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EcoWire™ and EcoWire Plus Hook-Up Wire



AlphaWire

Cables you trust. Service you deserve.

chanhvinh.com

Helping save energy and achieve sustainable designs

Our commitment to environmentally responsible designs includes products that recycle more easily and safely, help renewable wind and energy deliver power reliably, and make machinery operate more efficiently.

SOLAR



Solar Cable
A multiconductor solar cable designed for any solar application. Its tough, abrasion-resistant jacket also resists sunlight, ozone, and UV radiation. It is designed specifically for solar inverters and similar applications.

PV/PVT Wire
Our photovoltaic wire gives you flexible choices to meet UL 4703 PV wire and UL 4703 PV wire/TÜV 2 PFG 1169 wire requirements.

Xtra-Guard® 4 Cable
Xtra-Guard 4 features a wide temperature range of -50C to +125C. The cable provides outstanding ultraviolet light stability in all jacket colors, along with resistance to oils, solvents, and chemicals.

TRANSPORTATION



Low Smoke Zero Halogen Cable
Our LSZH cables are suited to such applications as rapid transit, industrial, commercial, and similar confined-space applications where the low-smoke cables can save lives and potentially reduce damage to electronic components.

WIND POWER



Xtra-Guard 4 Cable
A performance cable designed to withstand the temperature extremes of the wind turbine environment. It provides good resistance to oils, solvents, and chemicals, and is approved for wind turbine tray (WTTC) applications.

Series XM Cable
A flexible WTTC-rated control cable that combines a premium-grade PVC jacket and finely stranded conductors to offer continuous-duty flexing without cracking or degrading.

Flexible Motor Supply Cable
With a diameter smaller than most comparable motor supply cables, this WTTC cable is well-suited for the tight spaces in wind turbines for connecting AC drives, servo drives, and variable-frequency drives.

Xtra-Guard Torsion Flex Cable
With superior performance in high-flex and high-torsion applications, such as motion control and robotics, these cables are rated for up to 14 million flex cycles.

Instrumentation Cable
Available in a wide range of configurations for monitoring and telemetry needs. These cables provide excellent UV resistance and are designed for environments that demand accurate measurement and reliability.

INDUSTRIAL



Series V Energy-Efficient Variable Frequency Drive Cable
The VFD cable enables sophisticated control of motors by allowing their speed and torque to be precisely adjusted. This enables the machine to only use as much energy as is required, leading to lower energy costs and reduced maintenance and downtime.

Series SF Composite Servo Cable
Our servo cables bring a new level of flexibility to the integration and monitoring of servo drives. Composite cables add two additional individually shielded twisted pairs for brake or temperature control, leading to lower costs, greater efficiency, and smaller footprint.

EcoWire Plus
A 100% recyclable alternative to XLPE-insulated wire, with all the benefits of standard EcoWire with added resistance to the hazardous oils and chemicals common in industrial environments.

MEDICAL



Standard EcoWire
The 100% recyclable alternative to PVC-insulated wire, EcoWire offers 45% smaller diameter, 40% lighter weight, superior abrasion resistance, and 10x the toughness.

100% performance, 100% recyclable

EcoWire is the latest innovation in hook-up wire. A true engineering breakthrough, EcoWire combines increased performance with a minimized environmental impact. EcoWire derives its advantage from modified polyphenylene ether insulation (mPPE). It is inherently lighter, tougher, and more durable than PVC.

mPPE Insulation: All the Advantages in Smaller, Lighter Wire

Environmentally friendly

EcoWire contains no halogens, phthalates, or heavy metals. It meets RoHS and WEEE requirements for the elimination of hazardous substances and recyclability.

Better Performance than PVC

- Up to 45% smaller diameter
- Up to 40% lighter
- 10x abrasion resitance
- Excellent resistance to hazardous fluids such as oils, chemicals, solvents, and fuels with new **EcoWire Plus**

Better dielectric strength

The superior dielectric properties of mPPE make possible a reduced wall thickness while maintaining the same electrical properties as PVC. EcoWire's diameter is up to 45% smaller than equivalent wires.

Low specific gravity

The 1.03 specific gravity of mPPE is 25% to 40% lower than other insulation materials, such as PVC, polyethylene, and cross-linked polyethylene. Along with the reduced wall thickness, the low specific gravity yields significant weight savings of up to 40%.

Recyclable

EcoWire's mPPE thermoplastic insulation can be easily recycled since it does not contain hazardous materials.



NEW!

EcoWire Plus with Improved Fluid Resistance

Designed for industrial applications with exposure to oils and other hazardous fluids, our new EcoWire Plus offers all the environmental benefits and abrasion-resistance characteristics of standard EcoWire—plus the additional fluid resistance for demanding factory apps.

Meeting the fluid resistance of ISO 6722 for thin-wall and ultra-thin wall wire, EcoWire is an ideal thin-wall replacement for XLPE-insulated wire.

With up to 45% smaller diameter to save space and make routing easier, EcoWire Plus withstands oils, fuels, solvents, and other hazardous liquids.

EcoWire specifications

Standard EcoWire

Materials
Conductors Stranded or solid tinned copper
Insulation Modified polyphenylene ether

Electrical
Voltage 600 volts

Physical and Mechanical
Temperature Range -40°C to +105°C

Availability
100 ft (30.5 m) and 1000 ft (305 m) lengths

Approvals
CSA AWM I A/B
UL AWM Style 11028
CE
RoHS compliant
REACH compliant
VW-1 UL 1581

Colors
White, Black, Red, Green, Yellow, Blue, Brown, Orange, Slate, Violet, Yellow/Green

Part No.	Conductor Size		Stranding		Insulation Thickness		Wire Diameter	
	AWG	mm²	AWG	mm	Inch	mm	Inch	mm
6710	28	0.07	7/36	7 x 0.12	0.010	0.24	0.034	0.86
6711	26	0.14	7/34	7 x 0.16	0.010	0.24	0.038	0.97
6712	24	0.22	7/32	7 x 0.20	0.010	0.24	0.043	1.09
6713	22	0.35	7/30	7 x 0.25	0.010	0.24	0.049	1.24
6714	20	0.51	10/30	10 x 0.25	0.010	0.24	0.055	1.40
6715	18	0.81	16/30	16 x 0.25	0.010	0.24	0.067	1.70
6715S	18	0.82	Solid	Solid	0.010	0.24	0.059	1.50
6716	16	1.32	26/30	26 x 0.25	0.011	0.28	0.081	2.06
6717	14	2.09	41/30	41 x 0.25	0.011	0.28	0.096	2.44
6717S	14	2.08	Solid	Solid	0.011	0.28	0.086	2.18
6718	12	3.31	65/30	65 x 0.25	0.012	0.30	0.117	2.97
6719	10	5.37	105/30	105 x 0.25	0.012	0.30	0.142	3.61

EcoWire Plus

Materials
Conductors Stranded bare copper
Insulation Modified polyphenylene ether

Electrical
Voltage 300 V
ISO 6722 Voltage 60 V

Physical and Mechanical
Temperature Range -40°C to +110°C

Availability
100 ft (30.5 m) and 1000 ft (305 m) lengths

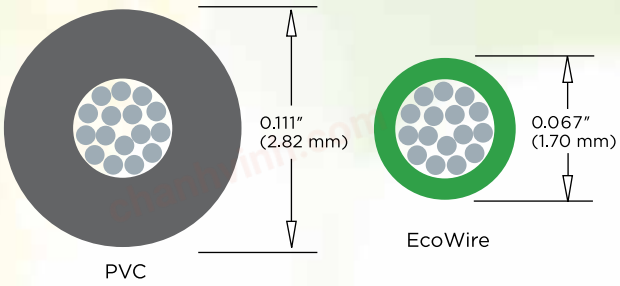
Approvals
CE
ISO 6722 Ultra Thin Wall
ISO 6722 Thin Wall
RoHS compliant
REACH compliant

Colors
White, Black, Red, Green, Yellow, Blue, Brown, Orange, Green/Yellow

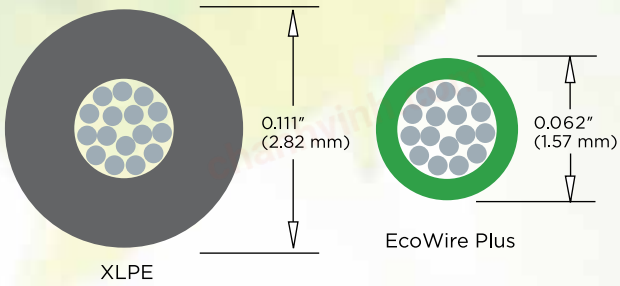
Part No.	Conductor Size			Stranding		Insulation Thickness		Wire Diameter	
	AWG	mm²	ISO mm Equiv.	AWG	mm	Inch	mm	Inch	mm
6820	28	0.09	-	7/36	7 x 0.12	0.008	0.20	0.031	0.79
6821	26	0.14	0.13	7/34	7 x 0.16	0.008	0.20	0.035	0.89
6822	24	0.23	0.22	7/32	7 x 0.20	0.008	0.20	0.040	1.02
6823	22	0.35	0.35	7/30	7 x 0.25	0.008	0.20	0.046	1.17
6824	20	0.56	0.5	7/28	7 x 0.32	0.008	0.20	0.054	1.37
6825	18	0.81	0.75	19/0.0092	19 x 0.23	0.008	0.20	0.062	1.57
6826	17	0.96	1	19/30	19 x 0.25	0.008	0.20	0.066	1.68
6827	16	1.23	-	19/29	19 x 0.29	0.010	0.24	0.077	1.96
6828	15	1.53	1.5	19/28	19 x 0.32	0.010	0.24	0.083	2.11
6829	14	1.94	2	19/27	19 x 0.36	0.012	0.30	0.095	2.41
6830	12	3.08	3	19/25	19 x 0.46	0.015	0.38	0.120	3.05
6831	10	4.92	5	19/23	19 x 0.57	0.017	0.43	0.147	3.73

Product comparison

18 AWG (0.81) Wire



18 AWG (0.81) Wire



Wire Type	Voltage (V)	Temperature Range	Approvals	Wall Thickness	Halogen?
Standard EcoWire	600	-40°C to +105°C	CSA AWM I A/B UL AWM Style 11028 RoHS Compliant REACH Compliant UL VW-1	0.010" to 0.012" (0.24 to 0.32 mm)	No
PVC (UL AWM 1015)	600	-20°C to +105°C	UL AWM Style 1015 CSA TEW-105 RoHS Compliant	0.031" to 0.32" (0.79 to 0.81 mm)	Yes
EcoWire Plus	300	-40°C to +110°C	ISO 6722 Ultra Thin Wall ISO 6722 Thin Wall Type RoHS Compliant REACH Compliant	0.008" to 0.017" (0.20 to 0.43 mm)	No
XLPE (UL AWM 3271)	600	-55°C to +125°C	UL AWM Style 3271 CSA CL1251-XLPE MIL-W-16878E Type D RoHS Compliant	0.032" (0.81 mm)	Yes

Samples for comparison

6715 (EcoWire)



6825 (EcoWire Plus)



3075 (PVC)



7044 (XLPE)



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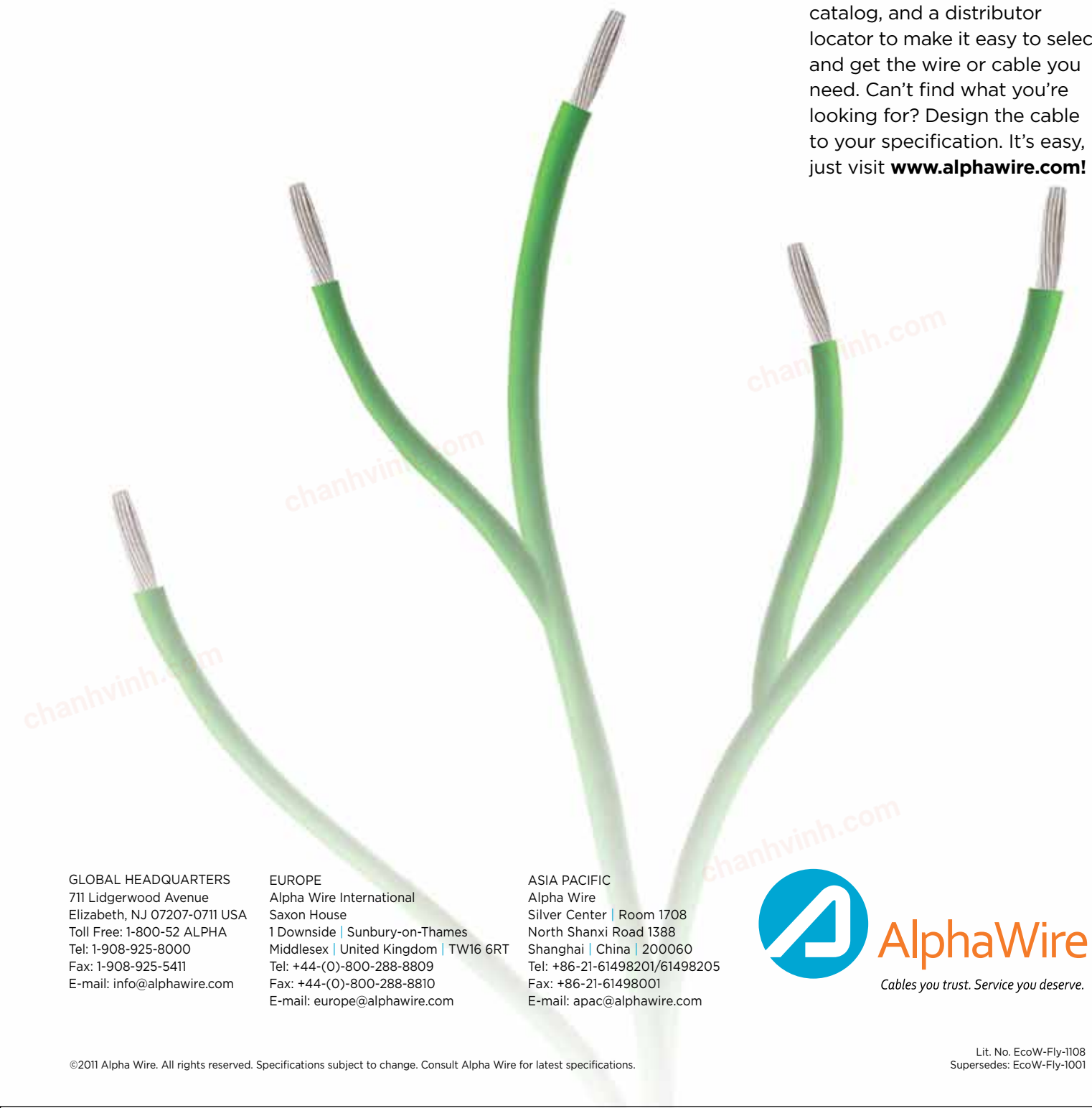
Every application is critical and cable and wire failure is not an option when the safety of your equipment and personnel is paramount. Specify Alpha products since the integrity of your system is only as robust as the products you use.

Superior availability

Alpha offers wire and cable from stock in most sizes and constructions, in both small and large put-ups, so you can order it when you need it. Our products are available for same-day shipment, eliminating long lead times.

Service and support, second-to-none

Selecting the correct wire or cable for your critical application is essential to overall system reliability, performance, and safety. So we make it easy for you select the right Alpha product for your specific application. Our online resources include a wire and cable selection guide, technical information, full product catalog, and a distributor locator to make it easy to select and get the wire or cable you need. Can't find what you're looking for? Design the cable to your specification. It's easy, just visit **www.alphawire.com!**



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