

# M-TEC

**3 Core, Aluminium, TR XLPE insulated, FRPVC, SWA, MDPE (Type A) Armoured.  
Longitudinally water blocked cable.**

**SIZE CODE:** XLAWB 3x(conductor size)MDPE 11kV

### Application

For use in power circuits of 6.35 / 11kV earthed systems. Installed in cable trays, ducts and underground.

### Construction

3 Core, Circular Aluminium stranded conductor, XLPE insulated, individually copper tape screened, flame retardant PVC bedded, galvanized steel wire armoured, medium density Polyethylene sheathed.

**Specification: SANS 1339**

**Voltage Rating: 6.35 / 11kV**

Physical properties and dimensions												Electrical Properties										
Conductor size	Conductor diameter	Insulation diameter	Insulation thickness	Bedding diameter	Armour			Cable diameter	Cable mass	Gross mass (300m)	Bending radius	Current rating (SANS 10198-4)			Resistance $\Omega$ /km max		Reactance $\Omega$ /km	Impedance $\Omega$ /km	Capacitance $\mu$ F/km	Short circuit ratings		Zero Sequence Impedance ( $Z_0$ ) $\Omega$ /km
					diameter	wire diameter	total area					Amps			dc @ 20°C	ac @ 90°C				Symmetrical	Earth fault	
												air	ground	ducts								
mm <sup>2</sup> Nom.	mm Nom.	mm Nom.	mm Nom.	mm Nom.	mm Nom.	mm Nom.	mm <sup>2</sup> Min.	mm Nom.	kg/m Nom.	kg Nom.	mm min.	air	ground	ducts	@ 20°C	@ 90°C	$\Omega$ /km	$\Omega$ /km	$\mu$ F/km	kA (1sec)	$\Omega$ /km	
25	7.6	16.2	3.4	43.4	49.0	2.50	284.7	54.6	4.2	1 721	655	170	155	120	1.200	1.539	0.117	1.543	0.213	2.4	13.0	0.485
35	7.1	17.3	3.4	45.1	50.7	2.50	270.0	56.4	4.4	1 761	677	210	190	150	0.868	1.113	0.108	1.118	0.236	3.3	12.3	0.511
50	8.3	18.8	3.4	50.2	55.8	2.50	289.6	62.3	5.0	1 952	748	170	155	120	0.641	0.822	0.111	0.829	0.259	4.7	13.2	0.477
70	10.0	20.5	3.4	53.8	59.4	2.50	309.3	66.2	5.5	2 109	794	210	190	150	0.443	0.568	0.119	0.581	0.298	6.6	14.1	0.446
95	11.8	22.4	3.4	58.0	63.6	2.50	328.9	70.6	6.1	2 285	847	260	225	180	0.320	0.411	0.108	0.425	0.331	9.0	15.0	0.420
120	13.1	23.7	3.4	61.1	66.7	2.50	353.4	74.0	6.8	2 604	888	295	255	205	0.253	0.325	0.099	0.340	0.362	11.4	16.1	0.390
150	14.8	25.4	3.4	64.7	71.6	3.15	467.6	79.2	8.2	2 996	950	335	285	230	0.206	0.265	0.097	0.282	0.396	14.2	21.3	0.295
185	16.4	26.9	3.4	68.9	75.8	3.15	498.8	82.3	9.1	3 265	988	385	320	255	0.164	0.211	0.097	0.232	0.422	17.5	22.7	0.277
240	18.9	29.5	3.4	74.0	80.9	3.15	537.7	90.3	10.3	3 649	1083	450	370	295	0.125	0.162	0.096	0.188	0.479	22.7	24.5	0.257
300	21.2	31.8	3.4	79.2	86.7	3.15	584.5	96.4	11.7	4 047	1157	515	410	330	0.100	0.130	0.091	0.159	0.520	28.4	26.6	0.236

### Cable Identification:

FRPVC (red stripe), LHFRPVC (blue stripe),  
HFFR (white stripe), LLDPE & MDPE (no stripe).



Item No:	Description
1	Stranded Aluminium conductor, water blocked.
2	Semi-conductive conductor screen
3	XLPE insulation (TR)
4	Semi-conductive core screen
5	Semi-conductive water blocking tape.
6	Individually Copper tape screened
7	Non hydroscopic PP Filler water blocking
8	Binding tape water blocking
9	Bedding
10	Galvanized steel wire armouring, water blocked.
11	PE sheathing UV stabilized black
12	Asset management tape(s).

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