

# Twinflex PVC Battery Cable



Eland Product Group: **A1T**

## APPLICATION

For indoors and outdoors, in dry as well as wet location on motorised vehicles, or battery powered equipment such as forklifts and field conveyors. Also suitable for use in high quality booster cables.

## CONSTRUCTION

### Conductor

Class 6 extra flexible copper conductor

### Insulation

TPE (Thermoplastic Elastomer)

### Sheath

PVC (Polyvinyl Chloride) Type TM2

## CABLE STANDARDS

Figure of 8 configuration based on VDE0250  
BS EN 60332-1-2



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

## CHARACTERISTICS

**Voltage Rating (U<sub>o</sub>/U)**  
450/750V

**Temperature Rating**  
Flexed: -20°C to +70°C

**Minimum Bending Radius**  
Flexed: 6 x overall diameter

**Insulation Colour**  
● Red ● Black

**Sheath Colour**  
○ Transparent

## DIMENSIONS

ELAND PART NO.	NO OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A1TW0025BK	2	2.5	0.8	0.8	4.4 x 10.8	90
A1TW004BK	2	4	0.8	0.8	6.5 x 14.5	120
A1TW006BK	2	6	1	1	7.1 x 15.5	190
A1TW010BK	2	10	1	1.2	7.9 x 17.6	294
A1TW016BK	2	16	1	1.2	10.0 x 21.5	420
A1TW025BK	2	25	1.1	1.3	11.2 x 24.3	627
A1TW035BK	2	35	1.1	1.3	12.4 x 25.9	824
A1TW050BK	2	50	1.2	1.4	14.5 x 30.5	1132
A1TW070BK	2	70	1.6	1.6	17.2 x 36.5	1600
A1TW095BK	2	95	1.6	1	18.4 x 38.6	2080

## CONDUCTORS

Class 6 Flexible Copper Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MAXIMUM DIAMETER OF WIRES IN CONDUCTOR mm	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C
		Plain Wires ohms/km
2.5	0.16	7.98
4	0.16	4.95
6	0.21	3.3
10	0.21	1.91
16	0.21	1.21
25	0.21	0.78
35	0.21	0.554
50	0.31	0.386
70	0.31	0.272
95	0.31	0.206

The above table is in accordance with BS EN 60228 (previously BS 6360)

## ELECTRICAL CHARACTERISTICS

### Current Carrying Capacity

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CURRENT RATING AT 60°C Amps
2	2.5	32
2	4	42
2	6	54
2	10	73
2	16	98
2	25	129
2	35	158
2	50	198
2	70	245
2	95	292

### DE-RATING FACTORS

AMBIENT TEMPERATURE	25°C	30°C	35°C	40°C	45°C
DE-RATING FACTOR	1.00	0.96	0.90	0.88	0.83

To allow the operator to handle the cable during use, with suitable gloves, a maximum conductor temperature of 60°C is advisable.