



Variable Frequency Drive (VFD) Cable Solutions

Be Certain with Belden — the Original Developer of High Quality Performance VFD Cable

Belden offers the most extensive line of VFD cables, as well as a total commitment to meet your product availability, product integrity and service needs

Be certain.
Belden.

Belden VFD Cables Deliver Top Performance in Any Environment

- Thicker, industrial-grade XLPE insulations provide low capacitance for extended motor life, reduced likelihood of corona discharge, reduced magnitude of standing waves, increased efficiency of power transfer
- Robust ground and shielding system to minimize radiated and conducted noise that can disrupt plant control and instrumentation systems
- Reliably carry power from AC drive systems to AC motors
- Effectively handle the overall high power levels of pulse-width modulated (PWM) signals
- Reliably handle high voltage spikes – eliminating potential damage to the cable, motors, bearings, drives and related equipment - potentially extending their life
- Industrial-grade PVC jackets provide sunlight- and oil-resistance; Haloarrest jackets are halogen-free and provide sunlight-resistance in LSZH versions
- Impervious to adverse or harsh environments
- ER rating allows for the elimination of conduit for easier and less expensive installations
- Effectively eliminate downtime due to cable failure
- Contain as more copper in the ground system than so-called Foil/Braid VFD cables
- High-strand conductors ease installation • Tinned copper conductors to prevent against corrosion
- Low capacitance and low impedance of the cables closely matches the drive and electrical values
- Round configuration for reliable sealing
- Smaller OD than the Classic Designs with Foil/Braid
- Full sized ground in 3 segments
- Increased range of flexibility, with up to 10M flex cycles for on-machine applications (8AWG and smaller)
- Extreme high-strand conductors ease installation, enable best-in-class vibration resistance with over 2,000 strands on large gauge sizes
- Tinned copper circuit conductors and grounds, TPE jackets for added flexibility
- Overall jackets provide more protection for the integrated signal pair
- Easier, lower cost installation than pulling the signal pair separately
- Pair outside primary shielding for effective isolation
- Cost-effective dual foil VFD cable solution
- Available in 600/1000V and 2Kv versions

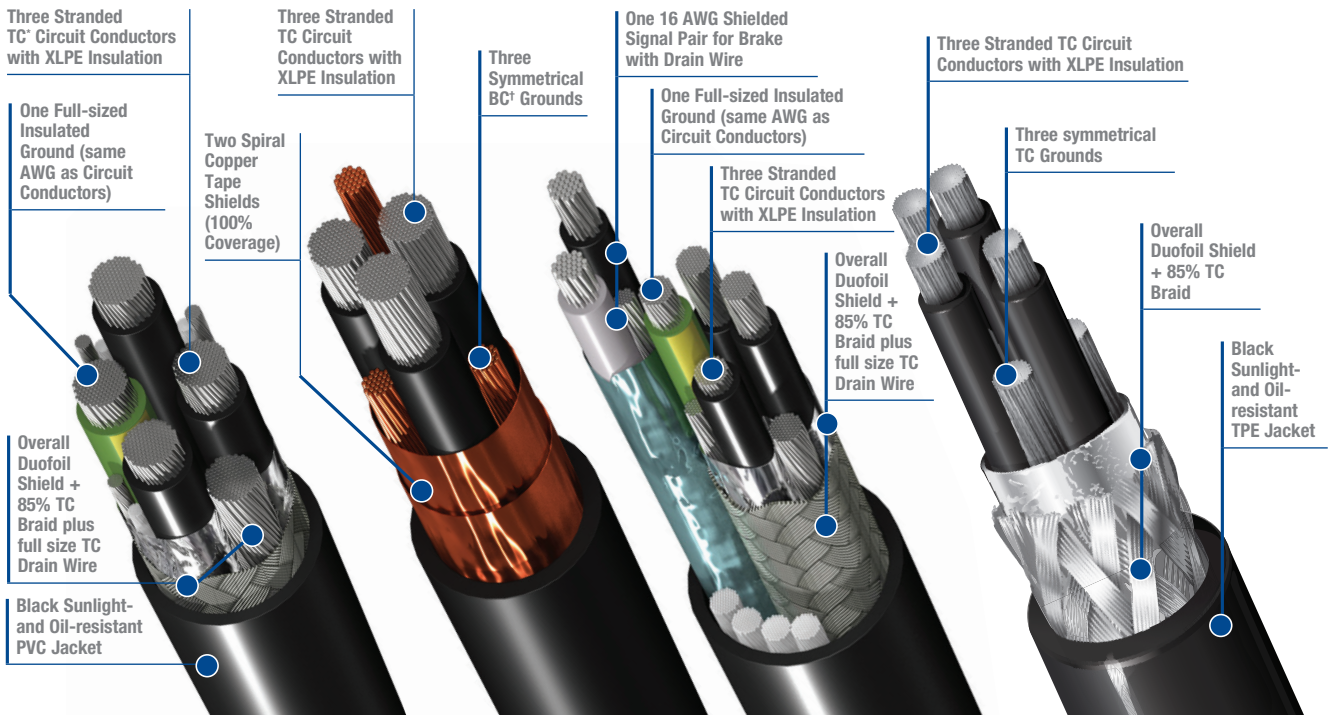
Applicable for Use With:

- Rockwell Automation AC drives
- ABB
- Baldor
- Control Techniques
- Cutler-Hammer
- General Electric
- Hitachi
- Magnetek
- Mitsubishi Electric Automation
- Schneider Electric
- Siemens
- Square D
- Toshiba

Belden VFD Cables versus Tray Cables or Single Conductor Products

- Superior radiated and conducted noise protection with robust shield and ground design
- XLPE insulation provides lower capacitance resulting in reduced voltage spikes and corona discharge
- Extended motor life
- Longer cable runs

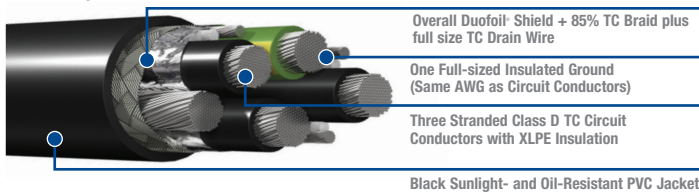
*Tinned Copper (TC)
†Bare Copper (BC)



Belden Classic 300% Ground Foil/Braid Design VFD Cable

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29500**	16	26 x 30	1000††	304.8	185	83.9	0.53	13.46	128	570	4.3	109.2
29501	14	41 x 30	1000††	304.8	235	106.6	0.60	15.24	212	943	4.8	121.9
29502	12	65 x 30	1000††	304.8	298	135.2	0.65	16.51	336	1495	5.2	132.0
29503	10	105 x 30	1000††	304.8	396	179.6	0.69	17.53	592	2634	5.5	139.7
29504	8	7 x 19 x 29	1000††	304.8	680	308.4	0.93	23.62	768	3418	7.5	190.5
29505	6	7 x 19 x 27	1000††	304.8	906	411.3	1.02	25.91	1220	5429	8.2	203.2
29506	4	7 x 19 x 25	1000††	304.8	1227	556.6	1.16	29.46	1940	8633	9.3	236.2
29507	2	7 x 19 x 23	1000††	304.8	1766	801.0	1.31	33.27	3088	13742	10.8	273.1

††Final put-up may vary ±10% from length shown.
 *Numerous put-up options available
 **600V Only

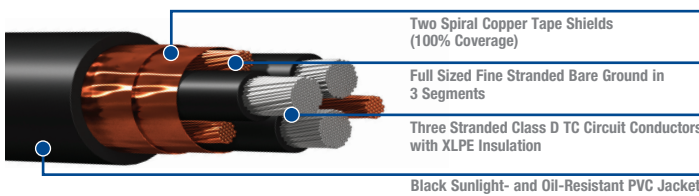


- 1000V UL Flexible Motor Supply
- 600V/1000V UL 1277 Type TC-ER
- 1000V UL 2277 Type WTTC
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202
- UL Direct Burial
- XHHW-2, RHW-2 rated circuit conductors -14 AWG and larger
- 90°C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- MSHA
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved
- C(UL) 600V Type CIC TC

Belden Classic 100% Ground Symmetrical Design VFD Cable, Large AWG

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29528	1	7 x 19 x 22	1000†	304.8	1610	730.3	1.20	30.48	2650	11788	12.0	304.8
29529	1/0	7 x 19 x 21	1000†	304.8	2013	913.1	1.29	32.77	3537	15733	12.9	327.7
29530	2/0	7 x 19 x 20	1000†	304.8	2318	1051.4	1.40	35.56	4200	18682	14.0	355.6
29531	3/0	7 x 19 x 19	1000†	304.8	2708	1229.4	1.52	38.61	5025	22352	15.2	386.1
29532	4/0	7 x 19 x 18	500†	152.4	1717	778.8	1.68	42.67	6670	29670	16.8	426.7

†Final put-up may vary ± 5% from length shown.
 *Numerous put-up options available

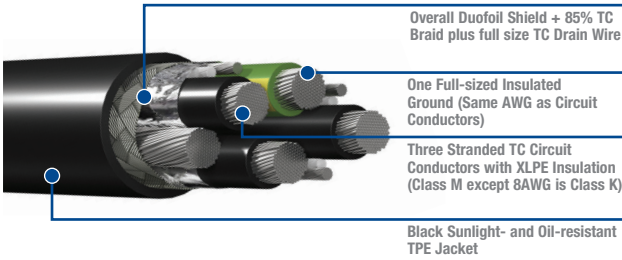


- 1000V UL Flexible Motor Supply
- 600V/1000V UL 1277 Type TC-ER
- 1000V UL 2277 Type WTTC
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202
- UL Direct Burial
- XHHW-2 rated circuit conductors
- 90°C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- MSHA
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved
- C(UL) 600V Type RW90 TC

Belden Classic 300% Ground Foil/Braid Design VFD Cable, Continuous Flex

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius		Minimum Bend Radius Cont. Flex	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm	Inch	mm
29500F**	16	65 x 34	1000	305	160 / 1000ft	73 / 305m	0.53	13.41	128	570	2.60	66.04	4.00	101.60
29501F	14	104 x 34	1000	305	190 / 1000ft	86 / 305m	0.59	14.91	212	943	2.90	73.66	4.40	111.76
29502F	12	7 x 24 x 34	1000	305	250 / 1000ft	113 / 305m	0.66	16.78	336	1495	3.30	83.82	5.00	127
29503F	10	7 x 37 x 34	1000	305	350 / 1000ft	159 / 305m	0.72	18.19	592	2634	3.60	91.44	5.40	137.16
29504F	8	4 x 41 x 30	1000	305	604 / 1000ft	274 / 305m	0.93	23.70	768	3418	4.70	119.38	7.00	177.8

*Numerous put-up options available
**600V Only

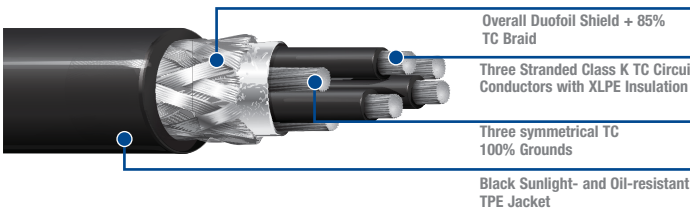


- 1000V UL Flexible Motor Supply
- 600V/1000V UL 1277 Type TC-ER
- 1000V UL 2277 Type WTTC
- IEEE 1202
- UL Direct Burial
- XHHW-2 rated circuit conductors (14 AWG & larger)
- 90° C Wet/Dry
- C(UL) 600V Type CIC TC
- Oil Res I & II
- -40° C cold bend, IEC 60332-3-22 Cat A (flame test)
- Sunlight resistant
- Suitable for Class I, II & III, Division 2 hazardous locations
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved
- 10 million flexes – 16 through 8 SWG only
- NFPA79 Compliant for Continuous Flex

Belden Classic 100% Ground Symmetrical Design, Foil/Braid VFD Cable, Extra Flexible

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29505F	6	7 x 37 x 30	1000	305	811 / 1000ft	368 / 305m	0.96	24.41	1220	5429	4.80	121.92
29506F	4	7 x 60 x 30	3000	915	1129 / 1000ft	512 / 305m	1.06	26.87	1940	8633	5.30	134.62
29507F	2	7 x 95 x 30	2000	610	1630 / 1000ft	739 / 305m	1.21	30.66	3088	13742	6.00	152.4

*Numerous put-up options available

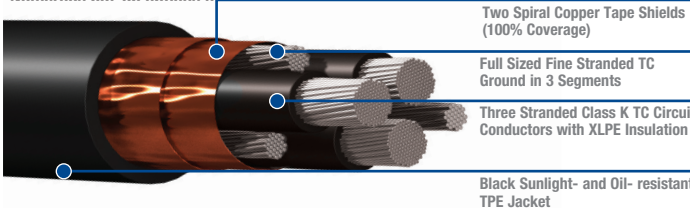


- 1000V UL Flexible Motor Supply
- 600V/1000V UL 1277 Type TC-ER
- 1000V UL 2277 Type WTTC
- IEEE 1202
- UL Direct Burial
- XHHW-2 rated circuit conductors (14 AWG & larger)
- 90° C Wet/Dry
- C(UL) 600V Type CIC TC
- Oil Res I & II
- -40° C cold bend, IEC 60332-3-22 Cat A (flame test)
- Sunlight resistant
- Suitable for Class I & II, Division 2 hazardous locations
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved

Belden Classic 100% Ground Symmetrical Design VFD Cable, Extra Flexible

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29528F	1	19 x 44 x 30	3000	915	1439 / 1000ft	653 / 305m	1.24	31.57	2650	11788	6.20	157.48
29529F	1/0	19 x 56 x 30	2500	762	1843 / 1000ft	836 / 305m	1.29	32.82	3537	15733	6.50	165.1
29530F	2/0	7 x 7 x 27 x 30	2000	610	2148 / 1000ft	974 / 305m	1.50	38.18	4200	18682	7.50	190.5
29531F	3/0	7 x 7 x 31 x 30	1000	305	2538 / 1000ft	1152/305	1.62	41.15	5025	22352	8.10	205.74
29532F	4/0	7 x 7 x 43 x 30	1500	457	3264 / 1000ft	1480/305	1.85	46.96	5622	29671	9.20	233.68

*Numerous put-up options available

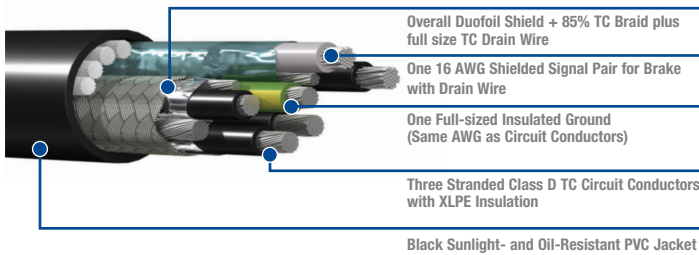


- 1000V UL Flexible Motor Supply
- 600V/1000V UL 1277 Type TC-ER
- 1000V UL 2277 Type WTTC
- IEEE 1202
- UL Direct Burial
- XHHW-2 rated circuit conductors (14 AWG & larger)
- 90° C Wet/Dry
- C(UL) 600V Type CIC TC
- Oil Res I & II
- -40° C cold bend, IEC 60332-3-22 Cat A (flame test)
- Sunlight resistant
- Suitable for Class I & II, Division 2 hazardous locations
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved

Belden Classic 300% Ground Foil/Braid Design VFD Cable, with Signal Pair

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29510	Circuit Cond 16 Signal Pair 16	26 x 30	1000	304.8	324	147.0	0.75	19.05	272	1210	7.5	190.5
29511	Circuit Cond 14 Signal Pair 16	26 x 30	1000	304.8	340	154.2	0.82	20.83	368	1638	8.2	208.3
29512	Circuit Cond 12 Signal Pair 16	26 x 30	1000	304.8	438	198.7	0.90	22.86	527	2345	9.0	228.6
29513	Circuit Cond 10 Signal Pair 16	26 x 30	1000	304.8	563	255.4	0.99	25.15	718	3195	9.9	251.5

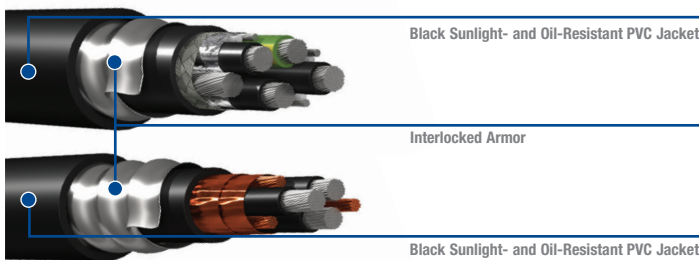
* Numerous put-up options available.



- 1000V UL Flexible Motor Supply
- 600V UL 1277 Type TC-ER
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202
- UL Direct Burial
- XHHW-2, RHW-2 rated circuit conductors -14 AWG and larger
- 90°C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- MSHA
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved
- C(UL) 600V Type CIC TC

Belden Classic Foil/Braid & Symmetrical VFD Cable, with Interlocked Armor

AWG Size	16	14	12	10	8	6	4	2	1	1/0	2/0	3/0	4/0
AL Armor Part Number	1229500	1229501	1229502	1229503	1229504	1229505	1229506	1229507	1229528	1229529	1229530	1229531	1229532
Steel Armor Part Number	1329500	1329501	1329502	1329503	1329504	1329505	1329506	1329507	1329528	1329529	1329530	1329531	1329532
Min. Order	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1500
Max. Length	6000	5000	5000	5000	5000	3500	3000	2000	3000	2000	2000	2000	1500

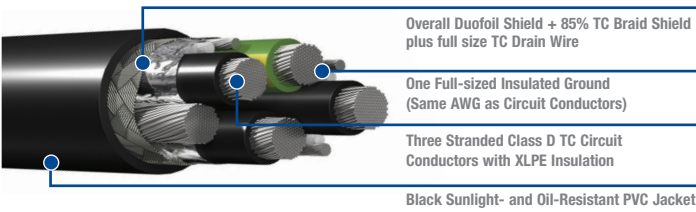


- 600V UL 1277 Type MC
- CSA FT4
- UL Direct Burial
- XHHW-2, RHW-2 rated circuit conductors (14 to 2 AWG)
- 90°C Wet/Dry
- Suitable for Class I & II, Division 2 hazardous locations
- IEEE 1202
- RoHS compliant
- CE approved

Belden Classic 300% Ground Foil/Braid Design 2kV VFD Cable, Rated to 2000V

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29536	14	41 x 30	1000 ^{††}	304.8	338	153.3	0.68	17.30	212	943	6.80	172.72
29537	12	65 x 30	1000 ^{††}	304.8	401	181.9	0.72	18.30	336	1495	7.30	185.42
29538	10	105 x 30	1000 ^{††}	304.8	481	218.2	0.79	20.10	592	2634	7.90	200.70
29539	8	7 x 19 x 29	1000 ^{††}	304.8	754	342.0	0.96	24.40	768	3418	9.60	243.84
29540	6	7 x 19 x 27	1000 ^{††}	304.8	926	420.0	1.07	26.92	1220	5429	10.60	269.24
29541	4	7 x 19 x 25	1000 ^{††}	304.8	1284	582.4	1.21	30.50	1940	8633	12.10	307.34
29542	2	7 x 19 x 23	1000 ^{††}	304.8	1756	796.5	1.36	34.54	3088	13742	13.60	345.44

††Final put-up may vary ±10% from length shown.
* Numerous put-up options available.

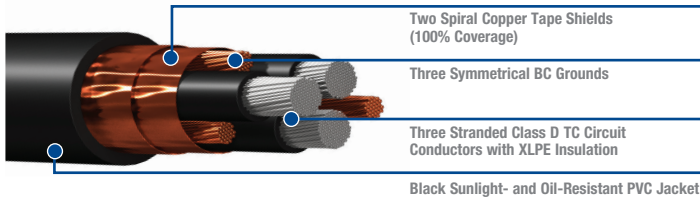


- 1000V UL Flexible Motor Supply
- 2000V UL 1277 Type TC-ER
- 1000V UL 2277 Type WTTC
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202
- UL Direct Burial
- XHHW-2, RHW-2 rated circuit conductors
- 90°C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- C(UL) 600V Type CIC TC

Belden Classic 100% Ground Symmetrical Design 2KV VFD Cable, Large AWG (Rated 2000V)

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29543	1	7 x 19 x 22	1000 [†]	304.8	1693.0	767.9	1.36	34.54	2650	11788	13.6	345.44
29544	1/0	7 x 19 x 21	1000 [†]	304.8	2056.0	932.6	1.45	36.83	3537	15733	14.5	368.3
29545	2/0	7 x 19 x 20	1000 [†]	304.8	2389.0	1083.6	1.56	39.62	4200	18682	15.6	396.24
29546	3/0	7 x 19 x 19	1000 [†]	304.8	2989.0	1355.8	1.75	44.50	5025	22352	17.5	444.5
29547	4/0	7 x 19 x 18	500 [†]	152.4	1902.5	863.0	1.88	47.80	6670	29670	18.8	477.52

†Final put-up may vary ± 5% from length shown.
* Numerous put-up options available.

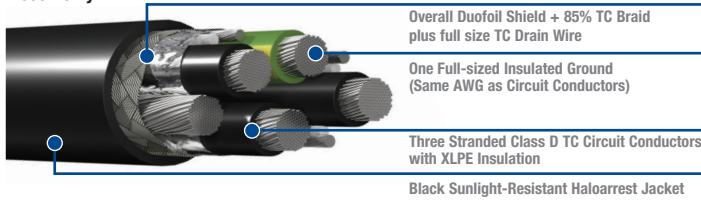


- 1000V UL Flexible Motor Supply
- 2000V UL 1277 Type TC-ER
- 1000V UL 2277 Type WTTC
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202
- UL Direct Burial
- XHHW-2, RHW-2 rated circuit conductors
- 90°C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved
- C(UL) 2000V Type RW90 TC

Belden Classic 300% Ground Foil/Braid Design VFD Cable, Low Smoke Zero Halogen

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29500T**	16	26 x 30	1000††	304.8	191.0	86.6	.53	13.46	128	570	4.3	109.2
29501T	14	41 x 30	1000††	304.8	243.0	110.2	.60	15.24	212	943	4.8	121.9
29502T	12	65 x 30	1000††	304.8	306.0	138.8	.65	16.51	336	1495	5.2	132.0
29503T	10	105 x 30	1000††	304.8	405.0	183.7	.69	17.53	592	2634	5.5	139.7
29504T	8	7 x 19 x 29	1000††	304.8	696.0	315.7	.93	23.62	768	3418	7.5	190.5
29505T	6	7 x 19 x 27	1000††	304.8	924.0	419.1	1.02	25.91	1220	5429	8.2	203.2
29506T	4	7 x 19 x 25	1000††	304.8	1248.0	566.1	1.16	29.46	1940	8633	9.3	236.2
29507T	2	7 x 19 x 23	1000††	304.8	1789.0	811.5	1.31	33.27	3088	13742	10.8	273.1

††Final put-up may vary ±10% from length shown.
 * Numerous put-up options available.
 **600V Only

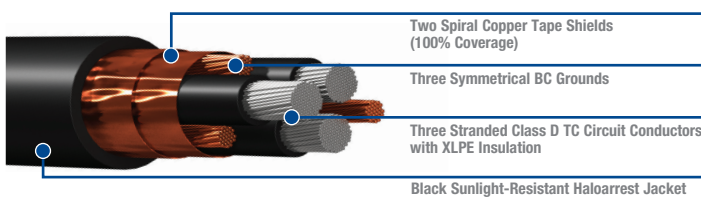


- 1000V UL Flexible Motor Supply
- 600/1000V UL 1277 Type TC-ER
- 1000V UL 2277 Type WTTC
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202
- UL Direct Burial
- XHHW-2, RHW-2 rated circuit conductors -14 AWG and larger
- 90°C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- MSHA
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved

Belden Classic 100% Ground Symmetrical Design VFD Cable, Large AWG (Low Smoke Zero Halogen)

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29528T	1	7 x 19 x 22	1000†	304.8	1621	735.3	1.20	30.48	2650	11788	12.0	304.8
29529T	1/0	7 x 19 x 21	1000†	304.8	2025	918.5	1.29	32.77	3537	15733	12.9	327.7
29530T	2/0	7 x 19 x 20	1000†	304.8	2331	1057.3	1.40	35.56	4200	18682	14.0	355.6
29531T	3/0	7 x 19 x 19	1000†	304.8	2722	1234.7	1.52	38.61	5025	22352	15.2	386.1
29532T	4/0	7 x 19 x 18	500†	152.4	1725	782.4	1.68	42.67	6670	29670	16.8	426.7

†Final put-up may vary ± 5% from length shown.
 * Numerous put-up options available.



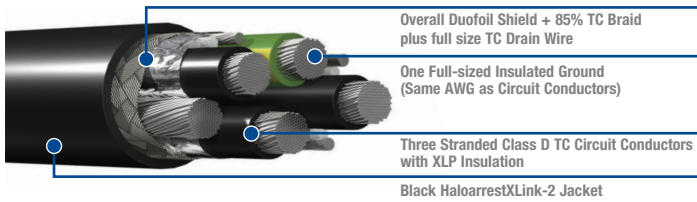
- 1000V UL Flexible Motor Supply
- 600/1000V UL 1277 TC-ER-LS
- 1000V UL 2277 Type WTTC
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202
- UL Direct Burial
- XHHW-2 rated circuit conductors
- 90°C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- MSHA
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved

Marine Certified Belden Classic 300% Ground Foil/Braid Design VFD Cable, Thermoset Low Smoke Zero Halogen Jacket



Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29500X**	16	26 x 30	1000††	304.8	191.0	86.6	.53	13.46	128	570	4.3	109.2
29501X	14	41 x 30	1000††	304.8	243.0	110.2	.60	15.24	212	943	4.8	121.9
29502X	12	65 x 30	1000††	304.8	306.0	138.8	.65	16.51	336	1495	5.2	132.0
29503X	10	105 x 30	1000††	304.8	405.0	183.7	.69	17.53	592	2634	5.5	139.7
29504X	8	7 x 19 x 29	1000††	304.8	696.0	315.7	.93	23.62	768	3418	7.5	190.5
29505X	6	7 x 19 x 27	1000††	304.8	924.0	419.1	1.02	25.91	1220	5429	8.2	203.2
29506X	4	7 x 19 x 25	1000††	304.8	1248.0	566.1	1.16	29.46	1940	8633	9.3	236.2
29507X	2	7 x 19 x 23	1000††	304.8	1789.0	811.5	1.31	33.27	3088	13742	10.8	273.1

††Final put-up may vary ±10% from length shown.
 * Numerous put-up options available.
 **600V Only



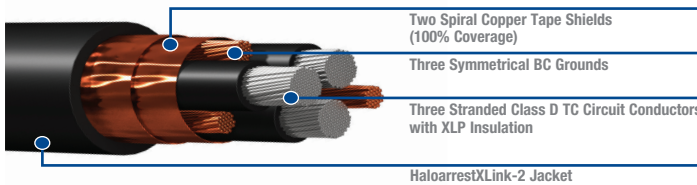
- 1000V UL Flexible Motor Supply
- 600V UL 1277 Type TC-ER
- CSA FT4
- IEEE 1202
- UL Oil Res 2 & IEC 60811-2-1 Hydrocarbon resistant
- UL 1685 Vertical Tray Flame Test
- XHHW-2, RHW-2 rated circuit conductors -14 AWG and larger
- 90° C Wet/Dry
- -40° C cold bend, IEC 60332-3-22 Cat A (flame test)
- Suitable for Class I, II & III, Division 2 hazardous locations
- IEC 60754-1,-2 (acid gas emissions)
- MSHA (pending approval)
- RoHS compliant
- CE approved
- Marine approvals: ABS, DNV, UL 1309, IEEE 45, IEEE1580 Type P

Marine Certified Belden Classic 100% Ground Symmetrical Design VFD Cable, Large AWG (Thermoset Low Smoke Zero Halogen Jacket)



Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29528X	1	7 x 19 x 22	1000†	304.8	1621	735.3	1.20	30.48	2650	11788	12.0	304.8
29529X	1/0	7 x 19 x 21	1000†	304.8	2025	918.5	1.29	32.77	3537	15733	12.9	327.7
29530X	2/0	7 x 19 x 20	1000†	304.8	2331	1057.3	1.40	35.56	4200	18682	14.0	355.6
29531X	3/0	7 x 19 x 19	1000†	304.8	2722	1234.7	1.52	38.61	5025	22352	15.2	386.1
29532X	4/0	7 x 19 x 18	500†	152.4	1725	782.4	1.68	42.67	6670	29670	16.8	426.7

†Final put-up may vary ± 5% from length shown.
 * Numerous put-up options available.



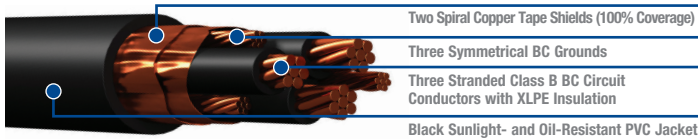
- 1000V UL Flexible Motor Supply
- 600/1000V UL 1277 TC-ER
- CSA FT4
- IEEE 1202
- UL Oil Res 2 & IEC 60811-2-1 Hydrocarbon resistant
- UL 1685 Vertical Tray Flame Test
- XHHW-2, rated circuit conductors
- -40° C cold bend, IEC 60332-3-22 Cat A (flame test)
- 90° C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- IEC 60754-1,-2 (acid gas emissions)
- MSHA (pending approval)
- RoHS compliant
- CE approved
- Marine approvals: ABS, DNV, UL 1309 Type, IEEE 45, IEEE1580 Type P

Belden Symmetrical Design VFD Cable Basics 600/1000V

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29520C**	16	7 x 24	1000††	305	116	52.6	0.39	9.91	107	476	4.0	102
29521C	14	7 x 22	1000††	305	134	60.8	0.43	10.92	162	721	4.3	109
29522C	12	7 x 20	1000††	305	175	79.4	0.46	11.68	258	1148	4.6	117
29523C	10	7 x 18	1000††	305	238	108.0	0.51	12.95	444	1976	5.1	130
29524C	8	7 x 16	1000††	305	350	158.8	0.65	16.51	576	2563	6.5	165
29525C	6	7 x 14	1000††	305	461	209.1	0.72	18.29	915	4072	7.3	185
29526C	4	7 x 12	1000††	305	639	289.9	0.83	21.08	1450	6452	8.3	211
29527C	2	7 x 10	1000††	305	969	439.6	0.99	25.15	2300	10235	10.0	254
29528C	1	19 x 14	1000†	305	1162	527.1	1.13	28.70	2650	11792	11.5	292
29529C	1/0	19 x 13	1000†	305	1423	645.5	1.21	30.73	3540	15753	12.3	312
29530C	2/0	19 x 12	1000†	305	1724	782.0	1.31	33.27	4200	18690	13.3	338
29531C	3/0	19 x 11	1000†	305	2144	972.6	1.42	36.07	5025	22361	14.3	363
29532C	4/0	19 x 10	500†	305	2576	1168.5	1.54	39.12	6670	29681	15.5	394

†Final put-up may vary ± 5% from length shown.
 †† Final put-up may vary ± 10% from length shown.
 *Numerous put-up options available.
 **600V Only

- 600/1000V UL 1277 Type TC-ER
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202
- UL Direct Burial
- XHHW-2 rated circuit conductors
- 90°C Wet/Dry
- Suitable for Class I, II & III, Division 2 hazardous locations
- UL 1685 Vertical Tray Flame Test
- RoHS compliant
- CE approved



Belden Symmetrical Design VFD Cable Basics 2000V

Part #	AWG	Cond. Stranding	Standard Lengths		Standard unit wt		Nominal OD		Maximum Pull Tension		Min Bend Radius	
			Ft	M	Lbs	kg	inch	mm	Lbs	N	inch	mm
29720C	16	7 x 24	1000††	305	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
29721C	14	7 x 22	1000††	305	185	83.9	0.566	14.38	212	721	6.8	173
29722C	12	7 x 20	1000††	305	196	88.9	0.61	15.49	308	1148	7.3	185
29723C	10	7 x 18	1000††	305	288	130.6	0.651	16.54	494	1976	7.8	198
29724C	8	7 x 16	1000††	305	390	176.9	0.794	20.17	636	2563	9.5	241
29725C	6	7 x 14	1000††	305	518	235.0	0.874	22.20	965	4072	10.5	267
29726C	4	7 x 12	1000††	305	701	318.0	0.973	24.71	1500	6452	11.7	297
29727C	2	7 x 10	1000††	305	1034	469.0	1.1	27.94	2350	10235	13.2	335
29728C	1	19 x 14	1000††	305	TBD	TBD	TBD	TBD	TBD	11792	TBD	TBD
29729C	1/0	19 x 13	1000††	305	1489	675.4	1.36	34.54	3590	15753	16.3	414
29730C	2/0	19 x 12	1000††	305	1784	809.3	1.45	36.83	4250	18690	17.5	445
29731C	3/0	19 x 11	1000††	305	2200	998.0	1.56	39.62	5075	22361	18.8	478
29732C	4/0	19 x 10	1000††	305	2649	1201.6	1.76	44.70	6720	29681	21.1	536

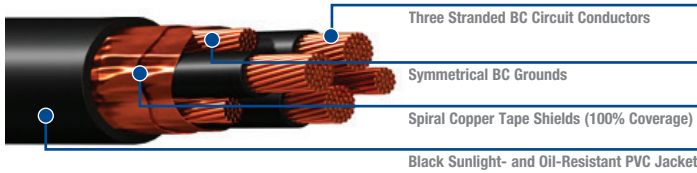


- 2000V UL 1277 TC-ER
- IEEE 1202/FT4
- UL Direct Burial
- RHW-2 & RW90 Circuit Conductors
- 90°C Wet/Dry
- CSA FT4
- XLP Insulation
- Sunlight and Oil Resistant
- Black PVC Jackt
- RoHS Compliant

Belden Symmetrical Design VFD Cable, 250, 350 and 500 MCM with Dual Copper Tape Shield

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29533	250 MCM	37 x .0822	2300	701	9379	4254	1.91	48.56	6000	26688	34.4	873.8
29534	350 MCM	37 x .0973	1750	533	9601	4355	2.13	54.18	8400	37363	38.4	975.4
29535	500 MCM	37 x .1162	1300	396	9574	4343	2.41	61.16	12000	53376	43.4	1102.4

* Numerous put-up options available.

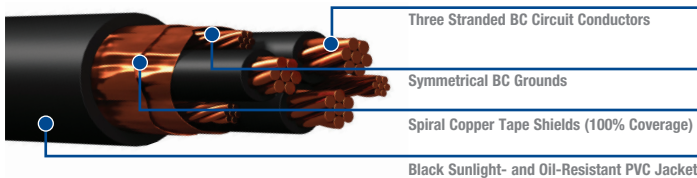


- 2000V UL 1277 TC-ER
- 1000 CSA C22.2 # 230 Type TC
- IEEE 1202
- UL Direct Burial
- RHW-2 & RW90 Circuit Conductors
- 90°C Wet/Dry
- CSA FT4
- XLP Insulation
- Sunlight and Oil Resistant
- Black PVC Jacket
- RoHS Compliant

Belden CSA VFD Cable, 14 to 4/0 AWG with Dual Copper Tape Shield

Part No.	AWG	Cond. Stranding	Standard Lengths*		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
			Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
29550C	14	7 x 22	1000	304.8	134	60.8	0.43	10.92	162	75	4.3	109.2
29551C	12	7 x 20	1000	304.8	146	66.2	0.46	11.68	258	117	4.6	116.8
29552C	10	7 x 18	1000	304.8	238	107.9	0.51	12.95	444	201	5.1	129.5
29553C	8	7 x 16	1000	304.8	340	154.2	0.65	16.51	576	261	6.5	165.1
29554C	6	7 x 14	1000	304.8	468	212.3	0.72	18.28	915	415	7.3	185.4
29555C	4	7 x 12	1000	304.8	517	234.5	0.83	21.08	1450	658	8.3	210.8
29556C	2	7 x 10	1000	304.8	984	446.3	0.99	25.15	2300	1043	10.0	254.0
29557C	1	19 x 14	1000	304.8	1193	541.1	1.13	28.70	2650	1202	11.5	292.1
29558C	1/0	19 x 13	1000	304.8	1439	652.7	1.21	30.73	3537	1604	12.3	312.4
29559C	2/0	19 x 12	1000	304.8	1734	786.5	1.31	33.27	4200	1905	13.3	337.8
29560C	3/0	19 x 11	1000	304.8	2150	975.2	1.42	36.07	5025	2279	14.3	363.2
29561C	4/0	19 x 10	1000	304.8	2599	1178.9	1.54	39.12	6670	3025	15.5	393.7

* Numerous put-up options available.



- 1000V CSA TC
- CSA C22. 2 #230
- CSA C22.2 #38
- CSA FT-4
- IEEE 1202
- Direct Burial
- RW90 Rated Circuit Conductors
- 90°C Wet/Dry
- XLP Insulation
- Sunlight and Oil Resistant
- Black PVC Jacket
- RoHS Compliant



Btc Vfd Cable Gland TC Globally Approved, Hazardous (Classified) Location Cable Gland



+110°C
↑
-60°C

Ex d **AEx e** **AEx t**
Ex e Ex t

Sales Sheet

Americas Hazardous Location Cable Glands for VFD Cable

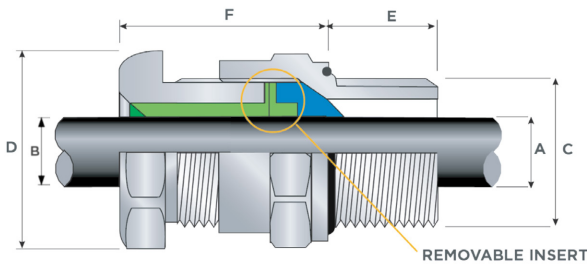
For All Types Of Unarmored Tray Cables, Flexible Cables & Cord

- Increased cable range with removable insert
- Pass-through design for shield/ground isolation
- -60°C to +110°C (-76°F to +230°F)
- Suitable for shielded or unshielded cables
- Heavy duty design
- Globally marked, cCSAus, IECEx and ATEX
- Entry thread seal as standard
- Aluminum design

Technical classification

Design specification	BS 6121:Part 1:1989, IEC 62444, EN 62444
Mechanical classification*	impact = level 8, cable anchorage = class d
Enclosure protection	IK10 to IEC 62262 (20 joules) Brass & Stainless Steel only
Ingress protection rating**	IP66, IP67 & IP68***
Nema rating**	NEMA 4X
Cable gland material	Copper Free (<0.4%) Aluminum
Cable type	Tray Cable & Cords, Unarmored / Braid (IEC)s
Sealing technique	Displacement Seal with Removable Insert
Sealing area(s)	Cable Outer Jacket

* Mechanical and Electrical Classifications applied as per IEC 62444 & EN 62444.
*** IP68 tested to a minimum depth of 30 metres for 12 hours, alternative depths / durations can be provided upon request



Global Product Certification

ATEX CERTIFICATE	CML18ATEX1334X	IECEx CERTIFICATE	IECEx CML 18.0191X
CODE OF PROTECTION	^II 2G 1D, Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da	CODE OF PROTECTION	Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
COMPLIANCE STANDARDS	EN 60079-0,1,7, 31	COMPLIANCE STANDARDS	IEC 60079-0,1,7, 31
CCSAus CERTIFICATE	2220601		
CSAus CODE OF PROTECTION	Class II, Div. 2, Groups E,F, and G; Class III, Div. 2; Encl. Type 4X; Ex e; Class I, Zone 1, AEx e		
cCSA CODE OF PROTECTION	Class I, Div. 2, Groups A,B,C, and D; Class II, Div. 2, Groups E, F, and G; Class III, Div. 2; Encl. Type 4X; Ex e; Class I, Zone 1, AEx e, Ex e		
COMPLIANCE STANDARDS	CAN/CSA-C22.2 No 0-M91,18.3-04,174-M1984, 94-M91, CAN/CSA-E60079-0,7, CAN/CSA-E61241-1-1, ANSI/UL 514B, ANSI/UL 50, ANSI/UL 60079-0,7		
ECAS CERTIFICATE	20-02-05627	UkrSEPRO CERTIFICATE	CLJ 19.0371X
EAC CERTIFICATE	TC RU C-GB.AA87.B.00487		
CODE OF PROTECTION	1Ex d IIC Gb X, 1Ex e IIC Gb X, Ex ta IIIC Da X, IP66		
RETIE APPROVAL NUMBER	3866		
MARINE APPROVALS	LRS: 01/00172, DNV: TAE000000Y, ABS: 20-2022051-PDA, BV: 43180 A1 BV		



PATENT GRANTED: US 8440919

PART Number	ENTRY THREAD NPT	MIN THREAD LENGTH	Cable Range				Across Flats	Across Corners	Length	Weight
			Insert		No Insert					
			Min	Max	Min	Max				
BTC075A0551RA	3/4"	0.80"	0.26"	0.41"	0.41"	0.55"	1.48"	1.63"	1.24"	1.69
BTC075A0791RA	3/4"	0.80"	0.44"	0.61"	0.61"	0.79"				
BTC100A0791RA	1"	0.98"	0.44"	0.61"	0.61"	0.79"	1.81"	1.99"	1.65"	3.17
BTC100A1041RA	1"	0.98"	0.67"	0.85"	0.85"	1.04"				
BTC125A1041RA	1 1/4"	1.01"	0.67"	0.85"	0.85"	1.04"	2.05"	2.25"	1.65"	3.88
BTC125A1271RA	1 1/4"	1.01"	0.93"	1.1"	1.10"	1.27"				
BTC150A1501RA	1 1/2"	1.03"	1.22"	1.37"	1.37"	1.5"	2.36"	2.60"	1.65"	6.00
BTC200A1741RA	2"	1.06"	-	-	1.40"	1.74"	2.76"	3.03"	1.63"	8.64
BTC200A1971RA	2"	1.06"	-	-	1.63"	1.97"	2.76"	3.03"	1.74"	8.29
BTC250A2201RA	2 1/2"	1.57"	-	-	1.86"	2.20"	3.54"	3.90"	1.74"	13.58
BTC300A2201RA	3"	1.63"	-	-	1.86"	2.20"	4.33"	4.77"	1.79"	13.58
BTC300A2681RA	3"	1.63"	-	-	2.41"	2.68"	4.33"	4.77"	1.79"	23.63

Order code example: TC-050A028 - "TC" (Type Gland) - "050" (1/2" NPT Thread) - 'A' (Material Aluminum) - "028"(Max Cable Diameter 0.28")
Dimensions are displayed in inches unless otherwise stated

Belden Recommended Cable Glands for VFD cables

Cable Part Number	AWG	Cable OD	Thread Size	Min Cable OD	Max Cable OD	Belden Part Number
29500, 29500F	16	0.534/0.528	3/4" NPT	0.26"	0.55"	BTC075A0551RA
29520C	16	0.397	3/4" NPT	0.26"	0.55"	BTC075A0551RA
29501, 29501F	14	0.604/0.587	3/4" NPT	0.44"	0.79"	BTC075A0791RA
29521C	14	0.425	3/4" NPT	0.26"	0.55"	BTC075A0551RA
29721C	14	0.566	3/4" NPT	0.44"	0.79"	BTC075A0791RA
29502, 29502F	12	0.630/0.661	1" NPT	0.26"	0.55"	BTC100A0791RA
29522C	12	0.460	3/4" NPT	0.26"	0.55"	BTC075A0551RA
29722C	12	0.610	3/4" NPT	0.44"	0.79"	BTC075A0791RA
29503, 29503F	10	0.690/0.716	1" NPT	0.44"	0.79"	BTC100A0791RA
29523C	10	0.506	3/4" NPT	0.26"	0.55"	BTC075A0551RA
29723C	10	0.651	3/4" NPT	0.44"	0.79"	BTC075A0791RA
29504, 29504F	8	0.923/0.933	1 1/4" NPT	0.67"	1.04"	BTC125A1041RA
29524C	8	0.646	1" NPT	0.44"	0.79"	BTC100A0791RA
29724C	8	0.794	1 1/4" NPT	0.67"	1.04"	BTC125A1041RA
29505	6	1.002	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29505F	6	0.961	1 1/4" NPT	0.67"	1.04"	BTC125A1041RA
29525C	6	0.724	1" NPT	0.44"	0.79"	BTC100A0791RA
29725C	6	0.874	1 1/4" NPT	0.67"	1.04"	BTC125A1041RA
29506	4	1.113	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29506F	4	1.058	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29526C	4	0.825	1 1/4" NPT	0.67"	1.04"	BTC125A1041RA
29726C	4	0.973	1 1/4" NPT	0.67"	1.04"	BTC125A1041RA
29507	2	1.324	1 1/2" NPT	1.22"	1.50"	BTC150A1501RA
29507F	2	1.207	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29527C	2	0.990	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29727C	2	1.100	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29528	1	1.195	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29528C	1	1.121	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29728C	1	1.275	1 1/2" NPT	1.22"	1.50"	BTC150A1501RA
29529	1/0	1.292	1 1/2" NPT	1.22"	1.50"	BTC150A1501RA
29529C	1/0	1.208	1 1/4" NPT	0.93"	1.27"	BTC125A1271RA
29729C	1/0	1.359	1 1/2" NPT	1.22"	1.50"	BTC150A1501RA
29530	2/0	1.398	1 1/2" NPT	1.22"	1.50"	BTC150A1501RA
29530C	2/0	1.290	1 1/2" NPT	1.22"	1.50"	BTC150A1501RA
29730C	2/0	1.454	1 1/2" NPT	1.22"	1.50"	BTC150A1501RA
29531	3/0	1.516	2" NPT	1.40"	1.74"	BTC200A1741RA
29531C	3/0	1.419	1 1/2" NPT	1.22"	1.50"	BTC150A1501RA
29731C	3/0	1.564	2" NPT	1.40"	1.74"	BTC200A1741RA
29532	4/0	1.652	2" NPT	1.40"	1.74"	BTC200A1741RA
29532C	4/0	1.536	2" NPT	1.40"	1.74"	BTC200A1741RA
29732C	4/0	1.759	2" NPT	1.63"	1.97"	BTC200A1971RA
29533	250	1.912	2 1/2" NPT	1.86"	2.20"	BTC250A2201RA
29534	350	2.130	3" NPT	1.86"	2.20"	BTC300A2201RA
29535	500	2.410	3 1/2" NPT	2.41"	2.68"	BTC300A2681RA

Multiple sizes and configuration options are available for most cables, consult gland manufacturers literature for options, ratings, and product details. It is the users responsibility to ensure that the gland selection is suitable for the application.

VFD Cross Reference Guide For DRIVES RATED 75C

Voltage	HP	KW	Sizes	300% Ground Classic	100% Ground Classic	Extra Flexible	Classic With Signal pair	Belden Basics 600V	Belden Basics 2kv	2kv Classic 300% or 100% Ground	LSZH Classic 300% Ground or 100% Ground	Thermoset LSZH/Marine Grade 300% or 100% Ground	
230	1	0.75	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	2	1.49	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	3	2.24	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
		**	12	29502			29502F	29512	29522C	29722C	29537	29502T	29502X
	5	3.73	12	29502			29502F	29512	29522C	29722C	29537	29502T	29502X
		**	10	29503			29503F	29513	29523C	29723C	29538	29503T	29503X
	7.5	5.6	10	29503			29503F	29513	29523C	29723C	29538	29503T	29503X
		**	8	29504			29504F		29524C	29724C	29539	29504T	29504X
	10	7.5	10	29503			29502F	29513	29523C	29723C	29538	29503T	29503X
		**	8	29504			29504F		29524C	29724C	29539	29504T	29504X
	15	11.2	6	29505			29505F		29525C	29725C	29540	29505T	29505X
	20	14.9	4	29506			29506F		29526C	29726C	29541	29506T	29506X
	25	18.7	4	29506			29506F		29526C	29726C	29541	29506T	29506X
	30	22.4	2	29507			29507F		29527C	29727C	29542	29507T	29507X
	40	30	1		29528		29528F		29528C	29728C	29543	29528T	29528X
50	37	2/0		29530		29530F		29530C	29730C	29545	29530T	29530X	
60	45	3/0		29531		29531F		29531C	29731C	29546	29531T	29531X	
75	56	250											
100	75	350											
460	1	0.75	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	2	1.49	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	3	2.24	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	5	3.73	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	7.5	5.6	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	10	7.5	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
		**	12	29502			29502F	29512	29522C	29722C	29537	29502T	29502X
	15	11.2	10	29503			29503F	29513	29523C	29723C	29538	29503T	29503X
	20	14.9	10	29503			29503F	29513	29523C	29723C	29538	29503T	29503X
	20	14.9	8	29504			29504F		29524C	29724C	29539	29504T	29504X
	25	18.7	8	29504			29504F		29524C	29724C	29539	29504T	29504X
	30	22.4	8	29504			29504F		29524C	29724C	29539	29504T	29504X
	40	30	6	29505			29505F		29525C	29725C	29540	29505T	29505X
	50	37	4	29506			29506F		29526C	29726C	29541	29506T	29506X
	60	45	2	29507			29507F		29527C	29727C	29542	29507T	29507X
75	56	1		29528		29528F		29528C	29728C	29543	29528T	29528X	
100	75	2/0		29530		29530F		29530C	29730C	29545	29530T	29530X	
125	93	3/0		29531		29531F		29531C	29731C	29546	29531T	29531X	
150	112	4/0		29532		29532F		29532C	29732C	29547	29532T	29532X	
200	149	350							29534				
250	187	500							29535				
575	1	0.75	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	2	1.49	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	3	2.24	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	5	3.73	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	7.5	5.6	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	10	7.5	14	29501			29501F	29511	29521C	29721C	29536	29501T	29501X
	15	11.2	12	29502			29502F	29512	29522C	29722C	29537	29502T	29502X
	20	14.9	10	29503			29503F	29513	29523C	29723C	29538	29503T	29503X
	25	18.7	10	29503			29503F	29513	29523C	29723C	29538	29503T	29503X
	30	22.4	8	29504			29504F		29524C	29724C	29539	29504T	29504X
	40	30	6	29505			29505F		29525C	29725C	29540	29505T	29505X
	50	37	6	29505			29505F		29525C	29725C	29540	29505T	29505X
	60	45	4	29506			29506F		29526C	29726C	29541	29506T	29506X
	75	56	2	29507			29507F		29527C	29727C	29542	29507T	29507X
	100	75	1		29528		29528F		29528C	29728C	29543	29528T	29528X
125	93	2/0		29530		29530F		29530C	29730C	29545	29530T	29530X	
150	112	3/0		29531		29531F		29531C	29731C	29546	29531T	29531X	
200	149	250							29533				
250	187	350							29534				
300	224	500							29535				

NOTE: Though all the cables listed are rated at 90C this chart is based on the 75C ratings from NEC® Table 310.15(B)(16) representing the typical connected equipment limit. Other limits or conditions may affect the cable ampacity. Per the US National Electric Code, all values listed here are based on typical Full-Load Current (FLC) ratings of three-phase AC motors as published in NEC Table 430.250 (2011) multiplied by 125% per NEC article 430-22 (A) (2011). The ampacity ratings of the cables are based on NEC Table 310.15(B)(16) (2011). The VFD w/Signal ampacity values were de-rated to 80% per NEC Table 310.15 (B)(2)(a) (2011) due to the increased number of current-carrying conductors included in these cable(s).

NEC ampacity interpretations subject to user's local authority having jurisdiction.

Per the Canadian Electric Code®, all values listed here are based on typical Full-Load Current (FLC) ratings of three-phase AC motors as published in CEC Table 44 (2012) multiplied by 125% per CEC Section 28-112 (2012). The ampacity ratings of the cables are based on CEC Table 2 (2012). The VFD w/Signal ampacity values were de-rated to 80% per CEC Table 5C (2012) due to the increased number of current-carrying conductors included in these cable(s).

CEC ampacity interpretations subject to user's local authority having jurisdiction.

Belden recommends 14AWG or larger cables due to potential constraints of the NEC for overcurrent protection of small conductors.

** Voltage drop may require upsizing for longer runs (>50ft)

Belden online VFD Selector allows for varied cable length and ambient conditions



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