

SAB VFD Cable Selection Tool: Allen Bradley PowerFlex® Drives & Motors

| PowerFlex Drives | 4M, 4, 40, 40P, 400, 523, 525, 70, 700, & 700S | | | 4M, 4, 40, 40P, 400, 523, 525, 70, 700, 700H, 700S, 753, & 755 | | | 40, 40P, 523, 525, 70, 700, 700H, 700S, 753, & 755 | | |
|------------------|--|-----------|----------------|--|-----------|----------------|--|-----------|----------------|
| 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

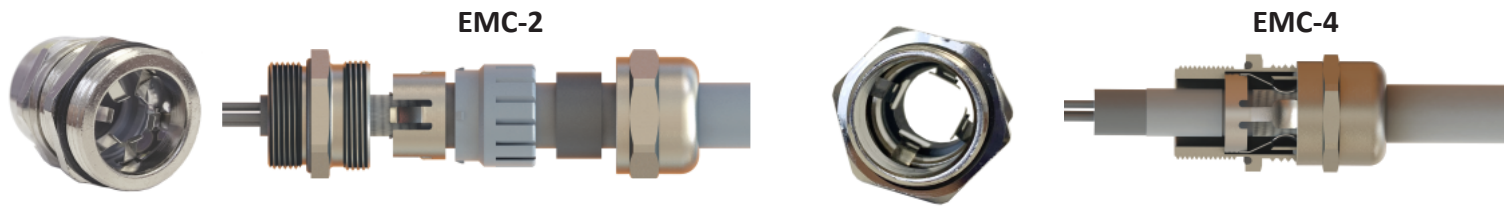


Large AWG, 2KV VFD cable with 3 symmetrical grounds



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SAB EMC Cord Grip Grounding Solution: Allen Bradley PowerFlex® Drives & Motors



- 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

Last 2 digits in the part number designates the thread size.
Call your SAB Sales Professional for price and availability.



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