



# PowerLink HV USA Shielded High Voltage Power Cable



## Performance & Design Benefits:

- Proudly made in the USA
- Tested to ISO 19642-5 and ISO 19642-9 (former ISO 6722 & ISO 14572)
- Rated Voltage Max 1000VAC and Max 1500VDC
- Operating Temperature of -40C to +150C ISO 6722 Class D
- 90% braid coverage minimum for excellent EMC Shielding
- Flexible design for improved cable assembly routing
- Durable and resistant to flame, liquids, chemicals, ozone, UV, water and abrasion
- Validated with Amphenol PowerLok G1 & G2 connectors, -5 Kits/Configurations
- Cable is designed for consistent, easy stripping and processing
- PPAP available on request
- RoHS and REACH Compliant
- Special constructions and customization options available

## Applications include:

- EV, HEV, FC EV
- On and Off-Highway Vehicles
- Heavy Duty/Industrial Equipment
- Battery and Energy Storage
- Data Centers

## Wiring examples include:

- Battery Pack to PDU
- PDU to Charger
- PDU to MCU
- MCU to Motor
- E-axle and E-motor

## PowerLink HV USA Shielded Cable Construction:

- Stranded Bare Copper Conductor
- Cross-Linked Polyolefin Orange Insulation, 150C
- Tinned Copper Braid Shield, 90% braid coverage minimum
- Cross Linked Polyolefin Orange Jacket, 150C
- Solution set includes the HV Shielded cable sizes ranging from 35mm<sup>2</sup> to 150mm<sup>2</sup>



# PowerLink HV USA Shielded High Voltage Power Cable



## PowerLink HV USA Design Data:

Component	Parameter	Units		35mm <sup>2</sup>		50mm <sup>2</sup>		70mm <sup>2</sup>		95mm <sup>2</sup>		120mm <sup>2</sup>		150mm <sup>2</sup>	
Conductor	Strand #	---		273		385		361		480		589		741	
	Strand Diameter	in	mm	0.0157	0.4	0.0157	0.4	0.0197	0.5	0.0197	0.5	0.0197	0.5	0.0197	0.5
	Diameter	in	mm	0.305	7.75	0.360	9.14	0.441	11.20	0.512	13.00	0.610	15.49	0.657	16.69
	DCR <sub>max</sub>	Ω/kft	Ω/km	0.112	0.368	0.109	0.368	0.079	0.259	0.06	0.96	0.047	0.154	0.037	0.122
Insulation	Wall Thickness	in	mm	0.039	0.99	0.046	1.17	0.050	1.27	0.060	1.52	0.047	1.19	0.065	1.65
	Diameter	in	mm	0.382	9.70	0.452	11.48	0.54	13.72	0.631	16.03	0.704	17.88	0.787	20.00
Braid	Diameter	in	mm	0.409	10.4	0.492	12.50	0.58	14.73	0.671	17.04	0.744	18.9	0.839	21.30
Sheath	Wall Thickness	in	mm	0.045	1.14	0.049	1.24	0.049	1.24	0.058	1.47	0.073	1.85	0.071	1.80
	Diameter	in	mm	0.500	12.70	0.59	14.99	0.677	17.20	0.787	19.99	0.891	22.63	0.980	24.90
Cable	Copper Weight	lb/ft	kg/m	0.2490	0.3706	0.3583	0.5332	0.4957	0.7376	0.6519	0.9701	0.8085	1.2032	1.0066	1.4980
	Total Weight	lb/ft	kg/m	0.3136	0.4667	0.4454	0.6628	0.6078	0.9045	0.8007	1.1916	0.9900	1.4733	1.2355	1.8386

## Ordering Information:

Part Number	Description
TFC-HV-35S-OR	PowerLink HV USA Shielded Power Cable, 35mm <sup>2</sup> , XLPO, Orange Jacket
TFC-HV-50S-OR	PowerLink HV USA Shielded Power Cable, 50mm <sup>2</sup> , XLPO, Orange Jacket
TFC-HV-70S-OR	PowerLink HV USA Shielded Power Cable, 70mm <sup>2</sup> , XLPO, Orange Jacket
TFC-HV-95S-OR	PowerLink HV USA Shielded Power Cable, 95mm <sup>2</sup> , XLPO, Orange Jacket
TFC-HV-120S-OR	PowerLink HV USA Shielded Power Cable, 120mm <sup>2</sup> , XLPO, Orange Jacket
TFC-HV-150S-OR	PowerLink HV USA Shielded Power Cable, 150mm <sup>2</sup> , XLPO, Orange Jacket

PowerLink HV USA power cables are in stock & available from our partner:

Amphenol TPI: <https://www.tpil.com/product/powerlink-hv-usa>



# PowerLink HV USA Unshielded High Voltage Power Cable



### Performance & Design Benefits:

- Proudly made in the USA
- Tested to ISO 19642-5, Class D
- Rated Voltage Max 1000VAC and Max 1500VDC
- Operating Temperature of -40C to +150C
- Flexible design for improved cable assembly routing
- Durable and resistant to flame, liquids, chemicals, ozone, UV, water and abrasion
- Cable is designed for consistent, easy stripping & processing
- RoHS & REACH Compliant
- PPAP available on request
- Special constructions and customization options available

### PowerLink HV USA Cable Construction:

- Stranded Bare Copper Conductor
- Cross-Linked Polyolefin Orange Insulation, 150C (Black & Red options)

### PowerLink HV USA Design Data:

Part Number	Cond. Size (mm <sup>2</sup> )	Conductor Construction (mm)	Cond. OD (mm)	Insulation Thickness (mm)	Insulation OD (mm)	Copper Weight (kg/m)	Total Weight (kg/m)	Max DC Resistance (/km)
TFC-HV-2.5U-OR	2.5	83 / 0.19	2.06	0.60	3.30	0.0224	0.0292	7.60
TFC-HV-06U-OR	6	199 / 0.19	3.35	0.60	4.80	0.0540	0.0640	3.14
TFC-HV-10U-OR	10	332 / 0.19	4.25	1.00	6.25	0.0933	0.1153	1.78
TFC-HV-25U-OR	25	829 / 0.19	6.75	1.43	9.60	0.2307	0.2791	0.72
TFC-HV-35U-OR	35	1161 / 0.19	8.10	1.25	10.60	0.3260	0.3763	0.51
TFC-HV-50U-OR	50	1658 / 0.19	9.50	1.50	12.50	0.4657	0.5388	0.36
TFC-HV-70U-OR	70	2318 / 0.19	11.60	1.70	15.00	0.6479	0.7494	0.25
TFC-HV-95U-OR	95	3108 / 0.19	12.88	2.06	17.00	0.8549	0.9921	0.19
TFC-HV-120U-OR	120	3959 / 0.19	15.00	1.85	18.70	1.0822	1.2219	0.15

Note: Different colors are available. -OR: Orange, -BK: Black, -RD: Red

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