

Type SHD-GC 3C, EPR Insulated, CPE Jacketed

5 kV – 25 kV, 100% I.L., Shielded

CME[®]
wire and cable

A Viakable Company

Features

Certify by MSHA.

Meets all requirements of ICEA S-75-381.

Reformulated compounds suitable for CV curing, developed to meet the high level of physical properties required in service.

-40 °C Rating CPE Jacket.

Application

Trailing cable on ac mining equipment where service conditions are severe and maximum safety is mandatory; such as power shovels and drag lines in open-pit mines, quarries, gantry cranes and slag reclaiming.

Used for high voltage distribution in underground mines where frequent relocation is necessary or where extra flexibility and toughness is desired.

Standards

ICEA S-75-381/NEMA WC-58

Portable and Power Feeder Cables for Use in Mines and Similar Applications.

CFR Title 30 Federal Regulations, Part 7, Subpart K.

MSHA 7K-228057

Specifications

Maximum operating voltage:

- 5 kV to 25 kV

Maximum conductor operation temperature:

- 90 °C wet or dry locations under normal operating conditions.

Engineering Information

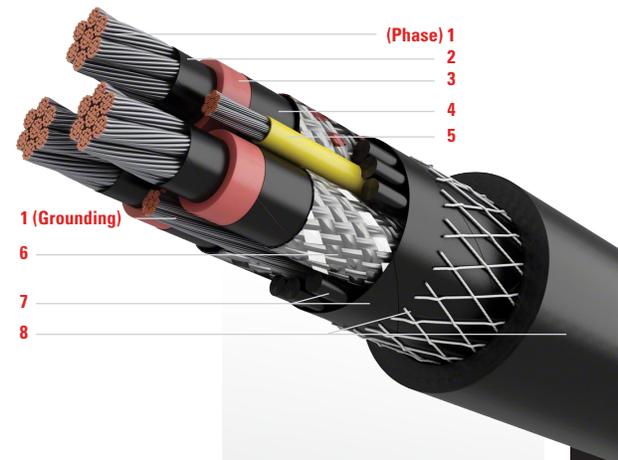
1. Phase, Grounding and Ground Check Conductors:

Soft or annealed tinned coated copper conductor, rope lay flexible stranding per ASTM B172.

Conductors 1/0 and larger are class I stranding and conductors #1 and smaller are class H stranding. Conductor

2. Shield: A helically applied semiconducting tape.

3. Insulation: High quality, heat, moisture, ozone and thermosetting ethylene propylene rubber (EPR) meeting ICEA.



4. Insulation Shield: An overlapped semiconducting tape shall be applied over the insulation.

5. Ground Check: Thermosetting insulation yellow colored for identification.

6. Metallic Component: A composite fiber-copper braid shield, tinned coated copper wires, with colored fibers for phase identification (black, white, red).

7. Assembly: Phase, ground check and grounding conductors cabled together with hygroscopic fillers and a binder tape.

8. Jacket: Black heavy duty or extra heavy duty chlorinated polyethylene (CPE) compound, applied in one layer over a fibrous reinforcement layer.

Markings: Ink printed type.

Technical Data

Type SHD-GC EPR Insulated

Phase Conductor Size	Number of Strands	Size of Each Strand	Nominal Insulation Thickness	Ground Conductor Size	Nominal Outer Jacket Thickness	Maximum Overall Diameter	Approximate Total Weight
AWG or kcmil		AWG	mil	AWG	mil	in	lb/kft
Rated Voltage 5 kV							
6	133	27	110	10	185	1.7	1438
4	259	28	110	8	185	1.8	1740
2	259	26	110	6	205	2.0	2285
1	259	25	110	5	205	2.1	2614
1/0	259	24	110	4	220	2.2	3058
2/0	329	24	110	3	220	2.4	3488
3/0	413	24	110	2	235	2.5	4119
4/0	532	24	110	1	235	2.7	4684
250	608	24	120	1/0	250	2.9	5369
300	741	24	120	1/0	250	3.0	6108
350	855	24	120	2/0	265	3.2	6975
500	1221	24	120	4/0	280	3.6	9636
Rated Voltage 8 kV							
4	259	28	150	8	205	2.1	2090
2	259	26	150	6	220	2.3	2648
1	259	25	150	5	220	2.4	2990
1/0	259	24	150	4	220	2.5	3394
2/0	329	24	150	3	235	2.7	3904
3/0	413	24	150	2	250	2.8	4563
4/0	532	24	150	1	250	3.0	5107
250	608	24	150	1/0	250	3.1	5658
300	741	24	150	1/0	265	3.3	6498
350	855	24	150	2/0	280	3.5	7372
500	1221	24	150	4/0	295	3.8	10100
Rated Voltage 15 kV							
2	259	26	210	6	235	2.6	3205
1	259	25	210	5	235	2.7	3568
1/0	259	24	210	4	250	2.9	4039
2/0	329	24	210	3	250	2.9	4529
3/0	413	24	210	2	265	3.1	5228
4/0	532	24	210	1	265	3.3	5759
Rated Voltage 25 kV							
1	259	25	295	5	261	3.2	4523
1/0	259	24	295	4	261	3.3	5013
2/0	329	24	295	3	272	3.5	5584
3/0	413	24	295	2	272	3.6	6283
4/0	532	24	295	1	295	3.8	6754

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

In all cases the ground check conductor is 8 AWG (8.37 mm²).

Ampacities: Refer to beginning of section.