

5. Low Voltage Power Cable

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5. Low Voltage Power Cable

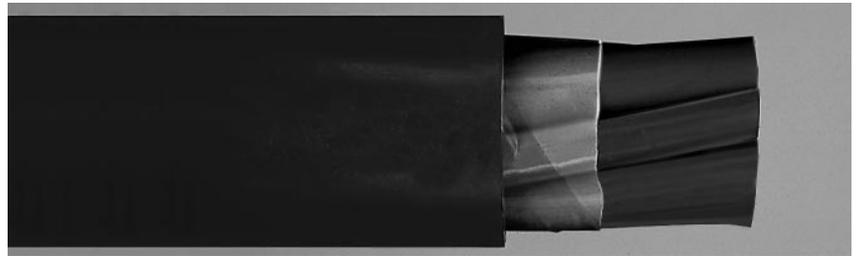
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SPECIFICATION #FREP II-XL-P-0001

POWER CABLE
UL TYPE TC
600V
EPR/XL-LSZH
LOW SMOKE,
ZERO HALOGEN



Description

Conductors:

Tinned, annealed copper per ASTM B33; Class B stranding per ASTM B8

Sizes:

#8 AWG through 750 kcmil

Insulation:

Flame-retardant ethylene propylene rubber (EPR) Type II

Color Code:

Per ICEA Method 4; Individual conductors colored black with conductor number surface printed in contrasting ink

Cable Core:

Conductors are cabled with non-hygroscopic, fillers where necessary and an overall binder tape.

Overall Jacket:

Flame-retardant, thermoset, Low Smoke, Zero Halogen polyolefin

Options:

- Bare copper conductors
- Insulated or uninsulated ground conductors
- Copper tape shield or aluminum/polymer tape shield with tinned copper drain wire over cable core

Features and Benefits

Temperature Rating:

- ICEA & UL.....90°C Wet or Dry

FREP II-XL Power Cable Listings:

Insulated conductors are:

- UL Type XHHW-2, VW-1 – 600V
- ICEA S-68-516 – 600V and 1000V

Complete Cables are:

- UL Type TC in 600 Volts
- ICEA S-68-516 – 600V and 1000V

Flame-Retardant EPR Insulation, UL Class XL and Type II in Accordance with ICEA S-68-516 (NEMA WC-8), Provides:

- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent resistance to crush compression cuts and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend and cold impact characteristics (insulated conductors pass low temperature cold bend test at -50°C; completed cable passes at -35°C)

Thermoset Low Smoke, Zero Halogen Jacket:

- Provides a high degree of flame resistance
- Exhibits significant reduction in emission of smoke and halogens over more conventional cables under conditions of fire
- Provides improved personnel and equipment safety during the hazards of fire
- Generates very low smoke during flaming mode

FREP II-XL Power Cables:

- Are OSHA acceptable
- Meet the following Flame Tests
 - IEEE 1202 (70,000 BTU/hr)/CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)
 - UL 1277 (70,000 BTU/hr)

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

For applications where high performance reliability is essential and where environmental factors require cable characteristics including minimal smoke and halogen emission when burned and flame retardance.

May Be Installed:

- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I Division 2 industrial hazardous locations per NEC Article 501-4(b) for UL Type TC cables
- In enclosed areas where personnel and/or sensitive electronic equipment would be exposed to toxic emissions in the event of a fire

EPR/LSZH POWER CABLE - UL TYPE TC 600V FREP II-XL

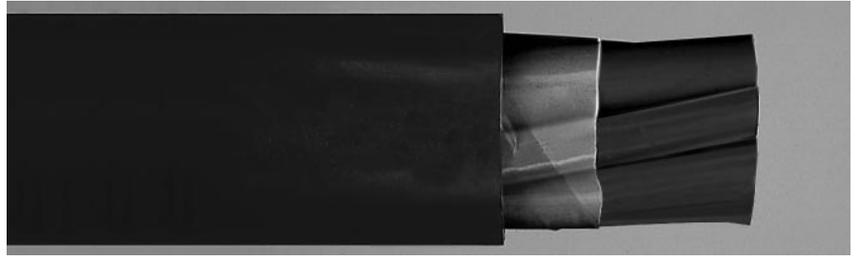
BICC Part Number	AWG or kcmil and Stranding	Bare Copper Ground	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
FREP II-XL-S600TC-8-3	8 AWG 7/.0486	10 AWG 7/.0385	3	0.045	0.060	0.657	338
FREP II-XL-S600TC-8-4	8 AWG 7/.0486	10 AWG 7/.0385	4	0.045	0.060	0.719	418
FREP II-XL-S600TC-6-3	6 AWG 7/.0612	8 AWG 7/.0486	3	0.045	0.060	0.739	474
FREP II-XL-S600TC-6-4	6 AWG 7/.0612	8 AWG 7/.0486	4	0.045	0.060	0.811	590
FREP II-XL-S600TC-4-3	4 AWG 7/.0772	8 AWG 7/.0486	3	0.045	0.080	0.880	689
FREP II-XL-S600TC-4-4	4 AWG 7/.0772	8 AWG 7/.0486	4	0.045	0.080	0.965	867
FREP II-XL-S600TC-2-3	2 AWG 7/.0974	6 AWG 7/.0612	3	0.045	0.080	1.009	1003
FREP II-XL-S600TC-2-4	2 AWG 7/.0974	6 AWG 7/.0612	4	0.045	0.080	1.109	1267
FREP II-XL-S600TC-1-3	1 AWG 19/.0664	6 AWG 7/.0612	3	0.055	0.080	1.137	1232
FREP II-XL-S600TC-1-4	1 AWG 19/.0664	6 AWG 7/.0612	4	0.055	0.080	1.253	1562
FREP II-XL-S600TC-1/0-3	1/0 AWG 19/.0745	6 AWG 7/.0612	3	0.055	0.080	1.226	1474
FREP II-XL-S600TC-1/0-4	1/0 AWG 19/.0745	6 AWG 7/.0612	4	0.055	0.080	1.342	1883
FREP II-XL-S600TC-2/0-3	2/0 AWG 19/.0837	6 AWG 7/.0612	3	0.055	0.080	1.323	1779
FREP II-XL-S600TC-2/0-4	2/0 AWG 19/.0837	6 AWG 7/.0612	4	0.055	0.080	1.461	2284
FREP II-XL-S600TC-3/0-3	3/0 AWG 19/.0940	4 AWG 7/.0772	3	0.055	0.080	1.431	2201
FREP II-XL-S600TC-3/0-4	3/0 AWG 19/.0940	4 AWG 7/.0772	4	0.055	0.080	1.582	2822
FREP II-XL-S600TC-4/0-3	4/0 AWG 19/.1055	4 AWG 7/.0772	3	0.055	0.080	1.554	2674
FREP II-XL-S600TC-4/0-4	4/0 AWG 19/.1055	4 AWG 7/.0772	4	0.055	0.110	1.790	3556
FREP II-XL-S600TC-250-3	250 kcmil 37/.0822	4 AWG 7/.0772	3	0.065	0.110	1.778	3222
FREP II-XL-S600TC-250-4	250 kcmil 37/.0822	4 AWG 7/.0772	4	0.065	0.110	1.963	4141
FREP II-XL-S600TC-350-3	350 kcmil 37/.0973	3 AWG 7/.0867	3	0.065	0.110	2.002	4352
FREP II-XL-S600TC-350-4	350 kcmil 37/.0973	3 AWG 7/.0867	4	0.065	0.110	2.213	5619
FREP II-XL-S600TC-500-3	500 kcmil 37/.1162	2 AWG 7/.0974	3	0.065	0.110	2.289	5982
FREP II-XL-S600TC-500-4	500 kcmil 37/.1162	2 AWG 7/.0974	4	0.065	0.110	2.535	7755
FREP II-XL-S600TC-750-3	750 kcmil 61/.1109	1 AWG 19/.0664	3	0.080	0.140	2.812	8954
FREP II-XL-S600TC-750-4	750 kcmil 61/.1109	1 AWG 19/.0664	4	0.080	0.140	3.113	11612

PRINT: "BICC CABLES XX/C XX AWG FREP II-XL LSZH JKT (UL) TYPE TC XHHW-2 CDRS DIR BUR SUN RES 600V" plus sequential footage mark.

Dimensions and weights are nominal, subject to industry tolerance.

SPECIFICATION #EHTC-P-0001

POWER CABLE
UL TYPE TC
600V
EPR/HYP

**Description****Conductors:**

Tinned, annealed copper per ASTM B33; Class B stranding per ASTM B8

Sizes:

#8 AWG through 750 kcmil

Insulation:

Flame-retardant ethylene propylene rubber (EPR) Type II

Color Code:

Per ICEA Method 4; Individual conductors colored black with conductor number surface printed in contrasting ink

Cable Core:

Conductors are cabled with non-hygroscopic, fillers where necessary, and an overall binder tape.

Overall Jacket:

“Low Lead” Hypalon® chloro-sulphonated polyethylene (CSPE)

Options:

- Bare copper conductors
- Insulated or uninsulated ground conductors
- Copper tape shield or aluminum/polymer tape shield with tinned copper drain wire over cable core
- Duralox® aluminum interlocked armor
- Flame-retardant polyvinyl chloride (PVC) jacket
- Thermoplastic Low Smoke, Zero Halogen jacket
- Thermoset Low Smoke, Zero Halogen jacket

Features and Benefits**Temperature Rating:**

- ICEA & UL90°C Dry or Wet

EPR/HYP Power Cable Listings:

Insulated conductors are:

- UL 44 Type XHHW-2, VW-1, 600V
- ICEA S-68-516 (NEMA WC-8), 600V

Complete cables are:

- UL 1277 Type TC, 600V
- ICEA S-68-516, 600V

Flame-Retardant EPR Insulation, UL Class XL and Type II in Accordance with ICEA S-68-516 (NEMA WC-8), Provides:

- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression cuts, and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend characteristics (insulated conductors pass low temperature cold bend test at -50°C; completed cable passes at -45°C)

Flame-Retardant Hypalon® Jacket**Provides:**

- Excellent flame resistance
- Excellent thermal and mechanical properties
- Good abrasion resistance
- Low moisture absorption characteristics
- “Heavy duty” rated per ICEA standards

EHTC Power Cables:

- Are OSHA acceptable
- Meet the following flame tests:
 - IEEE 1202 (70,000 BTU/hr)/CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)
 - UL 1277 (70,000 BTU/hr)

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

For applications where high performance reliability is essential and where environmental factors require cable characteristics including flame-retardance, low temperature cold bend capabilities, resistance to moisture, chemicals and physical durability.

May Be Installed:

- In free air, raceways or direct burial
- In wet or dry locations
- At temperatures as low as -45°C
- In accordance with NEC Article 340
- In Class I Division 2 industrial hazardous locations per NEC Article 501-4(b) for UL Type TC cables

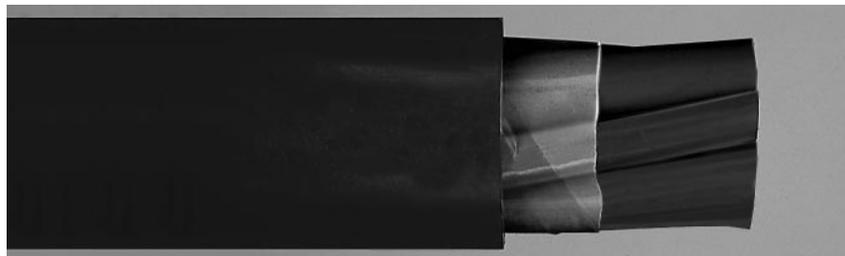
EPR/HYP POWER CABLE - UL TYPE TC 600V EHTC

BICC Part Number	AWG or kcmil and Stranding	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
T-87600(3/08)	8 AWG 7/.0486	3	0.045	0.060	0.660	311
T-87600(4/08)	8 AWG 7/.0486	4	0.045	0.060	0.725	394
T-87600(3/06)	6 AWG 7/.0612	3	0.045	0.060	0.745	435
T-87600(4/06)	6 AWG 7/.0612	4	0.045	0.060	0.820	556
T-87600(3/04)	4 AWG 7/.0772	3	0.045	0.080	0.890	657
T-87600(4/04)	4 AWG 7/.0772	4	0.045	0.080	0.975	839
T-87600(3/02)	2 AWG 7/.0974	3	0.045	0.080	1.020	950
T-87600(4/02)	2 AWG 7/.0974	4	0.045	0.080	1.120	1224
T-87600(3/01)	1 AWG 19/.0664	3	0.055	0.080	1.150	1187
T-87600(4/01)	1 AWG 19/.0664	4	0.055	0.080	1.270	1532
T-87600(3/1/0)	1/0 AWG 19/.0740	3	0.055	0.080	1.240	1434
T-87600(4/1/0)	1/0 AWG 19/.0740	4	0.055	0.080	1.370	1857
T-87600(3/2/0)	2/0 AWG 19/.0837	3	0.055	0.080	1.340	1743
T-87600(4/2/0)	2/0 AWG 19/.0837	4	0.055	0.080	1.480	2263
T-87600(3/3/0)	3/0 AWG 19/.0940	3	0.055	0.080	1.450	2130
T-87600(4/3/0)	3/0 AWG 19/.0940	4	0.055	0.080	1.605	2773
T-87600(3/4/0)	4/0 AWG 19/.1055	3	0.055	0.080	1.575	2614
T-87600(4/4/0)	4/0 AWG 19/.1055	4	0.055	0.110	1.805	3519
T-87600(3/250kcmil)	250kcmil 37/.0822	3	0.065	0.110	1.780	3186
T-87600(4/250kcmil)	250kcmil 37/.0822	4	0.065	0.110	1.970	4139
T-87600(3/350kcmil)	350kcmil 37/.0973	3	0.065	0.110	2.010	4288
T-87600(4/350kcmil)	350kcmil 37/.0973	4	0.065	0.110	2.225	5591
T-87600(3/500kcmil)	500kcmil 37/.1162	3	0.065	0.110	2.305	5925
T-87600(4/500kcmil)	500kcmil 37/.1162	4	0.065	0.110	2.555	7745
T-87600(3/750kcmil)	750kcmil 61/.1109	3	0.080	0.140	2.815	13212
T-87600(4/750kcmil)	750kcmil 61/.1109	4	0.080	0.140	3.115	17155

Print: BICC CABLES XX/C XX AWG EPR/HYP (UL) TYPE TC XHHW-2 CDRS DIR BUR SUN RES 600V SEQUENTIAL FOOTAGE MARK

Dimensions and weights are nominal, subject to industry tolerance.

**POWER CABLE
UL TYPE TC
600V
EPR/LSZH
LOW SMOKE,
ZERO HALOGEN**



Description

Conductors:

Tinned, annealed copper per ASTM B33; Class B stranding per ASTM B8

Sizes:

#8 AWG through 750 kcmil

Insulation:

Flame-retardant ethylene propylene rubber (EPR) Type II

Color Code:

Per ICEA Method 4; Individual conductors colored black with conductor number surface printed in contrasting ink

Cable Core:

Conductors are cabled with non-hygroscopic, fillers where necessary and an overall binder tape.

Overall Jacket:

Flame-retardant, thermoplastic, Low Smoke, Zero Halogen polyolefin

Options:

- Bare copper conductors
- Insulated or uninsulated ground conductors
- Copper tape shield or aluminum/polymer tape shield with tinned copper drain wire over cable core

Features and Benefits

Temperature Rating:

- ICEA & UL.....90°C Wet or Dry

FREP II Power Cable Listings:

Insulated conductors are:

- UL Type XHHW-2, VW-1 – 600V
- ICEA S-68-516 – 600V and 1000V

Complete Cables are:

- UL Type TC in 600 Volts
- ICEA S-68-516 – 600V and 1000V

Flame-Retardant EPR Insulation, UL Class XL and Type II in Accordance with ICEA S-68-516 (NEMA WC-8), Provides:

- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent resistance to crush compression cuts and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend and cold impact characteristics (insulated conductors pass low temperature cold bend test at -50°C; completed cable passes at -35°C)

Thermoplastic Low Smoke, Zero Halogen Jacket:

- Provides a high degree of flame resistance
- Exhibits significant reduction in emission of smoke and halogens over more conventional cables under conditions of fire
- Provides improved personnel and equipment safety during the hazards of fire
- Does not exhibit thermoplastic drip but burns to an ash
- Generates very low smoke during flaming mode

FREP II Power Cables:

- Are OSHA acceptable
- Meet the following Flame Tests
 - IEEE 1202 (70,000 BTU/hr)/CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)
 - UL 1277 (70,000 BTU/hr)

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

For applications where high performance reliability is essential and where environmental factors require cable characteristics including minimal smoke and halogen emission when burned and flame retardance.

May Be Installed:

- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I Division 2 industrial hazardous locations per NEC Article 501-4(b) for UL Type TC cables
- In enclosed areas where personnel and/or sensitive electronic equipment would be exposed to toxic emissions in the event of a fire

EPR/LSZH POWER CABLE - UL TYPE TC 600V FREP II

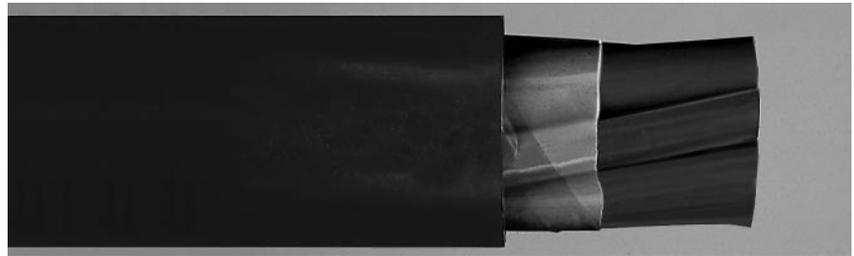
BICC Part Number	AWG or kcmil and Stranding	Bare Copper Ground	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
FREP II-S600TC-8-3	8 AWG 7/.0486	10 AWG 7/.0385	3	0.045	0.060	0.657	338
FREP II-S600TC-8-4	8 AWG 7/.0486	10 AWG 7/.0385	4	0.045	0.060	0.719	418
FREP II-S600TC-6-3	6 AWG 7/.0612	8 AWG 7/.0486	3	0.045	0.060	0.739	474
FREP II-S600TC-6-4	6 AWG 7/.0612	8 AWG 7/.0486	4	0.045	0.060	0.811	590
FREP II-S600TC-4-3	4 AWG 7/.0772	8 AWG 7/.0486	3	0.045	0.080	0.880	689
FREP II-S600TC-4-4	4 AWG 7/.0772	8 AWG 7/.0486	4	0.045	0.080	0.965	867
FREP II-S600TC-2-3	2 AWG 7/.0974	6 AWG 7/.0612	3	0.045	0.080	1.009	1003
FREP II-S600TC-2-4	2 AWG 7/.0974	6 AWG 7/.0612	4	0.045	0.080	1.109	1267
FREP II-S600TC-1-3	1 AWG 19/.0664	6 AWG 7/.0612	3	0.055	0.080	1.137	1232
FREP II-S600TC-1-4	1 AWG 19/.0664	6 AWG 7/.0612	4	0.055	0.080	1.253	1562
FREP II-S600TC-1/0-3	1/0 AWG 19/.0745	6 AWG 7/.0612	3	0.055	0.080	1.226	1474
FREP II-S600TC-1/0-4	1/0 AWG 19/.0745	6 AWG 7/.0612	4	0.055	0.080	1.342	1883
FREP II-S600TC-2/0-3	2/0 AWG 19/.0837	6 AWG 7/.0612	3	0.055	0.080	1.323	1779
FREP II-S600TC-2/0-4	2/0 AWG 19/.0837	6 AWG 7/.0612	4	0.055	0.080	1.461	2284
FREP II-S600TC-3/0-3	3/0 AWG 19/.0940	4 AWG 7/.0772	3	0.055	0.080	1.431	2201
FREP II-S600TC-3/0-4	3/0 AWG 19/.0940	4 AWG 7/.0772	4	0.055	0.080	1.582	2822
FREP II-S600TC-4/0-3	4/0 AWG 19/.1055	4 AWG 7/.0772	3	0.055	0.080	1.554	2674
FREP II-S600TC-4/0-4	4/0 AWG 19/.1055	4 AWG 7/.0772	4	0.055	0.110	1.790	3556
FREP II-S600TC-250-3	250 kcmil 37/.0822	4 AWG 7/.0772	3	0.065	0.110	1.778	3222
FREP II-S600TC-250-4	250 kcmil 37/.0822	4 AWG 7/.0772	4	0.065	0.110	1.963	4141
FREP II-S600TC-350-3	350 kcmil 37/.0973	3 AWG 7/.0867	3	0.065	0.110	2.002	4352
FREP II-S600TC-350-4	350 kcmil 37/.0973	3 AWG 7/.0867	4	0.065	0.110	2.213	5619
FREP II-S600TC-500-3	500 kcmil 37/.1162	2 AWG 7/.0974	3	0.065	0.110	2.289	5982
FREP II-S600TC-500-4	500 kcmil 37/.1162	2 AWG 7/.0974	4	0.065	0.110	2.535	7755
FREP II-S600TC-750-3	750 kcmil 61/.1109	1 AWG 19/.0664	3	0.080	0.140	2.812	8954
FREP II-S600TC-750-4	750 kcmil 61/.1109	1 AWG 19/.0664	4	0.080	0.140	3.113	11612

PRINT: "BICC CABLES XX/C XX AWG FREP II LSZH JKT (UL) TYPE TC XHHW-2 CDRS DIR BUR SUN RES 600V" plus sequential footage mark.

Dimensions and weights are nominal, subject to industry tolerance.

SPECIFICATION #FREP XL-P-0001

POWER CABLE UL TYPE TC 600V EPR/XL-CPE



Description

Conductors:

Tinned, annealed copper per ASTM B3 & B33; Class B stranding per ASTM B8

Sizes:

#8 AWG through 1000 kcmil

Insulation:

Flame-retardant ethylene propylene rubber (EPR) Type II

Color Code:

Per ICEA Method 4; Individual conductors colored black with conductor number surface printed in contrasting ink

Cable Core:

Conductors are cabled with a ground conductor and non-hygroscopic fillers and an overall binder tape.

Ground Conductor:

Standard:

Single Class B bare copper, size in accordance with UL 1277

Options:

- Insulated bare copper
- Insulated or uninsulated tinned copper
- Without grounds
- Multiple ground wires

Overall Jacket:

Flame retardant, heavy duty cross-linked chlorinated polyethylene (XL-CPE)

Options:

- Flexible stranded copper conductors
- Bare copper conductors
- Bare or tinned copper tape shield
- FREP II-XL - Flame-retardant, Low Smoke, Zero Halogen polyolefin

Features and Benefits

Temperature Ratings:

- UL.....90°C Wet or Dry
- ICEA S-68-516.....90°C Wet or Dry

FREP XL Power Cable Listings:

Insulated conductors are:

- UL Type XHHW-2, VW-1

Flame-Retardant EPR Insulation, UL Class XL and Type II in Accordance with ICEA S-68-516 (NEMA WC-8), Provides:

- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent resistance to crush compression cuts and heat deformation
- Excellent flame resistant
- Excellent low temperature cold bend and cold impact characteristics (insulated conductors pass low temperature cold bend test at -50°C; completed cable passes at -35°C)

Flame-Retardant Heavy Duty Thermoset Jacket Provides:

- Resistance to "cold flow"
- Abrasion and chemical resistance
- Sunlight and weathering resistance
- High flexibility
- High tear resistance
- Enhanced flame resistance
- UL Oil Resistant II

FREP XL 600V Power Cables:

- Pass the following low temperature tests:
 - ICEA S-19-81 cold bend test at -35°C
- Are OSHA acceptable
- Meet the following flame tests:
 - IEEE 1202 (70,000 BTU/hr)/CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)

UL Listings:

- Type TC
- Direct burial
- Sunlight resistant (all colors)
- 90°C Wet or Dry

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

For applications where high performance reliability is essential and where environmental factors require cable characteristics including durability and flexibility, flame retardance and resistance to chemicals, sunlight and weathering.

May Be Installed:

- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I Division 2 industrial hazardous locations per NEC article 501-4(b) for UL Type TC cables.

EPR/XL-CPE POWER CABLE - UL TYPE TC 600V FREP XL

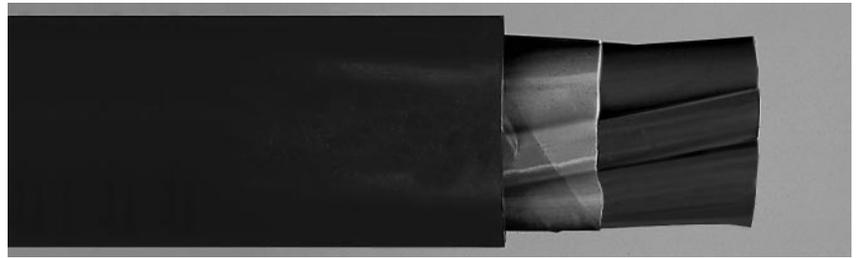
BICC Part Number	AWG or kcmil and Stranding	Bare Copper Ground	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
FREP XL-S600TC-8-3	8 AWG 7/.0486	10 AWG 7/.0385	3	0.045	0.060	0.657	330
FREP XL-S600TC-8-4	8 AWG 7/.0486	10 AWG 7/.0385	4	0.045	0.060	0.719	410
FREP XL-S600TC-6-3	6 AWG 7/.0612	8 AWG 7/.0486	3	0.045	0.060	0.739	465
FREP XL-S600TC-6-4	6 AWG 7/.0612	8 AWG 7/.0486	4	0.045	0.060	0.811	580
FREP XL-S600TC-4-3	4 AWG 7/.0772	8 AWG 7/.0486	3	0.045	0.080	0.880	676
FREP XL-S600TC-4-4	4 AWG 7/.0772	8 AWG 7/.0486	4	0.045	0.080	0.965	852
FREP XL-S600TC-2-3	2 AWG 7/.0974	6 AWG 7/.0612	3	0.045	0.080	1.009	987
FREP XL-S600TC-2-4	2 AWG 7/.0974	6 AWG 7/.0612	4	0.045	0.080	1.109	1249
FREP XL-S600TC-1-3	1 AWG 19/.0664	6 AWG 7/.0612	3	0.055	0.080	1.137	1214
FREP XL-S600TC-1-4	1 AWG 19/.0664	6 AWG 7/.0612	4	0.055	0.080	1.253	1542
FREP XL-S600TC-1/0-3	1/0 AWG 19/.0745	6 AWG 7/.0612	3	0.055	0.080	1.226	1454
FREP XL-S600TC-1/0-4	1/0 AWG 19/.0745	6 AWG 7/.0612	4	0.055	0.080	1.342	1861
FREP XL-S600TC-2/0-3	2/0 AWG 19/.0837	6 AWG 7/.0612	3	0.055	0.080	1.323	1757
FREP XL-S600TC-2/0-4	2/0 AWG 19/.0837	6 AWG 7/.0612	4	0.055	0.080	1.461	2260
FREP XL-S600TC-3/0-3	3/0 AWG 19/.0940	4 AWG 7/.0772	3	0.055	0.080	1.431	2177
FREP XL-S600TC-3/0-4	3/0 AWG 19/.0940	4 AWG 7/.0772	4	0.055	0.080	1.582	2796
FREP XL-S600TC-4/0-3	4/0 AWG 19/.1055	4 AWG 7/.0772	3	0.055	0.110	1.554	2648
FREP XL-S600TC-4/0-4	4/0 AWG 19/.1055	4 AWG 7/.0772	4	0.055	0.110	1.790	3516
FREP XL-S600TC-250-3	250 kcmil 37/.0822	4 AWG 7/.0772	3	0.065	0.110	1.778	3182
FREP XL-S600TC-250-4	250 kcmil 37/.0822	4 AWG 7/.0772	4	0.065	0.110	1.963	4098
FREP XL-S600TC-350-3	350 kcmil 37/.0973	3 AWG 7/.0867	3	0.065	0.110	2.002	4308
FREP XL-S600TC-350-4	350 kcmil 37/.0973	3 AWG 7/.0867	4	0.065	0.110	2.213	5569
FREP XL-S600TC-500-3	500 kcmil 37/.1162	2 AWG 7/.0974	3	0.065	0.110	2.289	5931
FREP XL-S600TC-500-4	500 kcmil 37/.1162	2 AWG 7/.0974	4	0.065	0.110	2.535	7698
FREP XL-S600TC-750-3	750 kcmil 61/.1109	1 AWG 19/.0664	3	0.080	0.140	2.812	8875
FREP XL-S600TC-750-4	750 kcmil 61/.1109	1 AWG 19/.0664	4	0.080	0.140	3.113	11524

PRINT: *BICC CABLES FREP XL XX/C XX AWG EPR/XL-CPE (UL) TYPE TC XHHW-2 CDRS DIR BUR SUN RES 600V" plus sequential footage mark.

Dimensions and weights are nominal, subject to industry tolerance.

SPECIFICATION #FREP-P-0001

POWER CABLE
UL TYPE TC
600V
EPR/CPE

**Description****Conductors:**

Tinned, annealed copper per ASTM B33; Class B stranding per ASTM B8

Sizes:

#8 AWG through 750 kcmil

Insulation:

Flame-retardant ethylene propylene rubber (EPR) Type II

Color Code:

Per ICEA Method 4; Individual conductors colored black with conductor number surface printed in contrasting ink

Cable Core:

Conductors are cabled with non-hygroscopic, fillers where necessary, and an overall binder tape.

Overall Jacket:

Flame-retardant thermoplastic chlorinated polyethylene (CPE)

Options:

- Bare copper conductors
- Insulated or uninsulated ground conductors
- Copper tape shield or aluminum/polymer tape shield with tinned copper drain wire over cable core
- Duralox® aluminum interlocked armor
- Flame-retardant polyvinyl chloride (PVC) jacket
- Flame-retardant thermoset chlorinated polyethylene (CPE)
- Integrabon® Moisture Barrier System

Features and Benefits**Temperature Rating:**

- ICEA & UL90°C Dry or Wet

EPR/CPE Power Cable listings:

Insulated conductors are:

- UL 44 Type XHHW-2, VW-1, 600V
- ICEA S-68-516, 600V

Complete cables are:

- UL1277 Type TC, 600V
- ICEA S-68-516 (NEMA WC-8), 600V

Flame-Retardant EPR Insulation, UL Class XL and Type II in Accordance with ICEA S-68-516 (NEMA WC-8), Provides:

- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression cuts, and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend characteristics (insulated conductors pass low temperature cold bend test at -50°C; completed cable passes at -35°C)

Flame-Retardant CPE Jacket Provides:

- Excellent flame resistance – burns to an ash; does not exhibit “thermoplastic drip”
- Excellent thermal and mechanical properties
- Low coefficient of friction for easy pulling
- Excellent thermal and mechanical properties
- Excellent balance of physical properties contributes to ease of installation
- Low heat deformation
- Sunlight and weather resistance
- UL Oil Resistant II

FREP Power Cables:

- Are OSHA acceptable
- Meet the following flame tests:
 - IEEE 1202 (70,000 BTU/hr)/CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)
 - UL 1277 (70,000 BTU/hr)

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

For applications where high performance reliability is essential and where environmental factors require cable characteristics including flame-retardance, resistance to moisture, chemicals, thermal stability and physical durability.

May Be Installed:

- In free air, raceways, or direct burial
- In wet or dry locations
- At temperatures as low as -35°C
- Permitted for use in Class I Division 2 industrial hazardous locations per NEC Article 501-4(b) for UL type TC cables

EPR/CPE POWER CABLE - UL TYPE TC 600V FREP

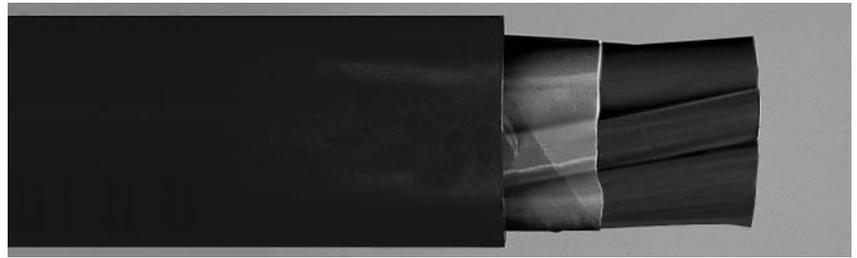
BICC Part Number	AWG or kcmil and Stranding	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
T-87800(3/08)	8 AWG 7/.0486	3	0.045	0.060	0.657	326
T-87800(4/08)	8 AWG 7/.0486	4	0.045	0.060	0.719	406
T-87800(3/06)	6 AWG 7/.0612	3	0.045	0.060	0.739	461
T-87800(4/06)	6 AWG 7/.0612	4	0.045	0.060	0.811	575
T-87800(3/04)	4 AWG 7/.0772	3	0.045	0.080	0.880	669
T-87800(4/04)	4 AWG 7/.0772	4	0.045	0.080	0.965	845
T-87800(3/02)	2 AWG 7/.0974	3	0.045	0.080	1.009	980
T-87800(4/02)	2 AWG 7/.0974	4	0.045	0.080	1.109	1241
T-87800(3/01)	1 AWG 19/.0664	3	0.055	0.080	1.137	1205
T-87800(4/01)	1 AWG 19/.0664	4	0.055	0.080	1.253	1533
T-87800(3/1/0)	1/0 AWG 19/.0745	3	0.055	0.080	1.226	1445
T-87800(4/1/0)	1/0 AWG 19/.0745	4	0.055	0.080	1.342	1851
T-87800(3/2/0)	2/0 AWG 19/.0837	3	0.055	0.080	1.323	1747
T-87800(4/2/0)	2/0 AWG 19/.0837	4	0.055	0.080	1.461	2249
T-87800(3/3/0)	3/0 AWG 19/.0940	3	0.055	0.080	1.431	2167
T-87800(4/3/0)	3/0 AWG 19/.0940	4	0.055	0.080	1.582	2784
T-87800(3/4/0)	4/0 AWG 19/.1055	3	0.055	0.080	1.554	2636
T-87800(4/4/0)	4/0 AWG 19/.1055	4	0.055	0.110	1.790	3498
T-87800(3/250kcmil)	250kcmil 37/.0822	3	0.065	0.110	1.778	3164
T-87800(4/250kcmil)	250kcmil 37/.0822	4	0.065	0.110	1.963	4078
T-87800(3/350kcmil)	350kcmil 37/.0973	3	0.065	0.110	2.002	4287
T-87800(4/350kcmil)	350kcmil 37/.0973	4	0.065	0.110	2.213	5546
T-87800(3/500kcmil)	500kcmil 37/.1162	3	0.065	0.110	2.289	5907
T-87800(4/500kcmil)	500kcmil 37/.1162	4	0.065	0.110	2.535	7672
T-87800(3/750kcmil)	750kcmil 61/.1109	3	0.080	0.140	2.812	8838
T-87800(4/750kcmil)	750kcmil 61/.1109	4	0.080	0.140	3.113	11483

Print: BICC CABLES FREP XX/C XX AWG EPR/CPE (UL) TYPE TC XHHW-2 CDRS 90°C WET OR DRY 600V DIR BUR SUN RES sequential footage mark

Dimensions and weights are nominal, subject to industry tolerance.

SPECIFICATION #CHTC-P-0001

POWER CABLE UL TYPE TC 600V XLPO/HYP



Description

Conductors:

Tinned, annealed copper per ASTM B33; Class B stranding per ASTM B8

Sizes:

#8 through 1000 kcmil

Insulation:

Flame-retardant cross-linked polyolefin (XLPO)

Color Code:

Per ICEA Method 4; Individual conductors colored black with conductor number surface printed in contrasting ink.

Cable Core:

Conductors are cabled with non-hygroscopic, fillers where necessary, and an overall binder tape.

Overall Jacket:

“Low Lead” Hypalon® chloro-sulphonated polyethylene (CSPE)

Options:

- Bare copper conductors
- Tinned copper tape shield
- Duralox® aluminum interlocked armor
- Flame-retardant polyvinyl chloride (PVC) jacket
- Thermoplastic Low Smoke, Zero Halogen jacket
- Thermoset Low Smoke, Zero Halogen jacket
- Insulated or uninsulated ground conductor
- 1000V ICEA cable

Features and Benefits

Temperature Rating:

- ICEA & UL.....90°C Dry or Wet

XLPO/HYP Power Cable Listings:

Insulated conductors are:

- UL 44 XHHW-2, VW-1

Complete cables are:

- UL 1277 Type TC – 600V

Flame-Retardant XLPO Insulation, UL Class XL, Provides:

- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression cuts, and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend characteristics

Flame-Retardant Hypalon® Jacket Provides:

- Excellent flame resistance
- Excellent thermal and mechanical properties
- Good abrasion resistance
- Low moisture absorption characteristics
- “Heavy duty” rating per ICEA standards

CHTC Power Cables:

- Meet cold bend test at -45°C
- Are OSHA acceptable
- Meet the following flame tests:
 - IEEE 1202 (70,000 BTU/hr)/CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)
 - UL 1277 (70,000 BTU/hr)

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

For applications where high performance reliability is essential and where environmental factors require cable characteristics including flame-retardance, resistance to moisture, chemicals, and physical durability.

May Be Installed:

- In free air, raceways, or direct burial
- In wet or dry locations
- At temperatures as low as -45°C
- In Class I Division 2 industrial hazardous locations per NEC Article 501-4(b)

XLPO/HYP POWER CABLE - UL TYPE TC 600V CHTC

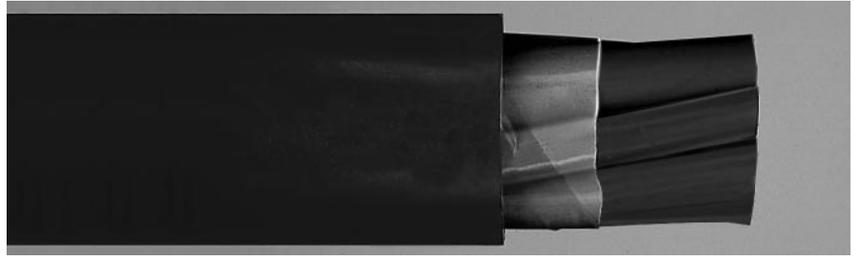
BICC Part Number	AWG or kcmil and Stranding	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
T-87200(3/08)	8 AWG 7/.0486	3	0.045	0.060	0.660	306
T-87200(4/08)	8 AWG 7/.0486	4	0.045	0.060	0.725	388
T-87200(3/06)	6 AWG 7/.0612	3	0.045	0.060	0.745	429
T-87200(4/06)	6 AWG 7/.0612	4	0.045	0.060	0.820	548
T-87200(3/04)	4 AWG 7/.0772	3	0.045	0.080	0.890	650
T-87200(4/04)	4 AWG 7/.0772	4	0.045	0.080	0.975	830
T-87200(3/02)	2 AWG 7/.0974	3	0.045	0.080	1.020	941
T-87200(4/02)	2 AWG 7/.0974	4	0.045	0.080	1.120	1212
T-87200(3/01)	1 AWG 19/.0664	3	0.055	0.080	1.150	1174
T-87200(4/01)	1 AWG 19/.0664	4	0.055	0.080	1.270	1516
T-87200(3/1/0)	1/0 AWG 19/.0745	3	0.055	0.080	1.240	1422
T-87200(4/1/0)	1/0 AWG 19/.0745	4	0.055	0.080	1.370	1841
T-87200(3/2/0)	2/0 AWG 19/.0837	3	0.055	0.080	1.340	1727
T-87200(4/2/0)	2/0 AWG 19/.0837	4	0.055	0.080	1.480	2243
T-87200(3/3/0)	3/0 AWG 19/.0940	3	0.055	0.080	1.450	2115
T-87200(4/3/0)	3/0 AWG 19/.0940	4	0.055	0.080	1.605	2752
T-87200(3/4/0)	4/0 AWG 19/.1055	3	0.055	0.080	1.575	2593
T-87200(4/4/0)	4/0 AWG 19/.1055	4	0.055	0.110	1.805	3490
T-87200(3/250kcmil)	250kcmil 37/.0822	3	0.065	0.110	1.780	3161
T-87200(4/250kcmil)	250kcmil 37/.0822	4	0.065	0.110	1.970	4107
T-87200(3/350kcmil)	350kcmil 37/.0973	3	0.065	0.110	2.010	4257
T-87200(4/350kcmil)	350kcmil 37/.0973	4	0.065	0.110	2.225	5550
T-87200(3/500kcmil)	500kcmil 37/.1162	3	0.065	0.110	2.305	5888
T-87200(4/500kcmil)	500kcmil 37/.1162	4	0.065	0.110	2.555	7696
T-87200(3/750kcmil)	750kcmil 61/.1109	3	0.080	0.140	2.815	9484
T-87200(4/750kcmil)	750kcmil 61/.1109	4	0.080	0.140	3.120	12346

Print: BICC CABLES CHTC XX/C XXAWG XLP/HYP (UL) TYPE TC XHHW-2 CDRS DIR BUR SUN RES 600V SEQUENTIAL FOOTAGE MARK

Dimensions and weights are nominal, subject to industry tolerance.

SPECIFICATION #ARCTIC-FLEX-P-0001

POWER CABLE UL TYPE TC 600V EPR/ARCTIC-PVC



Description

Conductors:

Tinned, annealed copper per ASTM B3 & B33; Class B stranding per ASTM B8

Sizes:

#8 AWG through 750 kcmil

Insulation:

Flame-retardant ethylene propylene rubber (EPR) Type II

Color Code:

Per ICEA Method 4; Individual conductors colored black with conductor number surface printed in contrasting ink

Cable Core:

Conductors are cabled with a ground conductor and non-hygrosopic, fillers and an overall binder tape.

Ground Conductor:

Standard:
Single Class B bare copper, size in accordance with UL 1277

Options:

- Insulated bare copper
- Insulated or uninsulated tinned copper
- Without grounds
- Multiple ground wires

Overall Jacket:

Flame-retardant, arctic-grade flexible PVC

Options:

- Flexible stranded copper conductors
- Bare copper conductors
- Bare or tinned copper tape shield

Features and Benefits

Temperature Ratings:

- UL.....90°C Wet or Dry
- ICEA S-68-516 (NEMA WC-8)90°C Wet or Dry

Arctic-Flex Power Cable Listings:

- UL 44 Type XHHW-2, VW-1
- Pass the FT1 Flame Test in accordance with CSA Standard C22.2, No. 0.3
- Pass -40°C cold impact per CSA C22.2 No. 0.3 (9ft.-lb. impact)

Flame-Retardant EPR Insulation, UL Class XL and Type II in Accordance with ICEA S-68-516 (NEMA WC-8) , Provides:

- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent resistance to crush compression cuts and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend and cold impact characteristics

Flame-Retardant Low Temperature Arctic-Flex Jacket Provides:

- Very low temperature characteristics
- Abrasion and chemical resistance
- Sunlight and weathering resistance (all colors)
- High flexibility

Arctic-Flex Power Cables:

- Pass the following low temperature tests:
 - ICEA S-19-81 cold bend test at -65°C
 - CSA Standard C22.2, No. 0.3 abnormal low temperature cold impact test at -40°C
- Meet the following flame tests:
 - IEEE 1202 (70,000 BTU/hr)/CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)

UL Listings:

- Type TC
- Direct burial
- Sunlight resistant (all colors)
- 90°C Wet or Dry

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

For applications where high performance reliability is essential and where environmental factors require cable characteristics including durability and flexibility in low temperature environments, flame retardance and resistance to chemicals, sunlight and weathering.

May Be Installed:

- In free air, raceways or direct burial
- In wet or dry locations
- In low temperature locations

EPR/ARCTIC-PVC POWER CABLE - UL TYPE TC 600V ARCTIC-FLEX™

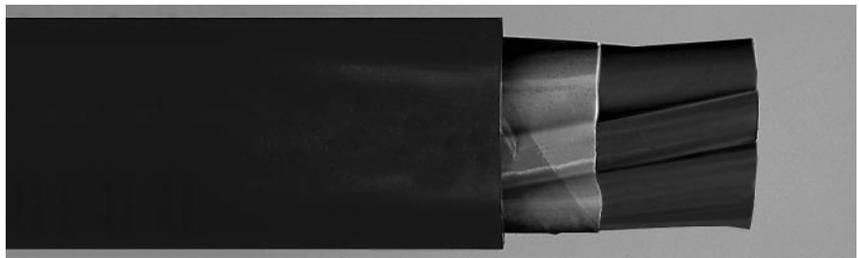
BICC Part Number	AWG or kcmil and Stranding	Bare Copper Ground	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
AFLX-S600TC-8-3	8 AWG 7/.0486	10 AWG 7/.0385	3	0.045	0.060	0.666	335
AFLX-S600TC-8-4	8 AWG 7/.0486	10 AWG 7/.0385	4	0.045	0.060	0.728	415
AFLX-S600TC-6-3	6 AWG 7/.0612	8 AWG 7/.0486	3	0.045	0.060	0.748	471
AFLX-S600TC-6-4	6 AWG 7/.0612	8 AWG 7/.0486	4	0.045	0.060	0.820	586
AFLX-S600TC-4-3	4 AWG 7/.0772	8 AWG 7/.0486	3	0.045	0.080	0.889	683
AFLX-S600TC-4-4	4 AWG 7/.0772	8 AWG 7/.0486	4	0.045	0.080	0.974	860
AFLX-S600TC-2-3	2 AWG 7/.0974	6 AWG 7/.0612	3	0.045	0.080	1.018	996
AFLX-S600TC-2-4	2 AWG 7/.0974	6 AWG 7/.0612	4	0.045	0.080	1.118	1258
AFLX-S600TC-1-3	1 AWG 19/.0664	6 AWG 7/.0612	3	0.055	0.080	1.146	1223
AFLX-S600TC-1-4	1 AWG 19/.0664	6 AWG 7/.0612	4	0.055	0.080	1.262	1552
AFLX-S600TC-1/0-3	1/0 AWG 19/.0745	6 AWG 7/.0612	3	0.055	0.080	1.235	1464
AFLX-S600TC-1/0-4	1/0 AWG 19/.0745	6 AWG 7/.0612	4	0.055	0.080	1.351	1872
AFLX-S600TC-2/0-3	2/0 AWG 19/.0837	6 AWG 7/.0612	3	0.055	0.080	1.332	1768
AFLX-S600TC-2/0-4	2/0 AWG 19/.0837	6 AWG 7/.0612	4	0.055	0.080	1.470	2272
AFLX-S600TC-3/0-3	3/0 AWG 19/.0940	4 AWG 7/.0772	3	0.055	0.080	1.440	2189
AFLX-S600TC-3/0-4	3/0 AWG 19/.0940	4 AWG 7/.0772	4	0.055	0.080	1.591	2809
AFLX-S600TC-4/0-3	4/0 AWG 19/.1055	4 AWG 7/.0772	3	0.055	0.080	1.563	2661
AFLX-S600TC-4/0-4	4/0 AWG 19/.1055	4 AWG 7/.0772	4	0.055	0.110	1.799	3533
AFLX-S600TC-250-3	250 kcmil 37/.0822	4 AWG 7/.0772	3	0.065	0.110	1.787	3222
AFLX-S600TC-250-4	250 kcmil 37/.0822	4 AWG 7/.0772	4	0.065	0.110	1.972	4147
AFLX-S600TC-350-3	350 kcmil 37/.0973	3 AWG 7/.0867	3	0.065	0.110	2.011	4326
AFLX-S600TC-350-4	350 kcmil 37/.0973	3 AWG 7/.0867	4	0.065	0.110	2.222	5590
AFLX-S600TC-500-3	500 kcmil 37/.1162	2 AWG 7/.0974	3	0.065	0.110	2.298	5952
AFLX-S600TC-500-4	500 kcmil 37/.1162	2 AWG 7/.0974	4	0.065	0.110	2.544	7721
AFLX-S600TC-750-3	750 kcmil 61/.1109	1 AWG 19/.0664	3	0.080	0.140	2.821	8903
AFLX-S600TC-750-4	750 kcmil 61/.1109	1 AWG 19/.0664	4	0.080	0.140	3.122	11555

Print: BICC CABLES RW90 TC OIL RES DIR BUR FT4 (-40C) XX/CXX AWG 600V CSA

Dimensions and weights are nominal, subject to industry tolerance.

SPECIFICATION #CVTC-P-0001

POWER CABLE
UL TYPE TC
600V/1000V
XLPO/PVC



Description

Conductors:

Bare, annealed copper per ASTM B3;
Class B stranding per ASTM B8

Sizes:

#8 AWG through 750 kcmil

Insulation:

Flame-retardant crosslinked polyolefin
(XLPO)

Color Code:

Per ICEA Method 4;
Individual conductors colored black
with conductor number surface printed
in contrasting ink.

Cable Core:

Conductors are cabled with non-
hygroscopic, fillers where necessary
and an overall binder tape.

Overall Jacket:

Flame-retardant and sunlight-resistant
polyvinyl chloride (PVC)

Options:

- Tinned copper conductors
- Insulated or uninsulated ground conductors
- Copper tape shield or aluminum/polymer tape shield with tinned copper drain wire over cable core
- Integrabon® moisture barrier system
- Duralox® aluminum interlocked armor

Features and Benefits

Temperature Ratings:

- UL90°C Dry; 75°C Wet
- ICEA90°C Wet or Dry

CVTC Power Cable Listings:

Insulated conductors are:

- UL Type XHHW-2, VW-1, 600V
- ICEA S-66-524 (NEMA WC-7),
600V and 1000V

Complete cables are:

- UL 1277 Type TC, 600V
- ICEA S-66-524 (NEMA WC-7),
600V and 1000V

Flame-Retardant XLPO Insulation,

UL Class XL Provides:

- Abrasion and chemical resistance
- Excellent electrical properties

Flame-Retardant PVC Jacket Provides:

- Abrasion and chemical resistance
- Sunlight and weathering resistance

CVTC 600V Power Cables:

- Are OSHA acceptable
- Pass the following flame tests:
 - IEEE 1202 (70,000 BTU/hr)/
CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)
 - UL 1277 (70,000 BTU/hr)

**Meets EPA 40 CFR, Part 261
for leachable lead content per
TCLP method**

Applications

For applications where environmental factors require cable characteristics including flame retardance, resistance to chemicals and resistance to the harmful effects of sunlight and weather.

May Be Installed:

- In free air, raceways or direct burial
- In wet or dry locations
- At temperatures as low as -25°C
- In Class I Division 2 industrial hazardous locations per NEC Article 501-4(b). For UL Type TC cables.

XLPO/PVC POWER CABLE - UL TYPE TC 600V CVTC

BICC Part Number	AWG or kcmil and Stranding	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
06703.720800	8 AWG 7/.0486	3	0.045	0.060	0.660	302
06704.720800	8 AWG 7/.0486	4	0.045	0.060	0.725	383
06703.720600	6 AWG 7/.0612	3	0.045	0.060	0.745	424
06704.720600	6 AWG 7/.0612	4	0.045	0.060	0.820	542
06703.720400	4 AWG 7/.0772	3	0.045	0.080	0.890	641
06704.720400	4 AWG 7/.0772	4	0.045	0.080	0.975	820
06703.720200	2 AWG 7/.0974	3	0.045	0.080	1.020	931
06704.720200	2 AWG 7/.0974	4	0.045	0.080	1.120	1201
06703.720100	1 AWG 19/.0664	3	0.055	0.080	1.150	1163
06704.720100	1 AWG 19/.0664	4	0.055	0.080	1.270	1503
06703.725100	1/0 AWG 19/.0745	3	0.055	0.080	1.240	1410
06704.725100	1/0 AWG 19/.0745	4	0.055	0.080	1.370	1827
06703.725200	2/0 AWG 19/.0837	3	0.055	0.080	1.340	1714
06704.725200	2/0 AWG 19/.0837	4	0.055	0.080	1.480	2228
06703.725300	3/0 AWG 19/.0940	3	0.055	0.080	1.450	2100
06704.725300	3/0 AWG 19/.0940	4	0.055	0.080	1.605	2737
06703.725400	4/0 AWG 19/.1055	3	0.055	0.080	1.575	2577
06704.725400	4/0 AWG 19/.1055	4	0.055	0.110	1.805	3466
06703.726000	250 kcmil 37/.0822	3	0.065	0.110	1.780	3138
06704.726000	250 kcmil 37/.0822	4	0.065	0.110	1.970	4081
06703.726200	350 kcmil 37/.0973	3	0.065	0.110	2.010	4230
06704.726200	350 kcmil 37/.0973	4	0.065	0.110	2.225	5520
06703.726500	500 kcmil 37/.1162	3	0.065	0.110	2.305	5856
06704.726500	500 kcmil 37/.1162	4	0.065	0.110	2.555	7660
06703.727000	750 kcmil 61/.1109	3	0.080	0.140	2.835	8568
06704.727000	750 kcmil 61/.1109	4	0.080	0.140	3.135	11232

PRINT: "BICC CABLES CVTC XXC XXAWG XLP/PVC (UL) TYPE TC XHHW-2 CDRS DIR BUR SUN RES 90C WET OR DRY 600V" sequential footage mark

XLPO/PVC POWER CABLE - ICEA 1000V CVTC

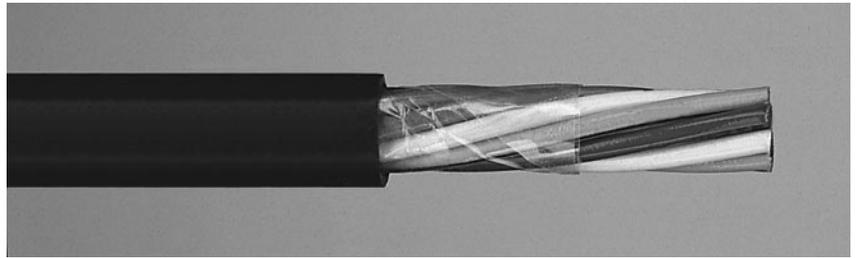
BICC Part Number	AWG or kcmil and Stranding	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
06713.720800	8 AWG 7/.0486	3	0.055	0.060	0.705	324
06714.720800	8 AWG 7/.0486	4	0.055	0.060	0.775	411
06713.720600	6 AWG 7/.0612	3	0.055	0.060	0.790	449
06714.720600	6 AWG 7/.0612	4	0.055	0.080	0.910	608
06713.720400	4 AWG 7/.0772	3	0.055	0.080	0.935	671
06714.720400	4 AWG 7/.0772	4	0.055	0.080	1.025	858
06713.720200	2 AWG 7/.0974	3	0.055	0.080	1.065	964
06714.720200	2 AWG 7/.0974	4	0.055	0.080	1.175	1242
06713.720100	1 AWG 19/.0664	3	0.065	0.080	1.200	1200
06714.720100	1 AWG 19/.0664	4	0.065	0.080	1.320	1549
06713.725100	1/0 AWG 19/.0745	3	0.065	0.080	1.285	1446
06714.725100	1/0 AWG 19/.0745	4	0.065	0.080	1.420	1873
06713.725200	2/0 AWG 19/.0837	3	0.065	0.080	1.385	1754
06714.725200	2/0 AWG 19/.0837	4	0.065	0.080	1.530	2279
06713.725300	3/0 AWG 19/.0940	3	0.065	0.080	1.495	2141
06714.725300	3/0 AWG 19/.0940	4	0.065	0.080	1.655	2788
06713.725400	4/0 AWG 19/.1055	3	0.065	0.080	1.620	2624
06714.725400	4/0 AWG 19/.1055	4	0.065	0.110	1.855	3529
06713.726000	250 kcmil 37/.0822	3	0.075	0.110	1.830	3185
06714.726000	250 kcmil 37/.0822	4	0.075	0.110	2.020	4140
06713.726200	350 kcmil 37/.0973	3	0.075	0.110	2.055	4282
06714.726200	350 kcmil 37/.0973	4	0.075	0.110	2.285	5607
06713.726500	500 kcmil 37/.1162	3	0.075	0.110	2.350	5909
06714.726500	500 kcmil 37/.1162	4	0.075	0.110	2.605	7727
06713.727000	750 kcmil 61/.1109	3	0.090	0.140	2.880	8615
06714.727000	750 kcmil 61/.1109	4	0.090	0.140	3.185	11285

PRINT: "BICC CABLES CVTC XXC XXAWG XLP/PVC 1000V" plus month/year and sequential footage mark.

* Available as UL 2000V rated.

Dimensions and weights are nominal, subject to industry tolerance.

POWER CABLE
UL TYPE TC
600V
PVC/NYLON/PVC



Description

Conductors:

Bare, annealed copper per ASTM B3;
Class B stranding per ASTM B8

Size:

#8 AWG through 500 kcmil

Insulation:

Flame-retardant colored polyvinyl
chloride (PVC)

Conductor Jacket:

Extruded clear polyamide (nylon)

Color Code:

Per ICEA Method 4; Individual
conductors colored black with
conductor number surface printed
in contrasting ink

Cable Core:

Conductors are cabled with non-
hygroscopic, fillers where necessary,
and an overall binder tape.

Overall Jacket:

Flame-retardant and sunlight-resistant
polyvinyl chloride (PVC)

Options:

- Tinned copper conductors
- Insulated or uninsulated ground
conductors
- Copper tape shield or aluminum/
polymer tape shield with tinned
copper drain wire over cable core
- Duralox® aluminum interlocked
armor
- Integrabon® Moisture Barrier System

Features and Benefits

Temperature Rating:

- Normal90°C Dry; 75°C Wet

VNTC Power Cable Listings:

- UL Type TC – 600V
- NEC Type THHN/THWN single
conductors

Flame-retardant PVC insulation is a
thermoplastic material.

Nylon conductor jacket is heat and
light stabilized and provides low
moisture absorption characteristics.

VNTC Power Cables:

- Provide outstanding sunlight, cold
bend and cold impact resistance
- Are OSHA acceptable
- Meet the following flame tests:
 - IEEE 1202 (70,000 BTU/hr)/
CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)
 - UL 1277 (70,000 BTU/hr)
- Offer the smallest cable O.D.'s
available for suitable applications
- Provide excellent oil and chemical
resistance
- Provide a long service life

**Meets EPA 40 CFR, Part 261
for leachable lead content per
TCLP method**

Applications

For applications where environmental
factors require cable characteristics
including a degree of flame-retardance,
and resistance to moisture and
chemicals.

May Be Installed:

- In raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I Division 2
industrial hazardous locations per
NEC Article 501-4(b)

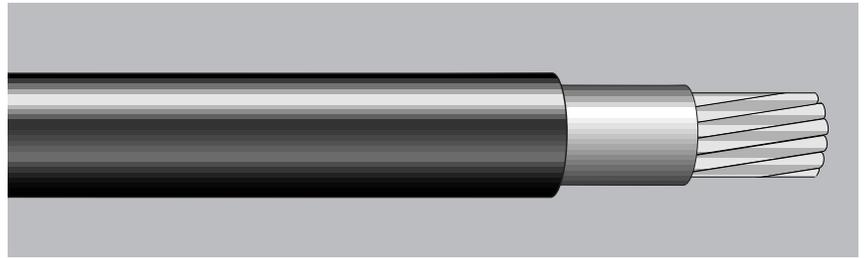
PVC/NYLON/PVC POWER CABLE - UL TYPE TC 600V VNTC

BICC Part Number	AWG or kcmil and Stranding	Number of Conductors	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
T-87000(3/08)	8 AWG 7/.0486	3	0.036	0.060	0.600	270
T-87000(4/08)	8 AWG 7/.0486	4	0.036	0.060	0.655	338
T-87000(3/06)	6 AWG 7/.0612	3	0.036	0.060	0.690	393
T-87000(4/06)	6 AWG 7/.0612	4	0.036	0.060	0.760	504
T-87000(3/04)	4 AWG 7/.0772	3	0.048	0.080	0.900	650
T-87000(4/04)	4 AWG 7/.0772	4	0.048	0.080	0.985	824
T-87000(3/02)	2 AWG 7/.0947	3	0.048	0.080	1.030	941
T-87000(4/02)	2 AWG 7/.0947	4	0.048	0.080	1.130	1197
T-87000(3/01)	1 AWG 19/.0664	3	0.059	0.080	1.150	1164
T-87000(4/01)	1 AWG 19/.0664	4	0.059	0.080	1.270	1512
T-87000(3/2/0)	2/0 AWG 19/.0837	3	0.059	0.080	1.350	1737
T-87000(4/2/0)	2/0 AWG 19/.0837	4	0.059	0.080	1.490	2252
T-87000(3/3/0)	3/0 AWG 19/.0945	3	0.059	0.080	1.450	2133
T-87000(4/3/0)	3/0 AWG 19/.0945	4	0.059	0.080	1.610	2738
T-87000(3/4/0)	4/0 AWG 19/.1055	3	0.059	0.080	1.580	2595
T-87000(4/4/0)	4/0 AWG 19/.1055	4	0.059	0.110	1.820	3471
T-87000(3/250kcmil)	250kcmil 37/.0822	3	0.070	0.110	1.790	3177
T-87000(4/250kcmil)	250kcmil 37/.0822	4	0.070	0.110	1.980	4107
T-87000(3/350kcmil)	350kcmil 37/.0973	3	0.070	0.110	2.020	4334
T-87000(4/350kcmil)	350kcmil 37/.0973	4	0.070	0.110	2.240	5585
T-87000(3/500kcmil)	500kcmil 37/.1162	3	0.070	0.110	2.310	5890
T-87000(4/500kcmil)	500kcmil 37/.1162	4	0.070	0.110	2.560	7694

Print: BICC CABLES VN-TC XX/C XXAWG (UL) TYPE TC THHN/THWN CDRS DIR BUR SUN RES 600V

Dimensions and weights are nominal, subject to industry tolerance.

POWER CABLE
UL TYPE RHH/
RHW-2/USE-2
600V
EPR/HYP
LOW LEAD,
LOW SMOKE



Description

Conductors:

Coated copper Class B strand per ASTM B33 and B8

Sizes:

#14 AWG through 1000 kcmil

Composite Insulation/Jacket:

Ethylene Propylene Rubber (EPR) colored for contrast with black Hypalon® (chlorosulfonated polyethylene)

Meets or Exceeds the Requirements of:

- UL 44 Standard for Rubber-Insulated Wires and Cables and UL 854 for Service Entrance Cables
- ICEA S-68-516 (NEMA WC-8) Standard for EPR Insulated Wire and Cable
- FAA L824 Specification for Cable for Underground Airport Lighting Circuits

Options:

- Available in 1 kV and 2 kV constructions
- Various colors available

Features and Benefits

Temperature Ratings:

- Type USE-2 Wet or Dry 90°C
- Type RHW-2 Wet or Dry 90°C
- Type RHH Dry 90°C
- Emergency 130°C
- Short Circuit 250°C

Durasheath® Power Cable Listing

Insulated Conductors Are:

- UL listed as Type USE-2, RHH or RHW-2 for use in accordance with the National Electrical Code
- Single conductor #1/0 AWG and larger are listed and marked “Sunlight Resistant For CT Use” in accordance with NEC Article 318
- UL Listed VW-1

EPR/HYP Insulation Offers These

Advantages:

- Stable electrical properties over a broad temperature range
- Excellent flexibility at low temperatures; suitable for installation in sub zero conditions
- Extra tough, mechanically rugged composite insulation and jacket construction

Durasheath® Power Cables Meet

the Following Flame Test:

- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- IEEE 383 (70,000 BTU/hr)
- Meets Mine Safety and Health Administration Flame test for sizes 6 AWG – 1000 kcmil
- Deformation resistant at high temperatures
- Excellent moisture resistance, exceeds UL 44
- Resistant to most oils and chemicals
- UV/Sunlight Resistant
- Are OSHA acceptable

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

DuraSheath EPR 600 Volt copper power cables are ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is the major concern and where maximum performance will be demanded.

May Be Installed:

- In free air, raceways or direct burial

National Electrical Code:

Ampacities Article 310-15
Article 318-11
Wiring Methods Article 300-A
Cable Trays Article 318

SPECIFICATION #DURASHEATH-P-0001

EPR/HYP POWER CABLE - UL TYPE RHH/RHW-2/USE-2 600V DURASHEATH® LOW LEAD, LOW SMOKE

BICC Part Number	AWG or kcmil and Stranding	Coated Copper Conductor Diameter (inches)	Ethylene Propylene Rubber Insulation		Chlorosulfonated Polyethylene Jacket		Net Weight (lbs/1000 ft.)
			Thickness (inches)	Diameter (inches)	Thickness Size	Diameter (inches)	
14511.411400	*14 AWG 7/.0486	0.07	0.030	0.14	0.015	0.17	24
14511.411200	12 AWG 7/.0612	0.09	0.030	0.16	0.015	0.19	33
14511.411000	10 AWG 7/.0612	0.12	0.030	0.18	0.015	0.21	48
14511.410800	8 AWG 7/.0772	0.15	0.045	0.24	0.015	0.28	77
14511.410600	6 AWG 7/.0486	0.18	0.045	0.28	0.030	0.35	122
14511.410400	4 AWG 7/.0612	0.23	0.045	0.33	0.030	0.39	178
14511.710200	2 AWG 7/.0612	0.29	0.045	0.39	0.030	0.46	265
14511.710100	1 AWG 19/.0664	0.33	0.055	0.44	0.045	0.54	346
14511.715100	1/0 AWG 19/.0745	0.37	0.055	0.48	0.045	0.58	422
14511.715200	2/0 AWG 19/.0837	0.41	0.055	0.53	0.045	0.63	518
14511.715400	4/0 AWG 19/.1055	0.52	0.055	0.64	0.045	0.74	785
14511.716000	250kcmil 37/.0822	0.56	0.065	0.70	0.065	0.85	960
14511.716200	350kcmil 37/.0973	0.67	0.065	0.81	0.065	0.96	1299
14511.716500	500kcmil 37/.1162	0.80	0.065	0.94	0.065	1.09	1803
14511.717000	750kcmil 61/.1109	0.98	0.080	1.15	0.065	1.31	2664
14511.717500	1000kcmil 61/.1280	1.13	0.080	1.31	0.065	1.46	3989

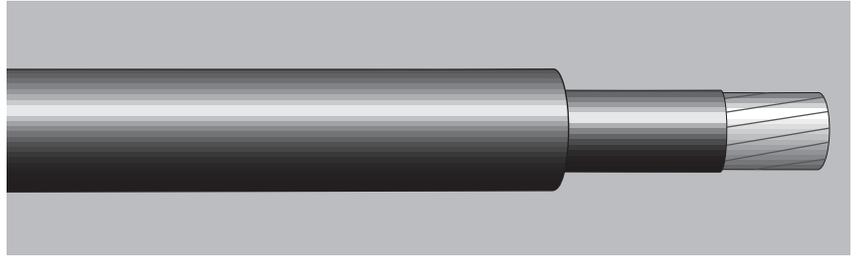
PRINT: BICC CABLES DURASHEATH LL TYPE USE-2 OR RHH OR RHW-2 VW-1 SIZE (AWG OR kcmil) EP 600 VOLTS (UL) month/year of manufacture

NOTE: Size 1/0 and larger would include "SUN RES FOR CT USE"

* 14 AWG not rated Type USE-2.

Dimensions and weights are nominal, subject to industry tolerance.

POWER CABLE
**UL TYPE RHH/
RHW-2/USE-2**
600V
FREP



Description

Conductors:

Stranded annealed bare copper compressed Class B strand per ASTM B8

Sizes:

#14 AWG through 1000 kcmil

Insulation:

Flame-Retardant Ethylene Propylene (FREP)

Meets or Exceeds the Requirements of:

- UL 44 Standard for Rubber-Insulated Wires and Cables and UL 854
- ICEA S-68-516 (NEMA WC-8) Standard for Type II EPR Insulated Wire and Cable

Options:

- Various colors available
- XLPE insulation available
- Tinned copper conductors

Features and Benefits

Temperature Ratings:

- Type RHH or RHW-2Wet or Dry 90°C
- Type USE-2Wet or Dry 90°C
- Emergency130°C
- Short Circuit.....250°C

Acceptable for use in OSHA regulated installations.

UL listed as Type USE or RHH or RHW for use in accordance with the National Electrical Code.

Single Conductor #1/0 AWG and larger are listed "For CT Use" in accordance with NEC Article 318.

UL Listed VW-1

- Meets the following flame tests:
 - IEEE 1202 (70,000 BTU/hr)/CSA FT4
 - ICEA T-29-520 (210,000 BTU/hr)
 - IEEE 383 (70,000 BTU/hr)

FREP Insulation Offers These**Advantages:**

- No conductor jacket needed - smaller cable O.D
- Excellent electrical, thermal and physical properties
- Excellent resistance to moisture
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend characteristics

Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method

Applications

Unicon-FREP, 600 Volt copper power cables are ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is the major concern, where maximum performance will be demanded and where space is limited.

May Be Installed:

- In free air, raceways or direct burial in accordance with the NEC

National Electrical Code:

Ampacities..... Article 310-15
Article 318-11
Wiring Methods..... Article 300A
Cable Trays..... Article 318

SPECIFICATION #UNICON-FREP-P-0001

FREP POWER CABLE - UL TYPE RHH/RHW-2/USE-2, VW-1 600V UNICON® -FREP

BICC Part Number	Bare Soft Copper Conductor		Separator Tape Thickness (inches)	FREP Insulation		Net Weight (lbs/1000 ft)
	AWG or kcmil and Stranding	Conductor Dia. (inches)		Thickness (inches)	Thickness (inches)	
14101.211400	*14 AWG 7/.0486	0.07	.001	.045	.17	25
14101.211200	12 AWG 7/.0612	0.09	.001	.045	.19	34
14101.211000	10 AWG 7/.0612	0.12	.001	.045	.21	48
14101.210800	8 AWG 7/.0772	0.15	.001	.060	.27	78
14101.210600	6 AWG 7/.0486	0.18	.001	.060	.31	114
14101.210400	4 AWG 7/.0612	0.23	.001	.060	.36	169
14101.210200	2 AWG 7/.0612	0.29	.001	.060	.42	254
14101.210100	1 AWG 19/.0664	0.33	.001	.080	.49	327
14101.215100	1/0 AWG 19/.0745	0.37	.001	.080	.53	402
14101.215200	2/0 AWG 19/.0837	0.41	.001	.080	.58	495
14101.215300	3/0 AWG 19/.46	0.46	.001	.080	.63	613
14101.215400	4/0 AWG 19/.1055	0.52	.001	.080	.69	759
14101.216000	250 kcmil 37/.0822	0.56	.001	.095	.77	905
14101.216200	350 kcmil 37/.0973	0.67	.001	.095	.87	1235
14101.216500	500 kcmil 37/.1162	0.80	.001	.095	1.00	1728
14101.217000	750 kcmil 61/.1109	0.98	.001	.110	1.22	2573
14101217500	1000 kcmil 61/.1280	1.13	.001	.110	1.37	3381

PRINT: "BICC CABLES UNICON FREP TYPE USE-2 OR RHH OR RHW-2 VW-1 SIZE (AWG OR kcmil) 600 VOLTS (UL) month/year of manufacture

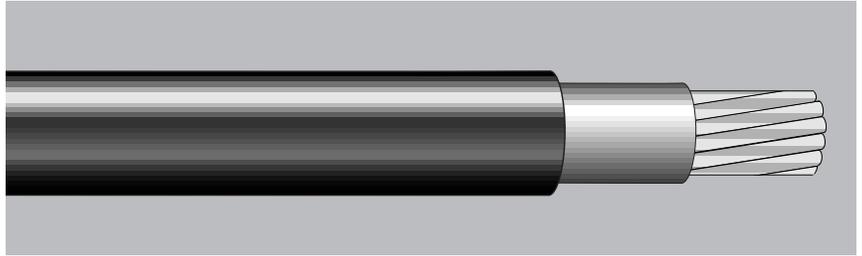
* 14 AWG not rated type USE.

NOTE: Size 14 AWG would not contain "USE-2" in the legend.

NOTE: Sizes 1/0 AWG and larger would include "SUN RES FOR CT USE" in the legend.

Dimensions and weights are nominal, subject to industry tolerance.

POWER CABLE
2 kV
EPR/HYP
DLO



Description

Conductor:

Annealed coated copper, bunched wires, rope-lay strand

Sizes:

#14 AWG through 1111 kcmil

Separator:

Applied on sizes #8 AWG and larger (optional on smaller sizes)

Insulation:

Ethylene Propylene Rubber (EPR)

Jacket:

“Low Lead” Hypalon® chlorosulfonated polyethylene (CSPE)

Meets or Exceeds Requirements of:

- ICEA S-68-516 (NEMA WC-8) Standard for EPR Insulated Cables

Features and Benefits

Temperature Ratings:

- Normal Continuous ...Wet or Dry 90°C
- Emergency130°C
- Short Circuit.....250°C

Meets Mine Safety and Health Administration (MSHA) Flame Test Requirements.

Coated copper prevents conductor corrosion, facilitates connecting.

Excellent resistance to heat, ozone, chemicals, oil, moisture and sunlight.

Very flexible, good vibration resistance, easy to install.

Tough, rugged, resists abrasion, cutting and tearing.

Excellent low temperature characteristics.

EPR Insulation Offers These

Advantages:

- Excellent heat and moisture resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemicals and radiation resistance

EPR insulation is colored for contrast with black conducting layers to simplify cable preparation for more reliable splices and terminations.

Applications

Designed for railroad and transit car wiring, motor lead, portable power wiring, equipment and off-shore drilling rigs.

Designed to meet the applications of AAR 591.

DIESEL-ELECTRIC LOCOMOTIVE POWER CABLE



SPECIFICATION #DLO-P-0001

EPR/HYP POWER CABLE - 2kV DIESEL-ELECTRIC LOCOMOTIVE CABLE

BICC Part Number	AWG or kcmil and Stranding	Insulation Thickness (inches)	Jacket Thickness (inches)	Nominal O.D. (inches)	Net Weight (lbs/1000 ft)
14001.031400	14 AWG 19/27	0.047	0.020	0.22	32
14001.031200	12 AWG 19/25	0.047	0.020	0.24	42
14001.031000	10 AWG 27/24	0.047	0.020	0.27	61
14001.030800	8 AWG 37/24	0.055	0.020	0.31	83
14001.030600	6 AWG 61/24	0.062	0.031	0.40	134
14001.030500	5 AWG 91/24	0.062	0.031	0.44	188
14001.030400	4 AWG 105/24	0.062	0.031	0.46	211
14001.030300	3 AWG 125/24	0.062	0.031	0.49	242
14001.030200	2 AWG 147/24	0.062	0.047	0.51	275
14001.030100	1 AWG 224/24	0.078	0.047	0.66	434
14001.035100	1/0 AWG 273/24	0.078	0.047	0.70	508
14001.035200	2/0 AWG 322/24	0.078	0.047	0.73	583
14001.035300	3/0 AWG 450/24	0.078	0.047	0.85	783
14001.035400	4/0 AWG551/24	0.078	0.047	0.90	928
14001.036000	262.6 kcmil 646/24	0.094	0.062	1.01	1129
14001.036200	313.1 kcmil 799/24	0.094	0.062	1.07	1324
14001.036300	373.7 kcmil 931/24	0.094	0.062	1.14	1551
14001.036400	444.4 kcmil 1102/24	0.094	0.062	1.21	1788
14001.036600	535.3 kcmil 1314/24	0.109	0.062	1.34	2142
14001.036800	646.4 kcmil 1591/24	0.109	0.062	1.42	2551
14001.037000	777.7 kcmil 1924/24	0.109	0.062	1.52	3026
14001.037500	1111.1 kcmil 2745/24	0.125	0.062	1.79	4269

Dimensions and weights are nominal, subject to industry tolerance.