37-431

Portable Power Cable • Type W
Three Conductor • 600-2000 Volts

Qualified for P&R Reeling Service • 90°C

Conductors

Bunched strands of tinned annealed copper per ASTM B33. Stranding other than those listed in the table are available upon special order.

Fillers

Fibrous filler provides great impact resistance and flexibility. Rubber fillers are available upon special order.

Jacket

Flame retardant, oil and sunlight resistant Chlorinated Polyethylene (CPE). Reinforced, two layer jacket construction is used on AWG size 1/0 and larger cables. Black standard. Consult factory for colored jackets.

Separator

A suitable separator provides for easy stripping of insulation

Insulation

Ethylene-Propylene rubber (EPR) per ICEA S-95-658, also meeting ASTM D-2802. Insulation material color coded through AWG size #2. Larger sizes are coded with fabric tape wraps. One black, one white, one green.

Reinforcement

Polypropylene reinforcing braid provides long flex life

Application

Nexans AmerCable's 600-2000 Volt three conductor cables are recommended for installations where long flex life, great flexibility and wearability are desired. Applications include heavy duty or temporary power supply service, AC or DC, to motor or generators, portable and stationary heavy duty equipment, cranes, conveyors and other mobile equipment. They are also recommended for use on Payout and Retractable reels, festoons, suspended loops and power tracks. They may be installed in air, in ducts, immersed in water or directly buried in the earth. However, they are not UL Type USE. For cables requiring reduced flame propagation, refer to the factory.

Features

- Suitable for continuous operating temperatures of 90°C
- Suitable for use in festoons, suspended loops and power tracks
- Suitable for use on Payout and Retractable reels (P&R)
- Heavy duty jacket offers excellent protection against abrasion, impact, heat, oil, flame, ozone, alkali and acids.
- Extremely flexible stranding used for increased flexibility and ease of installation
- Dual Rated 600V and 2kV
- Suitable for extra hard usage which enhances performance
- Meets crush and impact requirements

Ratings & Approvals

- UL listed as Type W
- UL listed as Type TC-ER
- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
- ASTM D-2802: Standard Specification for Ozone-Resistant Ethylene-Alkene Polymer Insulation for Wire and Cable
- ICEA S-95-658/ NEMA WC-70: Nonshielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- MSHA P-184
- Flame Resistance: FT-4

Type W CPE jackets are available in highly visible colors without sacrificing performance

UL Type TC-ER APPROVED!

Manufactured by Nexans AmerCable • (870) 862-4919 • (800) 643-1516 • Fax (870) 862-9613

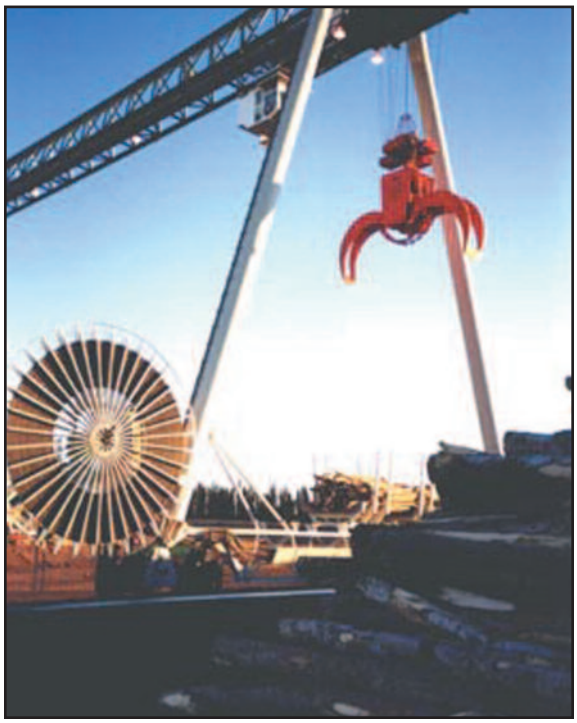
37-431 • Type W – Round • 600-2000 Volts

Part No. 37-431-	Size AWG/ kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	*Ampacity 90°C
008	8	133	0.060	0.141	0.930	513	65
006	6	133	0.060	0.141	1.025	643	87
004	4	133	0.060	0.125	1.200	962	114
002	2	259	0.060	0.141	1.340	1295	152
010	1/0	266	0.080	0.156	1.665	1967	205
020	2/0	323	0.080	0.156	1.75	2260	237
030	3/0	418	0.080	0.156	1.900	2863	274
040	4/0	532	0.080	0.172	2.050	3381	316
250	250	627	0.095	0.250	2.395	4375	352
350	350	888	0.095	0.259	2.684	5562	433
500	500	1221	0.095	0.290	3.030	7408	536

* Ampacity is calculated with a 90°C conductor temperature and 30°C ambient air, per 2008 NEC, Table 400.5(B)

• Cable diameters and weights are subject to +/- 5% manufacturing tolerance

• A full line of UL listed Type G cables with grounding conductors is available. Consult factory.



37-432

Portable Power Cable • Type W
Four Conductor • 600-2000 Volts

Suitable for P&R Reeling Service • 90°C

Conductors
Bunched strands of tinned annealed copper per ASTM B-33. Strandings other than those listed in the table are available upon special order.

Fillers
Fibrous filler provides great impact resistance and flexibility. Rubber fillers are available upon special order.

Jacket
Flame retardant, oil and sunlight resistant Chlorinated Polyethylene (CPE). Black standard. Consult factory for colored jackets.

Separator
A suitable separator provides for easy stripping of insulation

Insulation
Ethylene-Propylene rubber (EPR) per ICEA S-95-658, also meeting ASTM D-2802. Insulation material color coded through AWG size #2. Larger sizes are coded with fabric tape wraps. One black, one red, one white, one green.

Reinforcement
Polypropylene reinforcing braid provides long flex life

Ratings & Approvals

- UL listed as Type W
- UL listed as Type TC-ER
- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
- ASTM D-2802: Standard Specification for Ozone-Resistant Ethylene-Alkene Polymer Insulation for Wire and Cable
- ICEA S-95-658/ NEMA WC-70/: Nonshielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- MSHA P-184
- Flame Resistance: FT-4

Type W CPE jackets are available in highly visible colors without sacrificing performance

Application

Nexans AmerCable's 600-2000 Volt four conductor cables are recommended for installations where long flex life, great flexibility and wearability are desired. Applications include heavy duty or temporary power supply service, AC or DC, to motor or generators, portable and stationary heavy duty equipment, cranes, conveyors and other mobile equipment. They are also recommended for use on Payout and Retractable reels, festoons, suspended loops and power tracks. They may be installed in air, in ducts, immersed in water or directly buried in the earth. However, they are not UL Type USE. For cables requiring reduced flame propagation, refer to the factory.

Features

- Suitable for continuous operating temperatures of 90°C
- Suitable for use in festoons, suspended loops and power tracks
- Suitable for use on Payout and Retractable reels (P&R)
- Heavy duty jacket offers excellent protection against abrasion, impact, heat, oil, flame, ozone, alkali and acids
- Extremely flexible stranding used for increased flexibility and ease of installation
- Dual Rated 600V and 2kV
- Suitable for extra hard usage which enhances performance
- Meets crush and impact requirements for Type MC cable.

UL Type TC-ER APPROVED!

Manufactured by Nexans AmerCable • (870) 862-4919 • (800) 643-1516 • Fax (870) 862-9613

37-432 • Four Conductor Portable Power Cable • Type W • Round

Part No. 37-432-	Size AWG/ kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	*Ampacity 90°C
008	8	133	0.060	0.141	1.020	601	65
006	6	133	0.060	0.141	1.135	801	87
004	4	133	0.060	0.125	1.240	1138	114
002	2	259	0.060	0.125	1.490	1663	152
010	1/0	266	0.080	0.156	1.810	2471	205
020	2/0	323	0.080	0.156	1.940	2975	237
040	4/0	532	0.080	0.156	2.260	4376	316
250	250	627	0.095	0.270	2.665	5725	352
350	350	888	0.095	0.290	3.000	7428	433
500	500	1221	0.095	0.310	3.425	10010	536

* Ampacity is calculated with a 90°C conductor temperature and 30°C ambient air, per 2008 NEC, Table 400.5(B)

- Cable diameters and weights are subject to +/- 5% manufacturing tolerance
- For more than four conductors, consult factory
- **A full line of UL listed Type G cables with grounding conductors is available. Consult factory.**

37-102VFD

Extra Flexible VFD Power Cable Gexol® Insulated

Three Conductor • 2kV • Rated 110°C

Power Conductors (x3)
Soft annealed flexible stranded tinned copper per IEEE 1580 Table 11.

Insulation (2kV)
Gexol® cross-linked flame retardant polyolefin, meeting the requirements for Type P of IEEE 1580 and Type X110 of UL 1309/CSA 245. Color: Gray with printed phase I.D. (Black-White-Red)

Jacket
A black, arctic grade, flame retardant, oil, abrasion, chemical and sunlight resistant thermosetting compound meeting UL1309/ CSA 245 and IEEE 1580.

Armor (Optional)
Tinned copper basket weave wire armor per IEEE 1580 and UL 1309/CSA 245.

Ground Conductors (x3)
Soft annealed flexible stranded tinned copper per IEEE 1580 Table 11. Gexol® insulated and sized per UL 1277. Color: Green

Shield
Overall tinned copper braid plus aluminum/polyester tape providing 100% coverage.

Sheath (Optional)
A black, arctic grade, flame retardant, oil, abrasion, chemical and sunlight resistant thermosetting compound meeting UL 1309/CSA 245 and IEEE 1580.

Note: For armored versions the braid is placed between the inner jacket and outer sheath where it serves as both the EMI shield and armor.

Ratings & Approvals

- 110˚C Temperature Rating
- UL Listed as Marine Shipboard Cable: (E111461)
- UL Listed as Type TC-ER (E123629)
- United States Coast Guard: November 2, 1987 / 9304
- CSA listed as Marine Shipboard Cable (82346)
- Flame resistance: IEEE 1202/FT-4
- Sunlight resistant

Halogen-Free and Fire Resistant constructions available by request.

Application

A flexible, braid and foil shielded, 2kV power cable specifically engineered for use in variable frequency AC motor drive (VFD) applications.

Features

- Specially engineered cable design produces a longer cable life in VFD applications.
- Overall braid plus foil shield is engineered with 100% coverage and a surface transfer impedance <50 milliohms at 10MHz to contain EMI.
- Symmetrical insulated ground conductors reduce induced voltage imbalances and carry common mode noise back to the drive.
- High strand count conductors and braid shield design is much more flexible, easier to install and more resistant to vibration than Type MC cable.
- Gexol's lower dielectric constant (standard XLPEs, EPRs and other Type P insulation materials have higher dielectric constants) reduces reflected wave peak voltage magnitudes. This allows for longer output cable distances and minimizes the effect of high frequency noise induced into the plant ground system.
- 2kV insulation thickness is used to resist the potential 2-3x reflected voltages experienced in 600V VFD applications.
- Dual certified IEEE 1580 Type P and UL 1309/CSA 245 Type X110.
- Highest ampacity ratings: ABS 100˚C, DNV 95˚C, LRS 95˚C, Transport Canada 95˚C.
- Severe cold durability: exceeds CSA cold bend/cold impact (-40˚C/-35˚C).
- Flame retardant: IEC 332-3 Category A and IEEE 1202.
- Optional braid armor of bronze, aluminum or tinned copper.

Manufactured by Nexans AmerCable • (870) 862-4919 • (800) 643-1516 • Fax (870) 862-9613

37-102VFD • Extra Flexible VFD Power Cable • Gexol® Insulated

Size AWG/ kcmil	mm²	Unarmored Part No. 37-102	Unarmored Nominal Diameter Inches*	Unarmored Weight Lbs./ 1000 Ft.	Armored & Sheathed (TS) Part No. 37-102	Armored & Sheathed (TS) Nominal Diameter Inches*	Armored & Sheathed (TS) Weight Lbs./ 1000 Ft.	Grounding Conductor* Size (AWG)	NEC Ampacities In Free Air	NEC Ampacities In Cable Tray	NEC Ampacities In Conduit
4	21	-312VFD	1.100	925	-312TSVFD	1.262	1138	12	114	95	89
2	34	-314VFD	1.235	1421	-314TSVFD	1.392	1512	10	152	130	119
1	43	-315VFD	1.340	1517	-315TSVFD	1.509	1851	10	177	150	137
1/0	54	-316VFD	1.450	1803	-316TSVFD	1.615	2136	10	205	170	163
2/0	70	-317VFD	1.580	2120	-317TSVFD	1.792	2660	10	201	188	173
3/0	86	-318VFD	1.750	2827	-318TSVFD	1.959	3269	8	237	195	186
4/0	109	-319VFD	1.900	3416	-319TSVFD	2.101	3864	8	316	260	253
262	132	-320VFD	2.050	4210	-320TSVFD	2.258	4661	6	362	297	286
313	159	-321VFD	2.130	5105	-321TSVFD	2.353	5325	6	404	328	324
373	189	-322VFD	2.275	5521	-322TSVFD	2.483	6674	6	449	364	357
444	227	-323VFD	2.425	6440	-323TSVFD	2.634	6994	6	497	402	396
535	273	-324VFD	2.643	7547	-324TSVFD	2.931	8477	6	556	446	441
646	326	-326VFD	2.920	8916	-326TSVFD	3.178	9888	4	617	496	489
777	394	-327VFD	3.102	10909	-327TSVFD	3.510	11803	4	688	546	537

- Cable diameters are subject to a +/- 5% manufacturing tolerance
- Ampacity In Free Air: Based on 90°C conductor temperature and 30°C ambient temperature per 2008 NEC Table B.310.3
- Ampacity In Cable Tray: Based on 90°C conductor temperature and 30°C ambient temperature per 2008 NEC Table 310.16
- Ampacity In Conduit: Based on 90°C conductor temperature and 30°C ambient temperature per 2008 NEC Table B.310.1
- IEEE ampacities are based on IEEE Std. 45 with a 45°C ambient and arranged in a single bank per hanger. For those instances where cable must be double banked, the ampacities should be multiplied by 0.8.

*3 Grounding Conductors – Green Insulated