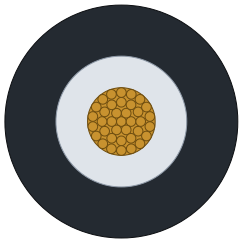
Type W Portable Power Cable 600 V and 2000 V

SORIVO Product Series: **EPDM / CPE portable power cable** | Rated Voltage 600 V · 2000 V | Standard UL 1650 · CSA C22.2 No. 96 | Sizes 8 AWG–500 kcmil



- CPE jacket — flame retardant, reinforced
- 133-strand rope-lay copper, ASTM B172 — 8 AWG shown
- EPDM insulation — 1.52 mm (60 mil)

APPLICATION

Heavy-duty portable power cable for temporary feeders, submersible pumps, crushers and screeners, shipyard and stage distribution, and motor, battery and generator leads. Rated 600 V or 2000 V with a 90 °C conductor, it is a feeder — not an extension cord — and NEC Article 400 does not allow it to replace permanent building wiring.

CONSTRUCTION

Conductor
Bare annealed copper, rope-lay stranded to ASTM B172 — 133 strands on 8 AWG, 259 from 6 AWG

Insulation
EPDM rubber, 1.52 mm (60 mil) to 2 AWG, 2.03 mm (80 mil) from 1 AWG

Jacket
CPE, flame retardant, reinforced; 3.81 mm (150 mil) on the 4-core construction

DESIGNATION

Type W portable power cable listed to UL 1650. The letters do not decode into material abbreviations as they do on SOOW — **W** places the cable in the portable power family, which is what carries the 2000 V rating and the submersion suitability.

KEY FEATURES

- 2000 V — one class above the 600 V ceiling of a portable cord
- Suitable for continuous submersion in water, for submersible pumps
- FT-5 flame test, and -40 °C cold bend — it stays flexible on a winter site
- Rope-lay copper: 133–259 strands, built to be dragged, not just flexed

STANDARDS

- UL 1650 — Portable Power Cable
- CSA C22.2 No. 96 — Portable Power Cables
- NEC Article 400 — Tables 400.5(A)(1) and 400.5(B)
- ASTM B172 — rope-lay stranded copper conductors
- UL 44 — RHH / RHW-2, on a dual-rated construction

TECHNICAL PARAMETERS

Rated Voltage
600 V · 2000 V

Temperature Rating
Conductor +90 °C, wet or dry · cold bend -40 °C

Conductor
Bare annealed copper, ASTM B172 rope-lay — 133 strands on 8 AWG

Insulation / Jacket
EPDM / CPE, both flame retardant

Flame
FT-5 — CSA FT-5 / MSHA flame test

Submersion
Suitable for continuous submersion

Direct Burial
Not a direct-burial product. Submersion and burial are different tests

Sizes
8 AWG to 500 kcmil single conductor; 3, 4 and 5 core

COLOUR IDENTIFICATION

Single conductor — black. Multi-core — black, white and green, with other colour combinations. The printed legend carries TYPE W, the voltage, the temperature and the flame marking.

600 / 2000 V	+90 °C	FT-5
UL 1650	wet or dry	flame tested

DIMENSIONS AND AMPACITY

Table 1 — single conductor, 2000 V, EPDM insulation with CPE jacket

SIZE AWG	STRANDS count	EPDM INSUL. mm (mil)	OVERALL DIA. mm (in)	WEIGHT lb/1000 ft	WEIGHT kg/km	AMPACITY 2000 V, A
8	133	1.52 (60)	11.2 (0.440)	160	238	83
6	259	1.52 (60)	13.0 (0.510)	225	335	109
4	259	1.52 (60)	14.5 (0.570)	310	461	145
2	259	1.52 (60)	16.8 (0.660)	440	655	192
1	259	2.03 (80)	18.8 (0.740)	570	848	223
1/0	259	2.03 (80)	20.3 (0.800)	630	937	258
2/0	259	2.03 (80)	20.8 (0.820)	750	1116	298
3/0	259	2.03 (80)	23.1 (0.910)	900	1339	345
4/0	259	2.03 (80)	24.6 (0.970)	1080	1607	400

Dimensions and masses are nominal and subject to manufacturing tolerance; the kg/km column is converted from lb/1000 ft at 1.488. Ampacity is read from NEC Table 400.5(B) for a single isolated cable in air at 30 °C ambient. Strand counts and finished diameter vary between manufacturers on this product; the delivered construction is confirmed on the drawing. 2000 V single conductor is read from 400.5(B); the 600 V multi-core below is read from 400.5(A)(1).

MULTI-CORE CONSTRUCTION

Table 2 — 600 V, 4-core, the construction behind most temporary feeder orders

CONSTRUCTION	STRANDS	INSUL. mm (mil)	JACKET mm (mil)	OVERALL DIA. mm (in)	WEIGHT lb/1000 ft	AMPACITY 600 V, A
8 AWG 4-core	133	1.52 (60)	3.81 (150)	25.7 (1.011)	588	65

The 65 A figure is the NEC Table 400.5(A)(1) value for an 8 AWG four-conductor cable with three current-carrying conductors, the grounding conductor excluded from the count. Three-, four- and five-core constructions from 8 AWG to 500 kcmil are available.

Two tables that are never interchangeable. NEC Table 400.5(A)(1) covers flexible cords and cables at 600 V; Table 400.5(B) covers multiconductor and single-conductor cables rated up to 2000 V. The same 2 AWG copper reads about 190 A in 400.5(B) and roughly 80 A in 400.5(A)(1), because the tables assume different conductor temperatures and installation conditions. Quoting the higher number on a 600 V job is a common and expensive mistake.

TYPE W OR SOOW

Table 3 — two products that look alike in a catalogue and are not

	SOOW — PORTABLE CORD	TYPE W — PORTABLE POWER CABLE
Standard	UL 62 + CSA C22.2 No. 49	UL 1650 + CSA C22.2 No. 96
Voltage	600 V	600 V / 2000 V
What it feeds	Tools, extension leads, temporary lighting	Temporary feeders, pumps, crushers, motor leads
Ampacity table	Table 400.5(A)(1)	400.5(A)(1) or 400.5(B)
Submersion	Not claimed	Continuous submersion
Flame	FT-2	FT-5

SOOW is a cord; Type W is a feeder. If the run is 2000 V, submersible, or feeding a crusher, the cord family is the wrong answer — and if the run is a hand tool on a bench, Type W is simply more cable than the job needs.

INSPECTION AND TEST PROGRAMME

Table 4 — what is checked on every length, and what is proved once on the design

ROUTINE — EVERY LENGTH

CHECK	REFERENCE
Conductor resistance at 20 °C	ASTM B193
Spark test on the insulation	UL 1650
Wall thickness and overall dia.	UL 1650
Printed legend	UL 1650

TYPE TEST — PROVED ONCE

CHECK	REFERENCE
FT-5 vertical flame	CSA FT-5
Cold bend at -40 °C	UL 1650
Dielectric withstand, wet	UL 1650
Water submersion	UL 1650

> **Submersible is not the same as direct burial.** Type W is tested for continuous submersion, which is what makes it the standard lead for a submersible pump hanging in a wet sump. It is not rated for direct burial — cable buried in soil needs a USE-2 or an RHW-2 construction with the burial listing, and a Type W pulled into a trench will fail the inspection that the submersion rating was supposed to satisfy.

Disclaimer. The information in this datasheet is for guidance only and is subject to change without notice. Dimensions and masses are nominal and subject to manufacturing tolerance; confirm against the certificate of the delivered product. This document is uncontrolled once printed or forwarded — the current revision, issued under document number SORIVO-TM-TYPEW-001, governs. © 2026 SORIVO. All rights reserved. Ampacity values assume 30 °C ambient for a single isolated cable in air and not more than three current-carrying conductors. Apply the correction factors of NEC Article 400 for other ambient temperatures, groupings and duty cycles. Type W is not permitted as a substitute for permanent building wiring under NEC 400.12.