

# Vanguard ELECTRIC



A Southern States Company



Vanguard  
ELECTRIC  
AMERICAN Reference  
MSE 25000 lbs  
Test 12500 lbs  
2018  
620ELGG1



## SUSPENSION INSULATORS CATALOG

The logo consists of a blue square containing a white graphic of a building's roof structure. To the right of the square, the word "INDEX" is written vertically in white, bold, sans-serif capital letters.

# INDEX

**General Information** 1 - 2

**Technical Information** 4 - 5

**Series 52 Type**

**Fog-Type**

**Data Sheet Notes** 6

**Catalog Code System** 7

A small, semi-transparent product label is visible in the bottom right corner. It features a logo with a stylized 'V' and the text "6200LOG1" below it. To the right of the logo, it lists technical specifications: "120.2 Reference", "MSE 2500 lbs", "Test 12500 lbs", and "2016".

6200LOG1  
120.2 Reference  
MSE 2500 lbs  
Test 12500 lbs  
2016



# INTRODUCTION

## General Info

**Vanguard Electric, LLC** is a U.S member company of the Southern States Group of companies ([www.southernstatesllc.com](http://www.southernstatesllc.com)) dedicated to sourcing top quality electrical components for internal use by other group companies, as well as by the customers they serve.

**Vanguard Electric** brings to its customers high quality products that have been carefully researched, vetted and adapted to the U.S market so they meet all technical requirements at very competitive prices. Our highly specialized team is dedicated to source OEM products from top world manufacturers that comply with the highest standards that we have defined for our brand. Vanguard Electric stands for quality, competitive pricing and total reliability on all aspects that are critical for your successful projects.

At **Vanguard Electric, LLC**, consistent with the spirit of the group we are part of, we recognize the importance of providing a quality product to our customers. Further, we believe that the customer's buying experience as a whole ultimately determines whether or not continued success is attainable. To ensure successful projects for our customers, we strive to offer a combination of features that we are confident will provide a very satisfactory experience with our company:

- Top quality product manufactured to our specification (and in full compliance of applicable U.S and applicable international standards) by top world-class manufacturers.
- We establish long-term relationships, constantly monitor their facilities, and require the highest standards.
- We buy in large quantities (in many products for our sister group companies) and transfer the savings to our customers.
- We offer very competitive pricing so you know you are paying for top quality products but not for large overheads or overpriced brand names.
- Vanguard Electric, LLC keeps a seasoned team of engineers and specialized consultants that provide our customers with effective and reliable support at every step (selection, application, troubleshooting, service).

- Tough quality assurance requirements, which we monitor constantly to assure compliance.
- Clear, complete and easily available technical information (online and in printed format).
- A professional inside sales group supported by a solid network of local agents in the U.S. We want to always be available to you.
- Domestic (U.S.A) service and support.
- A large stock of the most popular references used in the market (customer specific stocking programs available).

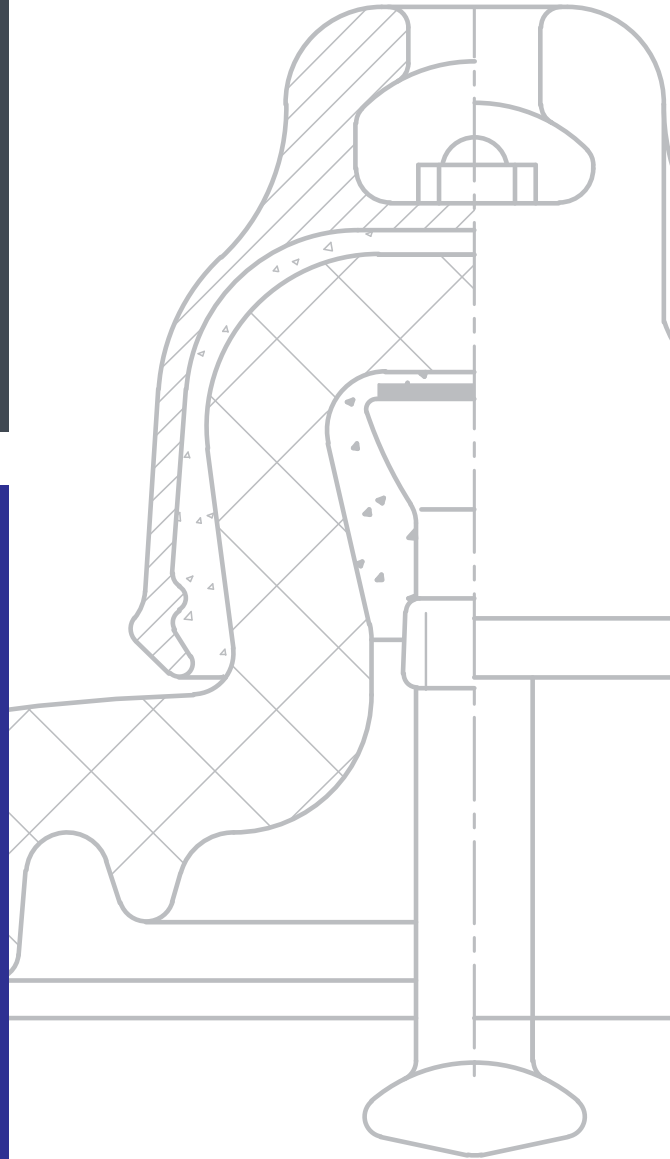
## **VANGUARD ELECTRIC – SUSPENSION INSULATORS**

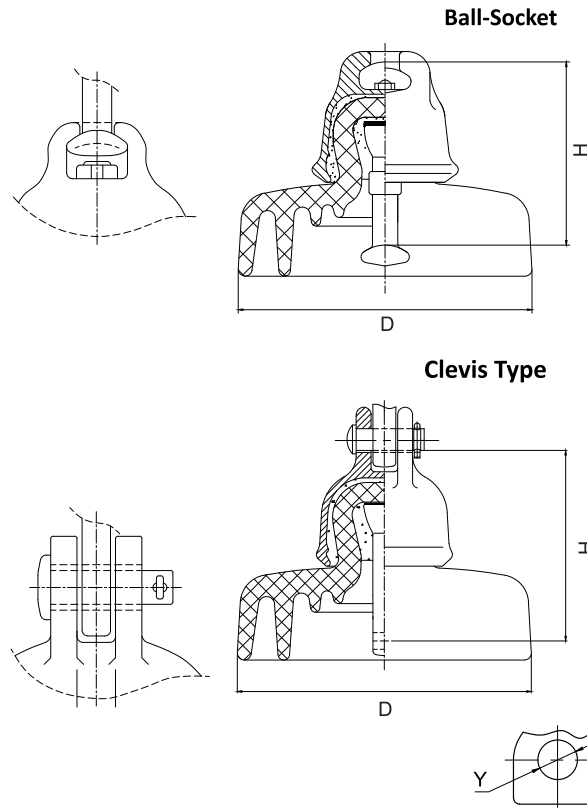
Our suspension type insulator product lineup is among the most complete in today's market. We offer all ANSI C29.2 references with many variations in shed designs, strength, leakage distance, color and fittings.

### **General Features**

- Manufactured in state of the art ISO9001 certified facilities.
- Wet Process porcelain manufacturing system.
- Designed in compliance to ANSI C29.2 standard (please contact us to certify compliance to other standards).
- Routine testing as per ANSI C29.2 includes thermal shock test, tension proof test and flashover test.
- Multiple options of shed designs, strength, leakage distance, color, and fittings.
- We stock ANSI 70 Gray insulators (most commonly used in the U.S). Chocolate brown insulators available upon request.
- ASTM A153M galvanized cast iron fittings. Fittings are cemented to the porcelain using carefully formulated and cured high strength Portland cement and silica sand.
- **5 Year warranty.**







HIGH LEAKAGE INSULATORS FOG-TYPE (Image 1)

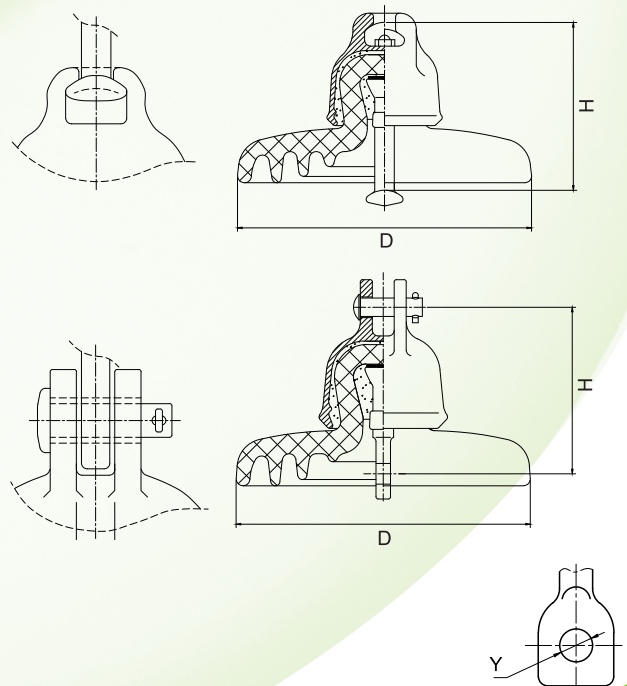
SERIES 52 (Image 2)

ANSI Class	52-1	52-2	52-3-L	52-3-H	52-4-L	52-4-H	52-5-L	52-5-H	52-6-L
VE Catalog Number	52010CG1	52020CG1	5203LBG1	5203HBG1	5204LCG1	5204HCG1	5205LBG1	5205HBG1	5206LCG1
Connecting Hardware Coupling	Clevis	Clevis	Type B	Type B	Clevis	Clevis	Type J	Type J	Clevis
<b>Dimensions inches</b>									
Leakage Distance, inches	7	8-1/4	11-1/2	11-1/2	11-1/2	11-1/2	11	11	11
H Spacing, inches	5-1/2	5-3/4	5-3/4	5-3/4	5-3/4	5-3/4	5-3/4	5-3/4	5-3/4
D Shell diameter, inches	6-2/7	7-7/8	10	10	10	10	10	10	10
Y diameter of Clevis Ring, inches	7/8	11/16	N/A	N/A	2/3	2/3	N/A	N/A	3/4
<b>Mechanical Properties</b>									
M&E Strength, lbs	10000	15000	15000	20000	15000	20000	25000	30000	25000
Impact strength, inch-lbs	45	45	55	55	55	55	60	60	60
Tension Proof, lbs	5000	7500	7500	10000	7500	10000	12500	15000	12500
<b>Electrical Values</b>									
Low-frequency dry flashover, kV	60	65	80	80	80	80	80	80	80
Low-frequency wet flashover, kV	30	35	50	50	50	50	50	50	50
Critical impulse flashover, positive, kV	100	115	125	125	125	125	125	125	125
Critical impulse flashover, negative, kV	100	115	130	130	130	130	130	130	130
Low-frequency puncture Voltage, kV	80	90	110	110	110	110	110	110	110
<b>Radio-Influence Voltage</b>									
Low-frequency test voltage, kV	7.5	7.5	10	10	10	10	10	10	10
Maximum RIV at 1000 kHz, μV	50	50	50	50	50	50	50	50	50
<b>Weight</b>									
Net weight each, lbs	4.52	7.53	11.01	11.01	11.34	11.34	12.67	12.67	16.52

ANSI Class						
VE Catalog Number	FG010BG1	FG020CG1	FG030BG1	FG040CG1	FG050BG1	FG060CG1
Connecting Hardware Coupling	Type B	Clevis	Type J	Clevis	Type K	Clevis
<b>Dimensions inches</b>						
Leakage Distance, inches	17	17	17	17	17	17
H Spacing, inches	5 3/4	5 3/4	5 3/4	5 3/4	6 1/4	6 1/2
D Shell diameter, inches	10	10	10	10	10	11
Y diameter of Clevis Ring, inches	N/A	11/16	N/A	11/16	N/A	13/16
<b>Mechanical Properties</b>						
M&E Strength, lbs	20000	20000	30000	30000	36000	36000
Impact strength, inch-lbs	90	90	90	90	100	100
Tension Proof, lbs	10000	10000	15000	15000	18000	18000
<b>Electrical Values</b>						
Low-frequency dry flashover, kV	80	80	80	80	80	80
Low-frequency wet flashover, kV	50	50	50	50	50	50
Critical impulse flashover, positive, kV	125	125	125	125	125	125
Critical impulse flashover, negative, kV	130	130	130	130	130	130
Low-frequency puncture Voltage, kV	110	110	110	110	110	110
<b>Radio-Influence Voltage</b>						
Low-frequency test voltage, kV	10	10	10	10	10	10
Maximum RIV at 1000 kHz, $\mu$ V	50	50	50	50	50	50
<b>Weight</b>						
Net weight each, lbs	15	15.44	16.34	15.53	18.28	18.43

52-6-H	52-8-L	52-8-H	52-10-L	52-10-H	52-11	52-12
5206HCG1	5208LBG1	5208HBG1	5210LCG1	5210HCG1	52110BG1	52120CG1
Clevis	Type K	Type K	Clevis	Clevis	Type K	Clevis
11	11	11	11	11	15	15
5-3/4	5-3/4	5-3/4	6-1/2	6-1/2	6-1/9	7
10	11	11	11	11	11	11
3/4	N/A	N/A	4/5	4/5	N/A	1
30000	36000	40000	36000	40000	50000	50000
60	90	90	90	90	90	90
15000	18000	20000	18000	20000	25000	25000
80	80	80	80	80	80	80
50	50	50	50	50	50	50
125	125	125	125	125	140	140
130	130	130	130	130	140	140
110	110	110	110	110	125	125
10	10	10	10	10	10	10
50	50	50	50	50	50	50
16.52	17.62	17.62	27.09	27.09	21.59	22.03

### SERIES 52 (Image 2)





# DATA SHEET NOTES

- 1.** Zinc sleeves available as an optional adder.
- 2.** All VE catalog numbers as shown in this chart correspond to gray porcelain designs. To specify chocolate porcelain please refer to Catalog Coding System page at the end of this catalog.
- 3.** This catalog is intended for general reference. It shows the basic dimensions of each insulator. For detailed dimensional data please contact Vanguard Electric, LLC or download the insulator drawing from [www.vanguardelec.com](http://www.vanguardelec.com)
- 4.** Applicable standards: ANSI C29.2
- 5.** Special designs with different variations to the listed specifications (dimensions, strength, shed designs, etc.) are available upon request.
- 6.** ANSI C29.2 M&E ratings are ultimate values not to be used as work load ratings. Designers shall refer to ANSI C29.2 for recommendations on insulator work loads (which in broad terms specify 50% of ultimate M&E strength).
- 7.** For cap dimensions for ANSI 52-1 and 52-2 insulators please refer to table 2 page 7 of standard ANSI C29.2A-2013.
- 8.** For cap dimensions for ANSI 52-4, 52-6, 52-10 and 52-12 insulators please refer to table 3 page 12 of standard ANSI C29.2B-2013.





# KEY TO THE CATALOG NUMBERS

**D<sub>1</sub>D<sub>2</sub>**

**TWO DIGITS DESCRIBING INSULATORS TYPE:**

52: FOR ANSI 52 SERIES  
FG: FOR FOG - TYPE

**D<sub>3</sub>D<sub>4</sub>**

**TWO DIGITS DESCRIBING THE ANSI 52 REFERENCE OR TWO DIGITS FOR FOG-TYPE VE REFERENCE**

(01, 02, 03, 04,...)

**D<sub>5</sub>**

L: FOR THOSE CLASSIFIEDS AS L IN C29.2 B STANDARD  
H:FOR THOSE CLASSIFIEDS AS H IN C29.2 B STANDARD  
0: STANDARD  
1-9: SPECIAL VARIATIONS

**D<sub>6</sub>**

**CONNECTING HARDWARE COUPLING.**

B: BALL-AND-SOCKET  
C: CLEVIS

**D<sub>7</sub>**

**COLOR:**

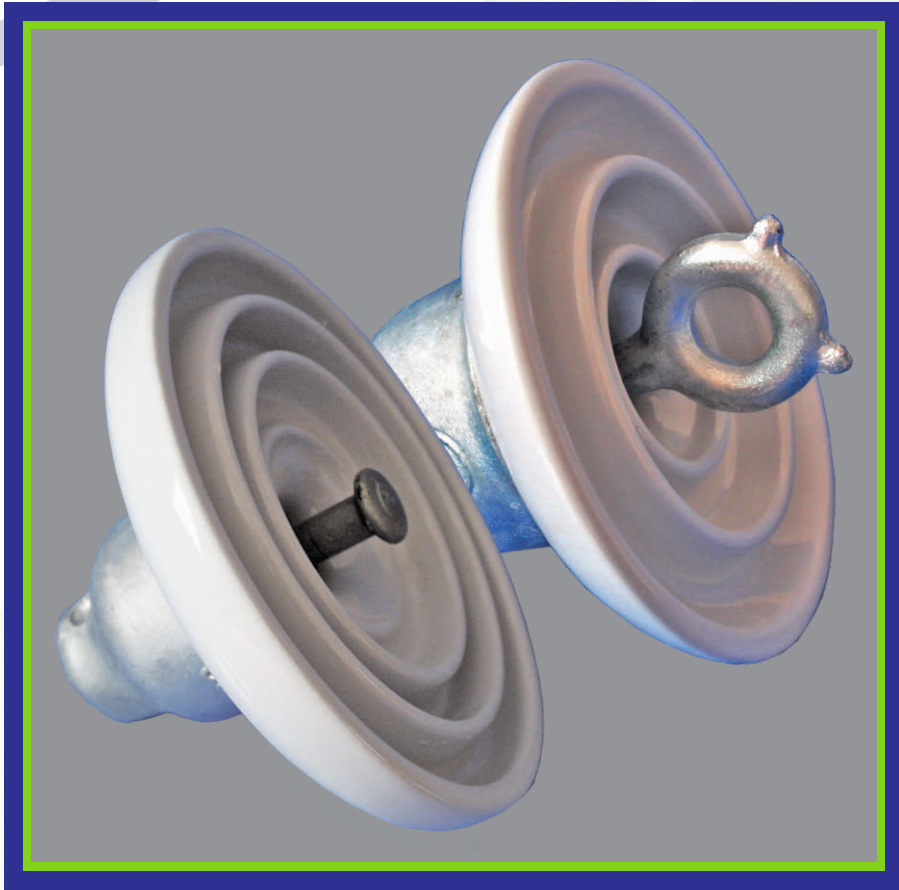
G: GRAY  
B: BROWN

**EXAMPLE: 5203LBG= ANSI TYPE 52-03, CLASSIFICATION L IN C29.2B STANDARD, BALL-AND-SOCKET, COLOR GRAY  
FG010BG= FOG-TYPE OUR REFERENCE 01, STANDARD, BALL-AND-SOCKET, COLOR GREY**

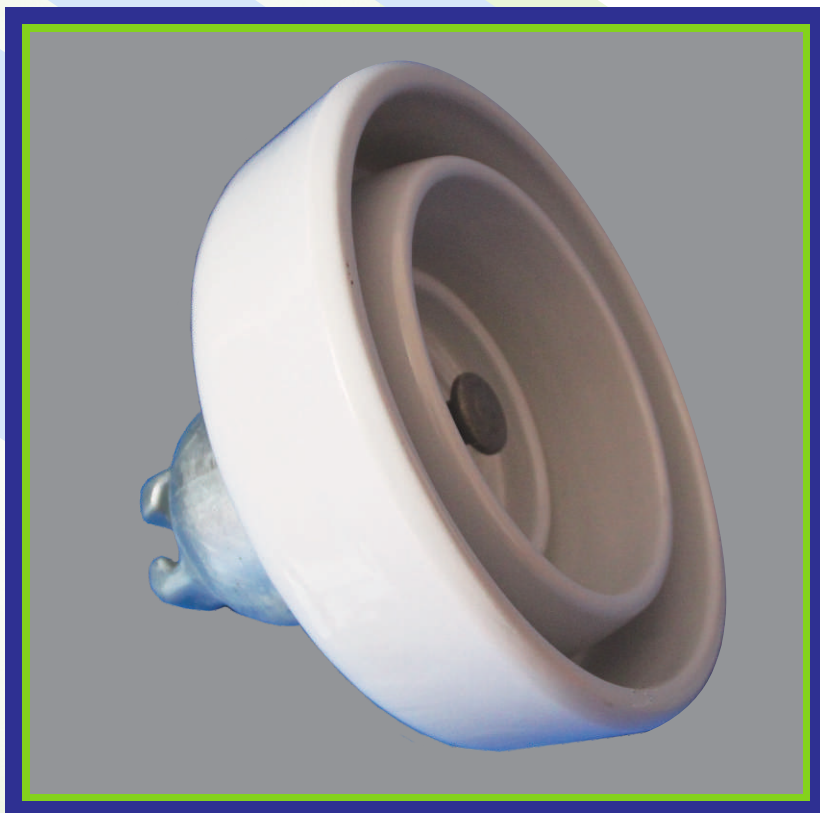
Available Options (upon request)

For Suspension Type Insulators there are many variations not necessarily listed in this catalog. Some of the available variations that Vanguard Electric can provide (upon request) are:

- Zinc sleeves (please specify when ordering).
- Multiple options of strength, leakage distance, color, fittings (as shown in technical info section).







**Vanguard**  
ELECTRIC





***Warehouse:***

1235 Commerce Dr, Morrow,  
Georgia 30260, USA

***Mailing Address:***

180 Worthington Way,  
Jonesboro GA 30236  
Phone: +1-678-466-6466  
sales@vanguardelec.com