

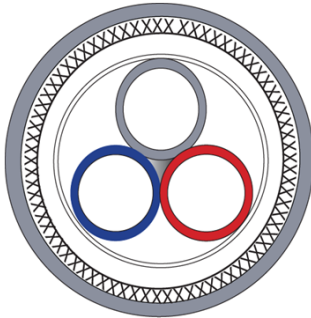
**BS 6883:1999 600/1000 Volt**

**Single and Multicore**

**APPLICATION**

Offshore installations.

**CONSTRUCTION**



CONDUCTOR  
INSTALLATION  
COLOUR CODE  
INNER SHEATH  
ARMOURING  
OUTER SHEATH  
FLAME RETARDANT

Tinned copper conductors to BS EN 60228 class 2 or 5 for 1.5mm<sup>2</sup>  
EPR Type GP4 to BS 7655 90 Deg C  
Numbered or coloured as specified  
SW4 to BS 7655 section 2.6  
Galvanised steel wire braid BS EN 10257-1 SW4 to BS 7655 section 2.6  
IEC60332-3-22 CAT A

**ELECTRICAL DATA**

Continuous current ratings for groups of circuits (up to 6 cables bunched) for single core EPR insulated cables, run open or enclosed. Also applicable to mica tape fire resistant types

**CURRENT RATINGS**

Nominal Conductor Area	Current Rating Single Phase a.c. Or d.c or Three Phase a.c.	Voltage Drop Per Amp Per Metre		
		d.c.	Single phase a.c.	Three Phase a.c.
mm <sup>2</sup>	A	mV	mV	mV
1.0	17	53	53	46
1.5	21	34	34	29
2.5	30	18	18	16
4.0	40	12	12	10
6.0	51	7.6	7.6	6.6
10	71	4.5	4.5	3.9
16	95	2.7	2.7	2.3
25	125	1.7	1.7	1.5
35	155	1.2	1.2	1.1
50	190	0.96	0.98	0.87
70	240	0.67	0.69	0.63
95	290	0.48	0.52	0.49
120	340	0.38	0.42	0.43
150	385	0.31	0.36	0.38
185	440	0.25	0.32	0.34
240	520	0.19	0.27	0.31
300	590	0.15	0.24	0.29

Where more than six cables are bunched, a rating factor of 0.85 should be applied to the current rating.

For ambient temperatures other than 45°C, the following rating factors should be applied

Ambient air temp. °C	40	45	50	55	60	65	70	75	80
Rating factor	1.05	1	0.94	0.88	0.82	0.75	0.67	0.58	0.47

Twin & Multi-Core Cables, EPR Insulated

Continuous current ratings for groups of circuits (up to six cables bunched) for twin and multi-core EPR insulated, run open or enclosed.  
Also applicable to mica taped fire resistant types

**CURRENT RATINGS**

Nominal Conductor Area	Twin Cables			Three & Four Core Cables	
	Current Rating Single Phase a.c. or d.c.	Voltage Drop Per Amp Per Metre		Current Rating Three Phase a.c.	Voltage Drop Per Ampere Per Metre
		d.c.	Single Phase a.c.		
mm <sup>2</sup>	A	mV	mV	A	mV
1.0	14	54	54	12	47
1.5	18	35	35	15	30
2.5	25	18	18	21	16
4.0	34	12	12	29	10
6	43	7.8	7.8	36	6.7
10	60	4.6	4.6	50	4
16	81	2.7	2.7	67	2.3
25	105	1.7	1.7	89	1.5
35	135	1.2	1.2	105	1.1
50	165	0.98	1	135	0.89
70	200	0.68	0.7	170	0.64
95	250	0.49	0.53	205	0.5
120	290	0.39	0.43	240	0.44
150	330	0.31	0.36	270	0.38
185	370	0.25	0.32	305	0.34
240	445	0.19	0.27	365	0.31
300	505	0.15	0.24	415	0.29

Where more than six cables are bunched, a rating factor of 0.85 should be applied to the current rating.

For ambient temperatures other than 45°C, the following rating factors should be applied

Ambient air temp. °C	40	45	50	55	60	65	70	75	80
Rating factor	1.05	1	0.94	0.88	0.82	0.75	0.67	0.58	0.47

**CABLE TYPES**

Single Core TCU/EPR/SW4/PBWB/SW4 Type 600/1000V to BS6883

**ELECTRICAL CHARACTERISTICS**

Conductor Size	Maximum d.c. Conductor Resistance @20°C	Maximum a.c. Conductor Resistance @90°C		Reactance @ 60 Hz Single Core Cables in Trefoil		Impedance @ 90°C, Hz Single Core Cables in Trefoil	
		Unarmoured	Armoured	Unarmoured	Armoured	Unarmoured	Armoured
mm <sup>2</sup>	ohms/km	ohms/km	ohms/km	ohms/km	ohms/km	ohms/km	ohms/km
1.5	12.2	15.6	15.6	0.178	0.222	15.6	15.6
2.5	7.56	9.64	9.64	0.165	0.207	9.64	9.64
4.0	4.7	5.99	5.99	0.159	0.196	5.99	5.99
6.0	3.11	3.97	3.97	0.15	0.184	3.97	3.97
10.0	1.84	2.35	2.35	0.139	0.177	2.35	2.35
16.0	1.16	1.48	1.48	0.132	0.161	1.48	1.49
25.0	0.734	0.935	0.936	0.124	0.15	0.943	0.948
35.0	0.529	0.673	0.674	0.12	0.145	0.684	0.689
50.0	0.391	0.499	0.499	0.119	0.141	0.513	0.519
70.0	0.27	0.344	0.344	0.113	0.134	0.352	0.369
95.0	0.195	0.271	0.271	0.111	0.313	0.293	0.301
120.0	0.154	0.214	0.214	0.108	0.127	0.24	0.249
150.0	0.126	0.175	0.175	0.108	0.126	0.206	0.215
185.0	0.1	0.14	0.14	0.108	0.126	0.177	0.188
240.0	0.0762	0.108	0.108	0.106	0.123	0.151	0.163
300.0	0.0607	0.0864	0.087	0.105	0.121	0.136	0.149
400.0	0.0475	0.0693	0.069	0.104	0.119	0.125	0.138
500.0	0.0369	0.0576	0.058	0.103	0.117	0.118	0.131
630.0	0.0286	0.0436	0.045	0.101	0.114	0.11	0.123

**CABLE TYPES**

Multi-Core TCU/EPR/SW4/GSWB/SW4

**ELECTRICAL CHARACTERISTICS**

Conductor Size	Maximum d.c. Conductor Resistance @20°C	Maximum a.c. Conductor Resistance @90°C	Reactance @ 60 Hz	Impedance @ 90°C 60 Hz
mm <sup>2</sup>	ohms/km	ohms/km	ohms/km	ohms/km
1.5	12.2	15.6	0.142	15.6
1.5*	13.7	17.5	0.142	17.5
2.5	7.56	9.64	0.133	9.64
4.0	4.7	5.99	0.133	5.99
6.0	3.11	3.97	0.126	3.97
10.0	1.84	2.35	0.118	2.35
16.0	1.16	1.48	0.112	1.48
25.0	0.734	0.936	0.107	0.941
35.0	0.529	0.674	0.104	0.684
50.0	0.391	0.499	0.103	0.51
70.0	0.27	0.344	0.102	0.358
95.0	0.195	0.271	0.099	0.288
120.0	0.154	0.214	0.097	0.235
150.0	0.126	0.175	0.097	0.2
185.0	0.1	0.14	0.097	0.17
240.0	0.0762	0.108	0.096	0.144
300.0	0.0607	0.087	0.096	0.129

\*Class 5 (30/0.25mm) flexible conductors

**CABLE TYPES**

Multi-Core TCU/MICA/EPR/ZH/GSWB/SW4 600/1000V to BS7917

**ELECTRICAL CHARACTERISTICS**

Conductor Size	Maximum d.c. Conductor Resistance @20°C	Maximum a.c. Conductor Resistance @90°C	Reactance @ 60 Hz	Impedance @ 90°C 60 Hz
mm <sup>2</sup>	ohms/km	ohms/km	ohms/km	ohms/km
1.5	12.2	15.6	0.152	15.6
1.5*	13.7	17.5	0.152	17.5
2.5	7.56	9.64	0.142	9.64
4.0	4.7	5.99	0.139	5.99
6.0	3.11	3.97	0.131	3.97
10.0	1.84	2.35	0.123	2.35
16.0	1.16	1.48	0.116	1.48
25.0	0.734	0.936	0.111	0.943
35.0	0.529	0.674	0.108	0.683
50.0	0.391	0.499	0.107	0.51
70.0	0.27	0.344	0.103	0.359
95.0	0.195	0.271	0.101	0.289
120.0	0.154	0.214	0.099	0.236
150.0	0.126	0.175	0.099	0.201
185.0	0.1	0.14	0.099	0.171
240.0	0.0762	0.108	0.097	0.145
300.0	0.0607	0.087	0.097	0.13

\* Class 5 (30/0.25mm) flexible conductors

**BS 6883:1999 600/1000 Volt**

Geometrical Data is approximate and final dimensions will be confirmed at time of order								
No. And size of conductor	Nominal Cond Stranding	Radical Thickness of Insulation	Diameter Over Inner Sheath		Minimum O	Maximum O	Approx Weight	UKOOA Code
			Minimum	Maximum				
mm <sup>2</sup>	#/mm	mm	mm	mm	mm	mm	kg/km	
<b>TWO CORE</b>								
1.5	30/0.25	0.8	8.4	9.5	12.4	14	268	WB202
2.5	7/0.67	0.8	9.2	10.3	13.2	14.7	314	WB203
4.0	7/0.85	1	11.3	12.6	15.5	17.2	430	WB204
6.0	7/1.04	1	12.4	13.8	16.8	18.5	523	WB206
10.0	7/0.35	1	14.5	15.9	18.9	20.6	687	WB210
16.0	7/1.70	1	16.8	18.3	21.3	23.5	925	WB216
25.0	19/1.35	1.2	20.5	22.4	25.4	27.9	1365	WB225
<b>THREE CORE</b>								
1.5	30/0.25	0.8	8.9	10	12.9	14.4	298	WB302
2.5	7/0.67	0.8	9.8	11	14	15.5	360	WB303
4.0	7/0.85	1	12	13.4	16.2	17.9	490	WB304
6.0	7/1.04	1	13.2	14.6	17.6	19.4	601	WB306
10.0	7/1.35	1	15.4	17	19.9	22.2	821	WB310
16.0	7/1.70	1	17.9	19.4	22.6	24.8	1113	WB316
25.0	19/1.35	1.2	22.1	24.1	27.2	29.8	1687	WB325
35.0	19/1.53	1.2	24.1	26.1	30.1	33.1	2120	WB335
50.0	19/1.78	1.4	27.8	29.8	34	36.9	2736	WB350
70.0	19/2.14	1.4	31.9	34.3	38.5	41.8	3660	WB370
95.0	37/1.78	1.6	36.8	39.2	43.8	47.2	4773	WB395
120.0	37/2.03	1.6	40.6	43.4	48	51.9	5925	WB30A
150.0	37/2.25	1.8	45	47.9	52.7	56.8	7178	WB30B
185.0	37/2.52	2	50.2	53.6	58.3	62.9	8881	WB30C
240.0	61/2.25	2.2	56.8	60.3	65.3	70.1	11325	WB30D
<b>FOUR CORE</b>								
1.5	30/0.25	0.8	9.7	10.9	13.9	15.4	342	WB402
2.5	7/0.67	0.8	10.7	12	14.9	16.4	419	WB403
4.0	7/0.85	1	13.2	14.6	17.6	19.3	586	WB404
6.0	7/1.04	1	14.7	16.2	19.3	21.1	737	WB406
10.0	7/1.35	1	17.2	18.7	21.9	24.1	1013	WB410
16.0	7/1.70	1	19.9	21.8	24.8	27.1	1382	WB416
25.0	19/1.35	1.2	24.6	26.6	30.6	33.6	2191	WB425
35.0	19/1.53	1.2	26.9	28.9	33.1	36	2654	WB435
50.0	19/1.78	1.4	30.9	33.3	37.5	40.6	3434	WB450
70.0	19/2.14	1.4	35.5	37.9	42.4	46	4625	WB470
95.0	37/1.78	1.6	40.9	43.7	48.3	52.1	6020	WB495
120.0	37/2.03	1.6	45.4	48.3	53.1	57.2	7525	WB40A
150.0	37/2.25	1.8	50.3	53.5	58.4	62.9	9125	WB40B
185.0	37/2.52	2	56	59.5	64.5	69.4	11221	WB40C
<b>SEVEN CORE 6587</b>								
1.5	30/0.25	0.8	11.8	13.2	16	17.7	476	WB702
2.5	7/0.67	0.8	13.1	14.4	17.4	19.1	590	WB703
<b>TWELVE CORE 6580/12</b>								
1.5	30/0.25	0.8	15.7	17.2	20.2	22.4	732	WBA02
2.5	7/0.67	0.8	17.7	19.3	22.4	24.8	935	WBA03
<b>NINETEEN CORE 6580/19</b>								
1.5	30/0.25	0.8	18.6	20.1	22.5	24.8	935	WBB02
2.5	7/0.67	0.8	20.9	22.7	25.8	28	1287	WBB03
<b>TWENTY SEVEN CORE 6580/27</b>								
1.5	30/0.25	0.8	22.7	24.5	27.8	30	1359	LBC02
2.5	7/0.67	0.8	25.4	27.6	31.4	34.5	1854	LBC03
<b>THIRTY SEVEN CORE 6580/37</b>								
1.5	30/0.25	0.8	25.5	27.3	31.5	34.2	18.5	LBD02
2.5	7/0.67	0.8	28.7	30.9	34.9	38.1	2349	-