



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 35mm² to 150mm²



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PowerLink HV USA Design Data:

Component	Parameter	Units		35mm ²		50mm ²		70mm ²		95mm ²		120mm ²		150mm ²	
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 _{max}	in	mm	0.311	7.90	0.369	9.37	0.456	11.58	0.541	13.74	0.633	16.08	0.670	17.02
	DCR _{max}	Ω/ft	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 _{nom}	in	mm	0.382	9.70	0.452	11.48	0.540	13.72	0.631	16.03	0.704	17.88	0.787	20.00
Braid	Diameter _{max}	in	mm	0.417	10.59	0.502	12.75	0.582	14.78	0.681	17.30	0.760	19.30	0.837	21.26
Sheath	Wall Thickness	in	mm	0.045	1.14	0.049	1.24	0.050	1.27	0.058	1.47	0.073	1.85	0.077	1.96
	Diameter _{min}	in	mm	0.488	12.40	0.578	14.68	0.659	16.74	0.775	19.69	0.875	22.23	0.968	24.59
	Diameter _{nom}	in	mm	0.500	12.70	0.590	14.99	0.671	17.04	0.787	19.99	0.891	22.63	0.980	24.89
	Diameter _{max}	in	mm	0.512	13.00	0.598	15.19	0.681	17.30	0.799	20.29	0.907	23.04	0.992	25.20
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 ² , XLPO, Orange Jacket
TFC-HV-50S-OR	PowerLink HV USA Shielded Power Cable, 50mm ² , XLPO, Orange Jacket
TFC-HV-70S-OR	PowerLink HV USA Shielded Power Cable, 70mm ² , XLPO, Orange Jacket
TFC-HV-95S-OR	PowerLink HV USA Shielded Power Cable, 95mm ² , XLPO, Orange Jacket
TFC-HV-120S-OR	PowerLink HV USA Shielded Power Cable, 120mm ² , XLPO, Orange Jacket
TFC-HV-150S-OR	PowerLink HV USA Shielded Power Cable, 150mm ² , 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>