



0.6/1kV SDI Aluminium Cables

Conductor:	Single Core Class 2 Compacted Aluminium
Standard :	AS/NZS 1125, AS/NZS 3808, AS/NZS 5000.1
Insulation :	X-90 Insulated
Sheath :	5V-90
Colour of outer sheath	Black
Voltage	0.6/1KV
Other character:	Overall Diameter Tolerance +/- 10%. **



Product Code	Conductor Size mm ²	OD of cable (mm)	Approx. weight of cable (kg/km)	Max safe tensile stress of conduct or (kN/mm ²)	Min. bending radius (mm)	
					During Installation	Set
ASX025	25	10.7	147.7	1.25	96	64
ASX035	35	11.7	181.6	1.75	105	70
ASX050	50	13.1	231.4	2.5	118	79
ASX070	70	14.8	306.7	3.5	133	89
ASX095	95	16.8	403.2	4.75	151	101
ASX120	120	18.5	494.1	6	167	111
ASX150	150	20.2	604.9	7.5	182	121
ASX185	185	22.8	747.8	9.25	205	137
ASX240	240	25.2	947.6	12	227	151
ASX300	300	27.7	1158.8	15	249	166
ASX400	400	31.4	1480.8	20	283	189
ASX500	500	35.2	1835.6	25	317	211
ASX630	630	39.8	2318.8	31.5	358	239



➤ Two Single Core – X-90 with maximum conductor temperature of 90°C.
 Reference ambient temperature: 40°C in air, 25°C. in ground.

Aluminium Conductor as per AS/NZS 3008.1.1:2009 Table 5

Current Carrying Capacity A

Conductor Size mm ²	Unenclosed			Enclosed	Thermal insulation		Buried Direct	Underground wiring enclosure	
	Spaced	Spaced from Surface	Touching	Wiring enclosure in air	Partially surrounded by thermal insulation	Completely surrounded by thermal			
25	117	112	91	87	70	45	139	102	114
35	144	137	111	105	84	56	167	122	136
50	177	167	136	129	103	--	198	147	164
70	226	212	174	159	127	--	243	181	200
95	280	262	216	198	158	--	291	221	239
120	328	305	253	226	181	--	332	252	278
150	377	350	291	255	204	--	372	283	311
185	439	406	340	301	241	--	423	329	359
240	527	485	408	360	288	--	492	388	417
300	612	562	473	--	--	--	556	440	482
400	723	660	559	--	--	--	638	516	553
500	850	772	656	--	--	--	729	590	632
630	1003	904	772	--	--	--	833	695	740



➤ Three Single Core – X-90 with maximum conductor temperature of 90°C.
 Reference ambient temperature: 40°C in air, 25°C. in ground.

Aluminium Conductor AS/NZS 3008.1.1:2009 Table 8

Current Carrying Capacity A

Conductor Size mm ²	Unenclosed			Enclosed	Thermal insulation		Buried Direct	Underground wiring enclosure	
	Spaced	Spaced from Surface	Touching	Wiring enclosure in air	Partially surrounded by thermal insulation	Completely surrounded by thermal			
25	113	97	91	75	60	45	117	87	103
35	140	119	111	93	75	56	140	106	122
50	171	146	136	111	89	--	166	126	147
70	219	186	174	142	114	--	203	158	180
95	271	232	216	171	137	--	243	190	214
120	318	271	253	203	162	--	277	221	248
150	366	313	291	229	183	--	310	249	277
185	427	365	339	261	209	--	352	283	321
240	513	438	407	312	250	--	409	333	371
300	596	508	472	368	294	--	463	385	430
400	705	599	557	424	339	--	530	442	491
500	829	703	652	509	407	--	604	520	559
630	978	824	765	583	466	--	688	593	654



➤ 3 Phase Voltage Drop

Conductor Size mm ²	Three-phase voltage drop (Vc) at 50Hz,mV/A.m			
	Laid in trefoil		Laid flat touching or in a wiring enclosure	
	Conductor Temperature 90°C		Conductor Temperature 90°C	
	Max	0.8 p.f	Max	0.8 p.f
25	2.67	--	2.67	--
35	1.94	--	1.94	--
50	1.43	--	1.44	--
70	0.997	--	1.00	--
95	0.727	--	0.733	--
120	0.582	--	0.589	--
150	0.482	--	0.491	--
185	0.394	--	0.404	--
240	0.314	--	0.327	--
300	0.266	--	0.281	--
400	0.226	0.226	0.243	0.242
500	0.197	0.195	0.216	0.211
630	0.177	0.172	0.198	0.188
630	0.159	0.144	0.182	0.159

➤ *Single phase voltage drop can be obtained by multiplying the 3 phase value by 1.155

