600V Secondary Bus Termination Switchgear – CU

1.0 SCOPE

This specification applies to padmounted outdoor 600 volt secondary bus termination switchgear. Unit shall be designed for mounting on a fiberglass box pad or concrete pad at ground level. The switchgear shall be in complete conformance with all applicable NEC, ANSI, IEEE, and NEMA standards in addition to ANSI C57.12.28, Padmounted Equipment Enclosure Integrity Standard.

2.0 CONSTRUCTION

1. The switchgear components, dimensions and construction shall be as shown on the drawing.
2. The unit shall be constructed on a free-standing aluminum frame designed per applicable standards to withstand the electrical and mechanical stresses.
3. Frame lifting and grounding provisions shall be provided.
4. The unit shall be completely assembled at the factory.
5. Bus bar shall be copper and sized for the ampacity load to be connected. Cables shall be attached using two-hole or four-hole NEMA Standard cable lugs. There shall be (17) NEMA two-hole positions on each bus bar with provisions for back to back cable mounting for a maximum of (34) cables per bus bar. Fiberglass GPO-3 angle shall be used to support the bus bars on both ends.
6. The switchgear shall be housed in a fiberglass outdoor, weatherproof housing sized to cover the unit.

CATALOG NO: PS2-44-2222-L2-MG-XY

Example-"PS2-44-2222-L2-MG-C55
Double 1/2 x 5 Copper Bus Bars

COPPER BUS

	SINGLE BUS BAR		DOUBLE BUS BAR WITH 1/4" SPACER	
1/2X4	1600 A	-C4	2500 A	-C44
1/2X5	1900 A	-C5	3000 A	-C55
1/2X6	2200 A	-C6	3500 A	-C66
1/2X8	2700 A	-C8	4300 A	-C88

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7. Fiberglass laminate shall be 3/16" nominal thickness except where local reinforcement is required.
8. Fiberglass shall not support combustion and be self extinguishing.
9. Enclosure exterior shall be gel-coated to .014 inch nominal thickness and be manufacturer's standard munsell green color.
10. Locking device shall provide both a captive penta head bolt and padlocking provisions.
11. All enclosure hardware shall be made of 304 stainless steel.
12. Enclosure shall be removable without disturbing enclosed equipment or cables.
13. A stainless steel identification plate shall be affixed outside the enclosure which identifies the manufacturer; model number of the equipment; and date of manufacture.
14. Stainless steel louvers shall be provided with stainless steel screen baffle for adequate air flow and heat dissipation as required for enclosed equipment.

3.0 INSTALLATION

1. Remove enclosure and set aside. Mount free-standing frame on pad and secure. Terminate cables and bolt to bus bar. Lower enclosure over frame/cable assembly and secure.
2. Connecting cables in a Source-Tap configuration allows for bus bar ratings as shown in the above table. Connecting cables in a Tap-Source-Tap configuration allows for the rating to be multiplied by 1.8. For example a single ½ x 6 bus bar would be rated 300A x 1.8 = 5400A. Note the load must be split equally between the tap cables on each end.
3. Cables are connected with 1/2” diameter mounting bolts supplied by others. Space is provided between bus bars to mount cables on one side or both sides.

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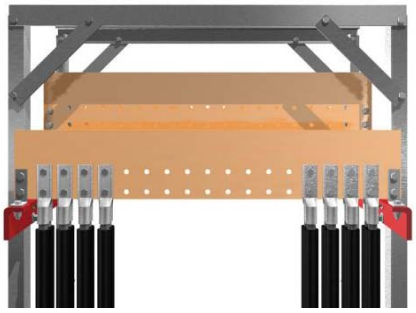
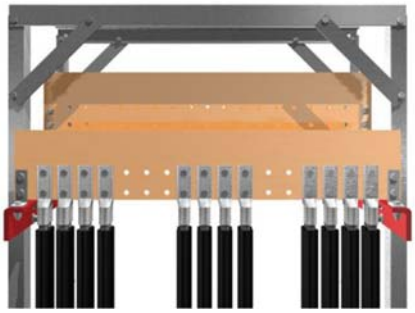


SOURCE TAP

BUS RATING PER TABLE

All source cables on one end and all tap cables on the opposite end



TAP SOURCE TAP

BUS RATING X 1.8

All source cables in center and all tap cables on ends (equal loads)

ONE SIDED CONNECTION MAX (17) CABLES/PHASE

TWO SIDED CONNECTION MAX (34) CABLES/PHASE

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For more information, check out our video or our web site. The following are the links;

Video: http://www.powerdesigninc.com/Video/Main-Video.htm
Web Site: http://www.powerdesigninc.com/ps/ps_termination_600v.asp