

Flexible Trailing Cables Type 7S

BS 6708

CABLE DESCRIPTION

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For use with Coalcutters and similar face equipment.

Flexible Tinned Annealed Copper (TAC) Conductors, MEPR Insulated, 3 Copper/Nylon Screened Power Cores Plus 1 Unscreened Pilot Unit, Laid up Around a Flexible TAC Bare Earth Conductor, Sheathed Overall with a Heavy Duty Flame Retardant Elastomeric Compound. The Pilot Unit has 3 MEPR Insulated Cores Laid Up and Sheathed to the same diameter as the screened Phase Cores.



WWW.CABLEJOINTS.CO.UK
THORNE & DERRICK UK
TEL 0044 191 490 1547 FAX 0044 477 5371
TEL 0044 117 977 4647 FAX 0044 977 5582
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Description Details

Item	Description	Details
1	Phase Conductor	(3 off) TAC Flex Conductor
2	Phase Insulation	Coloured Extruded MEPR Cores
3	Phase Core Screen	Composite Copper/Nylon Braid
4	Earth Conductor	(1 off) TAC Flex Conductor
5	Pilot Conductor	(3 off) TAC Flex Conductor
6	Pilot Insulation	Blue Extruded MEPR
7	Pilot Unit Lay Up/Sheath	3 Cores Laid Up and Sheathed with extruded PCP
8	Pilot Screen	Composite Copper/Nylon Braid
9	Lay Up	3 Power Cores 1 Pilot Core Laid Up Around the Uninsulated Earth Core
10	Overall Sheath	Extruded Heavy Duty PCP (Black)

Phase Conductor

Cable size mm ²	Number and nom size of conductor mm ²	Conceptual conductor stranding mm	Nominal conductor diameter mm	Diameter over insulation Nom mm	Diameter over copper/nylon screen Nom mm
50	3 x 50	396/0.40	9.75	13.60	15.90
70	3 x 70	360/0.50	11.60	15.70	18.00
95	3 x 95	475/0.50	12.75	17.25	19.55
120	3 x 120	608/0.50	15.10	20.05	22.35
150*	3 x 150	740/0.50	17.00	22.20	24.50

Earth Conductor

Cable size mm ²	Number and nom. size of conductor mm ²	Conceptual conductor stranding mm	Nominal conductor diameter mm
50	1 x 25	196/0.40	6.75
70	1 x 35	276/0.40	8.00
95	1 x 50	396/0.40	9.75
120	1 x 50	396/0.40	9.75
150*	1 x 70	360/0.50	11.60

Pilot Conductor

Cable size mm ²	Number and nom. size of conductor mm	Conceptual conductor stranding mm	Nominal conductor diameter mm	Diameter over insulation Nom mm	Diameter over sheath Nom mm
50	3 x 4.0	56/0.30	2.60	5.55	15.60
70	3 x 6.0	84/0.30	3.20	6.40	17.70
95	3 x 6.0	84/0.30	3.20	6.40	19.25
120	3 x 10.0	80/0.40	4.05	7.30	22.05
150*	3 x 10.0	80/0.40	4.05	7.30	24.20

Cable Details

Cable size mm ²	Overall diameter- minimum mm	Overall diameter- maximum mm	Minimum bending radius mm	Maximum pulling tensions Kgf	Approximate cable weight Kg/Km
50	48.5	51.8	414	1122	4340
70	55.1	58.8	470	1578	5690
95	62.4	66.1	529	2000	7380
120	68.0	72.5	580	2000	8810
150*	70.4	78.4	627	2000	10450

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Electrical Details

Cable size mm ²	Continuous current rating at 25°C Ambient Amps	Intermittent current rating at 25°C Ambient Amps	Maximum d.c. resistance at 20°C:			Nominal reactance at 50 Hz Ohms/Km	Nominal reactance at 60 Hz Ohms/Km	Minimum insulation resistance at 20°C Megohms.Km	3 phase volt drop based on full load current mV/A/Mt
			Power conductor	Pilot conductor	3 screens and earth in parallel				
			Ohms/Km	Ohms/Km	Ohms/Km				
50	170	200	0.393	5.470	0.440	0.098	0.118	285	0.84
70	205	250	0.277	3.600	0.300	0.095	0.114	260	0.61
95	250	310	0.210	3.600	0.260	0.094	0.113	250	0.47
120	295	355	0.164	2.09	0.240	0.092	0.110	250	0.38
150*	320	385	0.132	2.09	0.176	0.080	0.096	250	0.32

Ordering Information

Cable size mm ²	Reference/Description
50	FCT-M101-113-002
70	FCT-M101-098-002
95	FCT-M101-097-002
120	FCT-M101-120-002
150*	FCT-M101-126-002

*Designed generally in accordance with BS6708, but not included in this specification.



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