

# 2XSYR(AI)Y

## 19/33(36) kV

BS 6622

Single Core Armoured Cable.

### APPLICATIONS

- Laying in DRY ground
- Laying in air
- Laying in ducts
- Laying in object



### TEMPERATURE

Conductor	Continuous operation	90°C
	Short circuit (duration max 5 s)	250°C
Metallic screen	Short circuit (duration max 5 s)	350°C

### CONSTRUCTION

DESCRIPTION		UNIT	DETAILS <sup>1</sup>
Conductor	Material	-	Copper
	Nominal cross sectional area	mm <sup>2</sup>	400
	Min. number of wires	No	acc. to EN 60228
	Conductor diameter	mm	acc. to EN 60228
	Longitudinally sealed – Material	-	No
	Wrapping – Material	-	No
Conductor screen <sup>2</sup>	Material	-	semi-cond. polyethylene
	Minimum at point radial thickness	mm	0.3
Insulation <sup>2</sup>	Material	-	XLPE
	Nominal / minimum at point radial thickness	mm	8.0 / 7.1
	Diameter over insulation	mm	39.7
Insulation screen <sup>2</sup>	Type	-	FULL BONDED
	Material	-	semi-cond. polyethylene
	Minimum at point radial thickness	mm	0.3

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DESCRIPTION		UNIT	DETAILS <sup>1</sup>
Metallic screen	Wrapping under Metallic Screen – Material	-	semi - cond. tape(s)
	Metallic screen - Material	-	copper tapes
	Diameter over metallic screen	mm	42.5
	Cross sectional area	mm <sup>2</sup>	35
Separate sheath	Material	-	PVC
	Nominal /minimum at point radial thickness	mm	1.5 / 1.0
	Diameter over sheath	mm	45.5
Armour	Material	-	Round Al wires
	Diameter of wires	mm	2.5
	Diameter over armour	mm	50.5
	Wrapping over armour - Material	-	Polypropylene tape(s)
Outer sheath	Material	-	PVC – colour BLACK
	Nominal / minimum at point radial thickness	mm	2.8 / 2.04
	Diameter over sheath - completed cable (D <sub>e</sub> )	mm	55.9
	Weight of complete cable (approx.)	kg / km	6 590

## SHORT CIRCUIT CURRENTS

Max Short Circuit Capacity:	conductor : 90 → 250°C metallic screen: → 350°C	kA / 1 s kA / 1 s	57.2 7.1
<b>AMPACITY (In) <sup>3</sup></b>	<b>BOTH-ENDS BONDING (BE)</b>	<b>/</b>	<b>SINGLE POINT BONDING (SPB)</b>
GROUND	FLAT formation	A / A	688 / 919
	TREFOIL formation	A / A	766 / 869
AIR	FLAT formation	A / A	822 / 1057
	TREFOIL formation	A / A	823 / 920

## MECHANICAL DATA

Recommended min. bending radius for laying	m	$15 * D_e * 10^{-3}$
Recommended permissible bending radius at final installation	m	$12 * D_e * 10^{-3}$
Maximum Cable Pulling Force: <sup>4</sup>	kN	$50 * (No * \text{cross sectional conductor area}) * 10^{-3}$
Lowest recommended temperature during laying:	°C	≥ 0

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## DELIVERY DATA

Length per drum / Diameter of wooden drum (No)	m / m	850 / 2.4 (24A)
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- /1 - Diameters are calculated values and subject to manufacturing tolerances
- /2 - Triple extrusion processes, Dry curing and cooling.
- /3 - Current rating

### GROUND

Ground temperature	20°C
Laying depth	0.7 m
Ground thermal resistivity	1.0 K*m/W
Loading	0.7
FLAT FORMATION	spacing between centre conductor = 70 mm + D <sub>e</sub>
TREFOIL FORMATION	with point of contact

### AIR (SHADED cables)

Air temperature	25°C
Loading	1.0
FLAT FORMATION	spacing between centre conductor = 2 * D <sub>e</sub>
TREFOIL FORMATION	with point of contact

- /4 - Cable pulling forces by its conductor

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