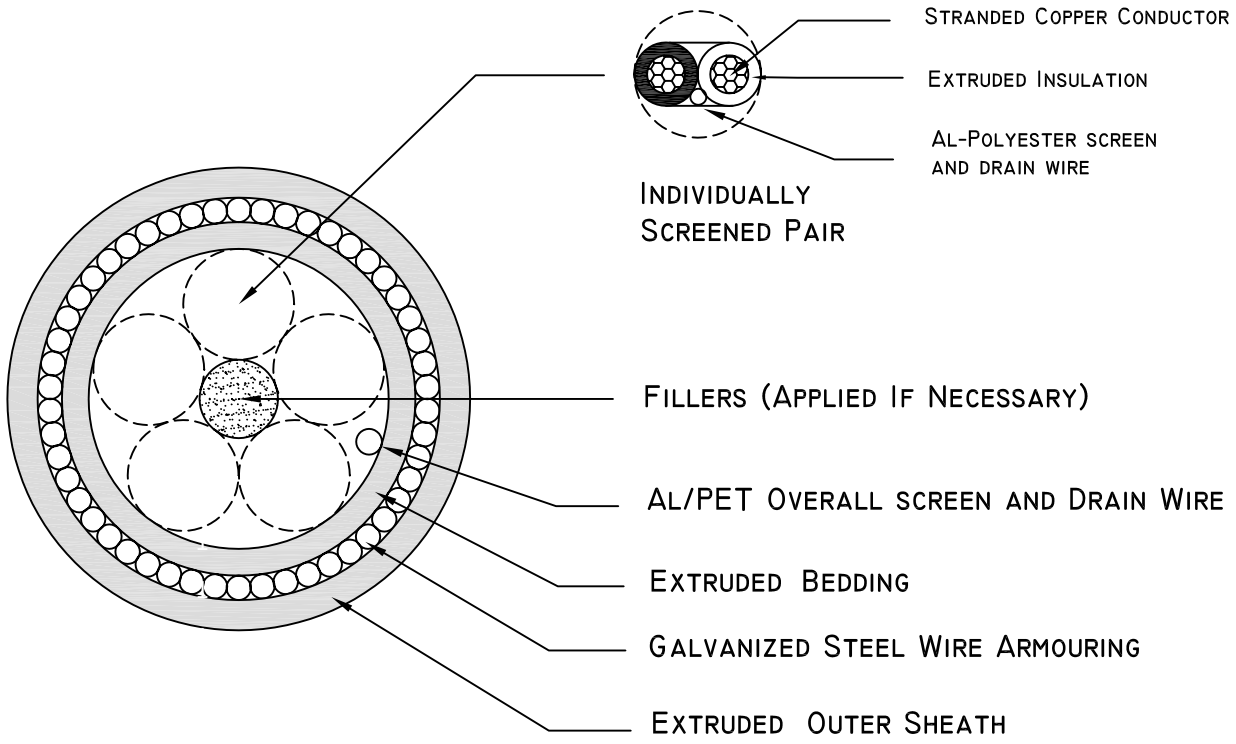
CROSS SECTIONAL DRAWING - INST

REF : NO 1029629/1_1

DESCRIPTION 0.5 kV,5 P X 1.5mm², Cu (Cl2)/XLPE/IS+OS/PVC/SWA/PVC-BLACK TO BS 5308/1 (GEN)

VOLTAGE (Uo/U) 300/500 V **DATE :** 6/24/2014

SPECIFICATION BS 5308/1 (GEN)



Drawing not to Scale

ITEM	DESCRIPTION	Approx DIA (mm)
1	Circular Stranded Copper Conductor	1.55
2	Extruded XLPE Insulation	2.85
3	A l/ PET Individual Screen Contact with Tinned Copper Drain wire	5.7
4	5 Pair Laid up with PP Center Filler	14.35
5	Al / PET Overall Screen Contact with Tinned Copper Drain wire	14.45
6	Pressure Extruded PVC Bedding	17.03
7	Single Layer (Steel) Wire Armour	20.11
8	Extruded PVC Outer Sheath (BLACK)	23

Prepared By : 02424

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TECHNICAL DATA SHEET

REF : NO	1029629/1_1	**DATE**	6/24/2014
DESCRIPTION	0.5 kV,5 P X 1.5mm², Cu (CI2)/XLPE/IS+OS/PVC/SWA/PVC-BLACK TO BS 5308/1 (GEN)		
STANDARD	BS 5308/1 (GEN)		

Item	Description	Values	Units
1	**Rated voltage (Uo/U)**	300/500	V
2	**Conductor**		
	Number of Pair(s)	5	Nos
	Circular Stranded Copper Conductor : Class 2		-
	Nominal cross sectional area	1.5	mm^2
	Conductor diameter *(approx)*	1.55	mm
3	**Insulation**		
	Material (Black & White with pair number on white cores)	XLPE	-
	Nominal thickness	0.6	mm
	Diameter Over Insulation *(approx)*	2.85	mm
4	**Pair**		
	Makeup: Two cores twisted together with a suitable lay-length to form a Pair		
5	**Individual Screen**		
	Each pair shall have Aluminium / Polyester laminated tape applied with Metallic side down in electric contact with the Drain wire		
	Over-lap	25	%
	Drain wire cross section area (SOLID)	0.5	mm^2
6	**Overall Screen**		
	Aluminium / Polyester laminated tape applied Over the Laid up pair with Metallic side down in electric contact with the Drain wire		
	Over-lap	25	%
	Drain wire cross section area (SOLID)	0.5	mm^2
7	Pressure Extruded PVC Bedding		
	Nominal Thickness	1.3	mm
	Diameter Over Bedding	17.03	mm
8	**Single Layer (Steel) Wire Armour**		
	Nominal Diameter	1.6	mm
	Diameter Over Armour *(approx)*	20.11	mm
	Cross sectional area *(approx)*	63.33	mm^2
9	**Extruded PVC Outer Sheath (BLACK)**		
	Nominal Thickness	1.7	mm
	Overall diameter of cable *(approx)*	23	mm
10	**Weight of complete cable** *(approx)*	1066	kg / km
11	**Electrical Characteristics**		
	Voltage Test (For 1 min as per BS 5308/1 (GEN)	1	kV
	Minimum Insulation resistance at 20°C	1000	MΩ/km
	Maximum D.C. resistance of conductor at 20°C	12.3	Ω/km
	A.C.resistance of conductor at 90°C *(approx)*	15.7	Ω/km
	Maximum Mutual Capacitance at 1kHz	120	pF/m
	Maximum Capacitance unbalance at 1 kHz	250	pF/250 m
	Maximum L / R Ratio	40	µH / Ω
12	**Minimum bending radius of cable (6 X OD)**	138	mm

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