

Application:

For use in electricity supply to houses, 600V.
Strung in air from pole top distribution box to houses
pre-paid electricity meter / main circuit breaker.

Voltage Rating: 600V

Specification: SANS 1507-6

Construction:

Centre phase core, hard drawn Cu stranded, red XLPE insulated UV stable, split concentric layer
7x black PE insulated neutral wires + 3 bare Cu earth wires, + communication cores white & blue,
UV stable PE outer sheath.

SIZE CODE	LV (phase core size) MM SPLIT CON (0.5/1.0) COM					
Conductor size	mm ² nom	4	6	10	16	25
Conductor diameter	mm nom	2,5	3,0	3,8	4,8	6,4
Insulation diameter	mm nom	4,1	4,8	5,6	6,6	8,3
Concentric diameter	mm nom	7,1	7,8	8,9	10,7	13,3
Neutral area	mm ²	4,0	6,0	10,0	16,0	25,0
Earth area	mm ²	2,5	4,0	6,0	10,0	16,0
Communication area / construction	mm ² / make up	0.5 / 1x0.8	0.5 / 1x0.8	0.5 / 1 x0.8	0.5 / 1x0.8	0.5 / 1 x0.8
		-	-	1.0 / 3x0.65	1.0 / 3x0.65	1.0 / 3x0.65
Cable diameter	mm Max.	10,1	10,9	12,0	14,2	16,8
Cable mass	kg/m nom	0,12	0,21	0,31	0,48	0,74
Gross mass (500m)	kg nom	96	145	198	275	484
Bending radius	mm Min.	100,5	108,8	120,1	141,7	167,7

Current rating

In air	Amps	30	45	50	70	95
In Ground	Amps	60	90	100	130	175

Resistance: dc @ 20°C

Phase core:	Ω/km max	4,75	3,18	1,89	1,19	0,75
Neutral:	Ω/km max	4,61	3,08	1,83	1,15	0,726
Earth:	Ω/km max	7,41	4,61	3,08	1,83	1,15
Communication cores.	Ω /km max	35 (0.5mm ² solid wire), 18.1 (1mm ² stranded)				

Resistance: ac @ 90°C

Phase core:	Ω /km max	5,88	3,93	2,33	1,47	0,93
-------------	-----------	------	------	------	------	------

Insulation Resistance	MΩ /km Min.	100				
-----------------------	-------------	-----	--	--	--	--

Reactance	Ω /km	0,154	0,146	0,138	0,132	0,127
Impedance	Ω /km	5,881	3,931	2,338	1,473	0,937
Capacitance	μF/km	0,314	0,370	0,451	0,487	0,560

Short circuit ratings

Symmetrical	kA (1sec)	0,54	0,81	1,36	2,16	3,42
(Single Phase) Volt Drop	mV/A/m	11,76	7,86	4,67	2,94	1,86

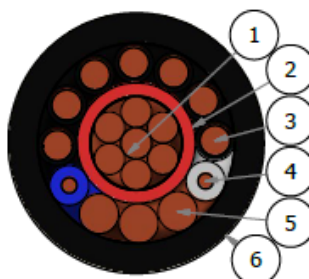
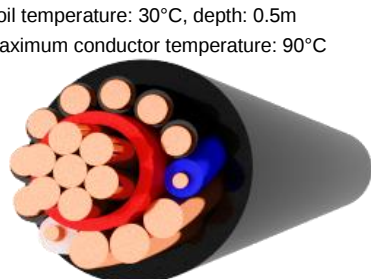
Standard Installation conditions

Ambient air temperature: 30°C

Soil temperature: 30°C, depth: 0.5m

Maximum conductor temperature: 90°C

Soil thermal resistivity: 1.2K.m/Ω



Item	Description
1	HD Copper conductor
2	XLPE insulation red UV stable
3	Black PE covered neutral wires
4	Communication cores PE insulated white and blue
5	Bare earth conductor wires
6	PE sheath UV stable

Revision: R03 (13/07/2020).

The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of M-TEC. The information is believed to be correct at the time of issue to the best of M-TEC's knowledge. M-TEC reserves the right to amend this specification without prior notification. This specification is not contractually valid unless specifically authorised by M-TEC. M-TEC shall not be liable for any damages whatsoever (including indirect, incidental, special, punitive or consequential damages and loss of profits, opportunities or information) arising from or result from the use of or reliance on information contained in this document, and/or any inaccuracy or omission in such information contained in this document.

Revision: R03 Updated DQS(13/07/2020)

Revision: R02 Added 25mm² (05/02/2018)

Revision: R01 Added pilot conductor constructions (05/02/2018)

