METSEC CABLES LIMITED

Twin Flat PVC Cable

APPLICATION

Domestic wiring cable. Can be installed in fixed installations in dry or damp premises clipped to surface, on trays or in free air where the risk of mechanical damage would not be an issue. Suitable for laying in conduit or trunking where mechanical protection is required.

CHARACTERISTICS

Voltage Rating Uo/U

300/500V

Temperature Rating

-5°C to +70°C

Minimum Bending Radius

Fixed: 6 x overall diameter

CONSTRUCTION

Conductor

RE: 1mm² to 1.5mm²: Class 1 solid copper
RM: 2.5mm² to 16mm²: Class 2 stranded copper

Circuit Protection Conductor (Earth)

1mm² to 1.5 mm²: Class 1 solid copper
2.5mm² to 16 mm²: Class 2 stranded copper

Insulation

PVC (Polyvinyl Chloride)

Sheath

PVC (Polyvinyl Chloride)

CABLE THIRD-PARTY ACCREDITATION

Cables are tested and accredited by Kenya Bureau and Standards (KEBS)

STANDARDS

KS-EAS 114, KS-IEC 60228
Flame Retardant according to IEC/EN 60332-1-2

CORE IDENTIFICATION

2 core: Red Black

Sheath Colour

Grey

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DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm^2	CLASS OF CONDUCTOR	NOMINAL THICKNESS OF INSULATION mm	NOMINAL CROSS SECTIONAL AREA mm^2 (Earth)	NOMINAL THICKNESS OF SHEATH mm	MEAN OVERALL DIAMETER		APPROX. NETT WEIGHT kg/km
						LOWER LIMIT	UPPER LIMIT	
2+E	1	1	0.6	1.0	0.9	4.0 x 6.2	4.7 x 7.4	53
2 +E	1.5	1	0.7	1.0	0.9	4.4 x 7.0	5.4 x 8.4	70
2 +E	2.5	1	0.8	1.5	1	5.2 x 8.4	6.2 x 9.8	105
2 +E	4	2	0.8	1.5	1	5.6 x 9.6	7.2 x 11.5	150
2 +E	6	2	0.8	2.5	1.1	6.4 x 10.5	8.0 x 13.0	205
2 +E	10	2	1.0	4*	1.2	7.8 x 13.0	9.6 x 16.0	320
2 +E	16	2	1.0	6*	1.3	9.0 x 15.5	11.0 x 18.5	470

*Class 2 conductors only

CONDUCTORS

Class 1 Solid Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm^2	MAXIMUM RESISTANCE OF CONDUCTOR AT 20ºC ohms/km
	Plain Wires
1	18.1
1.5	12.1
2.5 (s/s)	7.41

The above table is in accordance KS- IEC 60228

Class 2 Stranded Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm^2	MINIMUM NO. OF WIRES IN CONDUCTOR	MAXIMUM RESISTANCE OF CONDUCTOR AT 20ºC ohms/km
	Circular	Annealed Copper Conductor
		Plain Wires
2.5	7	7.41
4	7	4.61
6	**7**	3.08
10	7	1.83
16	7	1.15

The above table is in accordance KS –IEC 60228

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity and Voltage Drop

NOMINAL CROSS SECTIONAL AREA mm^2	REFERENCE METHOD A* (IN CONDUIT IN WALL) Amps	REFERENCE METHOD C* (CLIPPED DIRECT) Amps	VOLTAGE DROP mV/A/m
1	11.5	16	44
1.5	14.5	20	29
2.5	20	27	18
4	26	37	11
6	32	47	7.3
10	44	64	4.4
16	57	85	2.8

The above table is in accordance with 4D5 of the 18th Edition of IEE Wiring Regulations BS7671 and IEC 60364-5-52

Note

A* For full installation method refer to Table 4A2 Installation Method 2 but for flat twin and earth cable of the 18th Edition of IEE Wiring Regulations.

C* For full installation method refer to Table 4A2 Installation Method 20 but for flat twin and earth cable of the 18th Edition of IEE Wiring Regulations.