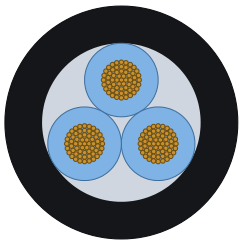
SOOW Heavy-Duty Portable Cord, 600 V

SORIVO Product Series: **Oil- and weather-resistant rubber portable cord** | Rated Voltage 600 V | Standard UL 62 · CSA C22.2 No.49 | Sizes 14/3–8/3



- CPE jacket — oil, water and weather resistant
- EPDM insulation — 1.14 mm (0.045 in)
- Fillers and binder tapes
- Class K stranded bare copper, ASTM B174

APPLICATION

Heavy-duty portable cord for tools, equipment and temporary power where the cable is flexed, dragged and exposed to oil, water and weather. Used on conveyors, hoists, welders, compressors, pumps and construction site distribution; the 600 V rating allows the same cord on industrial equipment and on portable tools.

CONSTRUCTION

Conductor
Class K stranded bare copper to ASTM B174, rope-lay for repeated flexing

Insulation
EPDM rubber, 1.14 mm (0.045 in), oil resistant

Cabling
Three insulated cores laid up with fillers and binder tape

Jacket
CPE rubber, oil, water and weather resistant — 0.083 in on 14/3, 0.095 in on 12/3 and 10/3

MODEL DESIGNATION

S Service cord, 600 V · **OO** Oil-resistant insulation and jacket · **W** Water and weather resistant

KEY FEATURES

- UL 62 and CSA C22.2 No. 49 — the same cord is accepted in the US and Canada
- Class K rope-lay conductor: 41 to 133 strands, built for repeated flexing
- Ampacity read from NEC Table 400.5(A)(1) column A, with the grounding conductor excluded from the count
- 90 °C conductor, flexing to -20 °C, fixed to -40 °C

STANDARDS

- UL 62 — Flexible Cords and Cables
- CSA C22.2 No. 49 — Flexible Cords and Cables
- NEC Article 400 — ampacity Table 400.5(A)(1)
- ASTM B174 / B3 — rope-lay stranded copper conductors

TECHNICAL PARAMETERS

Rated Voltage
600 V AC

Conductor Temperature
+90 °C continuous

Operating Range
Flexing -20 °C to +90 °C
Fixed -40 °C to +90 °C

Conductor
Class K stranded bare copper, ASTM B174

Insulation
EPDM rubber, oil resistant

Jacket
CPE rubber, oil / water / weather resistant

Core Identification
Black, white and green — green is the equipment grounding conductor

Sizes
14/3, 12/3, 10/3 and 8/3; other constructions available

600 V	+90 °C	Class K
UL 62	continuous	rope-lay copper

DIMENSIONS, RESISTANCE & AMPACITY

Table 1 — three-conductor 600 V portable cord, sizes 14 to 8 AWG

SIZE AWG	CONDUCTOR stranding	OVERALL DIA. mm (in)	WEIGHT lb/1000 ft (kg/km)	R @20 °C Ω/1000 ft (Ω/km)	AMPACITY A, 30 °C
14/3	41 × 30 AWG	13.5 (0.530)	161–196 (240–292)	2.53 (8.30)	18
12/3	65 × 30 AWG	15.1 (0.595)	224 (333)	1.59 (5.22)	25
10/3	104 × 30 AWG	16.8 (0.661)	290–316 (430–470)	0.98 (3.22)	30
8/3	133 strands	21.6 (0.850)	427–485 (635–720)	0.63 (2.07)	40

Outer diameters are nominal; weight is given as the range published by the reference manufacturers for the construction, not as a guaranteed figure. Resistance is the bare-copper DC value at 20 °C — this is not the NEC Chapter 9 Table 8 figure, which is quoted at 75 °C.

AMPACITY BASIS

Table 2 — how the current rating of these cords is determined

PROPERTY	SOOW	SJOOW
Service cord class	S — heavy duty	SJ — junior
Rated voltage	600 V	300 V
Conductor temperature	+90 °C	+90 °C
Flexing	-20 to +90 °C	-20 to +90 °C
Fixed installation	-40 to +90 °C	-40 to +90 °C
Oil resistance	Insulation and jacket	Insulation and jacket
Typical use	Tools, equipment, site distribution	Light tools, pendant and control drops

All four sizes are rated from column A, not column B. NEC Table 400.5(A)(1) splits by the number of current-carrying conductors: column A for two, column B for three. In a 14/3, 12/3, 10/3 or 8/3 cord the black and white conductors carry current and the green is the equipment grounding conductor, which is not counted. Ratings assume 30 °C ambient, in air. Above 30 °C, or where cords are bundled or run in conduit, apply the correction and adjustment factors of NEC Table 400.5(A)(2).

CORE IDENTIFICATION & JACKET MARKING

Table 3 — conductor function, and what is printed on the jacket

CORE	COLOUR	FUNCTION
1	Black	Ungrounded (hot) conductor
2	White	Grounded (neutral) conductor
3	Green	Equipment grounding conductor

The jacket legend repeats on every 300 mm (12 in) and reads: **SORIVO SOOW 3×AWG 600V UL 62 CSA C22.2 No.49 CPE 90°C OIL RESISTANT I & II WATER RESISTANT FT2**. For the Canadian market the c(UL) mark appears in place of CSA on the same line.

INSPECTION PROGRAMME

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

CHECK	REFERENCE
ROUTINE — EVERY DELIVERY LENGTH	
Conductor resistance at 20 °C	UL 62 / ASTM B193
Insulation and jacket wall, overall diameter	UL 62
High-voltage withstand on the finished cord	UL 62
TYPE TEST — PROVED ONCE ON THE DESIGN	
Cold bend at the rated low temperature	UL 62
Deformation and heat shock	UL 62
Oil resistance of insulation and jacket	UL 62 / CSA C22.2 No. 49
Flame test on the finished cord	UL 62

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-SOOW-001, governs. © 2026 SORIVO. All rights reserved. Ampacity values assume 30 °C ambient, in air, with the equipment grounding conductor excluded from the count. Apply the correction and adjustment factors of NEC Table 400.5(A)(2) for higher ambient temperatures, bundling or conduit.