

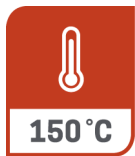


EXRAD[®] ERGOFLEX[™]

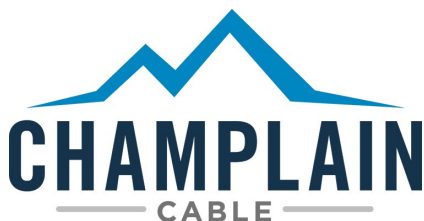
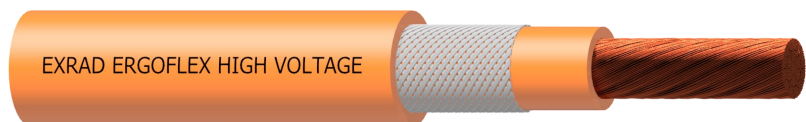
Shielded Thin Wall High Voltage Cable

1,000VAC/1,500VDC, ISO-19642-9, Class D, Thin Wall

- Revolutionary EXRAD[®] ERGOFLEX[™] Irradiation Crosslinked Polyolefin (XLPO)
- Tougher than Silicone and EPDM Alternatives
- Ultimate Flexibility, Thin, Fluid Resistant and Tough
- Performs at Higher Temperatures for Longer Periods of Time
- Excellent Compression Set Properties for Connector Sealing: 90% Retention
- Designed to Improve Ergonomics and Reduce Operator Movement / Fatigue



- Sizes from 4.0mm² to 150mm², Larger Sizes Available.
- 3,000 Hours Rated at 150°C
- 1,000VAC / 1,500VDC Rated, 600 VAC / 900VDC Available
- ISO Flexible and Standard Conductor Stranding Available.
- High Current Carrying Capacity
- Excellent Cut-through Resistance





EXRAD® ERGOFLEX™

Shielded Thin Wall High Voltage Cable

Preferred, ISO Flexible Conductor Strand

Part Number	Bare Copper Conductors	Conductor Diameter mm / nom	Primary Diameter mm / nom	Shield Diameter mm / nom	Shield Coverage min	Finished Diameter mm / nom	Static Bend Radius mm / min	Finished Weight kg/KM, nom	Maximum Conductor Resistance 20°C mΩ per M
15-08918	4.0mm ² (224/.15)	2.74	3.60	4.04	85%	4.95	15	61	4.71
15-08919	5.0mm ² (245/.15)	2.79	4.05	4.50	85%	5.80	17	72	3.94
15-08921	6.0mm ² (182/.20)	3.20	4.15	4.59	85%	5.90	18	82	3.14
15-08972	8.0mm ² (238/.20)	3.61	4.80	5.24	85%	6.82	20	109	2.38
15-08973	10mm ² (322/.20)	4.24	5.77	6.21	85%	7.80	23	139	1.82
15-08566	12mm ² (380/.20)	4.83	6.30	6.88	85%	8.30	25	176	1.52
15-08946	16mm ² (511/.20)	5.38	6.81	7.53	85%	9.30	28	213	1.16
15-08974	20mm ² (610/.20)	6.02	7.39	7.84	85%	9.90	30	245	0.96
15-08975	25mm ² (798/.20)	6.86	8.31	8.75	85%	11.00	33	316	0.74
15-08976	30mm ² (912/.20)	7.06	9.19	9.64	85%	11.90	36	364	0.65
15-08558	35mm ² (1083/.20)	7.87	9.90	10.41	85%	12.90	39	425	0.53
15-08977	40mm ² (1235/.20)	8.48	10.52	11.06	85%	13.60	41	488	0.473
15-08565	50mm ² (1615/.20)	9.65	11.61	12.25	85%	14.90	45	601	0.368
15-08978	60mm ² (1843/.20)	10.34	12.65	13.35	85%	15.90	48	681	0.315
15-08678	70mm ² (2128/.20)	11.76	14.02	14.74	85%	17.00	51	805	0.259
15-08679	85mm ² (2660/.20)	12.95	15.24	15.96	85%	18.50	56	951	0.219
15-08787	95mm ² (2926/.20)	14.05	16.00	16.54	85%	19.50	58	1,079	0.196
15-08853	120mm ² (3885/.20)	14.45	18.16	18.88	85%	21.68	65	1,438	0.153
15-08854	150mm ² (4788/.20)*	17.57	21.47	22.38	85%	25.40	76	1,717	0.120

Optional, ISO Standard Conductor Strand

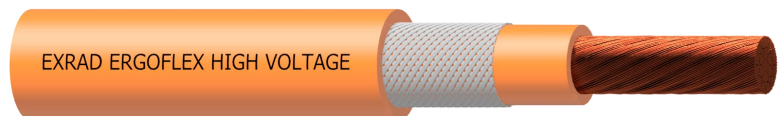
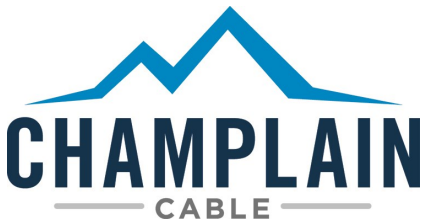
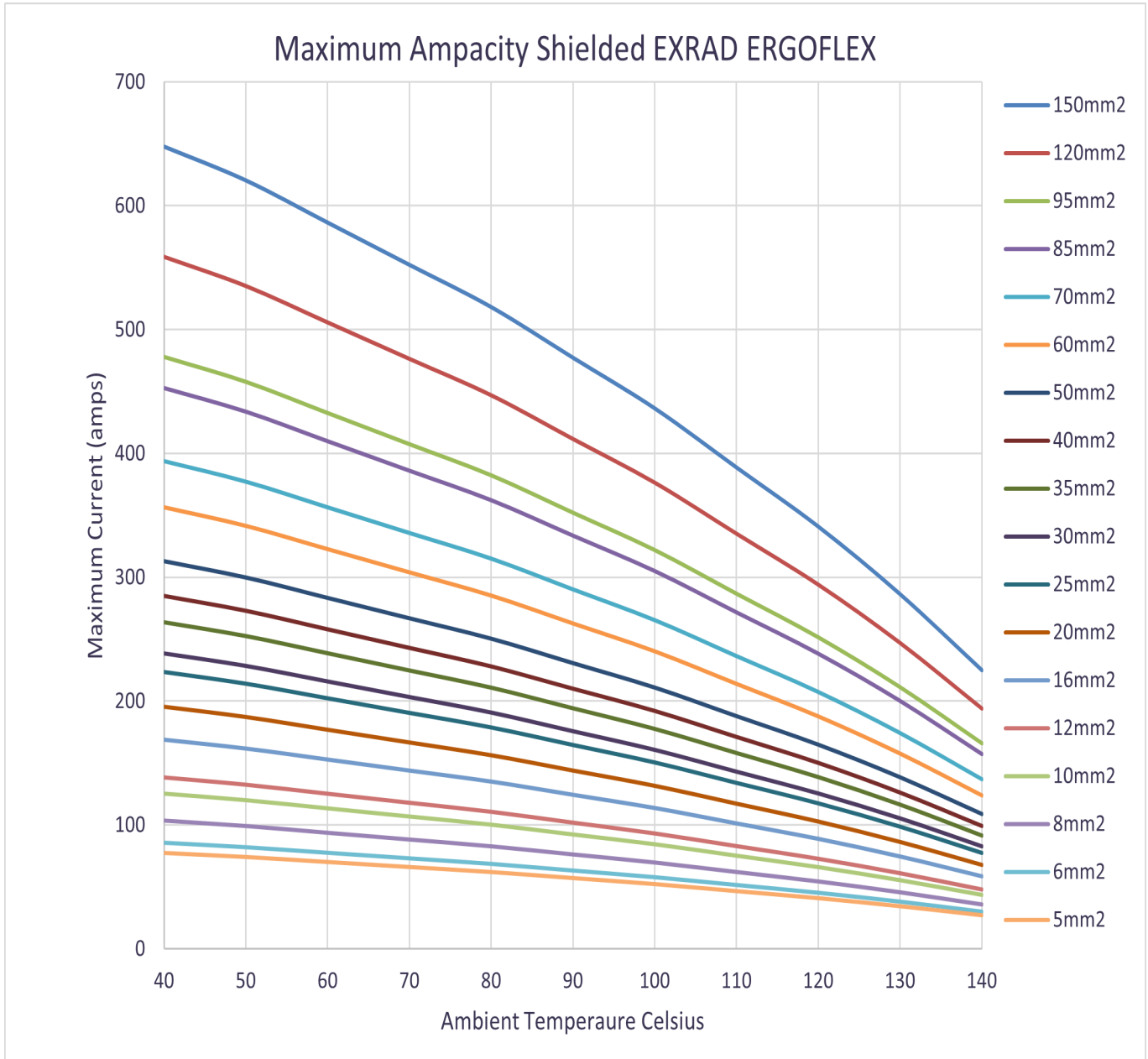
Part Number	Bare Copper Conductors	Conductor Diameter mm / nom	Primary Diameter mm / nom	Shield Diameter mm / nom	Shield Coverage min	Finished Diameter mm / nom	Static Bend Radius mm / min	Finished Weight kg/KM, nom	Maximum Conductor Resistance 20°C mΩ per M
15-09034	4.0mm ² (56/.30)	2.46	3.48	3.94	85%	4.85	24	54	4.71
15-08550	5.0mm ² (70/.30)	2.72	4.05	4.50	85%	5.75	29	77	3.94
15-08693	6.0mm ² (84/.30)	2.92	4.15	4.59	85%	5.90	30	86	3.14
15-08980	8.0mm ² (119/.28)	3.71	4.80	5.24	85%	6.80	34	106	2.38
15-08981	10mm ² (147/.29)	4.24	5.65	6.16	85%	7.80	39	146	1.82
15-08551	12mm ² (175/.29)	4.72	6.15	6.73	85%	8.30	42	164	1.52
15-08528	16mm ² (224/.30)	5.59	6.80	7.31	85%	9.30	47	214	1.16
15-08530	20mm ² (273/.30)	6.20	7.40	7.91	85%	9.90	50	262	0.96
15-08552	25mm ² (364/.30)	6.86	8.30	8.81	85%	11.00	55	309	0.74
15-08982	30mm ² (418/.29)	7.32	9.14	9.70	85%	11.89	59	345	0.65
15-08983	35mm ² (551/.28)	8.10	9.83	10.39	85%	12.88	64	418	0.53
15-08984	40mm ² (551/.29)	8.56	10.54	11.10	85%	13.55	68	454	0.473
15-08985	50mm ² (722/.29)	9.91	11.60	12.13	85%	14.90	74	587	0.368
15-08986	60mm ² (836/.29)	10.44	12.62	13.18	85%	15.88	79	669	0.315
15-08987	70mm ² (1026/.29)	11.53	13.67	14.37	85%	17.01	85	804	0.259
15-08988	85mm ² (1197/.29)	12.24	15.09	15.79	85%	18.55	93	844	0.219
15-08989	95mm ² (1330/.29)	13.23	15.98	16.68	85%	19.47	97	1,055	0.196
15-09001	120mm ² (1729/.29)	14.86	18.42	19.12	85%	21.91	110	1,487	0.153
15-09002	150mm ² (2147/.20)*	16.54	20.50	21.39	85%	24.44	122	1,661	0.120

* 150mm² is not currently an ISO-19642-9 size.



EXRAD[®] ERGOFLEX[™]

Shielded Thin Wall High Voltage Cable





EXRAD[®] ERGOFLEX[™]

Shielded Thin Wall High Voltage Cable

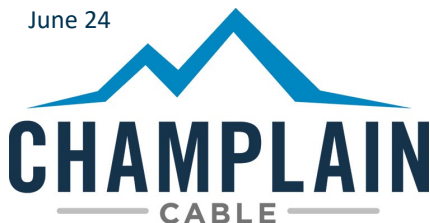
ISO 19642 Section	Description	Requirement	Typical Results (35mm ² Sample)	
5.2.1	Outside Cable Diameter	12.6mm-13.2mm	12.95mm	Pass
5.2.2	Insulation Thickness	0.64mm min.	0.762mm	Pass
5.2.3	Conductor Diameter	9.0mm max.	7.87mm	Pass
5.3.1	Conductor Resistance	0.527 mΩ/m max.	0.521 mΩ/m	Pass
5.3.3	Withstand Voltage	10kV for 5min	No dielectric breakdown	Pass
5.3.5	Insulation Faults	Spark test @ 8.0kV	No breakdown	Pass
5.3.6	Insulation Volume Resistivity	10 ¹² Ω-mm min.	1.25 x 10 ¹⁵ Ω-mm	Pass
5.4.5	Flexibility Test	Customer-Defined	57 N	N/A
5.5.2	Long-Term Heat Aging	150°C, 3000 hrs, 3kV, no breakdown	No cracks, No breakdown	Pass
5.5.3	Short-Term Heat Aging	175°C, 240hrs, 3kV, no breakdown	No cracks, No breakdown	Pass
5.5.4	Thermal Overload	200°C, 6 hrs, 5kV	No cracks, No breakdown	Pass
5.5.5	Pressure at High Temperature	Under load @150°C, 5kV 5min, no breakdown	No cracks, No breakdown 80% retention	Pass
5.5.6	Shrinkage by heat	2mm max. @ 150°C	0.0 mm	Pass
5.5.7	Low Temperature Winding	4 hrs @ -40°C, 3kV, no breakdown	No cracks, No breakdown	Pass
5.5.8	Cold Impact	16 hrs @ -15°C, 1kV, no breakdown	No cracks, No breakdown	Pass
5.5.9	Temperature and Humidity Cycling	40 x 8 hour cycles -40°C to 150°C, relative humidity 80 -100%, 3kV	No cracks, No breakdown	Pass
5.5.10	Resistance to hot water	35 days in 85C water, IR not less than 10 ¹²	4.46 x 10 ¹⁴ Ω/mm, no breakdown	Pass
5.5.11	Resistance to liquid chemicals	Groups 1 and 2, no breakdown.	All fluids: No crack/damage/breakdown	Pass
5.5.14	Ozone Resistance	65°C, 192 hours, Ozone (1+/- 0.05) x 10 ⁻⁶	No cracks	Pass
5.5.15	Resistance to Flame Propagation	Must extinguish within 30 sec. max. and a min of 50mm unburned	4.0 sec.	Pass

Approvals: GMW 15626; FCA/Stellantis MS90034 150C XLPO

We cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product combination for their own purpose. Unless otherwise agreed in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss and damage arising from the handling and use of our products whether used alone or in combination with other products

Spec 219 R4

June 24



Manufacturing Locations:
Colchester, Vermont
El Paso, Texas
www.champcable.com