

658(*) SW4 0.6/1 kV

TCu/EPR/ZH/GSWB/ZH

BS 6883

Halogen-free, flame retardant, offshore & shipboard power, control & lighting cables with elastomeric insulation and sheath, with steel wire braid

CONSTRUCTION

Conductors	Tinned annealed circular stranded copper	
	Class 5 acc. to BS EN 60228	Class 2 acc. to BS EN 60228
	¹⁾ For sizes: 1.0 & 1.5 mm ²	²⁾ For sizes 2.5 mm ² and above
Insulation	Halogen-free elastomer compound EPR type GP4 acc. to BS 7655-1.2	
Core identification ³⁾	All cores are white with black printed numbers	
Inner sheath	Halogen-free, heat-resistant, oil-resisting and flame-retardant elastomer compound type SW4 acc. to BS 7655-2.6	
Armour/Mechanical screen ⁴⁾	Galvanized steel wire braid	
Separator	Separator, suitable tape between the braid and outer sheath	
Outer sheath	Halogen-free, heat-resistant, oil-resisting and flame-retardant elastomer compound type SW4 acc. to BS 7655-2.6	
Colour of outer sheath	Black	
Cable marking	ELECTRIC CABLE Type SW4 "number of cores" "x" "conductor size" "600/1,000 V" "TFK3" "BS6883" "UKOOA code" "IEC60332-3-22 cat. A" "year" "metre mark"	

¹⁾ Class 2 conductors for sizes below 2.5 mm² are available on request.

²⁾ Class 5 flexible conductors for sizes above 2.5 mm² are available on request.

³⁾ Coloured cores are available on request.

⁴⁾ Tinned copper wire braid version is available on request.



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CHARACTERISTIC

Maximum conductor operating temperature:	+90°C	
Lowest ambient temperature for fixed installation:	-40°C	
Lowest installation temperature:	-15°C	
Minimum bending radius:	Overall diameter of cable (D)	Minimum bending radius
	< 25 mm	4 D
	> 25 mm	6 D
	D – overall diameter of cable	

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Fire performance

Flame retardant:	IEC 60332-3-22 Category A
Smoke emission:	BS EN 61034-2, IEC 61034-2
Corrosive gas emission:	BS EN 50267-2-1, IEC 60754-1: type SW4 cables $\leq 0.5\%$ HCl
UV resistant:	UL 1581

Applications

Armoured power, control or lighting cable for fixed installations in all areas including accommodation and open deck in ships and offshore units where halogen-free cable protection is required.

Approvals

LR

Details related to particular Approvals are informative only. Please contact manufacturer to confirm whether the required cross-sections are covered by the Certificate.

Standard length cable packing:	1,000 m on drums Other forms of packing and delivery are available on request
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Number and cross-sectional area of conductor	Class of conductor	Nominal thickness of insulation	Nominal thickness of inner sheath	Diameter of steel wires in braid	Nominal thickness of outer sheath	Approximate overall diameter of cable	Approximate net weight of cables SW4	UKOOA Code
n × mm ²		mm	mm	mm	mm	mm	kg/km	
*2 × 0.75	5	0.8	1	0.3	1.2	11.3	198	—
2 × 1	5	0.8	1	0.3	1.2	11.6	200	WB201
2 × 1.5	5	0.8	1.1	0.3	1.2	12.4	241	WB202
2 × 2.5	2	0.8	1.1	0.3	1.2	13.4	283	WB203
2 × 4	2	1	1.2	0.3	1.3	15.6	387	WB204
2 × 6	2	1	1.2	0.3	1.4	16.9	476	WB206
2 × 10	2	1	1.3	0.3	1.4	19.2	627	WB210
2 × 16	2	1	1.4	0.3	1.5	22	853	WB216

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2 × 25	2	1.2	1.5	0.3	1.7	26.1	1,212	WB225
2 × 35	2	1.2	1.6	0.3	1.8	28.8	1,532	WB235
2 × 50	2	1.4	1.7	0.45	2	33	2,038	WB250
2 × 70	2	1.4	1.9	0.45	2.1	37.1	2,680	WB270
2 × 95	2	1.6	2.1	0.45	2.3	42.6	3,593	WB295
2 × 120	2	1.6	2.2	0.45	2.5	46.2	4,291	WB20A
2 × 150	2	1.8	2.3	0.45	2.6	50.5	5,120	WB20B
2 × 185	2	2	2.5	0.45	2.8	55.7	6,404	WB20C
2 × 240	2	2.2	2.8	0.45	3.1	62.8	8,210	WB20D
2 × 300	2	2.4	3	0.45	3.3	69.1	10,016	WB20E
*3 × 0.75	5	0.8	1.1	0.3	1.2	12.1	222	–
3 × 1	5	0.8	1.1	0.3	1.2	12.2	237	WB301
3 × 1.5	5	0.8	1.1	0.3	1.2	12.9	263	WB302
3 × 2.5	2	0.8	1.1	0.3	1.3	14.1	323	WB303
3 × 4	2	1	1.2	0.3	1.3	16.3	439	WB304
3 × 6	2	1	1.2	0.3	1.4	17.7	547	WB306
3 × 10	2	1	1.3	0.3	1.5	20.4	743	WB310
3 × 16	2	1	1.4	0.3	1.6	23.3	1,029	WB316
3 × 25	2	1.2	1.6	0.3	1.8	27.8	1,515	WB325
3 × 35	2	1.2	1.7	0.45	1.9	31.4	2,032	WB335
3 × 50	2	1.4	1.8	0.45	2	35	2,547	WB350
3 × 70	2	1.4	2	0.45	2.2	39.6	3,340	WB370
3 × 95	2	1.6	2.2	0.45	2.4	45.5	4,514	WB395
3 × 120	2	1.6	2.3	0.45	2.6	49.3	5,408	WB30A
3 × 150	2	1.8	2.5	0.45	2.8	54.3	6,587	WB30B
3 × 185	2	2	2.7	0.45	3	59.9	8,197	WB30C
3 × 240	2	2.2	2.9	0.45	3.2	67	10,475	WB30D
3 × 300	2	2.4	3.2	0.45	3.5	74.1	12,878	WB30E
4 × 1	5	0.8	1.1	0.3	1.2	12.9	262	WB401
4 × 1.5	5	0.8	1.1	0.3	1.3	13.9	301	WB402
4 × 2.5	2	0.8	1.1	0.3	1.3	15.1	384	WB403
4 × 4	2	1	1.2	0.3	1.4	17.7	532	WB404
4 × 6	2	1	1.3	0.3	1.5	19.4	673	WB406

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4 × 10	2	1	1.4	0.3	1.6	22.3	917	WB410
4 × 16	2	1	1.5	0.3	1.7	25.6	1,287	WB416
4 × 25	2	1.2	1.7	0.45	1.9	31.3	1,999	WB425
4 × 35	2	1.2	1.8	0.45	2	34.2	2,525	WB435
4 × 50	2	1.4	1.9	0.45	2.2	38.7	3,159	WB450
4 × 70	2	1.4	2.1	0.45	2.4	43.7	4,226	WB470
4 × 95	2	1.6	2.3	0.45	2.6	50.2	5,718	WB495
4 × 120	2	1.6	2.5	0.45	2.8	54.6	6,876	WB40A
4 × 150	2	1.8	2.7	0.45	3	60.1	8,357	WB40B
4 × 185	2	2	2.9	0.45	3.2	66.3	10,406	WB40C
4 × 240	2	2.2	3.2	0.45	3.5	74.6	13,363	WB40D
4 × 300	2	2.4	3.5	0.45	3.8	82.4	16,433	WB40E
5 × 1.5	5	0.8	1.1	0.3	1.3	14.8	351	–
5 × 2.5	2	0.8	1.2	0.3	1.3	16.3	441	–
*5 × 4	2	1	1.4	0.3	1.5	19.7	652	–
*5 × 6	2	1	1.5	0.3	1.6	21.6	807	–
*5 × 10	2	1	1.5	0.3	1.7	24.3	1,090	–
*5 × 16	2	1	1.7	0.45	1.9	28.9	1,654	–
*5 × 25	2	1.2	1.8	0.45	2	34	2,374	–
*5 × 35	2	1.2	1.9	0.45	2.2	37.6	3,086	–
*5 × 50	2	1.4	2.1	0.45	2.4	42.6	3,857	–
*5 × 70	2	1.4	2.3	0.45	2.6	48.2	5,152	–
*6 × 1	2	0.8	1.2	0.3	1.3	15.1	342	–
*6 × 1.5	2	0.8	1.2	0.3	1.3	16.1	408	–
*6 × 4	2	1	1.4	0.3	1.5	21.2	724	–
*6 × 6	2	1	1.5	0.3	1.7	23.5	911	–
*7 × 1	5	0.8	1.2	0.3	1.3	15.8	367	–
7 × 1.5	5	0.8	1.2	0.3	1.3	16.8	452	WB702
7 × 2.5	2	0.8	1.2	0.3	1.4	18.6	577	WB703
*8 × 1.5	5	0.8	1.2	0.3	1.4	17.9	473	–
*10 × 4	2	1.0	1.4	0.3	1.6	26.2	1,067	–
12 × 1.5	5	0.8	1.3	0.3	1.5	20.1	621	WBA02
12 × 2.5	2	0.8	1.4	0.3	1.6	22.6	836	WBA03

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**13G2.5	5	0.8	1.5	0.3	1.7	23.7	885	–
*14 × 2.5	2	0.8	1.5	0.3	1.7	23.8	944	–
**14G2.5	5	0.8	1.5	0.3	1.7	23.8	912	–
19 × 1.5	5	0.8	1.4	0.3	1.6	24.1	888	WBB02
19 × 2.5	2	0.8	1.5	0.3	1.7	27.1	1,202	WBB03
19 × 4	2	1.0	1.6	0.3	1.8	32.8	1,740	–
*20 × 2.5	2	0.8	1.6	0.3	1.8	27.4	661	–
*20 × 2.5	5	0.8	1.6	0.3	1.8	27.3	650	–
*24 × 1.5	5	0.8	1.6	0.3	1.8	26.9	1,070	–
*24 × 2.5	2	0.8	1.6	0.3	1.8	29.8	1,462	–
27 × 1.5	5	0.8	1.6	0.3	1.8	27.5	1,162	WBC02
*27 × 2.5	2	0.8	1.7	0.45	1.9	31.4	1,714	WBC03
*30 × 2.5	2	0.8	1.7	0.45	1.9	32.4	1,803	–
37 × 1.5	5	0.8	1.7	0.45	1.9	32.1	1,608	WBD02
*37 × 2.5	2	0.8	1.8	0.45	2	36	2,240	–
*37 × 2.5	5	0.8	1.8	0.45	2	35.9	2,153	–
*47 × 1.5	2	0.8	1.8	0.45	2	35.5	2,060	–
*48 × 1.5	2	0.8	1.8	0.45	2	35.4	2,002	–
*48 × 2.5	2	0.8	1.9	0.45	2.1	39.3	2,688	–

*Based on standard

**Based on standard with green-yellow earth core

Continuous Current Ratings

In accordance with IEC 60092-352

Conductor size	Single core	2-core	3- or 4-core
mm ²	Amps	Amps	Amps
1	18	15	13
1.5	23	20	16
2.5	30	26	21

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Conductor size	Single core	2-core	3- or 4-core
4	40	34	28
6	52	44	36
10	72	61	50
16	96	82	67
25	127	108	89
35	157	133	110
50	196	167	137
70	242	206	169
95	293	249	205
120	339	288	237
150	389	331	272
185	444	377	311
240	522	444	365
300	601	511	421

Maximum rated conductor temperature 90°C, ambient temperature 45°C

Correction factor for different ambient temperature										
Temperature of air [°C]	35	40	45	50	55	60	65	70	75	80
Correction factor	1.1	1.05	1	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Please refer to technical section for additional information relating to these cables.