

SAB Cable Selection Tool for Drives & Motors

VFD Motor Properties Selection Chart for VFD Cables per NEC

HP	AMPs 230V Motor*	Cable AWG		AMPs 460V Motor*	Cable AWG		AMPs 575V Motor*	Cable AWG	
		3/c + G	3/c + G & 1/pr		3/c + G	3/c + G & 1/pr		3/c + G	3/c + G & 1/pr
0.25	-	14	14	-	16	16	-	18	16
0.33	-	14	14	-	16	16	-	18	16
0.5	2.2	14	14	1.1	16	16	0.9	18	16
1	4.2	14	14	2.1	16	16	1.7	18	16
2	6.8	14	14	3.4	16	16	2.7	18	16
3	9.6	14	14	4.8	16	16	3.9	18	16
4	-	14	14	-	14	14	-	16	14
5	15.2	14	14	7.6	14	14	6.1	16	14
7.5	22	12	10	11	14	14	9	14	14
10	28	10	8	14	14	14	11	14	14
15	42	8	6	21	12	10	17	14	12
20	54	6	-	27	10	8	22	12	10
25	68	4	-	34	8	8	27	10	8
30	80	2	-	40	8	6	32	10	8
40	104	2	-	52	6	-	41	8	6
50	130	1/0	-	65	4	-	52	6	-
60	154	2/0	-	77	2	-	62	4	-
75	192	4/0	-	96	2	-	77	2	-
100	248	300 KCMIL	-	124	1/0	-	99	2	-
125	312	500 KCMIL	-	156	2/0	-	125	1/0	-
150	360	-	-	180	3/0	-	144	2/0	-
200	480	-	-	240	300 KCMIL	-	192	4/0	-
250	-	-	-	302	400 KCMIL	-	242	300 KCMIL	-
300	-	-	-	361	-	-	289	400 KCMIL	-
350	-	-	-	414	-	-	336	500 KCMIL	-
400-1350	-	-	-	-	-	-	-	-	-

*Note: The above table references the suggested wire AWG to use based on Horse Power (HP) and the Amperage, to calculate the Full Load Current (FLC) multiple Amps by 125% per NEC Art. 430-22 (G) (1) and (2) for small motors. For special motor types, NEC Art. 430-22 (A)-(G) may give additional restrictions for conductor sizes. Amperes (FLC) were determined from NEC Art. 430-250.

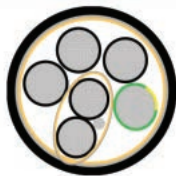
Values are based on normal duty horsepower and constant torque.
For larger HP drives with no recommendation, cables can be in parallel.
Please call your SAB Sales Professional for support.

VFD XLPE TR



XLPE insulated, oil resistant and flexible VFD cable

VFD Combo XLPE



Flexible VFD cable with 1 or 2 pairs for brake or temperature sensor

VFD XLPE Auto TR



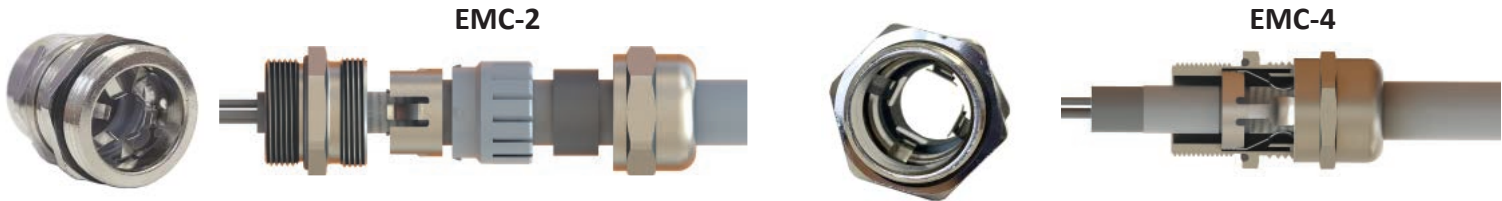
Continuous flex VFD cable

VFD XLPE 2KV TR



Large AWG, 2KV VFD cable with 3 symmetrical grounds

SAB EMC Cord Grip Grounding Solution



- One Direction Installation
- Affordable
- Nickel Plated Brass with Tinned Copper Springs

- Bi-directional Installation
- Great Anti-Vibration Mechanisms
- Nickel Plated Brass with Tinned Copper Springs

Recommended Grounding Connectors and Shielding Kit

Part Number	AWG	OD (in)	Metric Thread		PG Thread		NPT Thread		VFD Kit
			EMC-2	EMC-4	EMC-2	EMC-4	EMC-2	EMC-4	
VFD XLPE TR									
35681604	16/4c	0.477	EM2-25	EM4-20C	EP2-16	EP4-16	EN2-3/4	EN4-1/2C	-
35681404	14/4c	0.522	EM2-25	EM4-20C	EP2-16	EP4-16	EN2-3/4	EN4-1/2C	VFD GRD KIT 14-1
35681204	12/4c	0.592	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35681004	10/4c	0.680	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35680804	8/4c	0.886	EM2-32C	EM4-32	EP2-29	EP4-29	EN2-1	EN4-1	VFD GRD KIT 14-1
35680604	6/4c	0.968	EM2-40C	EM4-40	EP2-36	EP4-36	EN2-1	EN4-1 1/4	VFD GRD KIT 14-1
35680404	4/4c	1.090	EM2-40C	EM4-40	EP2-36	EP4-36	-	EN4-1 1/4	VFD GRD KIT 14-1
35680204	2/4c	1.247	EM2-50C	EM4-50	EP2-42	EP4-42	-	EN4-1 1/2	VFD GRD KIT 14-1
VFD COMBO XLPE									
35691614	16/4c (18/1pr)	0.573	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	-
35691624D	16/4c (16/1pr)	0.580	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	-
35691414	14/4c (18/1pr)	0.616	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35691464	14/4c (18/2pr)	0.662	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35691424D	14/4c (16/1pr)	0.626	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35691404	14/4c (14/1pr)	0.628	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35691214	12/4c (18/1pr)	0.654	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35691264	12/4c (18/2pr)	0.698	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35691224D	12/4c (16/1pr)	0.673	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35691204	12/4c (14/1pr)	0.667	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35691064	10/4c (18/2pr)	0.762	EM2-32C	EM4-32	EP2-29	EP4-29	EN2-1	EN4-1	VFD GRD KIT 14-1
35691024D	10/4c (16/1pr)	0.755	EM2-32C	EM4-32	EP2-29	EP4-29	EN2-1	EN4-1	VFD GRD KIT 14-1
35691004	10/4c (14/1pr)	0.736	EM2-32C	EM4-32	EP2-29	EP4-29	EN2-1	EN4-1	VFD GRD KIT 14-1
35690864	8/4c (18/2pr)	0.961	EM2-40C	EM4-40	EP2-36	EP4-36	EN2-1	EN4-1 1/4	VFD GRD KIT 14-1
35690804	8/4c (14/1pr)	0.960	EM2-40C	EM4-40	EP2-36	EP4-36	EN2-1	EN4-1 1/4	VFD GRD KIT 14-1
35690664	6/4c (16/2pr)	1.032	EM2-40C	EM4-40	EP2-36	EP4-36	-	EN4-1 1/4	VFD GRD KIT 14-1
35690604	6/4c (14/1pr)	1.030	EM2-40C	EM4-40	EP2-36	EP4-36	-	EN4-1 1/4	VFD GRD KIT 14-1
35690404	4/4c (14/1pr)	1.140	EM2-40C	EM4-40	EP2-36	EP4-36	-	EN4-1 1/4	VFD GRD KIT 14-1
35690204	2/4c (14/1pr)	1.280	EM2-50C	EM4-50	EP2-42	EP4-42	-	EN4-1 1/2	VFD GRD KIT 14-1
VFD SYMMETRICAL XLPE									
35681403	14/3c	0.501	EM2-25	EM4-20C	EP2-16	EP4-16	EN2-3/4	EN4-1/2C	VFD GRD KIT 14-1
35681203	12/3c	0.570	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35681003	10/3c	0.642	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35680803	8/3c	0.811	EM2-32C	EM4-32	EP2-29	EP4-29	EN2-1	EN4-1	VFD GRD KIT 14-1
35680603	6/3c	0.954	EM2-32C	EM4-32	EP2-29	EP4-29	EN2-1	EN4-1	VFD GRD KIT 14-1
35680403	4/3c	1.062	EM2-40C	EM4-40	EP2-36	EP4-36	-	EN4-1 1/4	VFD GRD KIT 14-1
35680203	2/3c	1.226	EM2-50C	EM4-50	EP2-42	EP4-42	-	EN4-1 1/2	VFD GRD KIT 14-1
VFD XLPE AUTO									
35781404	14/4c	0.569	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35781204	12/4c	0.646	EM2-25C	EM4-25	EP2-21	EP4-21	EN2-3/4	EN4-3/4	VFD GRD KIT 14-1
35781004	10/4	0.704	EM2-32C	EM4-32	EP2-29	EP4-29	EN2-1	EN4-1	VFD GRD KIT 14-1

D at end of part number denotes overall full size drain



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