

# SH-HFA 150/250 V Armoured Multi-Conductor (LSZH), HF90/SHF1

SH-HFA 150/250 V armoured multicore cables are suitable for use in offshore oil and gas, shipboard and marine applications. Our cables are made to IEC specifications and can be modified to fit your specific requirements.

## Standards:



## Operating Temperature

-40°C to +90°C

## Product Construction

### Conductor:

- Stranded bare or tinned copper class 5 (standard) or class 2 (optional)

### Insulation:

- Halogen Free HF90 Rated: +90°C Wet/Dry, IEC 60092-360

### Shielding:

- Aluminum/mylar foil shield with tinned copper drain wire (standard)

### Armour:

- Tinned-Copper Braid (optional)
- Bronze Braid (optional)

### Jacket:

- FR LSZH Thermoplastic, IEC 60092-360 (SHF1)

### Available in:

- Custom insulation/jacket colours

## Certification/Compliances

### Construction & Materials:

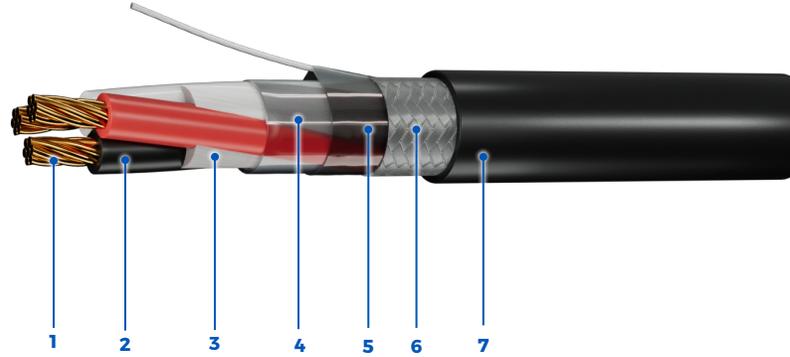
- IEC 60092-376
- IEC 60092-350
- IEC 60092-360 (Insulation & Sheath)
- IEC 60228 (Conductor)

### Performance:

- IEC 60332-3-22, Cat. A (Flame Retardancy)
- IEC 60754-1 & 2, IEC 60684-2 (Halogen Free)
- IEC 61034-1 & 2 (Low Smoke Emission)
- IEC 60811-403 (Ozone Resistance)
- Cold Bend & Impact (-40°C/-35°C)

### Approvals:

- American Bureau of Shipping (ABS)
- Lloyd's Register
- Transport Canada



- 1 - Stranded Bare or Tinned Class 2 or Class 5 Copper Conductors
- 2 - Halogen Free HF90 Insulated Conductors
- 3 - Polypropylene Fillers
- 4 - Fiberglass Tape

- 5 - Overall Aluminum/Mylar Shield with Tinned Copper Drain Wire
- Optional: LSZH Inner Sheath (Not Shown)
- 6 - Tinned-Copper or Bronze Braided Armour
- 7 - Protective LSZH Outer Sheath

## 150/250 V

### Voltage

## Colour Coding

- Per IEEE 1580 Table 23:
  - 2C - Black, White
  - 3C - Black, White, Red
  - 4C - Black, White, Red, Green
  - 5C - Black, White, Red, Green, Orange
  - 6C - Black, White, Red, Green, Orange, Blue
  - ≥7C - Base color with tracers

## Control and Instrumentation

# SH-HFA 150/250 V Armoured Multi-Conductor (LSZH), HF90/SHF1

NUMBER OF CONDUCTORS	x	SIZE OF CONDUCTORS	NOMINAL OD OVERALL CABLE	CABLE WEIGHT	AMPACITY	SHAWFLEX PART NUMBER
(c)		(mm <sup>2</sup> )	(in/mm)	(lbs/1000ft) / (kg/km)	(45°C ambient)	
2c	x	0.5	0.3 / 7.9	81.11 / 120.71	14	SHC11E1A02F0800
2c	x	1	0.3 / 8.7	93.56 / 139.23	16	SHC11E0102F0800
2c	x	1.5	0.4 / 10.2	123.99 / 184.51	20	SHC11E3A02F0800
2c	x	2.5	0.5 / 11.5	168.8 / 251.2	26	SHC11E5A02F0800
3c	x	0.5	0.3 / 8.3	87.42 / 130.09	9	SHC11E1A03F0800
3c	x	1	0.4 / 9.3	108.74 / 161.83	12	SHC11E0103F0800
3c	x	1.5	0.4 / 10.7	139.86 / 208.14	16	SHC11E3A03F0800
3c	x	2.5	0.5 / 12	192.08 / 285.84	21	SHC11E5A03F0800
4c	x	0.5	0.3 / 8.8	98 / 145.85	9	SHC11E1A04F0800
4c	x	1	0.4 / 10	123.89 / 184.37	12	SHC11E0104F0800
4c	x	1.5	0.5 / 11.9	179.94 / 267.78	16	SHC11E3A04F0800
4c	x	2.5	0.5 / 13.2	230.61 / 343.18	21	SHC11E5A04F0800
5c	x	0.5	0.4 / 10	119.79 / 178.27	7.2	SHC11E1A05F0800
5c	x	1	0.4 / 11	144.89 / 215.62	9.6	SHC11E0105F0800
5c	x	1.5	0.5 / 13	211.55 / 314.82	12.8	SHC11E3A05F0800
5c	x	2.5	0.6 / 14.2	265.07 / 394.47	16.8	SHC11E5A05F0800
7c	x	0.5	0.4 / 10.7	136.97 / 203.83	6.3	SHC11E1A07F0800
7c	x	1	0.5 / 12.1	191.43 / 284.87	8.4	SHC11E0107F0800
7c	x	1.5	0.5 / 13.9	246.37 / 366.64	11.2	SHC11E3A07F0800
7c	x	2.5	0.6 / 15.2	309.47 / 460.54	14.7	SHC11E5A07F0800
10c	x	0.5	0.5 / 13.5	210.63 / 313.46	6.3	SHC11E1A10F0800
10c	x	1	0.6 / 14.9	257.86 / 383.74	8.4	SHC11E0110F0800
10c	x	1.5	0.7 / 17.2	336.87 / 501.31	11.2	SHC11E3A10F0800
10c	x	2.5	0.7 / 18.9	426.03 / 634	14.7	SHC11E5A10F0800
12c	x	0.5	0.5 / 13.8	223.37 / 332.41	6.3	SHC11E1A12F0800
12c	x	1	0.6 / 15.3	277.03 / 412.27	8.4	SHC11E0112F0800
12c	x	1.5	0.7 / 17.7	366.41 / 545.28	11.2	SHC11E3A12F0800
12c	x	2.5	0.8 / 19.5	468.59 / 697.34	14.7	SHC11E5A12F0800
14c	x	0.5	0.6 / 14.4	241.35 / 359.17	6.3	SHC11E1A14F0800
14c	x	1	0.6 / 16	301.97 / 449.39	8.4	SHC11E0114F0800
14c	x	1.5	0.7 / 18.5	398.38 / 592.85	11.2	SHC11E3A14F0800
14c	x	2.5	0.8 / 20.6	531.16 / 790.45	14.7	SHC11E5A14F0800
19c	x	0.5	0.6 / 15.7	284.64 / 423.59	6.3	SHC11E1A19F0800
19c	x	1	0.7 / 17.7	372.63 / 554.53	8.4	SHC11E0119F0800
19c	x	1.5	0.8 / 20.5	495.55 / 737.47	11.2	SHC11E3A19F0800
19c	x	2.5	0.9 / 22.7	649.26 / 966.21	14.7	SHC11E5A19F0800

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(c)		(mm <sup>2</sup> )	(in/mm)	(lbs/1000ft) / (kg/km)	(45°C ambient)	
24c	x	0.5	0.7 / 18.1	355.46 / 528.98	6.3	SHC11E1A24F0800
24c	x	1	0.8 / 20.5	466.43 / 694.12	8.4	SHC11E0124F0800
24c	x	1.5	0.9 / 23.8	624.34 / 929.12	11.2	SHC11E3A24F0800
24c	x	2.5	1 / 26.4	821.64 / 1222.73	14.7	SHC11E5A24F0800
27c	x	0.5	0.7 / 18.4	373.94 / 556.48	5.4	SHC11E1A27F0800
27c	x	1	0.8 / 20.9	494.61 / 736.06	7.2	SHC11E0127F0800
27c	x	1.5	1 / 24.3	667.28 / 993.01	9.6	SHC11E3A27F0800
27c	x	2.5	1.1 / 27.2	899.87 / 1339.16	12.6	SHC11E5A27F0800
37c	x	0.5	0.8 / 20.6	464.91 / 691.87	5.4	SHC11E1A37F0800
37c	x	1	0.9 / 23	608.54 / 905.61	7.2	SHC11E0137F0800
37c	x	1.5	1.1 / 27.1	841.6 / 1252.43	9.6	SHC11E3A37F0800
37c	x	2.5	1.2 / 30.4	1149.02 / 1709.93	12.6	SHC11E5A37F0800

\*Ampacity value based on ABS Rules for Building and Classing Steel Vessels, Version 2023, Table-6. Values are corrected according to Table 6 for number of Conductors.

\*\*Available in both American Wire Gauge (AWG) and Metric wire conductor sizes

\*Braid available over or under Jacket. Part ends with 00 = jacket and then braid. Part ends with N9 = braid and then jacket