Southwire® Machine Flex® Power XHHW-2 600V and RW90 1000V

Type XHHW-2 600 Volts or 1000 Volts and Type RW90 1000 Volts. Rated 90°C Dry/Wet, -40°C. Flexible Tinned Copper Conductors. Cross-Linked Polyethylene (XLPE) Insulation. Rated High-Heat, Flame, Moisture, Gasoline, Oil and Sunlight Resistant.

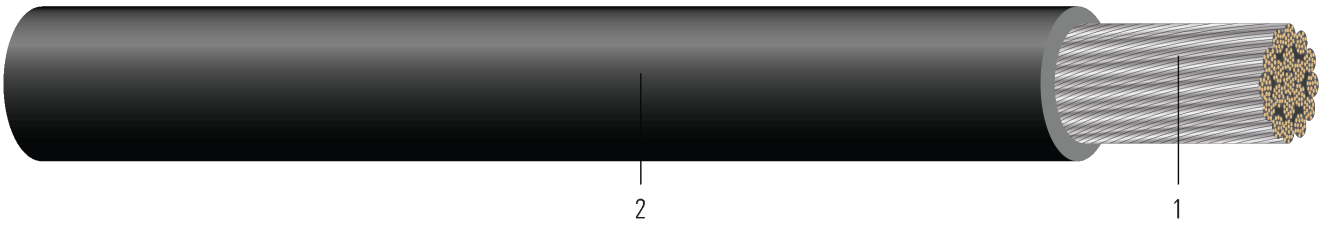

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 8 AWG - 4/0 AWG: Class K, Flexible Stranded, Softdrawn Tinned Copper. 250 KCMIL - 750 KCMIL; Class I, Flexible Concentric Ropelay Stranded, Softdrawn Tinned Copper
2. **Insulation:** Black, Sunlight, Gas & Oil Resistant Cross-Linked Polyethylene (XLPE)

APPLICATIONS AND FEATURES:

Southwire Type XHHW-2 & RW90 conductors are primarily used in conduit, cable tray or other recognized raceways for service, feeders, and branch circuit wiring as specified in the National Electric Code (NEC) and the Canadian Electrical Code (CEC). XHHW-2 & RW90 conductors may be used at conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions. Voltage rating for XHHW-2 conductors is 600 volts and 1000 volts. Voltage rating for RW90 conductors is 1000 volts. Flexible tinned copper stranding allows for ease of installation in locations with limited space, as well as including for use in electrical equipment for industrial facilities with harsh chemical environments, telecommunications applications and data centers.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- CSA C22.2 No. 38 Thermoset-insulated wires and cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- **CE/RoHS-2 – The CE Marking has been applied solely to express the conformance to the material restrictions identified in the RoHS-2 (2011/65/EU) Directive**
- Sunlight Resistance

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SAMPLE PRINT LEGEND:

8AWG-1AWG

SOUTHWIRE® E30117 (PLANT ID) (UL) (XX AWG) # OF STRANDS STRAND CLASS X XX mm² TYPE XHHW-2 1000V SR PRII GRII 90(D)C DRY OR WET -40(D)C VW-1 OR SIS 600V ---(CSA) LL90458 RW90 1000V SR -40(D)C XLPE ---(NOM) – ANCE LS ---CE RoHS-2 MADE IN USA --- (MM/DD/YYYY)

1/0 AWG-4/0 AWG

SOUTHWIRE® E30117 (PLANT ID) (UL) (XX AWG) # OF STRANDS STRAND CLASS X XX mm² TYPE XHHW-2 1000V SR PRII GRII 90(D)C DRY OR WET -40(D)C FOR CT USE FT4 OR SIS 600V ---(CSA) LL90458 RW90 1000V TC SR -40(D)C XLPE FT4 ---(NOM) – ANCE LS ---CE RoHS-2 MADE IN USA --- (MM/DD/YYYY)

250 Kcmil-750 Kcmil

SOUTHWIRE® E30117 (PLANT ID) (UL) (XX AWG) # OF STRANDS STRAND CLASS X XX mm² TYPE XHHW-2 1000V SR PRII GRII 90(D)C DRY OR WET -40(D)C FOR CT USE FT4 ---(CSA) LL90458 RW90 1000V TC SR -40(D)C XLPE FT4 ---(NOM) – ANCE LS ---CE RoHS-2 MADE IN USA --- (MM/DD/YYYY)

Table 1 – Weights and Measurements

Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Approx. OD	Approx. Weight
AWG/Kcmil	No.	No.	inch	mil	inch	lb/1000ft
8	1	168	0.153	45	0.249	67
6	1	259	0.198	60	0.324	114
4	1	413	0.235	60	0.361	159
2	1	651	0.302	60	0.428	246
1	1	836	0.340	80	0.500	329
1/0	1	1044	0.354	80	0.520	391
2/0	1	1254	0.400	80	0.566	444
3/0	1	1666	0.533	80	0.699	616
4/0	1	2109	0.550	80	0.716	759
250	1	627	0.605	90	0.791	867
350	1	855	0.670	90	0.856	1173
500	1	1225	0.858	90	1.044	1654
600	1	1480	0.963	90	1.149	2015
750	1	1850	1.094	90	1.280	2543
1000	1	2516	1.190	90	1.376	3234

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

Table 2 – Electrical and Engineering Data

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance	Max Pull Tension	Max Pull Tension	Min Bending Radius	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/ Kcmil	Ω/1000ft	Ω/1000ft	Ω/1000ft	lb	lb	inch	Amp	Amp
8	0.715	0.861	0.052	132	132	0.9	50	55
6	0.450	0.541	0.051	209	209	1.2	65	75
4	0.282	0.340	0.048	333	333	1.4	85	95
2	0.179	0.216	0.045	530	530	1.7	115	130
1	0.143	0.172	0.046	669	669	2.0	130	145
1/0	0.113	0.136	0.044	844	844	2.1	150	170
2/0	0.090	0.108	0.043	1064	1064	2.2	175	195
3/0	0.072	0.087	0.042	1342	1342	2.7	200	225
4/0	0.057	0.069	0.041	1692	1692	2.8	230	260
250	0.047	0.057	0.041	2000	2000	3.1	255	290
350	0.033	0.042	0.040	2800	2800	3.4	310	350
500	0.023	0.031	0.039	4000	4000	5.2	380	430
600	0.019	0.027	0.039	4800	4800	5.7	420	475
750	0.016	0.024	0.038	6000	6000	6.4	475	535
1000	0.012	0.020	0.037	8000	8000	6.8	545	615

† Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.
† Ampacities have been adjusted for more than Three Current-Carrying Conductors.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.