

22kV HV CABLES

TYPE	CORE	INSULATION	AREA sq. mm	OVERALL DIAMETER mm	RAC	X50 TREFOIL	X50 FLAT TOUCH	STOCK CODE	CURRENT CAPACITY (A)			CAPACITY (MVA)			MINIMUM BENDING RADIUS (mm)		MAXIMUM PULLING TENSION (kN)
									DIRECT TREFOIL	DIRECT FLAT TOUCH	SINGLE DUCT TREFOIL	DIRECT TREFOIL	DIRECT FLAT TOUCH	SINGLE DUCT TREFOIL	WITH TENSION	WITHOUT TENSION	
Cu	1	XLPE	35	29.3	0.668	0.155	0.170	286047		180	170	6.7	6.9	5.7	850	600	2.5
Cu	1	XLPE	120	38.5	0.196	0.131	0.147	286054	335	330	305	12.8	12.6	11.6	1100	750	8.4
Cu	1	XLPE	240	44.8	0.097	0.118	0.133	286062	480	475	415	18.3	18.09	15.8	1350	900	17
Cu	3	PAPER	25	55.0	0.856	0.124	-	9076	105	-	93	4.0	-	3.5	850	-	-
Cu	3	PAPER	120	69.0	0.181	0.089	-	9084	255	-	225	9.7	-	8.6	1070	-	-
Cu	3	PAPER	240	83.0	0.090	0.081	-	-	370	-	320	14.1	-	12.2	1290	-	-
Al	1	XLPE	240	46.6	0.161	0.12	0.14	411618	380	371	326	14.5	14.1	12.4	1350	900	10
Al	1	XLPE	630	57.7	0.062	0.144	0.166	500972	612	565	514	23.3	21.5	19.6	1600	1050	20
Al	1	XLPE	400	54.0	0.101	-	-	-	-	-	430	-	18.29	16.3	1440	945	20

11kV HV CABLES

TYPE	CORE	INSULATION	AREA sq. mm	OVERALL DIAMETER mm	RAC OHM/km	X50 OHM/km TREFOIL	X50 OHM/km FLAT TOUCH	STOCK CODE	CURRENT CAPACITY (A)			CAPACITY (MVA)			MINIMUM BENDING RADIUS (mm)		MAXIMUM PULLING TENSION (kN)
									DIRECT TREFOIL	DIRECT FLAT TOUCH	SINGLE DUCT TREFOIL	DIRECT TREFOIL	DIRECT FLAT TOUCH	SINGLE DUCT TREFOIL	WITH TENSION	WITHOUT TENSION	
Al	3	PAPER	300	66	0.122	0.071	-	9480	310	-	300	5.9	-	5.7	920	-	-
Al	3	PAPER	400	80	0.095	0.069	-	9506	395	-	340	7.5	-	6.5	990	-	-
Cu	3	PAPER	50	45	0.456	0.086	-	9282	145	-	125	2.8	-	2.4	570	-	-
Cu	3	PAPER	185	63	0.118	0.073	-	9266	315	-	265	6.0	-	5.0	780	-	-
Al	1	XLPE	35	27	1.110	0.145	0.161	286005	135	140	115	2.6	2.7	2.2	800	550	1.8
Al	1	XLPE	95	33	0.411	0.124	0.140	286013	230	235	220	4.4	4.5	4.2	1000	650	4.8
Al	1	XLPE	240	41	0.161	0.110	0.126	286021	375	371	320	7.24	7.1	6.1	1200	800	12
Al	1	XLPE	400	47	0.102	0.103	0.119	286039	-	466	412	-	8.8	7.8	1350	900	20
Cu	3	XLPE	300	81	0.0733	0.0909	-	501840	540	-	480	10.3	-	9.1	2250	1500	63
Al	3	XLPE	400	87	0.101	0.087	-	NSI	475	-	415	9.0	-	7.9	2460	1640	60
Al	1	XLPE	630	53.6	.062	0.128	0.15	500984	608	-	515	11.5	-	9.8	1500	1000	20
Cu	1	XLPE	240	40.9	.0981	0.106	0.121	500960	485	470	405	9.1	8.8	7.6	1100	750	17
Cu	1	XLPE	300	44.7	.076	0.114	0.103	414409	-	520	458	-	9.9	8.7	1300	900	21
Cu	1	XLPE	400	45.5	0.063	0.096	-	501797	-	-	-	-	-	-	1260	910	-
Cu	1	XLPE	800	58	0.035	0.087	-	501770	-	-	-	-	-	-	1635	1160	-
Cu	1	TRIPLEX	500	103	0.0540	0.102	-	501798	645	-	585	-	-	-	1560	1040	-

NOTE:

1. Rac: MAX AC RESISTANCE AT 65 DEGREES CENTIGRADE
2. X50 : EQUIVALENT STAR REACTANCE AT 50 Hz
3. BENDING RADIUS VALUES GIVEN FOR NYLON PROTECTED CABLES.
4. 400sqmm RATING IS FOR SINGLE WAY INDUCT FLAT TOUCH.
5. ALL RATING ARE BASED ON THE FOLLOWING:
 - GROUND TEMP 25°C
 - AIR TEMP 40°C
 - DEPTH OF LAYING 0.8M THERMAL RESISTIVITY OF SOIL 1.2KM/W

10	ITEMS ADDED	K.T.	APR'16	I.B.	B.C.
9	HV CABLE DATA UPDATED AND NOTE 4 & 5 ADDED	A.S.	DEC'14	A.T.	B.C.
8	630SQMM AL 11 & 22KV AND 240SQMM CU 11KV CABLES ADDED, NOTE 3 ADDED, BENDING RADIUS UPDATED	A.T.	FEB'13	B.C.	B.C.
7	22KV 240SQMM AL AND 11KV 300SQMM 1 CORE CU CABLES ADDED	A.T.	SEP'11	B.C.	SC
6	LAST TWO 11KV CABLES ADDED, BEND. RAD. & PULLING TENS. ADDED	AS	AUG'06	RS	SC
5	STOCK CODE OF 1st THREE HV CABLES AMENDED	AS	SEP'01	MB	FRR
NO	DESCRIPTION	DRN	DATE	CKD	APPD
AMENDMENTS					



DES	T. TANG	POWER STANDARD DRAWING		
DRN	pmc	DESIGN DATA		
CKD	A. GREENWOOD	UNDERGROUND HV CABLES		
APPD	C.H. YAU	ELECTRICAL & PHYSICAL CHARACTERISTICS		
SCALE	N.T.S.	SHEET 1 of 2		
ISSUED	MAR'94	A3	DRAWING NUMBER	S02-4-2-05 SHEET 1 of 2
ALL DIM. IN mm				
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY		AMD T

LV CABLES

TYPE	CORE	INSULATION	AREA sq. mm	OVERALL DIAMETER mm	RAC OHM/km	X50 OHM/km TREFOIL	X50 OHM/km FLAT TOUCH	STOCK CODE	CURRENT CAPACITY (A)			CAPACITY (kVA)			MINIMUM BENDING RADIUS (mm)	MAXIMUM PULLING TENSION (kN)
									DIRECT TREFOIL	DIRECT FLAT TOUCH	DUCT	DIRECT TREFOIL	DIRECT FLAT TOUCH	DUCT		
Cu	3.5	PAPER	95	44.4	0.247	0.063	N/A	9175	265	N/A	220	190	N/A	158	530	-
Cu	3.5	PAPER	120	49.4	0.191	0.062	N/A	11106	310	N/A	255	223	N/A	183	600	-
Cu	3.5	PAPER	240	63.2	0.095	0.062	N/A	9225	450	N/A	375	323	N/A	270	760	-
Cu	1	PVC	120	22.9	0.183	0.089	0.103	9472	320	320	265	230	230	190	130	-
Cu	1	PVC	300	34.3	0.075	0.086	0.0993	9498	520	525	480	374	377	345	200	-
Cu	1	PVC	500	41.8	0.050	0.084	0.0971	9464	670	670	650	482	482	467	240	-
FLX	1	R-EP	150	21.5	0.171	0.190	0.194	300368	404	577	323	290	415	232	129	2.25
FLX	1	R-EP	300	29.3	0.053	0.097	0.225	400784	620	886	496	446	637	357	176	4.05
AI WB	1	XLPE X-90	35	14.5	1.110	0.910	0.131	R 406850 B 406853	140	145	105	100	104	75	250	1.5
AP WB	1	XLPE X-90	185	24.6	0.211	0.0892	-	9316	360	350	305	259	251	219	450	9.3
AP WB	1	XLPE X-90	240	27.8	0.162	0.0861	-	401015	435	410	355	312	295	255	520	12.0
FLX	1	R-EP	35	12.6	-	-	-	402707	201	201	176	144	144	127	52	0.53
FLX	1	R-EP	70	15.7	-	-	-	406718	291	291	259	209	209	186	66	1.05
FLX	1	X-HF-110	400	34.6	0.0699	0.0788	0.0941	502488	746	746	648	536	536	466	104	20
FLX	1	X-HF-110	500	38.5	0.0571	0.0780	0.0932	502489	843	843	729	606	606	524	115	25

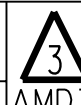
NOTE:

1. R_{ac}: MAX AC RESISTANCE AT 65 DEGREES CENTIGRADE
2. X₅₀ : EQUIVALENT STAR REACTANCE AT 50 Hz
MAX. AC RESISTANCE AT 90°C

NO	DESCRIPTION	DRN	DATE	CKD	APPD
3	CABLES ADDED, STOCK CODES UPDATED	KT	APR16	IB	BC
2	240 AL XLPE KVA RATING CORRECTED	AT	AUG'14	BC	BC
1	185 & 240 AI SINGLE CORE CABLES DELETED & LAST TWO CABLES ADDED	KI	SEP'06	RS	-
0	SHEET 2 OF 2 AND LAST FOUR LV CABLES ADDED	AS	AUG'06	RS	SC
AMENDMENTS					



DES	R.SOOD	POWER STANDARD DRAWING	
DRN	A.SCHMID	DESIGN DATA UNDERGROUND LV CABLES ELECTRICAL AND PHYSICAL CHARACTERISTICS SHEET 2 of 2	
CKD	R.SOOD		
APPD	B.CHEUNG		
SCALE	N.T.S.		
ISSUED	AUG'06		
ALL DIM. IN mm		A3	DRAWING NUMBER S2-4-2-5 SHEET 2 OF 2
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	



AMDT