



Flat Jacketed Heavy Duty 600 Volt Cable Type THW

600V, Water Well Cable, Moisture Resistant, PVC Insulation, Flat Parallel, Black PVC Jacket. Rated 75°C,



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B, stranded soft drawn bare copper per ASTM B8
2. **Insulation:** Polyvinyl Chloride (PVC) Type THW
3. **Ground:** Green Polyvinyl Chloride (PVC) Type THW
4. **Jacket:** Black Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

For use in residential, farm and industrial water well applications. Used in both Grounded and ungrounded water well cable systems. Conductors are parallel and insulated with PVC colored black, red, and yellow. Insulated and jacketed with a Black Polyvinyl Chloride (PVC) material. Oil resistant. Used in both high temperature and low temperature wells

SPECIFICATIONS:

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE® SUBMERSIBLE PUMP CABLE TYPE THW XX AWG (XX.X{mm²}) 600 VOLTS {UL}





Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Approx. Weight
	AWG/ Kcmil	No.	No.	inch	mil	No. x AWG	mil	inch	lb/1000ft
563675◇	14	2	7	0.070	45	1 x 14	45	0.260x0.595	115
563678◇	12	2	19	0.090	45	1 x 12	45	0.280x0.660	150
563690◇	10	2	19	0.117	45	x None	45	0.310x0.515	135
563680◇	10	2	19	0.117	45	1 x 10	45	0.310x0.730	202
563682◇	8	2	19	0.143	60	1 x 10	45	0.370x0.850	280
563677◇	14	3	7	0.070	45	1 x 14	45	0.255x0.765	150
568566◇	12	3	19	0.090	45	x None	45	0.280x0.660	150
563679◇	12	3	19	0.090	45	1 x 12	45	0.280x0.814	192
563691◇	10	3	19	0.117	45	x None	45	0.310x0.730	201
563681◇	10	3	19	0.117	45	1 x 10	45	0.310x0.940	266
563693◇	8	3	19	0.143	60	x None	45	0.370x0.910	309
563683◇	8	3	19	0.143	60	1 x 10	45	0.370x1.120	381
563694◇	6	3	19	0.179	60	x None	45	0.404x1.012	423
563685◇	6	3	19	0.179	60	1 x 8	45	0.404x1.282	530
563695◇	4	3	19	0.226	60	x None	45	0.459x1.177	614
563686◇	4	3	19	0.226	60	1 x 8	45	0.460x1.447	731
563687◇	2	3	19	0.286	60	1 x 6	45	0.512x1.656	1045
563688◇	1/0	3	19	0.361	80	1 x 6	60	0.610x2.170	1739
563689◇	2/0	3	19	0.405	80	1 x 6	60	0.680x2.425	2003
644225◇	3/0	3	19	0.454	80	1 x 4	60	0.742x2.680	2500
583373◇	4/0	3	19	0.512	80	1 x 4	60	0.800x2.814	2985
583378◇	350	3	37	0.661	95	1 x 3	80	0.955x3.508	4582

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

***Conductor number does not include ground**

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
14	2.631	3.170	0.058	65	65	2.4	20	25
12	1.662	2.002	0.054	104	104	2.6	25	30
10	1.040	1.253	0.050	166	166	2.1	35	40
10	1.040	1.253	0.050	166	166	2.9	35	40
8	0.653	0.786	0.052	264	264	3.4	50	55
14	2.631	3.170	0.058	98	98	3.1	20	25
12	1.662	2.002	0.054	156	156	2.6	25	30
12	1.662	2.002	0.054	156	156	3.3	25	30
10	1.040	1.253	0.050	249	249	2.9	35	40
10	1.040	1.253	0.050	249	249	3.8	35	40
8	0.653	0.786	0.052	396	396	3.6	50	55
8	0.653	0.786	0.052	396	396	5.6	50	55
6	0.411	0.495	0.051	629	629	5.1	65	75
6	0.411	0.495	0.051	629	629	6.4	65	75
4	0.258	0.310	0.048	1001	1001	5.9	85	95
4	0.258	0.310	0.048	1001	1001	7.2	85	95
2	0.162	0.195	0.045	1592	1592	8.3	115	130
1/0	0.102	0.122	0.044	2534	2534	10.9	150	170
2/0	0.081	0.097	0.043	3194	3194	12.1	175	195
3/0	0.064	0.078	0.042	4027	4027	13.4	200	225
4/0	0.051	0.062	0.041	5078	5078	14.1	230	260
350	0.031	0.039	0.040	8400	8400	17.5	310	350

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

