Southwire® Machine Flex® Power XLPE RW90

Type XHHW-2 600 Volts or 1000 Volts and Type RW90 600V. 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 (CE Code). 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 600 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**
- Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661
- 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 600V 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 600V 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 600V TC SR -40(D)C XLPE FT4 ---(NOM) – ANCE LS ---CE RoHS-2 MADE IN USA --- (MM/DD/YYYY)

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand Count	Diameter Over Conductor	Insul. Thickness	Approx. OD	Copper Weight	Approx. Weight	Jacket Color
	AWG/Kcmil	No. of Strands	inch	mil	inch	lb/1000ft	lb/1000ft	
TBA	8	168	0.153	45	0.243	52	64	BK
669542	6	266	0.198	45	0.281	82	104	GN/YW
TBA	4	420	0.235	45	0.325	130	147	BK
669603	2	665	0.302	45	0.392	210	240	GN
TBA	1	836	0.347	55	0.457	266	296	BK
TBA	1/0	1064	0.354	55	0.464	334	364	BK
TBA	2/0	1323	0.4	55	0.51	381	415	BK
TBA	3/0	1666	0.533	55	0.643	535	579	BK
672963	4/0	2109	0.55	55	0.657	651	718	BK
672912	250	608	0.605	65	0.75	765	851	BK
672911	350	888	0.67	65	0.9	1074	1180	BK
672906	500	1221	0.858	65	1.04	1514	1638	BK
672042	600	1480	0.963	80	1.126	1864	2028	BK
672043	750	1850	1.094	80	1.266	2402	2588	BK
TBA	1000	2527	1.19	80	1.35	3045	3183	BK

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.

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Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 60°C	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
	AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
TBA	8	1	132	0.666	0.827	0.052	40	50	55
669542	6	1.1	209	0.419	0.52	0.051	55	65	75
TBA	4	1.3	333	0.263	0.326	0.048	70	85	95
669603	2	1.6	530	0.167	0.207	0.045	95	115	130
TBA	1	1.8	669	0.133	0.165	0.046	110	130	145
TBA	1/0	1.9	844	0.105	0.13	0.044	125	150	170
TBA	2/0	2	1064	0.085	0.105	0.043	145	175	195
TBA	3/0	2.6	1342	0.067	0.083	0.042	165	200	225
672963	4/0	2.6	1692	0.053	0.066	0.041	195	230	260
672912	250	3	2000	0.045	0.056	0.041	215	255	290
672911	350	3.6	2800	0.032	0.041	0.04	260	310	350
672906	500	5.2	4000	0.022	0.029	0.039	320	380	430
672042	600	5.6	4800	0.018	0.024	0.039	350	420	475
672043	750	6.3	6000	0.015	0.021	0.038	400	475	535
TBA	1000	6.8	8000	0.011	0.016	0.037	455	545	615

* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

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