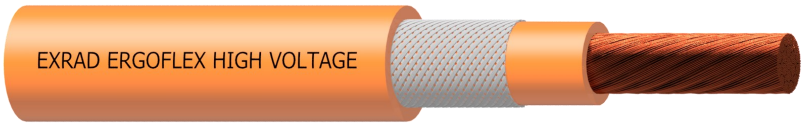
EXRAD® ERGOFLEX™
Shielded Thin Wall
High Voltage Cable

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 4.0mm^2 to 150mm^2, 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



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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	4.0mm² (224/.15)	2.74	3.60	4.04	85%	4.95	15	61	4.71
15-08919	5.0mm² (245/.15)	2.79	4.05	4.50	85%	5.80	17	72	3.94
15-08921	6.0mm² (182/.20)	3.20	4.15	4.59	85%	5.90	18	82	3.14
15-08972	8.0mm² (238/.20)	3.61	4.80	5.24	85%	6.82	20	109	2.38
15-08973	10mm² (322/.20)	4.24	5.77	6.21	85%	7.80	23	139	1.82
15-08566	12mm² (380/.20)	4.83	6.30	6.88	85%	8.30	25	176	1.52
15-08946	16mm² (511/.20)	5.38	6.81	7.53	85%	9.30	28	213	1.16
15-08974	20mm² (610/.20)	6.02	7.39	7.84	85%	9.90	30	245	0.96
15-08975	25mm² (798/.20)	6.86	8.31	8.75	85%	11.00	33	316	0.74
15-08976	30mm² (912/.20)	7.06	9.19	9.64	85%	11.90	36	364	0.65
15-08558	35mm² (1083/.20)	7.87	9.90	10.41	85%	12.90	39	425	0.53
15-09007	40mm² (1235/.20)	8.48	10.52	11.06	85%	13.60	41	488	0.473
15-08565	50mm² (1615/.20)	9.65	11.61	12.25	85%	14.90	45	601	0.368
15-08978	60mm² (1843/.20)	10.34	12.65	13.35	85%	15.90	48	681	0.315
15-08678	70mm² (2128/.20)	11.76	14.02	14.74	85%	17.00	51	805	0.259
15-08679	85mm² (2660/.20)	12.95	15.24	15.96	85%	18.50	56	951	0.219
15-08787	95mm² (2926/.20)	14.05	16.00	16.54	85%	19.50	58	1,079	0.196
15-08853	120mm² (3885/.20)	14.45	18.16	18.88	85%	21.68	65	1,438	0.153
15-08854	150mm² (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	4.0mm² (56/.30)	2.46	3.48	3.94.	85%	4.85	24	54	4.71
15-08550	5.0mm² (70/.30)	2.72	4.05	4.50	85%	5.75	29	77	3.94
15-08693	6.0mm² (84/.30)	2.92	4.15	4.59	85%	5.90	30	86	3.14
15-08980	8.0mm² (119/.28)	3.71	4.80	5.24	85%	6.80	34	106	2.38
15-08981	10mm² (147/.29)	4.24	5.65	6.16	85%	7.80	39	146	1.82
15-08551	12mm² (175/.29)	4.72	6.15	6.73	85%	8.30	42	164	1.52
15-08528	16mm² (224/.30)	5.59	6.80	7.31	85%	9.30	47	214	1.16
15-08530	20mm² (273/.30)	6.20	7.40	7.91	85%	9.90	50	262	0.96
15-08552	25mm² (364/.30)	6.86	8.30	8.81	85%	11.00	55	309	0.74
15-08982	30mm² (418/.29)	7.32	9.14	9.70	85%	11.89	59	345	0.65
15-08983	35mm² (551/.28)	8.10	9.83	10.39	85%	12.88	64	418	0.53
15-08984	40mm² (551/.29)	8.56	10.54	11.10	85%	13.55	68	454	0.473
15-08985	50mm² (722/.29)	9.91	11.60	12.13	85%	14.90	74	587	0.368
15-08986	60mm² (836/.29)	10.44	12.62	13.18	85%	15.88	79	669	0.315
15-08987	70mm² (1026/.29)	11.53	13.67	14.37	85%	17.01	85	804	0.259
15-08988	85mm² (1197/.29)	12.24	15.09	15.79	85%	18.55	93	844	0.219
15-08989	95mm² (1330/.29)	13.23	15.98	16.68	85%	19.47	97	1,055	0.196
15-09001	120mm² (1729/.29)	14.86	18.42	19.12	85%	21.91	110	1,487	0.153
15-09002	150mm² (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.

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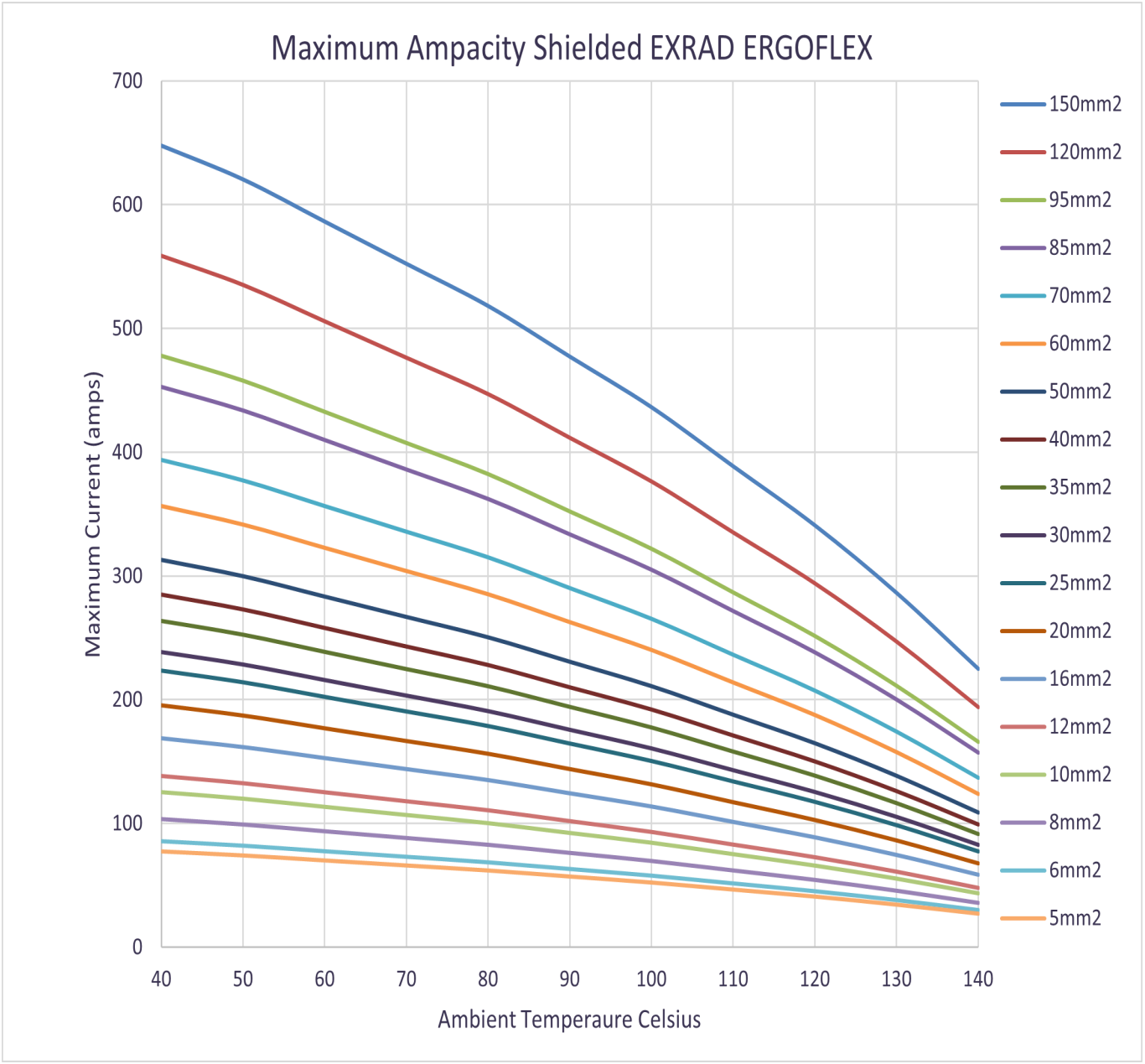

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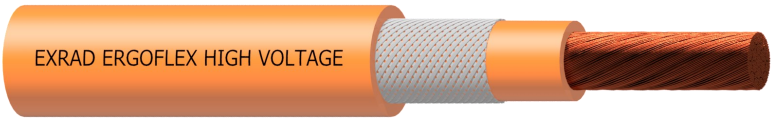

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ISO 19642 Section	Description	Requirement	Typical Results (35mm^2 Sample)	
5.2.1	Outside Cable Diameter	12.6mm-13.2mm	12.95mm	Pass
5.2.2	Insulation Thickness	0.64mm min.	0.762mm	Pass
5.2.3	Conductor Diameter	9.0mm max.	7.87mm	Pass
5.3.1	Conductor Resistance	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} Ω/mm	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; Ford ES-JU5T-1A348-AA Rev D

Spec 219 R6
May 25

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