

# HV XLPE Insulated Metallic Screened ABC 12.7/22kV

Aluminium conductors, XLPE insulated copper wire screened HDPE sheathed, galvanised steel catenary, aerial bundled cable to AS/NZS 3599.1

## Physical Data

Product Code	Nominal cond. area	Av. insul. thick-ness	Nominal diameter over insulation	Copper wire screen	Nominal diameter over screen	Av. sheath thick-ness	Nominal diameter over sheath	Galvanised steel catenary stranding		Nominal overall diameter	Approx. mass
	mm <sup>2</sup>	mm	mm	mm	mm	mm	mm	Size No/mm	Diameter mm	mm	kg/100m

### Light Duty Screen

3MV050A22LD	50	5.5	20.7	24/0.85	25.1	1.8	29.3	19/2.0	10.0	68.6	2842
3MV070A22LD	70	5.5	22.4	24/0.85	26.8	1.9	31.0	19/2.0	10.0	72.4	3179
3MV095A22LD	95	5.5	24.0	24/0.85	28.4	1.9	32.8	19/2.0	10.0	75.6	3520
3MV120A22LD	120	5.5	25.3	24/0.85	29.7	2.0	34.1	19/2.0	10.0	78.8	3867
3MV150A22LD	150	5.5	26.9	24/0.85	31.3	2.0	35.9	19/2.0	10.0	81.8	4249
3MV185A22LD	185	5.5	28.6	24/0.85	33.0	2.1	37.6	19/2.0	10.0	85.6	4715

### Heavy Duty Screen

3MV050A22SA	50	5.5	20.7	23/1.35	26.1	1.8	30.3	19/2.0	10.0	70.6	3395
3MV070A22SA	70	5.5	22.4	32/1.35	27.8	1.9	32.0	19/2.0	10.0	74.4	4091
3MV095A22SA	95	5.5	24.0	38/1.35	29.4	1.9	33.8	19/2.0	10.0	77.6	4670
3MV120A22SA	120	5.5	25.3	38/1.35	30.7	2.0	35.1	19/2.0	10.0	80.6	5017
3MV150A22SA	150	5.5	26.9	38/1.35	32.3	2.0	36.9	19/2.0	10.0	83.8	5399
3MV150A22SA	185	5.5	28.6	38/1.35	34.0	2.1	38.6	19/2.0	10.0	87.6	5866



# HV XLPE Insulated Metallic Screened ABC 12.7/22kV

Aluminium conductors, XLPE insulated copper wire screened HDPE sheathed, galvanised steel catenary, aerial bundled cable to AS/NZS 3599.1

## Electrical properties

Nominal conductor area mm <sup>2</sup>	DC resistance at 20°C Ω/km	AC resistance at 50Hz 90°C Ω/km	Inductive reactance at 50Hz Ω/km	3 phase voltage drop at 50Hz 90°C mV/A.m	Conductor to Screen capacitance µf/km	Continuous current carrying capacity A			Earth fault current rating for 1s kA	Minimum bending radius (installed)		Projected diameter for wind loading mm
						still air	1m/s wind	2m/s wind		Core	Cable	

### Light duty screen

50	0.641	0.821	0.156	1.44	0.156	130	175	205	2.1	440	680	63.2
70	0.443	0.566	0.142	1.01	0.175	155	220	255	2.1	470	720	66.8
95	0.320	0.410	0.137	0.750	0.194	185	265	310	2.1	500	760	70.3
120	0.253	0.324	0.132	0.607	0.213	210	305	355	2.1	520	780	73.5
150	0.206	0.263	0.127	0.511	0.231	240	345	400	2.1	540	820	76.4
185	0.164	0.210	0.122	0.423	0.245	270	395	460	2.1	570	850	79.8

### Heavy duty screen

50	0.641	0.821	0.156	1.44	0.156	130	175	205	5.0	460	700	65.1
70	0.443	0.566	0.142	1.01	0.175	155	220	255	6.9	490	740	68.8
95	0.320	0.410	0.137	0.750	0.194	185	265	310	8.2	510	780	72.4
120	0.253	0.324	0.132	0.607	0.213	210	305	355	8.2	540	800	75.5
150	0.206	0.263	0.127	0.511	0.231	240	345	400	8.2	560	840	78.6
185	0.164	0.210	0.122	0.423	0.245	270	395	460	8.2	580	870	81.8

## Galvanised Steel Support Wire

Manufactured to AS 122.1

Stranding and nominal wire diameter no/mm	Nominal overall diameter mm	Cross Sectional area mm <sup>2</sup>	DC resistance at 20°C Ω/km	Minimum breaking load kN	Recommended tension		Modulus of elasticity of conductor GPa	Coefficient of linear expansion x10 <sup>-6</sup> °C
					Highest everyday tension kN	Max. working tension kN		
19/2.00	10.0	59.7	3.2	24/0.85	17.6	35.3	166	11.5