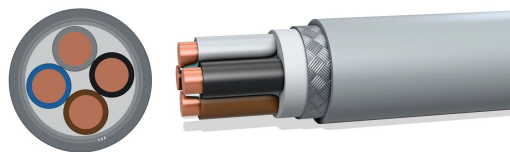


Application

VO-YMvKas is a 0.6/1 kV power and control cable with a galvanised steel wire braid, made to HD 604 part 4 section D. The solid copper conductors are insulated with cross-linked polyethylene (XLPE) and laid up with a PVC filler. A braid of galvanised steel wires over a

tinned-copper earth strand gives mechanical protection and the earth path, and a PVC outer sheath completes the cable. VO-YMvKas is intended for fixed installation indoors and outdoors and for direct burial in free-draining soil. There is no green/yellow core: the protective earth runs through the tinned-copper earth strand under the braid. The cable is available with 1 to 5 cores from 1.5 to 35 mm². Single-core cables have a magnetic steel armour. In AC circuits the armour heats up through induced currents, so single-core cables are intended for DC circuits; for AC use multicore cables.



CONSTRUCTION

Conductor	Plain copper, solid class 1 acc. to IEC 60228.
Insulation	Cross-linked polyethylene (XLPE).
Filler	Polyvinyl chloride (PVC).
Armour	Braid of galvanised steel wires over a tinned-copper earth strand.
Outer sheath	Polyvinyl chloride (PVC).
Core identification	Colour-coded acc. to HD 308 or numbered, to order. There is NO green/yellow earth core: the protective earth runs through the tinned-copper earth strand under the armour.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage Uo/U	0.6/1 kV.
Test voltage	3.5 kV AC.
Standard	HD 604 part 4 section D; conductors acc. to IEC 60228.
Flame-retardant	Acc. to IEC 60332-1-2 and IEC 60332-3-24.
Reaction to fire (CPR)	Dca-s2,d2,a3 acc. to EN 50575, all sizes.
Approval	DEKRA K42D-1-1:2017 and DEKRA K42D-1-4-D:2017 (formerly KEMA-KEUR).
Temperature range	-20 °C to +90 °C (conductor); +250 °C in short circuit.
Min. bending radius	15 × overall diameter.

DIMENSIONS & TECHNICAL DATA

Cores × mm ²	Insulation (mm)	Ø under armour (mm)	Overall Ø (mm)	Weight (kg/km)	Cond. R @20°C (Ω/km)
1×1.5	0.7	4.4	10.7	161	12.1
1×2.5	0.7	4.7	11.0	180	7.41
1×4	0.7	5.2	11.5	216	4.61
1×6	0.7	5.7	12.0	261	3.08
1×10	0.7	6.8	13.1	356	1.83
1×16	0.7	7.7	14.0	480	1.15
1×25	0.9	9.3	15.6	593	0.727
1×35	0.9	10.3	16.6	698	0.524
2×1.5	0.7	7.6	13.9	276	12.1
2×2.5	0.7	8.4	14.7	317	7.41
2×4	0.7	9.3	15.6	388	4.61
2×6	0.7	10.3	16.6	473	3.08
2×10	0.7	12.4	18.7	658	1.83
2×16	0.7	14.4	20.7	896	1.15
2×25	0.9	18.1	24.4	1235	0.727
2×35	0.9	20.1	26.4	1504	0.524
3×1.5	0.7	8.1	14.4	299	12.1
3×2.5	0.7	8.9	15.2	349	7.41
3×4	0.7	9.9	16.2	433	4.61
3×6	0.7	11.0	17.3	535	3.08
3×10	0.7	13.2	19.5	755	1.83
3×16	0.7	15.4	21.7	1043	1.15
3×25	0.9	19.3	25.6	1462	0.727
3×35	0.9	21.5	27.8	1811	0.524
4×1.5	0.7	8.8	15.1	331	12.1
4×2.5	0.7	9.7	16.0	391	7.41
4×4	0.7	10.8	17.1	494	4.61
4×6	0.7	12.0	18.3	617	3.08
4×10	0.7	14.6	20.9	878	1.83
4×16	0.7	17.0	23.3	1226	1.15
4×25	0.9	21.5	27.8	1752	0.727
4×35	0.9	23.9	30.2	2193	0.524
5×1.5	0.7	9.6	15.9	369	12.1
5×2.5	0.7	10.6	16.9	442	7.41
5×4	0.7	11.8	18.1	559	4.61
5×6	0.7	13.2	19.5	705	3.08
5×10	0.7	16.0	22.3	1010	1.83
5×16	0.7	18.7	25.0	1419	1.15
5×25	0.9	23.7	30.0	2049	0.727
5×35	0.9	26.4	33.8	2668	0.524

Current-carrying capacity (A) acc. to NEN 1010 (IEC 60364-5-52), copper, XLPE 90 °C, one multicore cable. Method C: clipped direct on a wall. Method E: in free air or on a perforated cable tray. Method D1: in a duct in the ground. Method D2: direct in the ground. Reference: 30 °C in air, 20 °C and 2.5 K·m/W in the ground. Not for single-core cables.

2 loaded conductors: 2-core, single-phase AC or DC

Size (mm ²)	C	E	D1	D2
1.5	24	26	25	27
2.5	33	36	33	35
4	45	49	43	46
6	58	63	53	58
10	80	86	71	77
16	107	115	91	100
25	138	149	116	129
35	171	185	139	155

3 loaded conductors: 3-, 4- and 5-core, three-phase AC

Size (mm ²)	C	E	D1	D2
1.5	22	23	21	23
2.5	30	32	28	30
4	40	42	36	39
6	52	54	44	49
10	71	75	58	65
16	96	100	75	84
25	119	127	96	107
35	147	158	115	129

Voltage drop (mV/A/m) acc. to BS 7671:2018, multicore cables. Up to 16 mm² only the impedance z is given.

Size (mm ²)	2-core DC	1-ph AC r	1-ph AC x	1-ph AC z	3-ph AC r	3-ph AC x	3-ph AC z
1.5	31	-	-	31	-	-	27
2.5	19	-	-	19	-	-	16
4	12	-	-	12	-	-	10
6	7.9	-	-	7.9	-	-	6.8
10	4.7	-	-	4.7	-	-	4.0
16	2.9	-	-	2.9	-	-	2.5
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15

Dimensions and weights are the manufacturer's approximate values; conductor resistances are the IEC 60228 maxima at 20 °C. Current ratings are the NEN 1010 table values for one circuit and must be corrected for other installation conditions; voltage drop acc. to BS 7671:2018. All values are indicative and non-binding.