24″	65 85 100	65 85 100	65 85 100	65 85 85
4000-5000	H, L	34″	85 100	85 100	85 100	85/100 85/100

Standard Cubicle Depth = 86’



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