

TOUGHENED GLASS INSULATORS

OVERVIEW

Toughened Glass Insulators from MacLean Power Systems are engineered for reliable performance in high-voltage (HV), extra-high-voltage (EHV), and DC transmission applications. Stocked and supplied from MPS's distribution center, Olive Branch, MS, these insulators are designed to perform in harsh operating environments and are backed by decades of proven global field experience. With a fail-safe design and long-term material stability, they provide dependable insulation and easy fault detection.

KEY FEATURES

- **Non-Aging Material:** Glass does not degrade over time, ensuring long-term insulation reliability
- **Fail-Safe Design:** Provides immediate visual indication of failure for faster maintenance response
- **High Mechanical Strength:** Reduces risk of damage during handling and installation
- **Post-Failure Integrity:** Maintains mechanical integrity even after shell failure

TECHNICAL HIGHLIGHTS

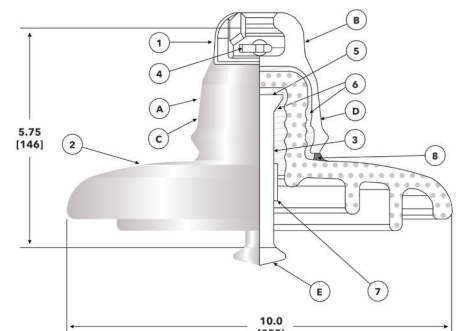
- Manufactured under ISO-certified systems (9001, 14001, 45001)
- Compliant with industry standards
- 100% routine mechanical and electrical testing prior to shipment
- 100% 3 cycle thermal shock testing prior to shipment
- Available in Standard, FOG, and silicone-coated

ORDERING & AVAILABILITY

- Refer to MPS website for detailed product information and availability
- For items not listed, please contact MPS Customer Service

A INSULATOR SUPPLIER MARKING
 B CAP SUPPLIER MARKING
 C TEST 11000 M&E 22000 MG523Z
 D YEAR OF MANUFACTURE YYYY
 E COUNTRY OF ORIGIN STAMP

ITEM #	QTY	DESCRIPTION	MATERIAL
1	1	Cap	Hot Dip Galvanized Cast Iron
2	1	Shell	Toughened Glass
3	1	Pin	Hot Dip Galvanized Forged Steel
4	1	Cotter Pin	Stainless Steel ANSI
5	1	Gasket	Asphalt Felt
6	---	Cement	Aluminous Cement, Hot Cured
7	1	Zinc Sleeve	Zinc
8	1	Coating	Pile



CATALOG NUMBER	MG523Z	MG525Z	MG528Z	MG5211Z	MG300Z	MG420Z	MG550Z
ANSI / IEC Class	52-3H	52-5H	52-8H	52-11	IEC-24	IEC-28	IEC-32
Coupling Type	B	J	K	K	24	28	32

MECHANICAL

Min. Mechanical	22,000 Lbs.	30,000 Lbs.	40,000 Lbs.	50,000 Lbs.	67,442 Lbs.	94,420 Lbs.	123,645 Lbs.
Failing Load	98 kN	133 kN	178 kN	222 kN	300 kN	420 kN	550 kN
Proof Routine Test	11,000 Lbs.	15,000 Lbs.	20,000 Lbs.	25,000 Lbs.	33,721 Lbs.	47,210 Lbs.	61,822 Lbs.
Mechanical Load	49 kN	67 kN	89 kN	111 kN	150 kN	210 kN	275 kN
Impact Strength	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.

DIMENSIONS

Shell	10.0 in	10.0 in	11.0 in	11.0 in	12.6 in	14.2 in	14.2 in
Diameter	255 mm	255 mm	280 mm	280 mm	320 mm	360 mm	360 mm
Coupling	5.75 in	5.75 in	5.75 in	6.14 in	7.68 in	8.07 in	9.45 in
Length	146 mm	146 mm	146 mm	156 mm	195 mm	205 mm	240 mm
Leakage	12.6 in	12.6 in	15.7 in	15.7 in	19.1 in	21.7 in	25.0 in
Distance	321 mm	321 mm	400 mm	400 mm	485 mm	550 mm	635 mm

ELECTRICAL

Dry Flashover	80 kV	80 kV	80 kV	80 kV	85 kV	90 kV	90 kV
Wet Flashover	50 kV	50 kV	50 kV	50 kV	50 kV	55 kV	55 kV
CIFO+	125 kV	125 kV	125 kV	140 kV	130 kV	140 kV	140 kV
CIFO-	130 kV	130 kV	130 kV	140 kV	130 kV	140 kV	150 kV
Puncture Voltage	130 kV	130 kV	130 kV	130 kV	130 kV	130 kV	130 kV
RIV Test Voltage	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV
Max. RIV at 1 MHz	50 μ V	50 μ V	50 μ V	50 μ V	50 μ V	50 μ V	50 μ V

PACKAGING

Weight	8.0 Lbs.	8.8 Lbs.	13.2 Lbs.	15.7 Lbs.	23.4 Lbs.	35.3 Lbs.	39.2 Lbs.
No. of Units Wirebound	Qty: 6	Qty: 6	Qty: 5	Qty: 5	Qty: 5	Qty: 2	Qty: 2
Weight / Wirebound	49.9 Lbs.	54.9 Lbs.	68.6 Lbs.	81.6 Lbs.	121.7 Lbs.	73.4 Lbs.	81.5 Lbs.
No. of Units / Pallet	Qty: 144	Qty: 144	Qty: 80	Qty: 80	Qty: 45	Qty: 36	Qty: 36
Weight / Pallet	1210 Lbs.	1331 Lbs.	1109 Lbs.	1319 Lbs.	1106 Lbs.	1334 Lbs.	1482 Lbs.

ORDERING NOTES:

- Silicone coated option: add suffix "-SIL" to catalog number (Example: MG525Z-SIL)
- Long pin option: add suffix "-L" to catalog number (Example: MG525Z-L)
- Fog disk option: add suffix "-F" to catalog number (Example: MG525Z-F)
- Aero disk option: add suffix "-A" to catalog number (Example: MG525Z-A)
- Canadian equivalent option: add suffix "-CSA" to catalog number (Example: MG525Z-CSA)

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