Southwire® MachineFLEX™ Hookup PVC

105ºC Dry. 60/75ºC Moisture Resistant. 600/1000 Volts. Flexible Stranded Tinned Copper Conductor. PVC Insulation .

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Flexible Class I stranded tinned copper per ASTM B33 and ASTM B172
2. **Insulation:** Polyvinyl Chloride (PVC)

- Colors: Other Colors available; including Green with 2x15% +/- 5% Tolerance Yellow Extruded Stripe. Other stripes available.
- Extruded stripes limited to sizes 4/0 AWG and smaller. 250Kcmil available in solid colors only.

APPLICATIONS AND FEATURES:

Southwire's MachineFLEX™ Power cables are suited for use in wet and dry areas, conduits, ducts, troughs, aerial supported by a messenger, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 75°C for normal operation in wet and dry locations, 90°C for emergency overload, and 150°C for short circuit conditions. 1/0 AWG & Larger rated for CT use.

SPECIFICATIONS:

- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 758 Standard for Appliance Wiring Material
- UL 1063 Machine Tool Wiring (MTW)
- CSA C22.2 No. 127 Type TEW; 105°C Dry
- CSA C22.2 No. 210 Appliance wiring material products I A/B 105°C Dry
- CT USE - As Type THHW in 1 /0 AWG & Larger
- Oil Res I & Sun Res - AWG 8 & Larger
- AWM 1032; AWG 18-6 AWM 1011/1015/1230/1335; AWG 18-10
  AWM 1011/1028/1231/1344; AWG 8 AWM 1232/1283/1346/10269; AWG 6-2
  AWM 1232/1284/1338/10269; AWG 1- 4/0 AWM 1284/1339/10269; Kcmil 250
- **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**

SAMPLE PRINT LEGEND:

- SOUTHWIRE 18 AWG (0.823mm2) E51583 (PLANT ID CODE) (UL) MTW OR AWM 1011/1015/1230/1335/1345 600V OR 1032 1000V MOISTURE RESISTANT VW-1 -- 156205 CSA TEW 105°C 600V FT1 OR AWM I A/B 105°C 600V FT1 -- CE RoHS-2 MADE IN USA

- SOUTHWIRE® 8 AWG (8.37mm2) E69567 (PLANT ID CODE) (UL) BC-5W2 OR MTW OR THHW OR AWM 1011/1028/1231/1337 600V OR 1032 1000V MOISTURE RESISTANT OIL RES I SUN RES VW-1 -- 156205 CSA TEW 105°C 600V FT1 OR AWM I A/B 105°C 600V FT1-CE RoHS-2 MADE IN USA

- SOUTHWIRE® 250 MCM (127mm2) E51583 (PLANT ID CODE) (UL) MTW OR THHW FOR CT USE OR AWM 1284/1339 600V OR 10269 1000V. OIL RES 1 SUN RES VW-1 - 156205 CSA AWM A/B 105°C 600 V - CE RoHS-2 MADE IN USA

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/Kcmil	inch	mil	inch	lb/1000ft	lb/1000ft
TBA	18	0.044	30	0.106	5	9
F16502122C2	16	0.059	30	0.117	8	13
F14647122C2	14	0.073	30	0.132	13	18
F12276122C2	12	0.094	30	0.151	20	27
F10237072C2	10	0.117	30	0.175	32	41
TBA	8	0.153	45	0.252	51	72
F6189072C2	6	0.198	60	0.324	81	113
F4127122C2	4	0.235	60	0.387	129	166
F2133122C2	2	0.302	60	0.472	205	259
TBA	1	0.397	80	0.521	258	324
F15097122	1/0	0.4	80	0.561	326	401
TBA	2/0	0.4	80	0.66	411	495
TBA	3/0	0.533	80	0.666	518	601
TBA	4/0	0.55	80	0.74	653	773
TBA	250	0.682	95	0.835	772	934

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item

Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°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	18	0.4	13	7.148	8.613	0.036	0	0	14
F16502122C2	16	0.4	21	4.487	5.406	0.033	0	0	18
F14647122C2	14	0.5	33	2.814	3.391	0.058	15	20	25
F12276122C2	12	0.6	52	1.774	2.137	0.054	20	25	30
F10237072C2	10	0.7	83	1.111	1.339	0.05	30	35	40
TBA	8	1	132	0.715	0.861	0.052	40	50	55
F6189072C2	6	1.2	209	0.45	0.541	0.051	55	65	75
F4127122C2	4	1.5	333	0.282	0.34	0.048	70	85	95
F2133122C2	2	1.8	530	0.179	0.216	0.045	95	115	130
TBA	1	2	669	0.143	0.172	0.046	110	130	145
F15097122	1/0	2.2	844	0.113	0.136	0.044	125	150	170
TBA	2/0	2.6	1064	0.09	0.108	0.043	145	175	195
TBA	3/0	2.6	1342	0.072	0.087	0.042	165	200	225
TBA	4/0	2.9	1692	0.057	0.069	0.041	195	230	260
TBA	250	3.3	2000	0.048	0.059	0.041	215	255	290

† Ampacities based on NFPA 79 2015 Table 12.5.1 and Table 310.15 (B)(16) of the NEC, 2017 Edition. Allowable Ampacities of Insulated Conductors Rated Up to and Including 2000 Volts, 60°C Through 90°C (140°F Through 194°F) Not More Than Three Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried), Based on ambient temperature of 30°C (86°F)