

# 2xHSY / A2xHSY

## Single Core (Cu or Al/XLPE/CTS or CWS/PVC)

### APPLICATION

The single core cables are designed for distribution of electrical power with nominal voltage  $U_0/U$  ranging from 3.6/6 kV and frequency 50Hz. They are suitable for installation mostly in power supply stations, indoors and in cable ducts, outdoors, underground and in water as well as for installation on cable trays for industries, switchboards and power stations.

### STANDARD

IEC 60502-2

BDS IEC 60502-2

### VOLTAGE GRADE

$U_0/U$  ( $U_m$ ) : 3.6/6 (7.2) kV

Permissible Service Voltage: 3.8/6.5 kV

### COLOR

Insulated core :  (Natural)

Sheath :  (Red or Other Colors available on request)

### CONSTRUCTION

**Conductor:** Stranded Circular Compacted, Plain annealed copper or Aluminium, Class-2 to IEC 60228

**Conductor screen:** Semi-conducting XLPE

**Insulation:** XLPE to IEC 60502-2

**Insulation screen:** Semi-conducting XLPE

**Metallic screen:** Copper Tape or Copper wire to IEC 60502-2

**Sheath:** PVC, ST-2 to IEC 60502-2



MEDIUM VOLTAGE

### PHYSICAL DATA

Nominal cross sectional area of conductor	Shape of conductor	Conductor diameter		Nominal thickness of insulation	Nominal thickness of sheath	Metallic screen		Approx. overall diameter of cable	Approx. weight of cable	
		Minimum	Maximum			thickness of copper tape	area of copper wire		Cu	Al
Core x mm <sup>2</sup>	-	mm	mm	mm	mm	mm	mm <sup>2</sup>	mm	kg/km	kg/km
1 x 25	rmc	5.6	6.5	2.5	1.8	0.06	16	19.0	560	400
1 x 35	rmc	6.6	7.5	2.5	1.8	0.06	16	20.0	680	450
1 x 50	rmc	7.7	8.6	2.5	1.8	0.06	16	20.9	820	510
1 x 70	rmc	9.3	10.2	2.5	1.8	0.06	16	22.7	1055	620
1 x 95	rmc	11.0	12.0	2.5	1.8	0.06	16	24.4	1330	730
1 x 120	rmc	12.3	13.5	2.5	1.8	0.06	16	25.8	1560	840
1 x 150	rmc	13.7	15.0	2.5	1.8	0.06	25	27.4	1860	960
1 x 185	rmc	15.3	16.8	2.5	1.8	0.06	25	29.2	2240	1100
1 x 240	rmc	17.6	19.2	2.6	1.9	0.06	25	32.0	2830	1350
1 x 300	rmc	19.7	21.6	2.8	2.0	0.06	25	35.0	3480	1600
1 x 400	rmc	22.3	24.6	3.0	2.1	0.06	35	38.4	4490	2010
1 x 500	rmc	25.3	27.6	3.2	2.2	0.06	35	41.8	5000	2415
1 x 630	rmc	28.7	32.5	3.2	2.3	0.06	35	46.6	6900	2965
1 x 800	rmc	32.6	36.7	3.2	2.4	0.06	50	50.5	8660	3600
1 x 1000	rmc	36.3	40.5	3.2	2.6	0.06	50	55.2	10720	4370

### ELECTRICAL DATA

Nominal Cross sectional area	Maximum D.C resistance of conductor at 20 °C		Maximum A.C resistance of conductor at 90 °C		Short circuit rating of conductor in one second		Short circuit rating of metallic screen in one second		Approx. Capacitance of cable	Approx. Inductance of cable	Current rating in ground at 20 °C					
	Cu	Al	Cu	Al	Cu	Al	Cu tape	Cu wire			Laid direct in flat spaced		Laid in single duct flat touching		Laid direct in flat touching	
											Cu	Al	Cu	Al	Cu	Al
mm <sup>2</sup>	W/km	W/km	W/km	W/km	kA	kA	kA	kA	μF/km	mH/km	Amp	Amp	Amp	Amp	Amp	Amp
25	0.727	1.20	0.927	1.53	3.6	2.4	0.39	2.40	0.262	0.433	144	112	133	103	167	130
35	0.524	0.868	0.668	1.11	5.0	3.3	0.39	2.40	0.291	0.412	172	134	159	123	203	157
50	0.387	0.641	0.494	0.822	7.2	4.7	0.39	2.40	0.321	0.384	203	157	188	146	243	189
70	0.268	0.443	0.342	0.568	10.0	6.6	0.39	2.40	0.371	0.363	246	192	229	178	303	236
95	0.193	0.320	0.247	0.411	13.6	8.9	0.39	2.40	0.417	0.344	293	229	274	213	369	287
120	0.153	0.253	0.196	0.325	17.2	11.3	0.39	2.40	0.459	0.330	332	260	311	242	426	332
150	0.124	0.206	0.159	0.265	21.5	14.1	0.39	3.75	0.494	0.320	366	288	347	271	481	376
185	0.0991	0.164	0.127	0.211	26.5	17.4	0.39	3.75	0.543	0.309	410	324	391	307	550	432
240	0.0754	0.125	0.098	0.162	34.3	22.6	0.62	3.75	0.583	0.300	470	373	453	356	647	511
300	0.0601	0.100	0.079	0.130	42.9	28.2	0.62	3.75	0.602	0.294	524	419	510	402	739	586
400	0.0470	0.0778	0.063	0.102	57.2	37.6	0.62	5.25	0.627	0.285	572	466	571	457	837	676
500	0.0366	0.0605	0.050	0.080	71.5	47.0	0.62	5.25	0.654	0.281	672	546	661	537	938	776
630	0.0283	0.0469	0.041	0.064	90.1	59.2	0.62	5.25	0.726	0.272	882	646	771	617	1048	886
800	0.0221	0.0367	0.039	0.051	115.0	75.2	0.62	7.50	0.786	0.266	1002	756	871	717	1148	986
1000	0.0176	0.0291	0.029	0.043	143.0	94.0	0.62	7.50	0.856	0.261	1112	856	971	807	1238	1086

Current ratings are valid for cables laid under defined conditions at page no. 171. For current ratings at deviated conditions, apply correction factor as given on page no.171-175