

# 28kV Unjacketed Primary Cable UD

Aluminum or Copper Conductor. TRXLP Insulation.  
Bare Copper Concentric Neutrals.



## APPLICATIONS

Predominantly used for primary underground distribution; suitable for use in wet or dry locations, direct burial, underground duct, and where exposed to sunlight. To be used at 28,000 volts or less and at conductor temperatures not to exceed 90°C for normal operation.

## SPECIFICATIONS

Southwire 28kV HI-DRI Unjacketed Primary UD TRXLP Cable meets or exceeds the following ASTM specifications:

- B3 Soft Annealed Copper Wire
- B8 Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard or Soft
- B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- B231 Aluminum 1350 Conductors, Concentric-Lay-Stranded
- B609 Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

Southwire 28kV HI-DRI Unjacketed Primary UD Cable is manufactured to the latest edition of the following specifications, and in case of specification conflicts, in the order listed:

- ANSI/ICEA S-94-649
- AEIC CS-8
- RUS U-1

## CONSTRUCTION

The phase conductor is solid or moisture blocked reverse lay or compressed stranded soft drawn copper or a solid or moisture blocked reverse lay or unilay compressed stranded 1350-H16/26 aluminum phase conductor. Covered by a semi-conducting cross-linked polyethylene strand shield, a tree-retardant cross-linked polyethylene primary insulation, and a semi-conducting polyethylene insulation shield. Conductors are available with either 100% or 133% insulation levels. A concentric neutral of bare copper wires is applied over the insulation shield.

# 28kV Unjacketed Primary UD TRXLP

Phase Conductor		Neutral		Thickness Per Conductor (mils)		Diameter (mils)				Weight (lb/1000 ft)	Allowable Ampacities +	
Size (AWG or kcmil)	Stranding	No. of Wires	Size (AWG)	Nominal Insul.	Insul. Shield Min. Point	Bare Phase Cond.	Over Insul.	Over Insul. Shield	Complete Cable	Complete Cable	Direct Burial	In Ducts
<b>ALUMINUM CONDUCTOR- 0.280" INSULATION- 100% INSULATION LEVEL</b>												
1	Solid	13	14	280	30	289	890	970	1098	521	189*	134*
1	19	13	14	280	30	322	923	1003	1131	540	189*	134*
1/0	Solid	16	14	280	30	325	925	1005	1133	596	214*	152*
1/0	19	16	14	280	30	352	953	1033	1161	613	214*	152*
2/0	19	20	14	280	30	395	995	1075	1203	711	243*	173*
3/0	19	25	14	280	30	443	1043	1123	1251	831	278*	197*
4/0	19	20	12	280	40	498	1098	1198	1359	1008	318*	225*
250	37	16	10	280	40	558	1168	1268	1471	1203	353*	252*
350	37	18	14	280	40	661	1273	1373	1501	1057	387**	320**
500	37	25	14	280	40	789	1398	1498	1626	1357	466**	386**
750	61	24	12	280	55	968	1588	1718	1879	1911	567**	475**
1000	61	20	10	280	55	1117	1735	1865	2069	2395	648**	542**
<b>COPPER CONDUCTOR- 0.280" INSULATION- 100% INSULATION LEVEL</b>												
1	Solid	20	14	280	30	289	890	970	1098	790	235*	168*
1	19	20	14	280	30	322	923	1003	1131	813	235*	168*
1/0	Solid	25	14	280	30	325	925	1005	1133	938	268*	190*
1/0	19	25	14	280	30	362	963	1043	1171	966	268*	190*
2/0	19	20	12	280	30	405	1005	1085	1247	1161	307*	220*
3/0	19	25	12	280	40	456	1058	1158	1319	1416	351*	250*
4/0	19	20	10	280	40	512	1113	1213	1416	1723	402*	587*
250	37	24	10	280	40	558	1168	1268	1471	2008	445*	317*
350	37	18	12	280	40	661	1273	1373	1534	1950	487**	403**
500	37	26	12	280	40	789	1398	1498	1659	2648	575**	475**
750	61	25	10	280	55	968	1588	1718	1921	3855	650**	562**
1000	61	26	9	280	55	1117	1735	1865	2094	4974	727**	639**
+ Ampacities shown assume use of 100% load factor, 60 Hz current, 36" burial depth, 20°C ambient temperature, 90°C conductor temperature, earth RHO 90, insulation and shield RHO 400 * Full neutral construction (Ampacities assume - single phase circuit, one cable) ** 1/3 neutral cable (Ampacities assume - three phase circuit, 3 cables triplexed, multi-point grounding per ICEA methods)												

