

# RFOU – Medium Voltage (MV) Power Cable – SHF2

Flame Retardant • Halogen-Free • Rated 90°C

## Conductors

Flexible Class 5 (for sizes up to 35 sq. mm) or Class 2 (for sizes 50 sq. mm and larger) tinned copper per IEC 60228

## Insulation

Fire resistant tape low smoke halogen-free EP meeting IEC 60092-354

## Metallic Screen

Composite shield consisting of 0.0126" tinned copper wires braided with nylon providing shielded coverage meeting IEC 60092-354. The nylon is colored for easy phase identification (three conductor = black, blue, red) without the need to remove the shield to find an underlying colored tape.

## Conductor Screen

A combination of semi-conducting tape and extruded thermosetting semi-conducting material meeting IEC60092-354

## Insulation Screen

Semi-conducting tape, with overlap, for fast and easy termination meeting IEC60092-354

## Earthing Conductor (optional)

Per IEC 60092-352

## Bedding

Low smoke halogen-free polyolefin bedding meeting IEC 60092-354

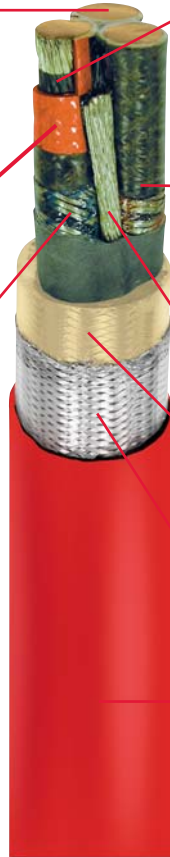
## Armor

Basket weave tinned copper wire armor per IEC 6009-354

## Outer Sheath

Low smoke halogen-free flame retardant compound meeting IEC 60092-359 Type SHF-2.

*Standard sheath color is red.  
Other colors are available.*



## Applications

AmerCable's NEK-MV medium voltage cables are for use aboard commercial ships, mobile offshore drilling units (MODUs), and fixed or floating offshore facilities.

## Features

- Meets IEC 60092-350, IEC 60092-351, IEC 60092-354 and IEC 60092-359
- Flame retardant: IEC 60332-3 Cat A
- Low smoke: IEC 61034-2
- Acidity: IEC 60754-2
- Halogen-free: 60754-1
- Stranding: Highly flexible strand count Class 5 (metric) conductors for sizes up to 35 sq. mm. For sizes larger than 50 sq. mm, Class 2 strand is used.

## Ratings & Approvals

- 90°C Temperature Rating
- American Bureau of Shipping (ABS) BT367739
- Det Norske Veritas (DNV)
- Lloyd's Register of Shipping (LRS) (pending)
- Voltage Rating – 3.6k/6V to 12/20kV

**Hawke  
Gland Types**  
*See Page 1*

**Stranding  
Profile**  
*See Page 1*



# SHF2 RFOU P2 3.6/6kV MV Power Cable

## Oil & Gas Cables

See page 1 for Ampacity Ratings, Bend Radius, Stranding Profile and Hawke Gland Types.

Size mm2	SHF2 Part No.	Diameter Over Ins. (in)	Diameter Over Ins. (mm)	Diameter Over Bedding (in)	Diameter Over Bedding (mm)	Overall Cable Dia. (in)	Overall Cable Dia. (mm)	Cable Weight (lbs/kft)	Cable Weight (kg/km)	Ampacity @ 90°C Cond. 45°C Ambient	Max DC Res. @ 20°C (ohms/km)	Inductive Reactance @ 60Hz (ohms/km)
1 x 10	3403510108RD	0.484	12.29	0.669	16.99	0.858	21.79	502	747	72	1.95	0.185
1 x 16	3403510109RD	0.525	13.34	0.710	18.03	0.901	22.89	573	853	96	1.24	0.173
1 x 25	3403510110RD	0.578	14.68	0.763	19.38	0.958	24.33	682	1015	127	0.795	0.162
1 x 35	3403510111RD	0.622	15.80	0.807	20.50	1.007	25.58	778	1158	157	0.565	0.155
1 x 50	3403510112RD	0.652	16.56	0.837	21.26	1.039	26.39	907	1350	196	0.391	0.153
1 x 70	3403510113RD	0.697	17.70	0.882	22.40	1.088	27.64	1019	1516	242	0.270	0.148
1 x 95	3403510114RD	0.773	19.63	0.958	24.33	1.170	29.72	1257	1870	293	0.195	0.140
1 x 120	3403510115RD	0.825	20.96	1.010	25.65	1.226	31.14	1450	2157	339	0.154	0.135
1 x 150	3403510116RD	0.901	22.89	1.103	28.02	1.328	33.73	1940	2887	389	0.126	0.131
1 x 185	3403510117RD	0.953	24.21	1.155	29.34	1.384	35.15	1984	2952	444	0.100	0.128
1 x 240	3403510118RD	1.048	26.62	1.264	32.11	1.515	38.48	2509	3733	522	0.0762	0.124
1 x 300	3403510119RD	1.143	29.03	1.359	34.52	1.623	41.22	3010	4479	601	0.0607	0.121
3 x 10/16	3403510308RD	0.484	12.29	1.380	35.05	1.641	41.68	1627	2421	50	1.95	0.156
3 x 16/16	3403510309RD	0.525	13.34	1.467	37.26	1.733	44.02	1887	2808	67	1.24	0.145
3 x 25/16	3403510310RD	0.578	14.68	1.598	40.59	1.874	47.60	2325	3459	89	0.795	0.136
3 x 35/15	3403510311RD	0.622	15.80	1.693	43.00	1.977	50.22	2643	3932	110	0.565	0.130
3 x 50/25	3403510312RD	0.652	16.56	1.758	44.65	2.048	52.02	3097	4608	137	0.391	0.128
3 x 70/35	3403510313RD	0.697	17.70	1.855	47.12	2.151	54.64	3527	5248	169	0.270	0.124
3 x 95/50	3403510314RD	0.773	19.63	2.035	51.69	2.348	59.64	4867	7242	205	0.195	0.118
3 x 120/60	3403510315RD	0.825	20.96	2.147	54.53	2.488	63.20	5751	8557	237	0.154	0.113
3 x 150/75	3403510316RD	0.901	22.89	2.311	58.70	2.666	67.72	6765	10066	272	0.126	0.109
3 x 185	3403510317RD	0.953	24.21	2.423	61.54	2.767	70.28	6884	10243	311	0.100	0.107
3 x 185+E	3403510317RDE	0.953	24.21	2.423	61.54	2.767	70.28	7526	11198	311	0.100	0.107
3 x 240	3403510318RD	1.048	26.62	2.675	67.95	3.040	77.22	8564	12742	365	0.0762	0.104
3 x 240+E	3403510318RDE	1.048	26.62	2.675	67.95	3.040	77.22	9379	13955	365	0.0762	0.104

# SHF2 RFOU P3 6/10kV MV Power Cable

Size mm2	SHF2 Part No.	Diameter Over Ins. (in)	Diameter Over Ins. (mm)	Diameter Over Bedding (in)	Diameter Over Bedding (mm)	Overall Cable Dia. (in)	Overall Cable Dia. (mm)	Cable Weight (lbs/kft)	Cable Weight (kg/km)	Ampacity @ 90°C Cond. 45°C Ambient	Max DC Res. @ 20°C (ohms/km)	Inductive Reactance @ 60Hz (ohms/km)
1 x 16	3403610109RD	0.558	14.17	0.743	18.87	0.938	23.83	579	861	96	1.240	0.176
1 x 25	3403610110RD	0.611	15.52	0.796	20.22	0.996	25.30	726	1080	127	0.795	0.165
1 x 35	3403610111RD	0.655	16.64	0.840	21.34	1.044	26.52	818	1217	157	0.565	0.158
1 x 50	3403610112RD	0.686	17.40	0.870	22.10	1.074	27.28	946	1408	196	0.391	0.155
1 x 70	3403610113RD	0.730	18.54	0.915	23.24	1.125	28.58	1062	1580	242	0.270	0.150
1 x 95	3403610114RD	0.806	20.47	0.991	25.17	1.207	30.66	1301	1936	293	0.195	0.142
1 x 120	3403610115RD	0.858	21.79	1.060	26.92	1.280	32.51	1520	2262	339	0.154	0.138
1 x 150	3403610116RD	0.934	23.72	1.136	28.85	1.363	34.62	1992	2964	389	0.126	0.133
1 x 185	3403610117RD	0.986	25.04	1.188	30.18	1.432	36.37	2095	3117	444	0.100	0.130
1 x 240	3403610118RD	1.081	27.46	1.297	32.94	1.550	39.37	2555	3802	522	0.0762	0.126
1 x 300	3403610119RD	0.901	22.89	1.393	35.38	1.656	42.06	3059	4551	601	0.0607	0.122
3 x 16/16	3403610309RD	0.558	14.47	1.555	39.50	1.827	46.41	2066	3074	67	1.240	0.149
3 x 25/16	3403610310RD	0.611	15.52	1.669	42.39	1.952	49.58	2472	3678	89	0.795	0.139
3 x 35/16	3403610311RD	0.655	16.64	1.764	44.81	2.055	52.20	2818	4193	110	0.565	0.133
3 x 50/25	3403610312RD	0.685	17.40	1.829	46.46	2.125	53.98	3259	4849	137	0.391	0.132
3 x 70/35	3403610313RD	0.730	18.54	1.943	49.35	2.248	57.10	3751	5581	169	0.270	0.127
3 x 95/50	3403610314RD	0.806	20.47	2.106	53.49	2.440	61.98	4690	6978	205	0.195	0.121
3 x 120/60	3403610315RD	0.858	21.79	2.220	56.39	2.567	65.20	5975	8890	237	0.154	0.116
3 x 150/75	3403610316RD	0.934	23.72	2.382	60.50	2.741	69.62	6951	10342	272	0.126	0.112
3 x 185	3403610317RD	0.986	25.04	2.494	63.35	2.845	72.26	7102	10567	311	0.100	0.109
3 x 185+E	3403610317RDE	0.986	25.04	2.494	63.35	2.845	72.26	7758	11543	311	0.100	0.109
3 x 240	3403610318RD	1.081	27.46	2.746	69.75	3.117	79.17	8808	13105	365	0.0762	0.106
3 x 240+E	3403610318RDE	1.081	27.46	2.746	69.75	3.117	79.17	9622	14316	365	0.0762	0.106

# SHF2 RFOU P4 8.7/15kV MV Power Cable

See page 1 for Ampacity Ratings, Bend Radius, Stranding Profile and Hawke Gland Types.

Size mm2	SHF2 Part No.	Diameter Over Ins. (in)	Diameter Over Ins. (mm)	Diameter Over Bedding (in)	Diameter Over Bedding (mm)	Overall Cable Dia. (in)	Overall Cable Dia. (mm)	Cable Weight (lbs/kft)	Cable Weight (kg/km)	Ampacity @ 90°C Cond. 45°C Ambient	Max DC Res. @ 20°C (ohms/km)	Inductive Reactance @ 60Hz (ohms/km)
1 x 25	3403710110RD	0.669	17.75	0.886	22.50	1.092	27.74	815	1213	127	0.795	0.172
1 x 35	3403710111RD	0.743	18.87	0.930	23.62	1.140	28.96	908	1351	157	0.565	0.164
1 x 50	3403710112RD	0.773	19.63	0.960	24.38	1.174	29.82	1049	1561	196	0.391	0.162
1 x 70	3403710113RD	0.818	20.78	1.005	25.53	1.221	31.01	1182	1759	242	0.270	0.156
1 x 95	3403710114RD	0.894	22.71	1.098	27.89	1.323	33.60	1445	2150	293	0.195	0.149
1 x 120	3403710115RD	0.946	24.03	1.150	29.21	1.392	35.36	1707	2540	339	0.154	0.144
1 x 150	3403710116RD	1.022	25.96	1.240	31.50	1.491	37.87	2012	2994	389	0.126	0.139
1 x 185	3403710117RD	1.074	27.28	1.292	32.82	1.547	39.29	2264	3369	444	0.100	0.136
1 x 240	3403710118RD	1.169	29.69	1.387	35.23	1.653	41.99	2620	3898	522	0.0762	0.131
1 x 300	3403710119RD	1.264	32.11	1.499	38.07	1.767	44.88	3264	4856	601	0.0607	0.127
3 x 25/16	3403710310RD	0.699	17.75	1.863	47.32	1.932	49.07	2449	3644	89	0.795	0.148
3 x 35/16	3403710311RD	0.743	18.87	1.975	50.17	2.282	57.96	3328	4952	110	0.565	0.141
3 x 50/25	3403710312RD	0.773	19.63	2.040	51.82	2.353	59.77	3781	5626	137	0.391	0.140
3 x 70/35	3403710313RD	0.818	20.78	2.137	54.28	2.458	62.43	4269	6352	169	0.270	0.135
3 x 95/50	3403710314RD	0.894	22.71	2.300	58.42	2.653	67.39	4564	6791	205	0.195	0.128
3 x 120/60	3403710315RD	0.946	24.03	2.412	61.26	2.775	70.49	6134	9127	237	0.154	0.123
3 x 150/75	3403710316RD	1.022	25.96	2.623	66.62	3.003	76.28	6918	10293	272	0.126	0.119
3 x 185	3403710317RD	1.074	27.28	2.735	69.47	3.108	78.94	7935	11806	311	0.100	0.116
3 x 185+E	3403710317RDE	1.074	27.28	2.735	69.47	3.108	78.94	8591	12782	311	0.100	0.116
3 x 240	3403710318RD	1.169	29.69	2.940	74.68	3.328	84.53	9469	14089	365	0.0762	0.112
3 x 240+E	3403710318RDE	1.169	29.69	2.940	74.68	3.328	84.53	10283	15300	365	0.0762	0.112

# SHF2 RFOU P19 12/20kV MV Power Cable

Size mm2	SHF2 Part No.	Diameter Over Ins. (in)	Diameter Over Ins. (mm)	Diameter Over Bedding (in)	Diameter Over Bedding (mm)	Overall Cable Dia. (in)	Overall Cable Dia. (mm)	Cable Weight (lbs/kft)	Cable Weight (kg/km)	Ampacity @ 90°C Cond. 45°C Ambient	Max DC Res. @ 20°C (ohms/km)	Inductive Reactance @ 60Hz (ohms/km)
1 x 35	3403810111RD	0.743	18.87	0.930	23.62	1.140	28.96	908	1351	157	0.565	0.164
1 x 50	3403810112RD	0.856	21.74	1.042	26.47	1.263	32.08	1153	1716	196	0.391	0.168
1 x 70	3403810113RD	0.901	22.89	1.104	28.04	1.329	33.76	1315	1957	242	0.270	0.163
1 x 95	3403810114RD	0.977	24.82	1.180	29.97	1.424	36.17	1625	2418	293	0.195	0.155
1 x 120	3403810115RD	1.029	26.14	1.246	31.65	1.498	38.05	1854	2759	339	0.154	0.150
1 x 150	3403810116RD	1.105	28.07	1.322	33.58	1.579	40.11	2145	3192	389	0.126	0.144
1 x 185	3403810117RD	1.157	29.39	1.374	34.90	1.635	41.53	2404	3577	444	0.100	0.140
1 x 240	3403810118RD	1.253	31.83	1.470	37.34	1.736	44.09	2871	4272	522	0.0762	0.135
1 x 300	3403810119RD	1.348	34.24	1.582	40.18	1.856	47.14	3415	5081	601	0.0607	0.131
3 x 35/16	3403810311RD	0.743	18.87	1.975	50.17	2.282	57.96	3317	4935	110	0.565	0.148
3 x 50/25	3403810312RD	0.856	21.74	2.219	56.36	2.547	64.69	4254	6329	137	0.391	0.147
3 x 70/35	3403810313RD	0.901	22.89	2.314	58.78	2.650	67.31	4760	7082	169	0.270	0.141
3 x 95/50	3403810314RD	0.977	24.82	2.478	62.94	2.828	71.83	5662	8424	205	0.195	0.134
3 x 120/60	3403810315RD	1.029	26.14	2.637	66.98	3.019	77.68	6685	9947	237	0.154	0.129
3 x 150/75	3403810316RD	1.105	28.07	2.801	71.15	3.195	81.15	7846	11674	272	0.126	0.124
3 x 185	3403810317RD	1.157	29.39	2.916	74.07	3.304	83.92	8520	12677	311	0.100	0.121
3 x 185+G	3403810317RDE	1.157	29.39	2.916	74.07	3.304	83.92	9177	13654	311	0.100	0.121
3 x 240	3403810318RD	1.253	31.83	3.120	79.25	3.524	89.51	10191	15163	365	0.0762	0.117
3 x 240+G	3403810318RDE	1.253	31.83	3.120	79.25	3.524	89.51	11007	16377	365	0.0762	0.117