

SAB CABLE SELECTION TOOL FOR DRIVES & MOTORS

VFD Motor Properties Selection Chart for VFD Cables per NEC

HWC is a master supplier of SAB VFD Cables. We are offering a variety of highly flexible 600V & 1000V cables and constructions with full conductor size grounds and 100% shield coverage with a foil & braided shield making this cable resistant to Electromagnetic Interference (EMI). Whether for industrial plant automation, or in a refinery, HWC has the perfect high flex VFD cable for your application.

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.

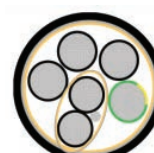


VFD XLPE TR



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

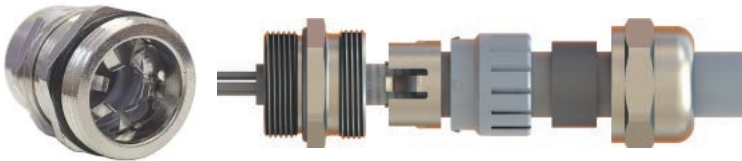


Continuous flex VFD cable

SAB EMC CORD GRIP GROUNDING SOLUTION

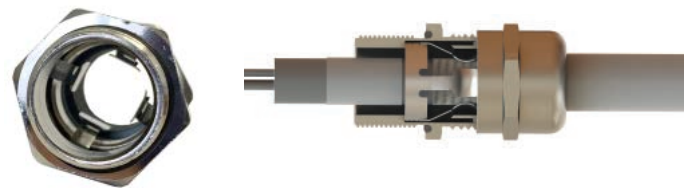
VFD Termination Kits are used to ground the shield of VFD cables to a metal enclosure. It is an effective way to remove noise associated with VFD motors and drives. Improve the effectiveness by also using a SAB EMC grounding gland where the cable enters the enclosure.

EMC-2



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

EMC-4



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

Recommended Grounding Connectors												
	Part Number	AWG (pr)	OD (in)	Metric Thread		Other Sizes	PG Thread		Other Sizes	NPT Thread		Other Sizes
				EMC-2	EMC-4		EMC-2	EMC-4		EMC-2	EMC-4	
VFD COMBO XLPE	35691614	16 (18pr)	0.573	EM2-25C	EM4-25	M32	EP2-21	EP4-21	-	EN2-3/4	EN4-3/4	-
	35691414	14 (18pr)	0.616	EM2-25C	EM4-25	M32	EP2-21	EP4-21	-	EN2-3/4	EN4-3/4	-
	35691404	10 (14pr)	0.628	EM2-25C	EM4-25	M32	EP2-21	EP4-21	-	EN2-3/4	EN4-3/4	-
	35691214	12 (18pr)	0.654	EM2-25C	EM4-25	M32	EP2-21	EP4-21	PG 29	EN2-3/4	EN4-3/4	NPT 1"
	35691204	12 (14pr)	0.667	EM2-25C	EM4-25	M32	EP2-21	EP4-21	PG 29	EN2-3/4	EN4-3/4	NPT 1"
	35691004	10 (14pr)	0.736	EM2-32C	EM4-32	M40	EP2-29	EP4-29	-	EN2-1	EN4-1	-
	35690804	8 (14pr)	0.960	EM2-32C	EM4-32	M40, M50	EP2-29	EP4-29	PG 36	EN2-1	EN4-1	NPT 1-1/4"
	35690604	6 (14pr)	1.030	EM2-40C	EM4-40	M50	EP2-36	EP4-36	-	-	EN4-1 1/4	-
35690404	4 (14pr)	1.140	EM2-40C	EM4-40	M50	EP2-36	EP4-36	-	-	EN4-1 1/2	-	
VFD SYMMETRICAL XLPE	35681403	14	0.501	EM2-25	EM4-20C	-	EP2-16	EP4-16	PG 21	-	EN4-1/2	-
	35681203	12	0.570	EM2-25C	EM4-25	M32	EP2-21	EP4-21	-	EN2-3/4	EN4-3/4	-
	35681003	10	0.642	EM2-25C	EM4-25	M32	EP2-21	EP4-29	-	EN2-3/4	EN4-3/4	NPT 1"
	35680803	8	0.811	EM2-32C	EM4-32	M40	EP2-29	EP4-29	-	EN2-1	EN4-1	-
	35680603	6	0.954	EM2-40C	EM4-40	M50	EP2-29	EP4-29	PG 36	EN2-1	EN4-1	NPT 1-1/4"
	35680403	4	1.062	EM2-40C	EM4-40	M50	EP2-36	EP4-36	-	-	EN4-1 1/4	-
	35680203	2	1.226	EM2-50C	EM4-50	-	EP2-42	EP4-42	-	-	EN4-1 1/2	-

D at end of part number= cable includes drain wire

Last 2 digits in the part number designates the thread size.

Call your SAB Sales Professional for price and availability.