

COPPER TYPE UF/NMC-B

SPEC

P7295D - AG



INSULATION: PVC

JACKET: PVC

SIZES: #14 - 4/0, 2 OR 3 CONDUCTOR WITH OR WITHOUT GROUND

600 VOLTS, 60°C WET OR DRY



1.0 APPLICATION

1.1 This specification covers 2 or 3 conductor cables, with or without a ground wire, having polyvinyl chloride (PVC) insulation and a sunlight-resistant PVC overall jacket, and single conductor cables having a sunlight-resistant PVC insulation.

1.2 USE:
UL Listed and OSHA acceptable. In accordance with Articles 336 and 339 of the Nat'l Electrical Code (and subject to local code requirements), Type UF cables may be used for underground feeder or branch-circuit wiring for installation above or below ground, including direct burial, and in wet or corrosive locations. Multiconductor Type UF (Type NMCB) cables may also be used for exposed or concealed interior wiring in wet, dry or corrosive locations and in cable trays. This cable powers single phase or three phase limited power loads and control circuits for remote irrigation systems or remote electrical equipment, like irrigation wells.

1.3

MAXIMUM CONDUCTOR TEMPERATURE AND VOLTAGE RATING			
TYPE	WET	DRY	VOLTAGE
UF	60°C	60°C	600V
*NMC-B	60°C	60°C	600V

*14-10 AWG only

2.0 CONSTRUCTION

2.1 CONDUCTORS: (for Multiconductor cables only):
Sizes 14,12 & 10 AWG:
Solid,annealed bare copper per ASTM B-3,UL-493, and UL-719
Sizes 8 & 6AWG:
Concentric, compressed stranded (class B)

2.2 CONDUCTORS: (for Single Conductor cable only):
Sizes 14-8AWG: Solid,annealed bare copper ASTM B-3 and UL-493
Sizes 6-4/0AWG: Concentric compressed stranded (class B)ASTM B-3 and UL-493

2.3 INSULATION: (for Multiconductor cables only):
Polyvinyl chloride (PVC). UL-493 and UL-719

2.4 GROUND WIRE:
For 2 or 3 conductor cable with ground.
Solid, annealed bare copper per ASTM B-3. Sizes as follows:

2.5

INSULATED CONDUCTORS		GROUND WIRE
SIZE	SIZE	NOM O.D.
AWG	AWG	AWG
UF	60°C	60°C
*NMC-B	60°C	60°C

2.6 CABLE ASSEMBLY:
Multiconductor cables are assembled flat parallel. For cables with ground, the ground wire is placed between two of the insulated conductors.

2.7 OVERALL JACKET: (integral jacket and insulation for single conductor cable)
Sunlight, moisture and fungus-resistant. Gray PVC. UL-493 and UL-719.

2.8 COLOR CODE:
Two-conductor cable: Black, White
Three-conductor cable: Black, White, Red

2.9 SURFACE PRINT:
Single Conductor Cable: Ink print on jacket "(size) AWG Type UF 600 Volts Sunlight Resistant (UL)"
Multiconductor Cable with Ground: Ink print on jacket "(size) AWG/(# of conds.) W.G.Type UF 600V Sunlight Resistant(UL)"
Multiconductor Cable w/o ground: Ink print on jacket " (size) AWG/(#of conds.)

3.0 CABLE DATA

SIZE	STRAND NO./O.D.	PVC INSUL. THICK.	JACKET THICK.	APPROX. OUTSIDE DIAM.	AMPACITY* UF OR NMC-B	APPROX. WEIGHT	STANDARD PUTUPS*
AWG	INCHES	INCHES	INCHES	INCHES	60°C	1 K FT. LBS	
14	SOLID	.060	—	.188	15	28	500/2500
12	SOLID	.060	—	.205	20	38	2500
10	SOLID	.060	—	.226	30	52	2500
8	SOLID	.080	—	.296	40	87	2500
6	7/.0612	.080	—	.352	55	123	1000
4	7/.0772	.080	—	.400	70	183	1000
2	7/.0972	.080	—	.460	95	270	1000
1/0	19/.0745	.095	—	.573	125	415	1000
2/0	19/.0837	.095	—	.618	145	508	1000
3/0	19/.0940	.095	—	.670	165	634	1000
4/0	19/.1055	.095	—	.728	195	782	1000
TWO AND THREE CONDUCTOR - WITHOUT GROUND							
14/2	SOLID	.030	.030	.210 X .435	15	67	C250/R1500
12/2	SOLID	.030	.030	.220 X .445	20	84	C250/R1250
10/2	SOLID	.030	.030	.240 X .475	30	114	C250/R1000
8/2	7/.0486	.045	.045	.340 X .700	40	206	C125/R500
6/2	7/.0612	.060	.045	.410 X .900	55	326	C125/R500
14/3	SOLID	.030	.030	.210 X .600	15	97	C250/R750
12/3	SOLID	.030	.030	.215 X .640	20	128	C250/R500
10/3	SOLID	.030	.030	.245 X .700	30	172	C250/R500
8/3	7/.0486	.045	.045	.345 X 1.040	40	308	C125/R500
6/3	7/.0612	.060	.045	.415 X 1.260	55	469	C125/R500
TWO AND THREE CONDUCTOR - WITH GROUND							
14/2	SOLID	.030	.030	.210 X .445	15	78	C250/R1500
12/2	SOLID	.030	.030	.235 X .495	20	109	C250/R1250
10/2	SOLID	.030	.030	.240 X .570	30	155	C250/R1000
8/2	7/.0486	.045	.045	.340 X .700	40	230	C125/R500
6/2	7/.0612	.060	.045	.410 X .900	55	383	C125/R500
14/3	SOLID	.030	.030	.210 X .650	15	110	C250/R750
12/3	SOLID	.030	.030	.225 X .720	20	147	C250/R500
10/3	SOLID	.030	.030	.245 X .800	30	218	C250/R500
8/3	7/.0486	.045	.045	.345 X 1.040	40	346	C125/R500
6/3	7/.0612	.060	.045	.415 X 1.260	55	519	C125/R500
* ALLOWABLE AMPACITY OF NOT MORE THAN THREE CONDUCTORS IN RACEWAY OR CABLE OR EARTH (DIRECTLY BURIED), BASED ON AMBIENT TEMPERATURE OF 30°C(86°F), PER TABLE 310-16 OF THE 1987 NAT'L ELECTRICAL CODE (NFPA 70•1987).							