

TYPE W - Single Conductor

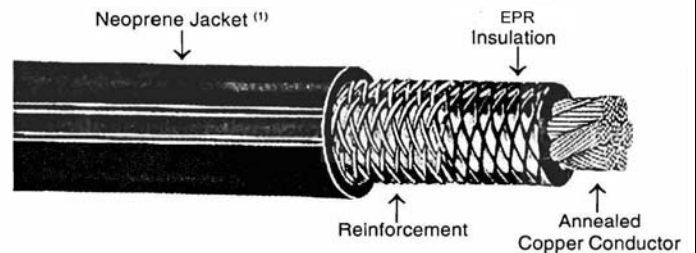
Portable Power Cable

Single Conductor Normal Service - Type W, 2000 Volts

APPLICATION: For portable trailing cable on electric mining locomotives and other mobile equipment of the gathering-reel type, where the cable must withstand constant flexing and reeling. For use in circuits not exceeding 2000 volts, maximum conductor temperature of 90°C.

STANDARDS: Conforms to ICEA S-75-381 (NEMA WC58).

CONSTRUCTION: Flexible stranded annealed coated copper conductor, separator, EPR ethylene-propylene rubber insulation, reinforcement, overall Neoprene jacket vulcanized in a metal mold. Embossed marking molded as an integral part of the jacket, including the inscription P-105-MSHA, indicating full compliance with Federal and State of Pennsylvania safety codes.



USAWC Part #	Size AWG or kcmil	No. of Strands	Insulation Thickness Mils	Nominal Diameter Inches	Approx. Net Wt. lbs/1000 ft	Copper Weight lbs/1000 ft	Ampacity'	
							20°C Ambient	40°C Ambient
8-01W	8	133	60	.44	150	81	98	83
6-01W	6	168	60	.51	205	79	129	109
4-01W	4	259	60	.57	280	158	171	145
3-01W	3	329	60	.63	350	163	197	167
2-01W	2	259	60	.66	370	198	227	192
1-01W	1	329	80	.74	500	250	263	223
1/0-01W	1/0	259	80	.77	550	317	304	258
2/0-01W	2/0	329	80	.82	660	398	352	298
3/0-01W	3/0	413	80	.87	830	522	407	345
4/0-01W	4/0	532	80	.93	950	660	472	400
250-01W	250	608	95	1.03	1240	772	525	445
300-01W	300	741	95	1.09	1400	926	590	500
350-01W	350	855	95	1.15	1480	1081	651	552
500-01W	500	1221	95	1.31	2140	1544	820	695

*AMPACITY based upon continuous duty at 90 C conductor temperature, 40 C ambient temperature as indicated, cable in free air. For other ambient temperature and when cables are used with one or more layers wound on a reel, use correction factors shown in Appendix H, ICEA S-75-381

⁽¹⁾ Hypalon jacket may also be supplied

Specification

PORTABLE POWER CABLE

Single Conductor Normal Service-Type W, 2000 Volts

1. SCOPE

- 1.1 This specification describes single conductor Type W portable power cable with EPR (ethylene-propylene rubber) insulation for use in circuits not exceeding 2000 volts at a maximum conductor temperature of 90°C. Cables are intended for use on electric mining locomotives and other mobile equipment of the gathering-reel type.

2. STANDARDS

- 2.1 The following standard shall form a part of this specification:
 - 2.1.1 ICEA Pub. No. S-75-381 for Portable and Power Feeder Cables for Use in Mines and Similar Applications (NEMA WC58).

3. CONDUCTORS

- 3.1 Minimum Class H stranded annealed coated copper per Part 2 of ICEA.

4. INSULATION

- 4.1 A homogeneous wall of EPR insulation shall be extruded over the conductor. The average thickness of the insulation shall be as specified in Table 3-6 of ICEA. The minimum thickness shall not be less than 90 percent of the specified average values.
- 4.2 Physical and electrical properties of the insulation shall be in accordance with Par. 3.15 of ICEA.

5. REINFORCEMENT

- 5.1 The insulated conductor shall have a reinforcement meeting the requirements of Par. 3.21 of ICEA to facilitate adhesion between the insulated conductor and jacket.

6. JACKET

- 6.1 A thermosetting jacket shall be extruded over the insulated conductor in accordance with Par. 3.21 of ICEA.
- 6.2 The jacket shall be an extra-heavy duty Neoprene or Hypalon meeting the requirements of Table 3-3 of ICEA.

7. COMPLETED CABLE

- 7.1 The nominal outside diameter shall be in accordance with Table 3-6 of ICEA.
- 7.2 The tolerances shall be within the requirements of Par. 3.22.2 of ICEA.

8. SURFACE MARKING

- 8.1 All cable shall have an embossed print legend showing manufacturer, cable type, size, voltage, and Mine Safety and Health Administration (MSHA) Approval Number.

9. TESTS

- 9.1 Cable shall be tested in accordance with ICEA.