Powerglass® Primary Voltage Sectionalizing Cabinets

DESCRIPTION

Applications

Western Power Products offers Powerglass® enclosures for freedom from rust and corrosion in any environment.

No maintenance. Complete absence of ferrous material means every Powerglass enclosure is totally rust free, impervious to attack under any environmental conditions unaffected by fertilizer spray, salt air, or chemicals. Standard Willow Green finish blends easily with its surroundings. Ultraviolet rays do not affect the structural integrity of the enclosure. UV stabilized gelcoat provides a lifetime finish.

Durable. Powerglass resistance to impact reduces costs resulting from repair or replacement of dented or damaged enclosures. The aesthetically

Figure 1.
P132033WD

pleasing unit keeps its appearance year after year.

Safety first. Impact resistance means intrusion resistance. Unauthorized entry into enclosures is obstructed by specially designed door and vent openings. Non-conductive characteristics of fiberglass further reduce accident potential on the outside from problems within.

Fire retardant. Powerglass will not support combustion.

Easy to install. The lightweight, one-piece design permits easy installation. No field assembly required.

Figure 2.
P3542555

Powerglass switching pedestals are used for utility deadfront applications.

With Powerglass, there is no ground line rust commonly associated with steel pedestals.

Hinged top provides unobstructed access for switching. For extensive service top can be removed for all-around access. Position of mounting bars ensures ease of operation.

Powerglass pedestals will accommodate all manufacturers' 200 A and 600 A junctions through 25 kV. P1422549WD will accommodate single-phase, 35 kV.

There is minimal cable movement. Exclusive adjustable parking clips permit movement of elbows from connected to parked position with cable movement normally as little as 6-1/2".

Figure 3.
Hinged top provides unobstructed access.

Mounting Brackets

P1222032, P1322033, P1322039, P1322439WD, P1322043, P1322048, P1422532, P1422541 and P1422549 have 304 stainless steel junction mounting brackets with fixed parking clips. P3522541, P3543141,

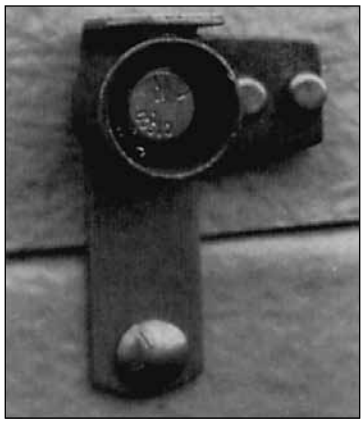

Figure 4.
Hasp detail locking system includes stainless steel hasp pivot arm and cast bronze block with captive 1/2" stainless penta head bolt.

P3542549, P3543149, P3542555, P3543155, P3673146, P3673155 and P3673161 have 6061-T6 aluminum junction mounting bracket with 304 stainless steel adjustable parking clips. Junction mounting bracket provided with pedestal requires junction with U-straps only.

Grounding

Grounding lug provided on all junction mounting brackets. Lug accommodates through 1/0 stranded conductor. Special grounding assemblies are available on request.

Factory installed junctions and faulted circuit indicators are available per customer specification.

Powerglass switching pedestals contain the following features:

- Deadfront switching with 200 A load-break junctions through 25 kV, single and three-phase.
- Mounting for 2, 3, and 4 way load-break and dead-break junctions.
- Patented top-to-bottom tapered elliptical shape provides ample space for coiled or slack cable.
- Removable top section secures in open position for ease in switching.
- Depth below grade - available through 34".

TABLE 1
Sizing Chart

Model No.	Old Model No.	Width at Top	Overall Height	Depth at Top	Width at Base	Depth at Base	Suggested Depth Below Grade	Weight
Single Phase								
P1222032WD	SPM-220-31-WG-DF3	22	32-3/8	20	33	33	12	70
P1322033WD	SPM-320-31-WG-DF3	32	32-3/4	20	43	34	14	85
P1322039WD	SPM-320-37-WG-DF3	32	38-3/4	20	44	35	20	90
P1322439WD	SPM-320-37-4D-WG-DF3	32	38-3/4	24	44	38	20	110
P1322043WD	SPM-320-41-WG-DF3	32	43	20	45	36	24	105
P1322048WD	SPM-320-47-WG-DF3	32	48-3/8	20	45	38	29	125
P1422532WD	SPM-420-31-WG-DF3 (a)	42	31-1/2	25	53	42	13	105
P1422542WD	SPM-420-41-WG-DF3 (a)	42	41-1/2	25	55	45	23	145
P1422550WD	SPM-420-47-WG-DF3 (a)	42	49-1/2	25	56	47	31	175
Three Phase								
P3542541WD	SPM-540-38-WG-DF3	54	41	25	66	42	22	130
P3543141WD	SPM-540-38-6D-WG-DF3	54	41	31	66	48	22	145
P3542549WD	SPM-540-47-WG-DF3	54	49-1/2	25	68	45	31	160
P3543149WD	SPM-540-47-6D-WG-DF3	54	49-1/2	31	68	51	31	180
P3542555WD	SPM-540-53-WG-DF3	54	55-1/2	25	69	47	37	200
P3543155WD	SPM-540-53-6D-WG-DF3	54	55-1/2	31	69	53	37	215
P3673146WD	SPM-670-38-WG-DF3 (b)	67	46	31	80	46	27	205
P3673155WD	SPM-670-47-WG-DF3 (b)	67	55	31	82	50	36	220
P3673161WD	SPM-670-53-WG-DF3 (b)	67	61	31	83	52	42	240

(a) 35 kV single phase switching pedestal for Elastimold junctions
(b) 35 kV three phase switching pedestal for Elastimold junctions.
Note:
1) For 35 kV applications, please change the no's. to P1422531500, P1422541500 and P1422549500 or P3673146500, P3673155500 or P3673161500 if RTE™ junctions are to be used.
2) If variations in any of these dimensions are desired, please contact factory,
3) Willow green "W" part numbers illustrated. Change to "M" for Munsell green color.

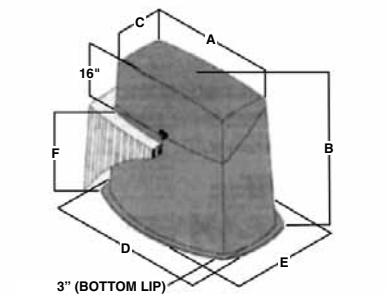

Figure 5.
See above table.

SPECIFICATIONS

Pedestals

The fiberglass pedestal shall be constructed to meet or exceed requirements of ANSI C 57.12.28 Standards for Pad-mounted Equipment Enclosure Integrity, an attachment to ANSI C 37.72. Conforms to REA requirements.

Raw Material

A. Resins - Resins shall be thermosetting, medium reactivity, rigid fire resistant polyester containing a maximum monomer content of 42% and a maximum of 1% Thixotropic additive.

B. Glass Fiber - Glass fiber reinforcement shall be K filament type E Borosilicate glass having high performance chrome-complex or silane finish compatible with polyester resin.

C. Gelcoat - Exterior surface coating shall be ultraviolet light stabilized, weather resistant, polyester base containing fade resistant color pigments, and such inert extenders as are appropriate to maintain total pigment volume concentration less than 20%.

D. Interior Coating - Interior laminate coating when required shall be a pigmented heat resistant high gloss polyester base surfacing sealer.

E. Other material - Organic peroxide catalysts and promoters appropriate to the resin type shall be used as necessary to provide thorough cure.

Figure 6.
Low profile-minimum 19" above grade.

Standards

Structural Standards - Minimum structural standards of the finished laminate shall be as follows:

Tensile Strength; ASTM D-638	8,180
Flexural Properties; ASTM-D790	6,040
Tangent Modules of Elasticity	407.3
Compressive Strength; ASTM D-695	19,350
Water Absorption; ASTM D570-59aT	5%
Charpy Impact Test; ASTM D-256	3.0
Impact Resistance; ASTM D-244	37.5
Flammability Tests; ASTM D-635	Self Extinguishing
Ultraviolet Protection	Nominal .014" Gelcoat

Construction

A. Construction details and overall dimensions shall be in accordance with the drawings.

B. All exterior gelcoat shall be applied to produce a cured film of .014" plus or minus 0.005" in thickness. Distribution of glass reinforcement shall be uniform except that in areas of stress concentration where local reinforcement shall be required.

C. All parts shall be molded In one piece. No wood reinforcement shall be used.

D. Latching provisions shall result in snug fit of top to bottom, with means provided for padlock and penta bolt. All door and exterior hardware shall be constructed of 304 stainless steel, 6061-T6 aluminum, and/or ABD bronze casting.