

NEMA WC 58-2008/ICEA S-75-381

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



**ANSI/NEMA WC 58
ICEA S-75-381**

**PORTABLE AND POWER
FEEDER CABLES FOR USE
IN MINES AND SIMILAR
APPLICATIONS**

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

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FOREWORD

This Standards Publication for Mining Cable was developed by the Insulated Cable Engineers Association, Incorporated (ICEA) and was approved by the National Electrical Manufacturers Association (NEMA).

ICEA/NEMA Standards are adopted in the public interest and are designed to eliminate misunderstandings between the manufacturers and the user and to assist the user in selecting and obtaining the proper product for his or her particular need. Existence of an ICEA/NEMA standard does not in any respect preclude the manufacture or use of products not conforming to the standard. The user of this Standards Publication is cautioned to observe any health or safety regulations and rules relative to the use of cable made in conformity with this Standard.

Requests for interpretation of this Standard must be submitted in writing to:

Insulated Cable Engineers Association, Inc.
P.O. 1568
Carrollton, GA 30112

An official interpretation will be made by the Association.

Suggestions for improvement gained in the use of this publication will be welcomed by the Association.

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IN MEMORY

The rewriting of this standard was initiated and diligently pursued by Mr. David Fox of AmerCable Inc. Through his efforts and countless hours invested, publishing of this work was made possible. We would like to both remember David and thank David's family, wife Lis and daughter Stephanie, for the valuable contribution he made to our industry and in the development of this specification.

Section 1 GENERAL

1.1 SCOPE

These standards apply to materials, construction, and testing of insulated cables used for the utilization of electrical energy in surface and underground mines and similar applications. Included are portable cables for use in mining machines, dredges, shovels and similar equipment, and mine power cables for use as connections between units of mine distribution systems. The cables are of the following types:

PORTABLE CABLES 2,000 VOLTS OR LESS

Type	W without grounding conductors
Type	G with grounding conductors
Type	G-GC with grounding conductors and one ground-check conductor
Type	G-CGC with grounding conductors and one ground-check conductor in center
Type	PG with single grounding conductor
Type	PCG with single grounding conductor and two control conductors
Type	SHC-GC multiconductor with grounding conductors, one ground check conductor and overall shield
Type	SHD-PCG multiconductor with individually shielded power conductors, center grounding conductor, and one or more control conductors.
Type	SHD Flat multiconductor with individually shielded power conductors, and grounding conductors covered with a conducting extrusion layer.

PORTABLE CABLES 2,001–5,000 VOLTS (100% INSULATION LEVEL)

Type	G with grounding conductors
Type	SHD-PCG multiconductor with individually shielded power conductors, center grounding conductor, and one or more control conductors.

PORTABLE CABLES 0–25,000 VOLTS (100% INSULATION LEVEL)

Type	SH shielded single conductor
Type	SHD with individually shielded power conductors and grounding conductors
Type	SHD-GC with individually shielded power conductors, grounding conductors, and one ground-check conductor
Type	SHD-CGC with individually shielded power conductors, grounding conductors, and one ground-check conductor in center

MINE POWER 2,001–25,000 VOLTS (100% AND 133% INSULATION LEVEL)

Type	MP with individually shielded power conductors and grounding conductors
Type	MP-GC with individually shielded power conductors, grounding conductor, and one ground-check conductor