UNIVERSAL CABLES LTD SATNA (M.P.)
TECHNICAL PARTICULARS

Sr. No.	Description	4C x 10 mm²	4C x 4 mm²	4C x 2.5 mm²	4C x 1.5 mm²	8C x 1.5 mm²	2C x 1.5 mm²
1	Trade Name	"UNISTAR"	"UNISTAR"	"UNISTAR"	"UNISTAR"	"UNISTAR"	"UNISTAR"
2	Reference Standard	IS : 9968/1/88	IS : 9968/1/88	IS : 9968/1/88	IS : 9968/1/88	Generally to IS : 9968/1/88	IS : 9968/1/88
3	Voltage Grade	1100 Volts	1100 Volts	1100 Volts	1100 Volts	1100 Volts	1100 Volts
4	**Conductor**						
	a) Material to IS : 8130/84	Annealed Tinned Copper		Annealed Tinned Copper		Annealed Tinned Copper	
	b) Nominal Cross sectional Area (mm²)	10	4	2.5	1.5	1.5	1.5
	c) Flexibility Class as per IS : 8130/84	Class-5	Class-5	Class-5	Class-5	Class-5	Class-5
	d) Max. DC. Resistance at 20°C (Ohm/Km)	1.95	5.09	8.21	13.7	13.7	13.7
5	**Insulation**						
	a) Material to IS : 6380/84	EPR Type IE-2	EPR Type IE-2	EPR Type IE-2	EPR Type IE-2	EPR Type IE-2	EPR Type IE-2
	b) Nominal Thickness (mm.)	1.20	1.00	0.90	0.80	0.80	0.80
6	**Core Identification**	By number printing or by coloured insulation Red, Yellow, Blue & Green	By number printing or by coloured insulation Red, Yellow, Blue & Green	By number printing or by coloured insulation Red, Yellow, Blue & Green	By number printing or by coloured insulation Red, Yellow, Blue & Green	By Number Printing	By number printing or by coloured insulation Red & Black
7	**No. of Cores**	4	4	4	4	8	2
8	**Laying Up**	Cores laid up together suitably			Cores laid up together suitably		
9	**Outer Sheath**						
	a) Material to IS : 6380/84	CSP Type SE-4	CSP Type SE-3	CSP Type SE-3	CSP Type SE-3	CSP Type SE-4	CSP Type SE-3
	b) Nominal Thickness (mm.)	2.70	1.30	1.20	1.10	1.20	1.00
10	**Approx. Overall Diameter of Cable (mm.)**	22.5	14.5	12.0	10.5	14.0	9.0
11	Max. Conductor Temperature for continuous operation	90°C	90°C	90°C	90°C	90°C	90°C
12	Recommended Minimum bending radius	6 x Overall diameter of the cable					
13	Continuous current rating in air at ambient temperature 40°C (Amps)	69	38	28	21	13	21
14	Derating factor for variation in ambient air temperature						
	a) Temperature	30	35	40	45	50	55
	b) Rating factor	1.12	1.06	1.00	0.94	0.86	0.80
15	Identification and Marking	Manufacturer's Name and/or Trade Name and HR-90 shall be identified throughout the cable length at interval not exceeding one meter either by printed tape in the cable or by printing on the outer sheath.					

Note- 1) Please note that detailed technical specification is not available. However we have offered cable with EPR insulation and CSP sheathed as per IS: 9968/1/88

2) Cable shall be suitable for Festooning duty and not suitable for Reeling & Unreeling duty.

UNIVERSAL CABLES LTD SATNA (M.P.)
TECHNICAL PARTICULARS

Sr. No.	Description	4C x 95 mm²
1	Trade Name	"UNISTAR"
2	Reference Standard	Generally to IS : 9968/1/88
3	Voltage Grade	1100 Volts
4	**Conductor**	
	a) Material to IS : 8130/84	Annealed Tinned Copper
	b) Nominal Cross sectional Area (mm²)	95
	c) Flexibility Class as per IS : 8130/84	Class-5
	d) Max. DC. Resistance at 20 °C (Ohm/Km)	0.210
5	**Insulation**	
	a) Material to IS : 6380/84	EPR Type IE-2
	b) Nominal Thickness (mm.)	1.80
6	**Core Identification**	By numbered or by coloured proofed tape Red, Yellow, Blue, & Green
7	**No. of Cores**	4
8	**Laying Up**	Cores laid up together suitably
9	**Inner Sheath**	
	a) Material to IS : 6380/84	CSP Type SE-4 (Black Colour)
	b) Minimum Thickness (mm.)	2.40
	c) Cotton twine reinforcement in between inner & outer sheath	Yes
10	**Outer Sheath**	
	a) Material to IS : 6380/84	CSP Type SE-4 (Black Colour)
	b) Nominal Thickness (mm.)	4.00
11	**Approx. Overall Diameter of Cable (mm.)**	55.5
12	Max. Conductor Temperature for continuous operation	90°C
13	Recommended Minimum bending radius	12 x Overall diameter of the cable
14	Max. safe pulling force (kgs)	581
15	Continuous current rating in air at ambient temperature 40°C (Amps)	282
16	Short circuit current rating of conductor for duration 1 sec (KA)	13.6
17	Derating factor for variation in ambient air temperature	
	a) Temperature	30 35 40 45 50 55
	b) Rating factor	1.12 1.06 1.00 0.94 0.86 0.80
18	Derating factor for number of layer in Reeling drum	
	a) Number of layer	1 2 3
	b) Rating factor	0.76 0.58 0.47
19	Identification and Marking	Manufacturer's Name and/or Trade Name and HR-90 shall be identified throughout the cable length at interval not exceeding one meter either by printed tape in the cable or by printing on the outer sheath.

Note- 1) Since inner and outer sheath shall be adherent with the reinforcement in between, it will not be possible to measure inner and outer sheath separately. Hence the total combined thickness shall be measured which shall satisfy the inner and outer sheath specifies separately. The smallest of the measured value shall not be less than the sum of the inner sheath specified and minimum value of the outer sheath specified in IS specification.

2) Please note that detailed technical specification is not available. However we have offered cable with EPR insulation CSP inner sheath, cotton twine reinforcement and overall CSP sheathed Generally as per IS: 9968/I/88.

2) Cable shall be suitable for Reeling & Unreeling duty.