

1000VAC/1500VDC, ISO-19642-5, Class F, Thin Wall

- Revolutionary EXRAD[®] S200XL Irradiation Crosslinked Fluoroelastomer (XLFE)
- Tougher than Silicone and EPDM
- Ultimate Flexibility, Thin, Fluid Resistant
 and Tough
- Performs at Higher Temperatures for Longer Periods of Time
- Ideal for High Power and Long Life Applications
- High Current Carrying Capacity



- Sizes from 3.0mm² to 150mm². Larger sizes up to 250mm² also available.
- 3,000 hours rated at 200°C
- 1000 VAC and 1500 VDC Rated

- Flexible and Standard Conductor Stranding available.
- UV Resistant
- Excellent Cut-through Resistance



EXRAD S200XL HIGH VOLTAGE





Preferred, ISO Flexible Conductor

Part Number	Bare Copper Conductors	Conductor Diameter mm / nom	Insulation Thickness mm / nom	Finished Diameter mm / nom	Min Static Bend Radius mm	Finished Weight kg/KM nom	Maximum Conductor Resistance 20°C mΩ per M
15-09088	3mm² (161/0.15)	2.26	0.48	3.23	10	35	6.15
15-09089	4mm ² (224/0.15)	2.74	0.41	3.56	11	48	4.71
15-09102	5mm² (245/0.15)	2.79	0.63	4.05	12	53	3.94
15-09103	6mm² (182/0.20)	3.20	0.48	4.17	13	64	3.14
15-09090	8mm ² (238/0.20)	3.61	0.59	4.80	14	76	2.38
15-09091	10mm ² (322/0.20)	4.24	0.76	5.77	17	112	1.82
15-09092	12mm² (380/0.20)	4.83	0.74	6.30	19	137	1.52
15-09080	16mm² (511/0.20)	5.38	0.69	6.60	20	165	1.16
15-09093	20mm ² (610/0.20)	6.02	0.69	7.39	22	198	0.955
15-09094	25mm² (798/0.20)	6.86	0.72	8.31	25	260	0.743
15-09095	30mm² (912/0.20)	7.06	1.07	9.19	28	307	0.647
15-08885	35mm² 1083/0.20)	7.49	1.02	9.90	30	370	0.527
15-09096	40mm² (1235/0.20)	8.48	1.02	10.52	32	397	0.473
15-08886	50mm² (1615/0.20)	9.65	0.98	11.61	35	499	0.368
15-09097	60mm² (1843/0.20)	10.34	1.16	12.65	38	590	0.315
15-09101	70mm ² (2128/0.20)	11.76	1.13	14.02	42	720	0.259
15-09098	85mm² (2660/0.20)	12.95	1.14	15.24	46	839	0.219
15-08904	95mm² (2926/0.20)	14.05	1.02	16.00	48	952	0.196
15-09099	120mm² (3885/0.20)*	14.45	1.78	18.16	54	1,363	0.153
15-09100	150mm² (4788/0.20) *	17.53	1.98	21.46	64	1,754	0.120

Optional, ISO Standard Conductor

Part Number	Bare Copper Conductors	Conductor Diameter mm / nom	Insulation Thickness mm / nom	Finished Diameter mm / nom	Min Static Bend Radius mm	Finished Weight kg/KM nom	Maximum Conductor Resistance 20°C mΩ per M
15-09105	3mm ² (44/0.29)	2.16	0.52	3.20	16	35	6.15
15-09106	4mm ² (56/0.29)	2.46	0.51	3.48	17	45	4.71
15-09107	5mm ² (70/0.29)	2.72	0.67	4.05	20	57	3.94
15-08882	6mm ² (84/0.29)	2.92	0.61	4.14	21	67	3.14
15-09108	8mm ² (119/0.28)	3.71	0.55	4.80	24	82	2.38
15-08910	10mm ² (147/0.29)	4.19	0.71	5.61	20	107	1.82
15-09109	12mm² (175/0.29)	4.72	0.71	6.15	31	132	1.52
15-09110	16mm² (224/0.30)	5.59	0.60	6.80	34	163	1.16
15-09111	20mm ² (273/.29)	6.20	0.60	7.40	37	202	0.955
15-09112	25mm² (364/.29)	6.86	0.72	8.30	42	251	0.743
15-09113	30mm² (418/0.29)	7.32	0.91	9.14	46	291	0.647
15-09114	35mm² (511/0.29)	8.10	0.86	9.83	49	355	0.527
15-08912	40mm ² (551/0.29)	8.56	0.97	10.49	53	388	0.473
15-09115	50mm ² (722/0.29)	9.91	0.85	11.60	58	511	0.368
15-09116	60mm ² (836/0.29)	10.44	1.09	12.62	63	589	0.315
15-09117	70mm ² (1026/0.29)	11.53	1.07	13.67	68	711	0.259
15-09118	85mm² (1197/0.29)	12.24	1.42	15.09	75	858	0.219
15-09119	95mm ² (1330/0.30)	13.23	1.37	15.98	80	954	0.196
15-09120	120mm ² (1729/0.29) *	14.86	1.78	18.42	92	1,410	0.153
15-09121	150mm ² (2147/0.29) *	16.54	1.98	20.50	102	1,531	0.130

* Custom Design. Product not defined in ISO 19642 standards







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



ISO 19642	Description	Requirement	Typical Results (35mm ² Sample)	
Section				
5.2.1	Outside Cable Diameter	10.4mm max.	9.91mm	Pass
5.2.2	Insulation Thickness	0.64mm min.	0.99mm	Pass
5.2.3	Conductor Diameter	9.0mm max.	7.87mm	Pass
5.3.1	Conductor Resistance	0.527 mΩ/m max.	0.450 mΩ/m	Pass
5.3.3	Withstand Voltage	10kV for 5min	No dielectric breakdown	Pass
5.3.5	Insulation Faults	Sparktest @ 8.0kV	No breakdown	Pass
5.3.6	Insulation Volume Resistivity	$10^{12} \Omega$ /mm min.	$1.25 \times 10^{14} \Omega$ /mm	Pass
5.4.5	Flexibility Test	Customer-Defined	34.9 N	NA
5.5.2	Long-Term Heat Aging	200°C, 3000 hrs, 3kV, no breakdown	No cracks, No breakdown	Pass
5.5.3	Short-Term Heat Aging	225°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 92% 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	35days in 85C water, IR not less than 10^{12}	$4.46x10^{12}\Omega/mm$, 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 200C XLFE

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



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