

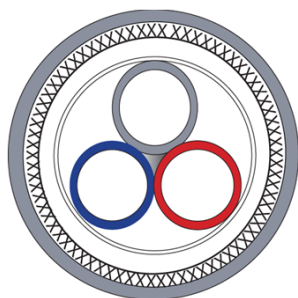
BS 7917:1999 600/1000 Volt

Single and Multicore

APPLICATION

Offshore installations.

CONSTRUCTION



CONDUCTOR

Tinned copper conductors to BS EN 60228 class 2 or 5 for 1.5mm²

INSTALLATION

Mica Glass Tape EPR Type GP4 to BS 7655 90 Deg C

COLOUR CODE

Numbered or coloured as specified

INNER SHEATH

SW4 to BS 7655 section 2.6

ARMOURING

Galvanised steel wire braid BS EN 10257-1

OUTER SHEATH

SW4 to BS 7655 section 2.6

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 ²	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	Voltage Drop Per Ampere Per Metre
		d.c.	Single Phase a.c.		
mm ²	A	mV	mV	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 BS7917

ELECTRICAL CHARACTERISTICS

Conductor Size mm ²	Maximum d.c. ohms/km	Maximum a.c. Conductor		Reactance @ 60 Hz Single		Impedance @ 90°C, Hz	
		Unarmoured ohms/km	Armoured ohms/km	Unarmoured ohms/km	Armoured ohms/km	Unarmoured ohms/km	Armoured 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 mm ²	Maximum d.c. Conductor Resistance @20°C ohms/km	Maximum a.c. Conductor Resistance @90°C ohms/km	Reactance @ 60 Hz ohms/km	Impedance @ 90°C 60 Hz 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 ²	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 7917:1999 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	Maximum O	Approx Weight	UKOOA Code
			Minimum	Maximum				
mm ²	#/mm	mm	mm	mm	mm	mm	kg/km	
TWO CORE								
1.5	30/0.25	0.8	9.2	10.4	13.4	14.7	304	YD202
2.5	7/0.67	0.8	10	11.4	14.1	15.5	341	YD203
THREE CORE								
1.5	30/0.25	0.8	9.8	11	13.8	15.2	328	YD302
2.5	7/0.67	0.8	10.7	12	14.9	16.4	387	YD303
4.0	7/0.85	1	12.9	14.3	17.1	18.8	515	YD304
6.0	7/1.04	1	14.1	15.5	18.5	20.2	626	YD306
10.0	7/1.35	1	16.3	17.8	20.8	22.9	844	YD310
16.0	7/1.70	1	18.8	20.3	23.5	25.6	1133	YD316
25.0	19/1.35	1.2	23.2	25.2	28.4	30.6	1677	YD325
35.0	19/1.53	1.2	25.3	27.2	31.3	33.8	2111	YD335
50.0	19/1.78	1.4	28.9	30.9	35.1	37.6	2723	YD350
70.0	19/2.14	1.4	33	35.4	39.6	42.5	3610	YD370
95.0	37/1.78	1.6	37.9	40.3	44.9	47.9	4683	YD395
FOUR CORE								
1.5	30/0.25	0.8	10.7	12	14.9	16.5	384	YD402
2.5	7/0.67	0.8	11.7	13.1	15.9	17.6	453	YD403
4.0	7/0.85	1	14.2	15.6	18.6	20.3	621	YD404
6.0	7/1.04	1	15.8	17.3	20.3	22.3	771	YD406
10.0	7/1.35	1	18.2	19.7	22.9	25	1050	YD410
16.0	7/1.70	1	20.9	22.8	25.9	28	1415	YD416
25.0	19/1.35	1.2	25.9	27.9	31.9	34.4	2199	YD425
35.0	19/1.53	1.2	28.1	30.1	34.3	36.9	2630	YD435
50.0	19/1.78	1.4	32.2	34.5	38.8	41.7	3421	YD450
70.0	19/2.14	1.4	36.7	39.2	43.7	46.7	4556	YD470
95.0	37/1.78	1.6	42.2	44.9	49.5	52.9	5950	YD495
SEVEN CORE 6587								
1.5	30/0.25	0.8	13	14.4	17.2	18.9	520	YD702
2.5	7/0.67	0.8	14.2	15.6	18.6	20.3	646	YD703
TWELVE CORE 6580/12								
1.5	30/0.25	0.8	17.3	18.8	21.8	24	804	YDA02
2.5	7/0.67	0.8	19.3	20.8	24	26.2	1005	YDA03
NINETEEN CORE 6580/19								
1.5	30/0.25	0.8	20.5	22.4	25.3	27.5	1108	YDB02
2.5	7/0.67	0.8	22.8	24.7	27.8	30	1392	YDB03
TWENTY SEVEN CORE 6580/27								
1.5	30/0.25	0.8	25.1	26.9	30.1	32.8	1510	YDC02
2.5	7/0.67	0.8	27.9	30.2	33.9	36.7	2000	YDC03
THIRTY SEVEN CORE 6580/37								
1.5	30/0.25	0.8	28.3	30.4	34.3	37	2010	YDD02