

SECTION - III

CONTROL CABLES



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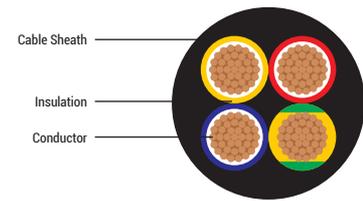
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RATNAFLEX MULTICORE (IS 694)

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Application

These cables are designed for residential and commercial infrastructure. They serve as the connecting medium in power and control panels, cabinets & switchgears. They can also be used for the purposes such as stationary and static appliances, motors and for other single phase connections.

Ratnaflex -M: PVC insulated & sheathed multicore cables suitable for all general purpose wirings for max. operating temperature of 70°C.

Ratnaflex -M HR: HR PVC insulated & sheathed multicore cables suitable for higher operating temperature of 70°C.

Ratnaflex -M FR: Flame Retardant (FR) multicore cable enhances safety and are suitable for max. operating temperature 70°C.

Ratnaflex -M HRFR: Heat Resistant (HR) & Flame Retardant (FR) multicore cables are suitable for higher operating temperature up to 85°C with enhanced safety.

Ratnaflex -M FR-LSH: Flame Retardant Low Smoke Low Halogen (FR-LSH) cables are suitable for wiring in public places like schools, hospitals, theatres, etc.

Technical Data

Approvals : IS 694 marked, FIA/TAC

Conductor : Electrolytic grade annealed copper Class 5 as per IS 8130

Standard Cable Colour : Black, grey & white

Voltage Rating : Up to and including 1100V

Packing : Standard packing of 100 mtr. in coil. Longer length available on request

Variants Available

Product Type/Legends	Specifications
RATNAFLEX-M	IS 694, IS 8130 Class 5, IS 5831 Type D for insulation & ST-3 & for sheathing
RATNAFLEX-M HR	IS 694, IS 8130 Class 5, IS 5831 Type C for insulation & ST-2 for sheathing
RATNAFLEX-M FR	IS 694, IS 8130 Class 5, IS 5831 Type D for insulation & ST-3 (FR) & for sheathing
RATNAFLEX-M HR FR	IS 694, IS 8130 Class 5, IS 5831 Type C for insulation & ST-2 (FR) for sheathing
RATNAFLEX-M FR-LSH	IS 694, IS 8130 Class 5, IS 5831 Type D for insulation & ST-3 (FR-LSH) for sheathing

Please complete the part numbers for these cables by adding the suffix (in place of 'xx') for the insulation colour required.
 06 - green-yellow earth core. We offer green/yellow earth core as our standard product.
 00 - without green-yellow earth core (available on request).

Kindly complete the part numbers for these cables by adding the suffix (in place of 'y') for the product type required.
 1 - PVC 70°C, 2 - PVC FR 70°C, 3 - PVC HR 85°C, 4 - PVC HR 85°C + FR, 5 - PVC FR-LSH 70°C.

Kindly complete the part numbers for these cables by adding the suffix (in place of 'z') for the sheath colour required.
 1 - black, 4 - grey, 5 - white.

Kindly add 'OU' after the part number, for the cables required for outdoor application.

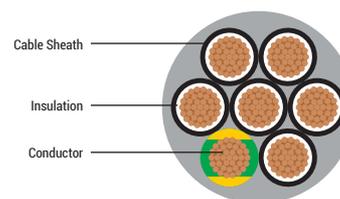
Part Number	No. of Cores	Nominal Cross Sectional Area (Sq. mm)	Nominal Insulation Thickness (mm)	Max. D.C. Conductor Resistance at 20°C (Ω /km)	Nominal Thickness of Sheath	Maximum Overall Dimensions (mm)
03010101xxyz	1	0.5	0.6	39.0	0.9	4.3
03010102xxyz	2	0.5	0.6	39.0	0.9	6.9
03010103xxyz	3	0.5	0.6	39.0	0.9	7.3
03010104xxyz	4	0.5	0.6	39.0	0.9	8.0
03010105xxyz	5	0.5	0.6	39.0	0.9	8.7
03010106xxyz	1	0.75	0.6	26.0	0.9	4.5
03010107xxyz	2	0.75	0.6	26.0	0.9	7.3
03010108xxyz	3	0.75	0.6	26.0	0.9	7.7
03010109xxyz	4	0.75	0.6	26.0	0.9	8.4
03010110xxyz	5	0.75	0.6	26.0	0.9	9.2
03010111xxyz	1	1	0.6	19.5	0.9	4.7
03010112xxyz	2	1	0.6	19.5	0.9	7.6
03010113xxyz	3	1	0.6	19.5	0.9	8.1
03010114xxyz	4	1	0.6	19.5	0.9	8.8
03010115xxyz	5	1	0.6	19.5	1.0	9.6
03010116xxyz	1	1.5	0.6	13.3	0.9	5.4
03010117xxyz	2	1.5	0.6	13.3	0.9	8.9
03010118xxyz	3	1.5	0.6	13.3	0.9	9.4
03010119xxyz	4	1.5	0.6	13.3	1.0	10.4
03010120xxyz	5	1.5	0.6	13.3	1.0	11.4
03010121xxyz	1	2.5	0.70	7.98	1.0	6.2
03010122xxyz	2	2.5	0.70	7.98	1.0	10.3
03010123xxyz	3	2.5	0.70	7.98	1.0	10.9
03010124xxyz	4	2.5	0.70	7.98	1.0	12.0
03010125xxyz	5	2.5	0.70	7.98	1.0	13.2
03010126xxyz	1	4	0.80	4.95	1.0	6.8
03010127xxyz	2	4	0.80	4.95	1.0	11.6
03010128xxyz	3	4	0.80	4.95	1.0	12.4
03010129xxyz	4	4	0.80	4.95	1.0	13.6
03010130xxyz	5	4	0.80	4.95	1.1	15.3
03010131xxyz	1	6	0.80	3.30	1.1	7.5
03010132xxyz	2	6	0.80	3.30	1.1	13.0
03010133xxyz	3	6	0.80	3.30	1.2	13.8
03010134xxyz	4	6	0.80	3.30	1.2	15.5
03010135xxyz	1	10	1.00	1.9	1.3	9.4
03010136xxyz	2	10	1.00	1.9	1.3	16.5
03010137xxyz	3	10	1.00	1.9	1.4	17.7
03010138xxyz	4	10	1.00	1.9	1.4	19.5
03010139xxyz	1	16	1.00	1.2	1.4	10.9

Part Number	No. of Cores	Nominal Cross Sectional Area (Sq. mm)	Nominal Insulation Thickness (mm)	Max. D.C. Conductor Resistance at 20°C (Ω/km)	Nominal Thickness of Sheath	Maximum Overall Dimensions (mm)
03010140xxyz	2	16	1.00	1.21	1.4	19.4
03010141xxyz	3	16	1.00	1.21	1.4	20.6
03010142xxyz	4	16	1.00	1.21	1.4	23.0
03010143xxyz	1	25	1.20	0.780	1.4	13.6
03010144xxyz	2	25	1.20	0.780	1.4	23.8
03010145xxyz	3	25	1.20	0.780	1.5	25.6
03010146xxyz	4	25	1.20	0.780	1.6	28.5
03010147xxyz	1	35	1.20	0.554	1.6	15.5
03010148xxyz	2	35	1.20	0.554	1.6	27.2
03010149xxyz	3	35	1.20	0.554	1.6	29.3
03010150xxyz	4	35	1.20	0.554	1.7	32.7
03010151xxyz	1	50	1.40	0.386	2.0	18.1
03010152xxyz	2	50	1.40	0.386	2.0	32.0
03010153xxyz	3	50	1.40	0.386	2.0	34.6
03010154xxyz	4	50	1.40	0.386	2.0	38.6
03010155xxyz	1	70	1.40	0.272	2.2	20.8
03010156xxyz	2	70	1.40	0.272	2.2	36.8
03010157xxyz	3	70	1.40	0.272	2.2	39.6
03010158xxyz	4	70	1.40	0.272	2.2	44.3
03010159xxyz	1	95	1.60	0.206	2.4	23.6
03010160xxyz	2	95	1.60	0.206	2.4	41.8
03010161xxyz	3	95	1.60	0.206	2.4	47.0
03010162xxyz	4	95	1.60	0.206	2.4	50.2
03010163xxyz	1	120	1.60	0.161	2.5	26.0
03010164xxyz	2	120	1.60	0.161	2.5	46.2
03010165xxyz	3	120	1.60	0.161	2.5	51.0
03010166xxyz	4	120	1.60	0.161	2.5	55.7
03010167xxyz	3	150	1.80	0.129	2.6	54.8
03010168xxyz	4	150	1.80	0.129	2.6	62.1
03010169xxyz	3	185	2.00	0.106	2.8	61.2
03010170xxyz	4	185	2.00	0.106	2.8	68.5
03010171xxyz	3	240	2.20	0.0801	3.0	69.7
03010172xxyz	4	240	2.20	0.0801	3.0	77.9
03010173xxyz	3	300	2.40	0.0641	3.2	75.7
03010174xxyz	4	300	2.40	0.0641	3.2	84.4

For current ratings & voltage drop refer table no. 6-4 & 6-5 of Appendix.

CONTROL CABLE (IS 694)

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Application

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Ratnaflex -M FR-LSH: Flame Retardant Low Smoke Low Halogen (FR-LSH) cables are suitable for wiring in public places like schools, hospitals, theatres, etc.

Technical Data

Approvals : IS 694 marked, FIA/TAC

Conductor : Electrolytic grade annealed copper Class-5 as per IS 8130, having uniform resistance properties

Core Colours: All black colour cores with continuous white numbering, gn-yl core on outer most layer for earth if applicable

Standard Cable Colour : Black (RAL 9005) & Grey (RAL 7001)

Voltage : Up to and including 1100V

Packing : Standard packing of 100 mtr. in coils. Longer length available on request

Variants Available

Product Type	Specifications	
PVC 70°C	IS 694, IS 8130 Class 5, IS 5831 Type D for insulation & ST-3 & for sheathing	
Heat Resistant 85°C	IS 694, IS 8130 Class 5, IS 5831 Type C for insulation & ST-2 for sheathing	
Flame Retardant	IS 694, IS 8130 Class 5, IS 5831 Type D for insulation & ST-3 (FR) & for sheathing	
Heat Resistant 85°C & Flame Retardant	IS 694, IS 8130 Class 5, IS 5831 Type C for insulation & ST-2 (FR) for sheathing	
Flame Retardant Low Smoke Low Halogen	IS 694, IS 8130 Class 5, IS 5831 Type D for insulation & ST-3 (FR-LSH) for sheathing	
Please complete the part numbers for these cables by adding the suffix (in place of 'xx') for the insulation colour required.	Kindly complete the part numbers for these cables by adding the suffix (in place of 'y') for the product type required.	Kindly complete the part numbers for these cables by adding the suffix (in place of 'z') for the sheath colour required.
06 - green-yellow earth core. We offer green/yellow earth core as our standard product. 00 - without green-yellow earth core (available on request).	1 - PVC 70°C, 2 - PVC FR 70°C, 3 - PVC HR 85°C, 4 - PVC HR 85°C + FR, 5 - PVC FR-LSH 70°C.	1 - black, 4 - grey.

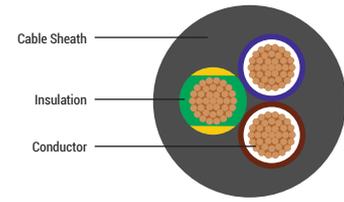
Kindly add 'OU' after the part number, for the cables required for outdoor application.

Cable Design Parameters

Part Number	Nominal Cross Sectional Area (Sq. mm)	No. of Cores	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheath (mm)	Maximum Overall Dimensions (mm)
03020101xyz	0.5	6	0.6	0.9	9.5
03020102xyz	0.5	7	0.6	0.9	9.5
03020103xyz	0.5	8	0.6	1.0	11.1
03020104xyz	0.5	9	0.6	1.0	11.8
03020105xyz	0.5	10	0.6	1.0	12.0
03020106xyz	0.5	11	0.6	1.0	12.0
03020107xyz	0.5	12	0.6	1.0	12.4
03020108xyz	0.5	13	0.6	1.0	13.1
03020109xyz	0.5	14	0.6	1.1	13.1
03020110xyz	0.5	15	0.6	1.1	13.5
03020111xyz	0.5	16	0.6	1.1	13.8
03020112xyz	0.5	17	0.6	1.1	14.6
03020113xyz	0.5	18	0.6	1.1	14.6
03020114xyz	0.5	19	0.6	1.1	14.6
03020115xyz	0.5	20	0.6	1.2	15.4
03020116xyz	0.5	21	0.6	1.2	15.4
03020117xyz	0.5	22	0.6	1.2	16.3
03020118xyz	0.5	23	0.6	1.2	16.3
03020119xyz	0.5	24	0.6	1.2	17.1
03020120xyz	0.5	25	0.6	1.2	17.1
03020121xyz	0.75	6	0.6	1.0	10.0
03020122xyz	0.75	7	0.6	1.0	10.0
03020123xyz	0.75	8	0.6	1.0	11.8
03020124xyz	0.75	9	0.6	1.1	12.4
03020125xyz	0.75	10	0.6	1.1	12.7
03020126xyz	0.75	11	0.6	1.1	12.7
03020127xyz	0.75	12	0.6	1.1	13.1
03020128xyz	0.75	13	0.6	1.1	13.8
03020129xyz	0.75	14	0.6	1.1	13.8
03020130xyz	0.75	15	0.6	1.2	14.3
03020131xyz	0.75	16	0.6	1.2	14.6
03020132xyz	0.75	17	0.6	1.2	15.4
03020133xyz	0.75	18	0.6	1.2	15.4
03020134xyz	0.75	19	0.6	1.2	15.4
03020135xyz	0.75	20	0.6	1.3	16.3
03020136xyz	0.75	21	0.6	1.3	16.3

Part Number	Nominal Cross Sectional Area (Sq. mm)	No. of Cores	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheath (mm)	Maximum Overall Dimensions (mm)
03020137xyz	0.75	22	0.6	1.3	17.3
03020138xyz	0.75	23	0.6	1.3	17.3
03020139xyz	0.75	24	0.6	1.3	18.2
03020140xyz	0.75	25	0.6	1.3	19
03020141xyz	1.0	6	0.6	1.0	10.5
03020142xyz	1.0	7	0.6	1.0	10.5
03020143xyz	1.0	8	0.6	1.0	12.4
03020144xyz	1.0	9	0.6	1.1	13.1
03020145xyz	1.0	10	0.6	1.1	13.4
03020146xyz	1.0	11	0.6	1.1	13.4
03020147xyz	1.0	12	0.6	1.1	13.9
03020148xyz	1.0	13	0.6	1.1	14.6
03020149xyz	1.0	14	0.6	1.1	14.6
03020150xyz	1.0	15	0.6	1.2	15.1
03020151xyz	1.0	16	0.6	1.2	15.4
03020152xyz	1.0	17	0.6	1.2	16.3
03020153xyz	1.0	18	0.6	1.3	16.3
03020154xyz	1.0	19	0.6	1.3	16.3
03020155xyz	1.0	20	0.6	1.4	17.3
03020156xyz	1.0	21	0.6	1.4	17.3
03020157xyz	1.0	22	0.6	1.4	18.2
03020158xyz	1.0	23	0.6	1.4	18.2
03020159xyz	1.0	24	0.6	1.4	19.2
03020160xyz	1.0	25	0.6	1.4	19.2
03020161xyz	1.5	6	0.6	1.0	12.4
03020162xyz	1.5	7	0.6	1.0	12.4
03020163xyz	1.5	8	0.6	1.1	14.7
03020164xyz	1.5	9	0.6	1.1	15.6
03020165xyz	1.5	10	0.6	1.1	16
03020166xyz	1.5	11	0.6	1.1	16
03020167xyz	1.5	12	0.6	1.1	16.5
03020168xyz	1.5	13	0.6	1.2	17.4
03020169xyz	1.5	14	0.6	1.2	17.4
03020170xyz	1.5	15	0.6	1.2	18.1
03020171xyz	1.5	16	0.6	1.2	18.4
03020172xyz	1.5	17	0.6	1.3	19.5

Part Number	Nominal Cross Sectional Area (Sq. mm)	No. of Cores	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheath (mm)	Maximum Overall Dimensions (mm)
03020173xyz	1.5	18	0.6	1.3	19.5
03020174xyz	1.5	19	0.6	1.3	19.5
03020175xyz	1.5	20	0.6	1.4	20.7
03020176xyz	1.5	21	0.6	1.4	20.7
03020177xyz	1.5	22	0.6	1.4	21.9
03020178xyz	1.5	23	0.6	1.4	21.9
03020179xyz	1.5	24	0.6	1.4	23
03020180xyz	1.5	25	0.6	1.4	23
03020181xyz	2.5	6	0.7	1.1	14.5
03020182xyz	2.5	7	0.7	1.1	15.5
03020183xyz	2.5	8	0.7	1.2	17.3
03020184xyz	2.5	9	0.7	1.3	18.3
03020185xyz	2.5	10	0.7	1.3	18.7
03020186xyz	2.5	11	0.7	1.3	18.7
03020187xyz	2.5	12	0.7	1.3	19.4
03020188xyz	2.5	13	0.7	1.3	20.5
03020189xyz	2.5	14	0.7	1.3	20.5
03020190xyz	2.5	15	0.7	1.4	21.3
03020191xyz	2.5	16	0.7	1.4	21.7
03020192xyz	2.5	17	0.7	1.4	23
03020193xyz	2.5	18	0.7	1.4	23.3
03020194xyz	2.5	19	0.7	1.4	23.8
03020195xyz	2.5	20	0.7	1.4	24.4
03020196xyz	2.5	21	0.7	1.5	25
03020197xyz	2.5	22	0.7	1.5	25.8
03020198xyz	2.5	23	0.7	1.5	26.3
03020199xyz	2.5	24	0.7	1.5	27.2
03020200xyz	2.5	25	0.7	1.5	27.9



Application

For use in connections of household appliances, plant and machinery, wiring purposes and for manufacturing cords.

Standard

BS EN 50525-2-11, DIN EN 50525-2-11; VDE 0285-525-2-11, EN 50525-2-11.

Technical Data

Nominal Voltage : 300/500V (H05VV-F & H05VVH2-F); 300/300V (H03VV-F & H03VVH2-F)

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed Installation : -30°C to +70°C

Minimum Bending Radius: Flexing 7.5 x cable ø; Fixed installation 4 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, as per EN 60228 Cl.5.

PVC core insulation TI2, to EN 50363-3.

Harmonised core colour to HD 308 (Refer Appendix Table No. 1-1).

Cores stranded in layers with optimal lay-length.

PVC outer sheath TM2, to EN 50363-4.1.

H05VV-F is also available in oil resistant variant as H05VV5-F.

The outer sheath provided here is of special PVC, TM5 to BS EN 50363-4.1.

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

Please complete the part numbers for these cables by adding the suffix (in place of 'z') for the sheath colour required:

1 - black (RAL 9005), 3 - grey (RAL 7001), 5 - white (RAL 9010). For Oil Resistant sheath kindly add 'OR' after the part nos.

Cable Design Parameters

	Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)
H03VV-F	03030101021z	2 x 0.5	5.1
	03030102021z	2 x 0.75	5.5
	03030103021z	3 x 0.5	5.3
	03030104011z	3 G 0.5	5.3
	03030105021z	3 x 0.75	5.7
	03030106011z	3 G 0.75	5.7
	03030107021z	4 x 0.5	5.8

	Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)
	03030108011z	4 G 0.5	5.8
	03030109021z	4 x 0.75	6.3
	03030110011z	4 G 0.75	6.3
H03VVH2-F	03031111021z	2 x 0.5	5.1 x 3.2
	03031112021z	2 x 0.75	5.5 x 3.4
H05VVH2-F	03031113021z	2 x 0.75	6.3 x 4.0
	03031114021z	2 x 1	6.6 x 4.1
	03031115021z	2 x 1.5	7.7 x 4.7
H05W-F	03030116021z	2 x 0.75	6.2
	03030117021z	2 x 1	6.4
	03030118021z	2 x 1.5	7.5
	03030119021z	2 x 2.5	9.1
	03030120021z	2 x 4	10.3
	03030121011z	3 G 0.75	6.6
	03030122021z	3 x 0.75	6.6
	03030123011z	3 G 1	6.9
	03030124021z	3 x 1	6.9
	03030125011z	3 G 1.5	8.1
	03030126021z	3 x 1.5	8.1
	03030127011z	3 G 2.5	9.7
	03030128021z	3 x 2.5	9.7
	03030129011z	3 G 4	11.2
	03030130021z	3 x 4	11.2
	03030131011z	4 G 0.75	7.1
	03030132021z	4 x 0.75	7.1
	03030133011z	4 G 1	7.5
	03030134021z	4 x 1	7.5
	03030135011z	4 G 1.5	9.1
	03030136021z	4 x 1.5	9.1
	03030137011z	4 G 2.5	10.7
	03030138021z	4 x 2.5	10.7
	03030139011z	4 G 4	12.2
	03030140021z	4 x 4	12.2
	03030141011z	5 G 0.75	8.0
	03030142021z	5 x 0.75	8.0
	03030143011z	5 G 1	8.4
	03030144021z	5 x 1	8.4

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)
03030145011z	5 G 1.5	10.2
03030146021z	5 x 1.5	10.2
03030147011z	5 G 2.5	12.0
03030148021z	5 x 2.5	12.0
03030149011z	5 G 4	13.8
03030150021z	5 x 4	13.8

Note :

*G = With green/yellow earth core

x = Without green/yellow earth core

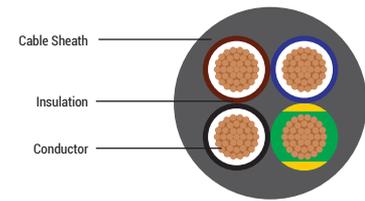
Range Details

Cable Type	Size Range	
	BASEC	VDE
H03VVH2-F	-	0.50...0.75 mm ² x 2C
H05VVH2-F	0.75 1.5 mm ² x 2C	0.75...1 mm ² x 2C
H05VV-F	0.75...4 mm ² x 2...5C	0.75...4 mm ² x 2...5C

For current rating refer table no. 11-1 & for voltage drop refer table no. 11-2 of Appendix

For current rating conversion factor, refer table no. 11-3 of Appendix

For current rating to DIN VDE 0298-4, refer table no. 12-3 of Appendix



Application

For use in connections of household appliances and wiring purposes. It is also used in manufacture of cords.

Standard

Adapted to DIN VDE 0281, 0293, 0295 with insulation thickness for 1.0 kV type.

Technical Data

Nominal Voltage : U_0/U 450/750V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C

Fixed Installation : -30°C to +70°C

Minimum Bending Radius : Flexing 7.5 x cable ø. Fixed Installation 4 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, as per EN 60228 Cl.5.

Special PVC core insulation TI2, to EN 50363-3.

Harmonised core colour to HD 308 (Refer Appendix Table No. 1-1).

For cores above 5, black core with continuous white numbering according to DIN VDE 0293.

Green-Yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Special PVC outer sheath TM2, to EN 50363-4.1.

Colour Grey (RAL 7001).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)
030400201205	2 x 2.5	9.1
030400311205	3G 2.5	9.9
030400301205	3 x 2.5	9.9
030400411205	4G 2.5	11.1
030400401205	4 x 2.5	11.1
030400511205	5G 2.5	12.4
030400501205	5 x 2.5	12.4
030400611205	6G 2.5	13.3

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)
030400711205	7G 2.5	14.6
030400200004	2 x 4	10.4
030400310004	3G 4	11.2
030400410004	4G 4	12.5
030400510004	5G 4	13.9
030400710004	7G 4	16.8
030401110004	11G 4	22.3
030400310006	3G 6	12.6
030400410006	4G 6	14.0
030400510006	5G 6	15.5
030400710006	7G 6	19.0
030400310010	3G 10	16.0
030400410010	4G 10	18.0
030400510010	5G 10	20.0
030400710010	7G 10	23.1
030400310016	3G 16	18.5
030400410016	4G 16	20.8
030400510016	5G 16	23.0
030400710016	7G 16	31.0
030400310025	3G 25	23.3
030400410025	4G 25	26.0
030400510025	5G 25	29.0
030400310035	3G 35	26.6
030400410035	4G 35	29.7
030400510035	5G 35	33.1
030400310050	3G 50	30.2
030400410050	4G 50	33.9
030400510050	5G 50	37.6
030400310070	3G 70	37.1
030400410070	4G 70	41.6
030400510070	5G 70	46.3
030400310095	3G 95	40.1
030400410095	4G 95	44.8
030400510095	5G 95	50.2
030400310120	3G 120	45.5
030400410120	4G 120	50.8
030400410150	4G 150	57.0
030400410185	4G 185	65.8

Note :

*G = With green/yellow earth core

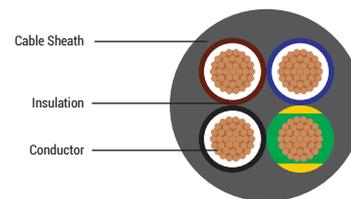
x = Without green/yellow earth core

For current ratings refer table no. 12-1 & voltage drop refer table no. 12-2 of Appendix.

For current ratings to DIN VDE 0298-4, refer table no. 12-3 of Appendix.

H03 / H05V2V2H2-F & H03 / H05V2V2-F

REACH | RoHS | CE | CPR Compliant



Application

For use in connections of household appliances and internal wiring purposes with high ambient temperatures and humid spaces

Standard

BS EN 50525-2-11.

Technical Data

Nominal Voltage : 300 / 500V (H05V2V2H2-F / H05V2V2-F); 300 / 300V (H03V2V2H2-F / H03V2V2-F)

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range :

Flexing -5°C to +90°C

Fixed Installation -30°C to +90°C

Fixed Installation 5 x cable ø

Minimum Bending Radius : Flexing 7.5 x cable ø; Fixed installation 4 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, as per EN 60228 Cl.5.

PVC core insulation TI3, to EN 50363-3.

Harmonised core colour to HD 308 (Refer Appendix Table No. 1-1).

Cores stranded in layers with optimal lay-length.

PVC outer sheath TM3, to EN 50363-4.1

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

Cable Design Parameters

Please complete the part numbers for these cables by adding the suffix (in place of 'z') for the sheath colour required,

1 - black (RAL 9005), 3 - grey (RAL 7001), 5 - white (RAL 9010).

	Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)
H03V2V2-F	03050101023z	2 x 0.5	5.1
	03050102023z	2 x 0.75	5.5
	03050103023z	3 x 0.5	5.3
	03050104013z	3 G 0.5	5.3
	03050105023z	3 x 0.75	5.7
	03050106013z	3 G 0.75	5.7
	03050107023z	4 x 0.5	5.8
	03050108013z	4 G 0.5	5.8
	03050109023z	4 x 0.75	6.3
	03050110013z	4 G 0.75	6.3
H03V2V2H2-F	03051111023z	2 x 0.5	5.1 x 3.2
	03051112023z	2 x 0.75	5.5 x 3.4

	Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)
H05V2V2H2-F	03051113023z	2 x 0.75	6.3 x 4.0
	03051114023z	2 x 1.0	6.6 x 4.1
	03051115023z	2 x 1.5	7.7 x 4.7
H05V2V2-F	03050116023z	2 x 0.75	6.2
	03050117023z	2 x 1.0	6.5
	03050118023z	2 x 1.5	7.5
	03050119023z	2 x 2.5	9.1
	03050120023z	2 x 4	10.3
	03050121023z	3 x 0.75	6.6
	03050122013z	3 G 0.75	6.6
	03050123023z	3 x 1.0	6.9
	03050124013z	3 G 1.0	6.9
	03050125023z	3 x 1.5	8.1
	03050126013z	3 G 1.5	8.1
	03050127023z	3 x 2.5	9.9
	03050128013z	3 G 2.5	9.9
	03050129023z	3 x 4	11.2
	03050130013z	3 G 4	11.2
	03050131023z	4 x 0.75	7.2
	03050132013z	4 G 0.75	7.2
	03050133023z	4 x 1.0	7.7
	03050134013z	4 G 1.0	7.7
	03050135023z	4 x 1.5	9.0
	03050136013z	4 G 1.5	9.0
	03050137023z	4 x 2.5	10.8
	03050138013z	4 G 2.5	10.8
	03050139023z	4 x 4	12.2
	03050140013z	4 G 4	12.2
	03050141023z	5 x 0.75	8.0
	03050142013z	5 G 0.75	8.0
	03050143023z	5 x 1.0	8.3
	03050144013z	5 G 1.0	8.3
	03050145023z	5 x 1.5	10.0
	03050146013z	5 G 1.5	10.0
	03050147023z	5 x 2.5	12.0
	03050148013z	5 G 2.5	12.0
03050149023z	5 x 4	13.7	
03050150013z	5 G 4	13.7	

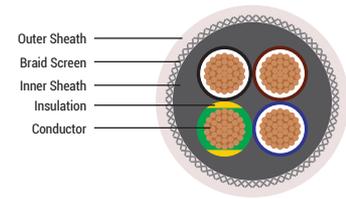
Note :

*G = With green/yellow earth core

x = Without green/yellow earth core

For current ratings refer table no. 12-1 & voltage drop refer table no. 12-2 of Appendix.

For current ratings to DIN VDE 0298-4, refer table no. 12-3 of Appendix.



Application

For use as a data and control cable in machinery, computer systems etc. as well as a signal cable for electronics. The high level of screening ensures a high degree of interference protection. The dense screening assures disturbance-free transmission of all signals and impulses. The PVC-inner sheaths of these cables raise the mechanical strength. The applied clear transparent PVC outer sheath accentuates the optical view of the tinned copper braid. These cables are suitable for flexible use for medium mechanical stresses with free movements.

Standard

Adapted to DIN/BS EN 50525-2-51.

Technical Data

Nominal Voltage : U_0 / U 300 / 500V up to 1.5 mm². U_0 / U 450 / 750V for 2.5 mm² and above

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius: Flexing 20 x cable ø. Fixed installation 6 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Mutual Capacitance (0.5 to 2.5 Sq. mm) : core to core (approx.) - 150 nF/km
core to screen (approx.) - 270 nF/km

Cable Construction

Bare copper, fine wire conductors, EN 60228 Cl. 5.

Core insulation of T12, EN 50363-3.

Core identification : As per VDE 0293-302/HD 308 S2 (Refer appendix table No. 1-1)

Green/yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Special PVC inner jacket.

Tinned copper, braided screen, approx 85% coverage.

Transparent special PVC outer sheath.

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

EMC : Electromagnetic compatibility

To optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030601010216	2 x 0.5	7.9	37	124
030601020116	3G 0.5	8.3	44	139
030601030116	4G 0.5	8.8	53	168
030601040116	5G 0.5	9.6	60	205
030601050116	7G 0.5	10.2	76	243
030601060216	2 x 0.75	8.3	44	140
030601070116	3G 0.75	8.7	54	160
030601080116	4G 0.75	9.5	66	198
030601090116	5G 0.75	10.1	78	239
030601100116	7G 0.75	10.8	99	286
030601110216	2 x 1	8.6	53	156
030601120116	3G 1	9.2	65	182
030601130116	4G 1	9.8	79	221
030601140116	5G 1	10.7	94	272
030601150116	7G 1	11.5	122	328
030601160216	2 x 1.5	9.7	66	198
030601170116	3G 1.5	10.2	87	231
030601180116	4G 1.5	11.1	106	286
030601190116	5G 1.5	12.4	129	368
030601200116	7G 1.5	13.2	165	442
030601210216	2 x 2.5	11.2	95	271
030601220116	3G 2.5	11.8	126	318
030601230116	4G 2.5	13.1	159	412
030601240116	5G 2.5	14.3	193	511
030601250116	7G 2.5	15.4	257	624
030601260116	4G 4	13.4	264	565
030601270116	5G 4	14.8	317	697
030601280116	4G 6	15.6	365	732
030601290116	5G 6	17	442	909
030601300116	3G 10	17.8	453	889
030601310116	4G 10	19.7	580	1125
030601320116	5G 10	21.6	711	1408
030601330116	3G 16	20.7	707	1274
030601340116	4G 16	22.6	917	1618
030601350116	5G 16	25.2	1128	2047

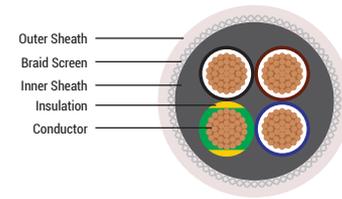
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030601330116	3G 25	26.3	1064	1965
030601340116	4G 25	28.9	1386	2512
030601350116	5G 25	31.8	1708	3153
030601360116	3G 35	29.4	1453	2554
030601370116	4G 35	32.2	1900	3259
030601380116	5G 35	36.0	2347	4133
030601390116	3G 50	35.1	2048	3653
030601380116	4G 50	38.8	2688	4701
030601390116	4G 70	43.7	3732	6229
030601400116	4G 95	50.4	4915	8123
030601410116	4G 120	56.8	6198	10118
030601420116	4G 150	62.2	7600	12511
030601430116	4G 185	67.8	9334	15306

Note :

*JB = With green/yellow earth core

OB = Without green/yellow earth core

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

These cables are used as measuring and control cables in food processing industries, packaging industries, tool machinery, plant installation and power stations. The steel braid ensures best possible protection against mechanical damage. The galvanized coating on the steel wire braiding not only helps protect against corrosion, but also notably improves the soldering properties.

Standard

Adapted to DIN/BS EN 50525-2-51.

Technical Data

Nominal Voltage : U_0 / U 300 / 500V up to 1.5 mm². U0/U 450/750V for 2.5 mm² and above

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C; Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 20 x cable ø. Fixed installation 6 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl. 5.

Core insulation of TI2, EN 50363-3.

Core identification : As per VDE 0293-302/HD 308 S2 (Refer appendix table No. 1-1)

Green/Yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Special PVC inner jacket.

Galvanised steel wire screening.

Special PVC outer jacket.

Transparent Special PVC outer sheath (also available in grey)

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

Cable Design Parameters

Please complete the part numbers for these cables by adding the suffix (in place of 'z') for the sheath colour required, 3 - grey (RAL 7001), 6 - transparent.

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
03070101021z	2 x 0.75	9.0	18	120
03070102011z	3G 0.75	9.4	27	138
03070103011z	4G 0.75	10.2	36	176
03070104011z	5G 0.75	10.9	44	204
03070105011z	7G 0.75	11.7	62	250
03070106011z	12G 0.75	14.4	107	398

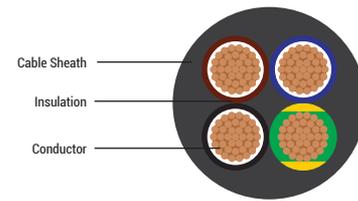
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
03070107021z	2 x 1	9.3	24	129
03070108011z	3G 1	9.9	36	166
03070109011z	4G 1	10.6	47	196
03070110011z	5G 1	11.5	59	234
03070111011z	7G 1	12.3	83	290
03070112011z	25G 1	19.5	296	857
03070113021z	2 x 1.5	10.4	35	171
03070114011z	3G 1.5	10.9	52	205
03070115011z	4G 1.5	11.9	69	252
03070116011z	5G 1.5	13.1	87	307
03070117011z	7G 1.5	14.1	122	381
03070118011z	12G 1.5	17.3	208	618
03070119011z	18G 1.5	19.7	313	873
03070120011z	25G 1.5	22.6	434	1183
03070121011z	32G 1.5	24.7	556	1480
03070122021z	2 x 2.5	11.9	58	238
03070123011z	3G 2.5	12.5	87	285
03070124011z	4G 2.5	13.8	116	371
03070125011z	5G 2.5	15.0	145	442
03070126011z	7G 2.5	16.3	203	558
03070127021z	2 x 4	12.9	92	304
03070128011z	4G 4	15.0	184	477
03070129011z	5G 4	16.4	230	574
03070130011z	3G 6	15.2	207	492
03070131011z	4G 6	16.6	276	638
03070132011z	5G 6	18.1	345	770
03070133011z	4G 10	21.3	470	1042
03070134011z	5G 10	23.3	588	1270
03070135011z	4G 16	24.1	783	1479
03070136011z	5G 16	26.6	979	1858
03070137011z	4G 25	29.4	1218	2258
03070138011z	5G 25	32.6	1522	2831
03070139011z	4G 35	32.4	1715	2955
03070140011z	5G 35	36.0	2144	3711
03070141011z	4G 50	38.8	2461	4256

Note :

*JB = With green/yellow earth core

OB = Without green/yellow earth core

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

For flexible use with medium and free movement without tensile stress or forced movements in dry, moist and wet rooms as well as outside (fixed installation). These cables are used for manufacturing machines, machine tools. Also used in conveyor belts and product lines.

Standard

Adapted to DIN VDE 0262, DIN VDE 0281 Part 13 with increased insulation thickness for 1 kV.

Technical Data

Nominal Voltage : U_0 / U 0.6 / 1 kV

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Occasional flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 15 x cable ø. Fixed installation 4 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl.5.

Core insulation of PVC, T12 to EN 50363-3.

Core identification : As per VDE 0293-302/HD 308 S2 (Refer appendix table No. 1-1)

Cores stranded in layers with optimal lay-length.

Special PVC outer sheath TM2, EN 50363-4-1, colour black (RAL 9005).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

UV & weather resistant according to ASTM G 154.

Ozone resistant according to EN 50396.

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030800200001	2 x 1	8.6	19	101
030800310001	3G 1	9	28	117
030800410001	4G 1	9.6	38	138
030800510001	5G 1	10.4	47	164
030800201105	2 x 1.5	9.6	28	129
030800311105	3G 1.5	10.1	42	152
030800411105	4G 1.5	10.8	56	181
030800511105	5G 1.5	11.7	69	216
030800201205	2 x 2.5	10.8	46	173

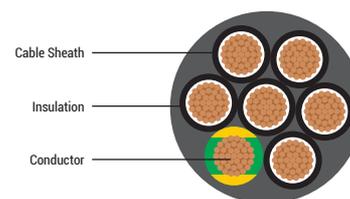
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030800311205	3G 2.5	11.3	69	205
030800411205	4G 2.5	12.2	93	249
030800511205	5G 2.5	13.3	116	301
030800410004	4G 4	13.8	147	344
030800410006	4G 6	15.1	221	450
030800410010	4G 10	18.7	376	723
030800410016	4G 16	21.3	626	1058
030800410025	4G 25	26.2	974	1623
030800410035	4G 35	29.1	1372	2150
030800410050	4G 50	35.6	1968	3144
030800410070	4G 70	40.5	2747	4245
030800410095	4G 95	46.6	3663	5639
030800410120	4G 120	53.3	4639	7242

Note :

*JB = With green/yellow earth core

OB = Without green/yellow earth core

For current ratings to DIN VDE 0298-4, refer table no. 12-3 of Appendix.



Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress of forced movements in dry, moist and wet rooms but not suitable for outdoor installation. Fit for measuring and control cables in tool machines, conveyor belts production lines in machinery production, in air-conditioning and steel production.

Standard

Requirement adapted to DIN VDE 0245, 0281, 0293, 0295.

Technical Data

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 G Ω x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 7.5 x cable \varnothing . Fixed installation 4 x cable \varnothing

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl.5.

Core insulation of special PVC T12 EN 50363-3.

Black core with continuous white numbering according to DIN VDE 0293.

Green/yellow earth core in the outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Outer sheath of special PVC, TM2 to EN 50363-4.1.

Colour grey (RAL 7001).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

JZ-500 is also available in oil resistant variant as JZ-500 OR. The outer sheath provided here is of special PVC, TM5 to EN 50363 -4.1.

For Oil Resistant sheath kindly add 'OR' after the part nos.

Cable Design Parameters

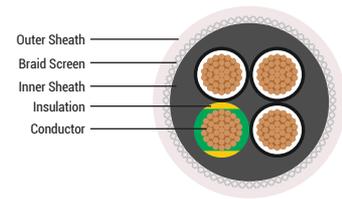
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030900211050	2 x 0.5	4.8	9.5	35
030900311050	3G 0.5	5.1	14.0	42
030900301050	3 x 0.5	5.1	14.2	42
030900411050	4G 0.5	5.5	19.0	49
030900401050	4 x 0.5	5.5	19.0	49
030900511050	5G 0.5	6.0	24.0	61
030900501050	5 x 0.5	6.0	24.0	61

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030900501050	5 x 0.5	6.0	24.0	61
030900611050	6G 0.5	6.6	28.5	74
030900711050	7G 0.5	6.6	33.5	76
030900701050	7 x 0.5	6.6	33.5	76
030900811050	8G 0.5	7.4	38.0	98
030900801050	8 x 0.5	7.4	38.0	98
030901011050	10G 0.5	8.4	47.5	124
030901211050	12G 0.5	8.7	57.0	133
030901201050	12 x 0.5	8.7	57.0	133
030901411050	14G 0.5	9.1	66.5	162
030901611050	16G 0.5	9.6	76.0	175
030901811050	18G 0.5	10.2	85.5	191
030902011050	20G 0.5	10.8	95.0	227
030902111050	21G 0.5	10.8	100.0	234
030902511050	25G 0.5	11.2	118.5	280
030903011050	30G 0.5	12.7	142.5	315
030903211050	32G 0.5	13.2	152.0	340
030903411050	34G 0.5	13.8	161.5	355
030904011050	40G 0.5	14.4	190.0	408
030904211050	42G 0.5	15.0	199.0	440
030905011050	50G 0.5	15.8	237.0	552
030905211050	52G 0.5	16.3	246.5	560
030906111050	61G 0.5	17.4	289.5	646
030906511050	65G 0.5	17.8	308.5	687
030908011050	80G 0.5	19.9	379.5	853
030910011050	100G 0.5	22.8	474.0	1085
030900201075	2 x 0.75	5.3	14.5	44
030900311075	3G 0.75	5.6	21.5	54
030900301075	3 x 0.75	5.6	21.5	54
030900411075	4G 0.75	6.2	28.5	71
030900401075	4 x 0.75	6.2	28.5	71
030900511075	5G 0.75	6.8	36.0	81
030900501075	5 x 0.75	6.8	36.0	81
030900611075	6G 0.75	7.4	43.0	100
030900601075	6 x 0.75	7.4	43.0	100
030900711075	7G 0.75	7.4	50.0	103
030900701075	7 x 0.75	7.4	50.0	103
030900811075	8G 0.75	8.3	57.0	142

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030900801075	8 x 0.75	8.3	57.0	142
030900911075	9G 0.75	9.0	64.0	156
030901011075	10G 0.75	9.4	71.0	166
030901211075	12G 0.75	9.8	85.5	180
030901201075	12 x 0.75	9.8	85.5	180
030901411075	14G 0.75	10.3	100.0	205
030901511075	15G 0.75	10.9	107.0	230
030901811075	18G 0.75	11.5	128.0	260
030901911075	19G 0.75	11.5	135.0	270
030902011075	20G 0.75	12.2	142.5	300
030902111075	21G 0.75	12.2	149.5	311
030902511075	25G 0.75	12.6	178.0	376
030902711075	27G 0.75	13.9	192.0	405
030903211075	32G 0.75	15.0	228.0	455
030903411075	34G 0.75	15.6	242.0	470
030903711075	37G 0.75	15.6	263.0	515
030904011075	40G 0.75	16.3	284.5	532
030904111075	41G 0.75	17.0	292.0	570
030904211075	42G 0.75	17.0	299.0	600
030905011075	50G 0.75	18.0	356.0	690
030906111075	61G 0.75	19.7	434.0	835
030906511075	65G 0.75	20.3	462.5	890
030908011075	80G 0.75	22.9	569.0	1087
030910011075	100G 0.75	26.0	711.5	1410
030900200001	2 x 1	5.6	19.0	52
030900310001	3G 1	6.0	28.5	66
030900300001	3 x 1	6.0	28.5	66
030900410001	4G 1	6.6	38.0	82
030900400001	4 x 1	6.6	38.0	82
030900510001	5G 1	7.2	47.5	100
030900500001	5 x 1	7.2	47.5	100
030900610001	6G 1	7.9	57.0	122
030900710001	7G 1	7.9	66.5	142
030900700001	7 x 1	7.9	66.5	142
030900810001	8G 1	8.9	76.0	165
030900910001	9G 1	9.6	85.5	190
030901010001	10G 1	10.1	95.0	205
030901000001	10 x 1	10.1	95.0	205

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030901210001	12G 1	10.4	114.0	230
030901200001	12 x 1	10.4	114.0	230
030901410001	14G 1	11.0	133.0	258
030901610001	16G 1	11.6	152.0	293
030901810001	18G 1	12.3	171.0	330
030901800001	18 x 1	12.3	171.0	330
030901910001	19G 1	12.3	180.5	337
030902010001	20G 1	13.0	190.0	370
030902000001	20 x 1	13.0	190.0	370
030902110001	21G 1	13.0	199.5	383
030902410001	24G 1	13.5	228.0	420
030902510001	25G 1	13.5	237.5	435
030902500001	25 x 1	13.5	237.5	435
030902610001	26G 1	13.5	246.5	445
030902710001	27G 1	14.8	256.0	502
030903010001	30G 1	15.4	284.5	535
030903410001	34G 1	16.7	322.5	620
030903610001	36G 1	16.7	341.5	635
030903710001	37G 1	16.7	351.0	680
030904010001	40G 1	17.5	379.5	730
030904000001	40 x 1	17.5	379.5	730
030904110001	41G 1	18.2	389.0	740
030904210001	42G 1	18.2	398.5	749
030905010001	50G 1	19.3	474.5	870
030905610001	56G 1	20.5	531.0	972
030906110001	61G 1	21.2	578.5	1050
030906510001	65G 1	21.8	616.5	1112
030908010001	80G 1	24.3	759.0	1380
030910010001	100G 1	27.8	948.5	1767
030900201105	2 x 1.5	6.3	29.0	69
030900311105	3G 1.5	6.7	43.5	87
030900301105	3 x 1.5	6.7	43.5	87
030900411105	4G 1.5	7.3	58.0	107
030900401105	4 x 1.5	7.3	58.0	107
030900511105	5G 1.5	8.0	72.5	135
030900501105	5 x 1.5	8.0	72.5	135
030900611105	6G 1.5	8.8	86.7	162
030900711105	7G 1.5	8.8	101.0	168

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
030900701105	7 x 1.5	8.8	101.0	168
030900811105	8G 1.5	9.9	116.0	213
030900801105	8 x 1.5	9.9	116.0	213
030900911105	9G 1.5	10.8	130.0	248
030901011105	10G 1.5	11.3	145.0	263
030901111105	11G 1.5	11.3	159.0	278
030901211105	12G 1.5	11.7	173.5	295
030901201105	12 x 1.5	11.7	173.5	295
030901411105	14G 1.5	12.4	202.5	340
030901611105	16G 1.5	13.1	202.5	382
030901811105	18G 1.5	13.9	260.0	433
030902111105	21G 1.5	14.8	303.5	505
030902511105	25G 1.5	15.3	361.0	605
030902611105	26G 1.5	15.3	361.0	622
030903211105	32G 1.5	18.2	462.5	799
030903411105	34G 1.5	18.9	491.0	812
030904111105	41G 1.5	20.6	592.5	960
030905011105	50G 1.5	21.9	722.5	1240
030906111105	61G 1.5	24.0	881.5	1420
030906511105	65G 1.5	24.7	939.0	1570
030900201205	2 x 2.5	7.5	40.1	101
030900311205	3G 2.5	8.0	61.0	130
030900411205	4G 2.5	8.9	82.0	162
030900511205	5G 2.5	9.8	102.0	200
030900711205	7G 2.5	10.7	142.0	260
030901211205	12G 2.5	14.4	248.0	452
030901411205	14G 2.5	15.2	290.0	517
030901811205	18G 2.5	17.0	378.0	665
030902511205	25G 2.5	18.8	525.0	870
030903411205	34G 2.5	23.4	715.0	1250
030905011205	50G 2.5	27.0	1050.0	1810
030900310004	3G 4	9.2	96.0	185
030900410004	4G 4	10.1	128.0	230
030900510004	5G 4	11.2	159.5	286
030900710004	7G 4	12.3	223.5	370
030901110004	10G 4	16.0	325.0	608
030901210004	12G 4	16.6	383.0	660
030900310006	3G 6	11.0	144.0	277



Application

For use as a data and control cable in machinery, computer systems etc. as well as a signal cable for electronics. The high level of screening ensures a high degree of interference protection. The screening density assures disturbance-free transmission of all signals and impulses.

Standard

Requirements adapted to DIN VDE 0245, 0281 Part 13.

Technical Data

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 G Ω x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 10 x cable \varnothing . Fixed installation 5 x cable \varnothing

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl.5.

Core insulation of PVC TI2 EN 50363-3.

Black Core with continuous white numbering to DIN VDE 0293.

Green/Yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Special PVC inner jacket.

Tinned copper, braided screen, approx 85% coverage.

Transparent special PVC outer sheath.

Properties

The clear transparent PVC outer sheath accentuates the optical view of the tinned copper braid.

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

JZ-YCY grey (RAL 7001) is available in oil resistant variant as JZ-YCY OR. The outer sheath provided here is of special PVC TM5 to BS EN 50363 -4.1.

For oil resistant sheath kindly add 'OR' after the part nos.

EMC : Electromagnetic compatibility to optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031000201050	2 x 0.5	7.1	21.6	76
031000311050	3G 0.5	7.5	27.6	85
031000301050	3 X 0.5	7.5	27.6	85
031000411050	4G 0.5	8.0	32.5	99
031000401050	4 X 0.5	8.0	32.5	99
031000511050	5G 0.5	8.5	38.7	114
031000501050	5 X 0.5	8.5	38.7	114
031000711050	7G 0.5	9.1	47.7	136
031000701050	7 X 0.5	9.1	47.7	136
031001211050	12G 0.5	11.3	75.2	198
031001201050	12 X 0.5	11.3	75.2	198
031001811050	18G 0.5	13.0	102.2	260
031002511050	25G 0.5	14.0	153.7	353
031003011050	30G 0.5	15.9	178.7	402
031004011050	40G 0.5	17.6	228.0	515
031000201075	2 x 0.75	7.7	27.5	91
031000311075	3G 0.75	8.1	36.2	103
031000301075	3 X 0.75	8.1	36.2	103
031000411075	4G 0.75	8.6	42.4	122
031000401075	4 X 0.75	8.6	42.4	122
031000511075	5G 0.75	9.3	48.7	142
031000501075	5 X 0.75	9.3	48.7	142
031000711075	7G 0.75	9.9	64.0	170
031000701075	7 X 0.75	9.9	64.0	170
031001211075	12G 0.75	12.5	101.1	275
031001201075	12 X 0.75	12.5	101.1	275
031001811075	18G 0.75	14.6	160.6	352
031001801075	18 X 0.75	14.6	160.6	352
031002511075	25G 0.75	15.8	214.1	448
031003411075	34G 0.75	19.0	279.0	627
031004001075	40 X 0.75	19.8	337.4	691
031004111075	41G 0.75	20.7	345.2	703
031000200001	2 x 1	8.1	32.0	101
031000310001	3G 1	8.4	42.2	117
031000300001	3 x 1	8.4	42.2	117
031000410001	4G 1	9.1	50.7	139

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031000400001	4 x 1	9.1	50.7	139
031000510001	5G 1	9.7	61.3	163
031000710001	7G 1	10.4	79.5	197
031001210001	12G 1	13.2	146.2	300
031001610001	16G 1	14.7	185.5	375
031001810001	18G 1	15.4	202.5	402
031002510001	25G 1	16.7	271.5	525
031003410001	34G 1	20.2	354.0	700
031004110001	41G 1	22.0	437.1	880
031005010001	50G 1	23.1	521.9	990
031000201105	2 x 1.5	8.7	42.1	119
031000311105	3G 1.5	9.2	56.0	140
031000301105	3 x 1.5	9.2	56.0	140
031000411105	4G 1.5	9.9	69.1	167
031000401105	4 x 1.5	9.9	69.1	167
031000511105	5G 1.5	10.7	99.2	208
031000501105	5 x 1.5	10.7	99.2	208
031000711105	7G 1.5	11.5	124.6	256
031000701105	7 x 1.5	11.5	124.6	256
031001211105	12G 1.5	14.8	198.6	397
031001811105	18G 1.5	17.1	279.6	521
031002511105	25G 1.5	18.6	375.2	709
031003411105	34G 1.5	22.8	497.4	977
031004111105	41G 1.5	24.6	611.9	1168
031005011105	50G 1.5	25.9	730.1	1402
031000201205	2 x 2.5	10.1	61.2	166
031000311205	3G 2.5	10.7	99.1	208
031000411205	4G 2.5	11.5	121.1	253
031000511205	5G 2.5	12.5	146.4	274
031000711205	7G 2.5	13.5	192.3	350
031001211205	12G 2.5	17.7	304.4	585
031000200004	2 x 4	11.2	104.4	211
031000410004	4G 4	12.9	173.2	316
031000510004	5G 4	14.2	212.4	385
031000200006	2 x 6	13.1	141.6	296
031000410004	4G 6	15.3	250.2	450

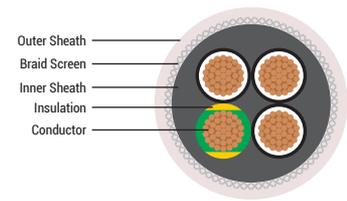
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031000510006	5G 6	16.7	303.7	544
031000200010	2 x 10	15.3	220.4	445
031000310010	3G 10	16.3	308.7	550
031000410010	4G 10	17.8	395.2	680
031000510010	5G 10	19.5	482.7	840
031000710010	7G 10	21.4	653.4	1068
031000200016	2 x 16	18.3	367.3	655
031000410016	4G 16	21.5	657.4	1021
031000510016	5G 16	23.6	807.2	1362
031000410025	4G 25	26.0	984.1	1618
031000510025	5G 25	31.6	1210.5	1980
031000410035	4G 35	32.0	1352.0	2235
031000510035	5G 35	35.5	1670.1	2760

Note :

*G = With green/yellow earth core

x = Without green/yellow earth core

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

These cables are used as measuring and control cables in tool machinery, plant installation, power stations and in data equipment. The braided screen offers best possible protection against mechanical damage. The galvanised coating on the steel wire braiding not only helps protect against corrosion, but also notably improves the soldering performance.

Standard

Adapted to DIN VDE 0245, 0281, 0293, 0295.

Technical Data

Nominal Voltage : U0 / U 300 / 500V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 20 x cable ø. Fixed installation 6 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl.5.

Core insulation of PVC T12, EN 50363-3.

Black Core with continuous white numbering to DIN VDE 0293.

Green/Yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Special PVC inner jacket.

Galvanized steel wire screening.

Special PVC outer jacket.

Colour transparent (also available in grey).

Properties

The clear transparent PVC outer sheath accentuates the optical view of the galvanized steel wire braid.

PVC self-extinguishing and flame retardant according to EN 60332-1-2

JZ-YSY Grey(RAL 7001) is also available in oil resistant variant as JZ-YSY OR. The outer sheath provided here is of special PVC TM5 to BS EN 50363 -4.1.

Cable Design Parameters

Please complete the part numbers for these cables by adding the suffix (in place of 'z') for the sheath colour required :

3 - grey (RAL 7001), 6 - transparent. For oil resistant sheath (grey), kindly add 'OR' after the part nos.

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
03110101021z	2 x 0.5	8.0	9.5	99
03110102011z	3G 0.5	8.3	14.0	109
03110103011z	4G 0.5	8.8	19.0	123
03110104011z	5G 0.5	9.3	24.0	153
03110105011z	7G 0.5	9.9	33.5	171
03110106011z	10G 0.5	11.8	47.5	246
03110107011z	12G 0.5	12.1	57.0	263
03110108011z	14G 0.5	12.6	66.5	289
03110109011z	18G 0.5	13.8	85.5	313
03110110011z	21G 0.5	14.4	100.0	354
03110111011z	25G 0.5	14.8	118.5	391
03110112011z	30G 0.5	16.5	142.5	462
03110113011z	40G 0.5	18.3	190.0	582
03110114011z	61G 0.5	21.5	289.5	833
03110115021z	2 x 0.75	8.5	14.5	109
03110116011z	3G 0.75	8.9	21.5	123
03110117011z	4G 0.75	9.5	28.5	157
03110118011z	5G 0.75	10.1	36.0	174
03110119011z	7G 0.75	10.8	50.0	199
03110120011z	9G 0.75	12.5	64.0	261
03110121011z	12G 0.75	13.3	85.5	315
03110122011z	15G 0.75	14.5	107.0	363
03110123011z	18G 0.75	15.2	128.0	435
03110124011z	25G 0.75	16.4	178.0	507
03110125011z	34G 0.75	19.7	242.0	730
03110126011z	50G 0.75	22.2	356.0	901
03110127021z	2 x 1	8.9	19.0	120
03110128011z	3G 1	9.3	28.5	149
03110129011z	4G 1	9.9	38.0	172
03110130011z	5G 1	10.6	47.5	193
03110131011z	7G 1	11.3	66.5	232
03110132011z	8G 1	12.3	76.0	260
03110133011z	9G 1	13.2	85.5	300
03110134011z	12G 1	14.0	114.0	373
03110135011z	14G 1	14.6	133.0	406
03110136011z	18G 1	16.1	171.0	504
03110137011z	20G 1	16.8	190.0	522
03110138011z	25G 1	17.4	237.5	598
03110139011z	34G 1	20.8	322.5	762
03110140011z	41G 1	22.5	389.0	1013
03110141011z	50G 1	23.6	474.5	1105
03110142011z	65G 1	26.3	616.5	1426

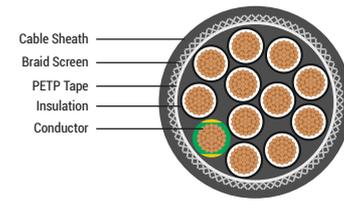
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
03110143021z	2 x 1.5	9.6	29.0	159
03110144011z	3G 1.5	10.0	43.5	181
03110145011z	4G 1.5	10.7	58.0	206
03110146011z	5G 1.5	11.5	72.5	243
03110147011z	7G 1.5	12.3	101.0	302
03110148011z	8G 1.5	13.5	116.0	334
03110149011z	12G 1.5	15.5	173.5	449
03110150011z	14G 1.5	16.2	202.5	499
03110151011z	18G 1.5	17.8	260.0	593
03110152011z	25G 1.5	19.3	361.0	890
03110153011z	32G 1.5	22.1	462.5	1003
03110154011z	41G 1.5	25.1	592.5	1214
03110155011z	50G 1.5	26.4	722.5	1636
03110156011z	3G 2.5	11.5	61.0	228
03110157011z	4G 2.5	12.4	82.0	290
03110158011z	5G 2.5	13.3	102.0	341
03110159011z	7G 2.5	14.3	142.0	394
03110160011z	12G 2.5	18.3	248.0	627
03110161011z	18G 2.5	21.4	378.0	892
03110162011z	25G 2.5	23.1	525.0	1182
03110163011z	3G 4	12.7	96.0	296
03110164011z	4G 4	13.7	128.0	345
03110165011z	5G 4	14.9	159.5	410
03110166011z	7G 4	16.1	223.5	550
03110167011z	4G 6	16.0	191.5	540
03110168011z	5G 6	17.3	239.5	570
03110169011z	7G 6	18.8	335.0	725
03110170011z	4G 10	18.4	326.0	710
03110171011z	5G 10	20.1	407.5	865
03110172011z	7G 10	21.9	570.5	1100
03110173011z	4G 16	22.0	543.0	1050
03110174011z	5G 16	24.1	678.5	1280
03110175011z	4G 25	26.4	844.5	1620
03110176011z	5G 25	29.0	1055.5	1970
03110177011z	4G 35	30.6	1189.0	2205

Note :

*G = With green/yellow earth core

x = Without green/yellow earth core

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

For use as a data cable in control circuits, in tool-making and machine industries as well as a signal cable in computer systems and electronics. The more usual PVC inner sheath has been removed in the cable, thus reducing the total diameter of the cables considerably and thereby reducing the bending radius, total weight etc. The dense screening assures disturbance-free transmission of all signals and impulses.

Standard

Adapted to DIN VDE 0245, 0281 Part 13.

Technical Data

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 10 x cable ø. Fixed installation 5 x cable ø

Test Voltage : Core/core 4000V. Core/screen 2000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl.5.

Core insulation of special PVC TI2, EN 50363-3.

Black Core with continuous white numbering to DIN VDE 0293.

Green/yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Plastic foil over the laid up cores.

Tinned copper, braided screen, approx 85% coverage.

Cable Sheath of Special PVC, TM2 to DIN/BS EN 50363-4.1.

Colour grey (RAL 7001).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

JZ-CY grey (RAL 7001) is available in oil resistant variant as JZ-CY OR. The outer sheath provided here is of special PVC TM5 to BS EN 50363 -4.1.

For Oil Resistant sheath kindly add 'OR' after the part nos.

EMC : Electromagnetic compatibility : To optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031200201050	2 x 0.5	5.8	18.8	46
031200311050	3G 0.5	6.1	24.7	55

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031200301050	3 x 0.5	6.1	24.7	55
031200411050	4G 0.5	6.6	29.2	69
031200401050	4 x 0.5	6.6	29.2	69
031200511050	5G 0.5	7.1	34.6	80
031200501050	5 x 0.5	7.1	34.6	80
031200711050	7G 0.5	7.6	45.1	99
031200701050	7 x 0.5	7.6	45.1	99
031201211050	12G 0.5	9.8	71.4	151
031201201050	12 x 0.5	9.8	71.4	151
031201811050	18G 0.5	11.3	100.1	210
031201801050	18 x 0.5	11.3	100.1	210
031202511050	25G 0.5	12.3	134.1	270
031202501050	25 x 0.5	12.3	134.1	270
031200201075	2 x 0.75	6.3	25.0	58
031200311075	3G 0.75	6.7	31.3	70
031200301075	3 x 0.75	6.7	31.3	70
031200411075	4G 0.75	7.2	39.0	84
031200401075	4 x 0.75	7.2	39.0	84
031200511075	5G 0.75	7.8	47.2	101
031200501075	5 x 0.75	7.8	47.2	101
031200711075	7G 0.75	8.4	62.0	126
031200701075	7 x 0.75	8.4	62.0	126
031201211075	12G 0.75	10.9	98.9	200
031201811075	18G 0.75	12.7	141.0	275
031202511075	25G 0.75	13.8	210.6	360
031202501075	25 x 0.75	13.8	210.6	360
031200200001	2 x 1	6.7	29.5	65
031200310001	3G 1	7.0	38.9	80
031200300001	3 x 1	7.0	38.9	80
031200410001	4G 1	7.6	49.1	100
031200400001	4 x 1	7.6	49.1	100
031200510001	5G 1	8.3	58.4	120
031200500001	5 x 1	8.3	58.4	120
031200710001	7G 1	8.9	77.2	150
031200700001	7 x 1	8.9	77.2	150
031201210001	12G 1	11.6	125.5	240
031201810001	18G 1	13.5	180.0	330
031202510001	25G 1	14.7	266.1	430

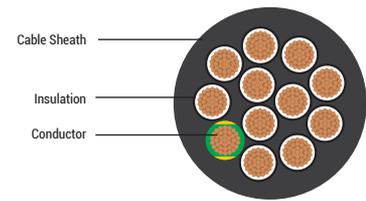
Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031200201105	2 x 1.5	7.3	39.4	80
031200311105	3G 1.5	7.7	51.7	100
031200301105	3 x 1.5	7.7	51.7	100
031200411105	4G 1.5	8.4	66.2	125
031200401105	4 x 1.5	8.4	66.2	125
031200511105	5G 1.5	9.1	80.9	150
031200501105	5 x 1.5	9.1	80.9	150
031200711105	7G 1.5	9.9	108.0	190
031200701105	7 x 1.5	9.9	108.0	190
031201211105	12G 1.5	12.9	175.1	285
031201811105	18G 1.5	15.1	276.0	435
031202511105	25G 1.5	16.7	377.6	590
031203411105	34G 1.5	20.4	488.3	800
031200311205	3G 2.5	9.1	80.9	150
031200411205	4G 2.5	10.0	102.9	190
031200511205	5G 2.5	10.9	125.0	220
031200711205	7G 1.5	9.9	168.4	260
031201211205	12G 2.5	15.8	301.0	475
031201811205	18G 2.5	18.5	433.3	654
031202511205	25G 2.5	20.3	588.0	878
031200410004	4G 4	11.3	153.4	245
031200710004	7G 4	13.5	256.1	400
031200410006	4G 6	13.4	222.7	360
031200710006	7G 6	16.2	396.3	590
031200410010	4G 10	15.9	384.1	560
031200510010	5G 10	17.5	475.8	711
031200410016	4G 16	19.3	616.3	840
031200510016	5G 16	21.4	760.4	1050
031200410025	4G 25	23.6	937.4	1300
031200510025	5G 25	26.1	1160.0	1605
031200410035	4G 35	28.0	1312.0	1804

Note :

*G = With green/yellow earth core

x = Without green/yellow earth core

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

Wiring cable in tool machinery, conveyor belts and production lines, plant engineering, Industrial machinery, air conditioning, steel production plants and rolling mills.

Standard

Adapted to DIN VDE 0262, DIN VDE 0281 Part 13 with increased insulation thickness for 1 kV.

Technical Data

Nominal Voltage : U_0 / U 0.6 / 1 kV

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 15 x cable ø. Fixed installation 4 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, as per EN60228 Cl. 5.

Special PVC core insulation TI2, to EN 50363-3.

Black Core with continuous white numbering to DIN VDE 0293.

Green/yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Special PVC outer sheath TM2, to EN 50363-4-1.

PVC self-extinguishing and flame retardant according to IEC 60332-1-2.

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

UV & weather resistant according to ASTM G 154.

Ozone resistant according to EN 50396.

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
31300201075	2 x 0.75	8.3	13.0	90
31300311075	3G 0.75	8.7	19.6	103
31300301075	3 x 0.75	8.7	19.6	103
31300411075	4G 0.75	9.2	26.1	119
31300511075	5G 0.75	9.9	32.6	139
31300711075	7G 0.75	10.7	45.6	169
31301211075	12G 0.75	13.4	78.2	271
31301811075	18G 0.75	15.6	117.3	377

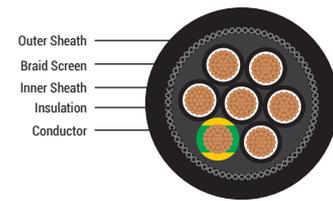
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
31304111075	41G 0.75	23.2	267.3	840
31300200001	2 x 1	8.6	17.4	99
31300310001	3G 1	9	26.1	114.4
31300300001	3 x 1	9	26.1	114.4
31300410001	4G 1	9.6	34.8	134.5
31300400001	4 x 1	9.6	34.8	134.5
31300510001	5G 1	10.4	43.5	160.1
31300500001	5 x 1	10.4	43.5	160.1
31300710001	7G 1	11.4	60.8	199.8
31301210001	12G 1	14.5	104.3	328.2
31301810001	18G 1	16.5	156.5	443.2
31302510001	25G 1	19.7	217.3	626.9
31303410001	34G 1	22.5	295.5	828
31304110001	41G 1	24.4	356.4	981.3
31300201105	2 x 1.5	9.6	25.5	127
31300311105	3G 1.5	10.1	38.2	149
31300301105	3 x 1.5	10.1	38.2	149
31300411105	4G 1.5	10.8	50.9	176
31300511105	5G 1.5	11.7	63.7	210
31300711105	7G 1.5	12.6	89.1	257
31301211105	12G 1.5	16.1	152.8	425
31301411105	14G 1.5	17	178.3	481
31301811105	18G 1.5	18.8	229.2	598
31302511105	25G 1.5	21.7	318.3	807
31303411105	34G 1.5	24.9	407.4	1053
31305011105	50G 1.5	29.8	636.6	1553
31300211205	2G 2.5	10.8	42.4	169
31300311205	3G 2.5	11.3	63.7	200
31300411205	4G 2.5	12.2	84.9	242
31300511205	5G 2.5	13.3	106.1	292
31300711205	7G 2.5	14.4	148.5	363
31301211205	12G 2.5	18.7	254.6	615
31301411205	14G 2.5	19.8	297.1	699
31301811205	18G 2.5	22	382	876
31302511205	25G 2.5	25.8	530.5	1210
31300410004	4G 4	13.8	135	332
31300510004	5G 4	15.1	168.7	403
31300710004	7G 4	16.4	236.2	507
31300410006	4G 6	15.1	202.4	432
31300510006	5G 6	16.8	253.1	537
31300710006	7G 6	18.2	354.3	679
31300410010	4G 10	18.7	344.7	692
31300510010	5G 10	20.7	430.8	855

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
31300410016	4G 16	21.3	574.1	1006
31300510016	5G 16	23.6	717.7	1245
31300710016	7G 16	26.2	1004.7	1637
31300410025	4G 25	26.2	893.1	1542
31300510025	5G 25	29	1116.3	1908
31300410035	4G 35	29.1	1257.6	2035
31300510035	5G 35	32.5	1572	2541
31300410050	4G 50	35.6	1804.4	2980
31300410070	4G 70	40.7	2549.7	4058
31300410095	4G 95	46.8	3399.7	5389
31300410120	4G 120	53.5	4306.2	6926

Note :

*G = With green/yellow earth core
x = Without green/yellow earth core

For current ratings refer table no. 12-1 & voltage drop refer table no. 12-2 of Appendix.
For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

Wiring cable in tool machinery, conveyor belts and production lines, plant engineering, Industrial machinery, air conditioning, steel production plants and rolling mills. The dense coverage of copper screening offers EMI compliance.

Standard

Adapted to DIN VDE 0262/12.95 and 0281 Part 13 with insulation thickness for 1 kV type.

Technical Data

Nominal Voltage : U0 / U 0.6 / 1kV

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 20 x cable ø. Fixed installation 6 x cable ø

Test Voltage : 4000V

Breakdown Voltage : Min. 8000V

Cable Construction

Bare copper, fine wire conductors, as per DIN VDE 0295 Cl. 5.

Special PVC core insulation T12, to EN 50363-3.

Black Core with continuous white numbering to DIN VDE 0293.

Green/yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

PVC inner jacket, Black color.

Tinned copper, braided screen, approx 85% coverage.

Special PVC outer sheath TM2, to EN 50363-4.1.

Colour Black (RAL 9005).

Properties

PVC self-extinguishing and flame retardant according to IEC 60332-1-2.

UV & weather resistant according to ASTM G 154.

Ozone resistant according to EN 50396.

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031400201075	2 x 0.75	10.5	34.4	150
031400311075	3G 0.75	10.9	40.9	165
031400301075	3 x 0.75	10.9	40.9	165
031400411075	4G 0.75	11.4	49.8	185
031400401075	4 x 0.75	11.4	49.8	185
031400511075	5G 0.75	12.1	60.0	212
031400501075	5 x 0.75	12.1	60.0	212

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031400711075	7G 0.75	12.9	74.9	247
031400701075	7 x 0.75	12.9	74.9	247
031401211075	12G 0.75	15.8	138.7	389
031401201075	12 x 0.75	15.8	138.7	389
031401811075	18G 0.75	18.0	185.5	510
031402511075	25G 0.75	20.7	243.4	676
031400200001	2 x 1	10.8	38.9	161
031400310001	3G 1	11.2	50.4	181
031400300001	3 x 1	11.2	50.4	181
031400410001	4G 1	11.8	59.4	203
031400400001	4 x 1	11.8	59.4	203
031400510001	5G 1	12.6	70.8	235
031400710001	7G 1	13.3	107.3	281
031401210001	12G 1	16.4	165.7	433
031401810001	18G 1	18.7	233.9	581
031402510001	25G 1	21.6	304.6	771
031400201105	2 x 1.5	11.8	50.3	196
031400311105	3G 1.5	12.3	62.4	219
031400301105	3 x 1.5	12.3	62.4	219
031400411105	4G 1.5	13.0	77.9	252
031400401105	4 x 1.5	13.0	77.9	252
031400511105	5G 1.5	13.9	93.4	293
031400711105	7G 1.5	15	143.3	366
031401211105	12G 1.5	18.7	222.3	572
031401811105	18G 1.5	21.8	309	785
031402511105	25G 1.5	25.1	411.1	1045
031400311205	3G 2.5	13.5	91.9	279
031400411205	4G 2.5	14.6	137.7	349
031400511205	5G 2.5	15.7	158.8	403
031400711205	7G 2.5	17.0	209	493
031401211205	12G 2.5	21.7	333.7	802
031400410004	4G 4	17.0	195	483
031400510004	5G 4	18.6	235	581
031400710004	7G 4	20.1	308	704
031400410006	4G 6	18.2	269	590
031400510006	5G 6	19.7	327	706

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031400710006	7G 6	21.8	437	895
031400410010	4G 10	21.7	425.5	880
031400510010	5G 10	23.0	521.9	1027
031400410016	4G 16	24.3	666.5	1219
031400510016	5G 16	26.7	820.1	1487
031400410025	4G 25	29.8	1007	1844
031400510025	5G 25	31.6	1242.1	2167
031400410035	4G 35	32.7	1384.4	2368
031400410050	4G 50	39.6	2032.2	3471
031400410070	4G 70	44.5	2824.2	4602
031400410095	4G 95	51.0	3706.2	6050
031400410120	4G 120	58.1	4650.3	7727

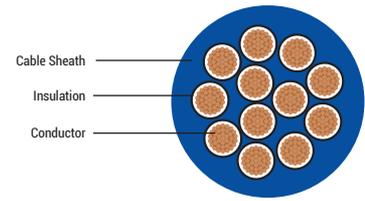
Note :

*G = With green/yellow earth core

x = Without green/yellow earth core

For current ratings refer table no. 12-1 & voltage drop refer table no. 12-2 of Appendix.

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

These cables are used for intrinsically safe circuits. For hazard prone areas cables with blue sheath are used for controlling and measuring requirements. These installations are not earthed and require a separate power circuit.

Standard

Adapted to DIN EN 60079-14, VDE 0165 Part 1.

Technical Data

Nominal Voltage : U0 / U 300 / 500V.

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 15 x cable ø. Fixed installation 4 x cable ø

Test Voltage : 3000V

Mutual Capacitance : core to core (approx.) - 120 nF/km

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl.5.

Core insulation of special PVC TI2 EN 50363-3.

Black core with continuous white numbering according to DIN VDE 0293.

Green/Yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Outer sheath of special PVC, TM2 to DIN/BS EN 50363-4.1.

Colour Blue (RAL 5015).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031500201075	2 x 0.75	5.3	14.5	44
031500301075	3 x 0.75	5.6	21.5	54
031500401075	4 x 0.75	6.1	28.5	66
031500501075	5 x 0.75	6.9	36	85
031501211075	12G 0.75	10.1	85.5	190
031501811075	18G 0.75	11.9	128	273
031502511075	25G 0.75	14.6	178	396
031500200001	2 x 1	5.6	19	52
031500300001	3 x 1	6	28.5	66
031500400001	4 x 1	6.8	38	86

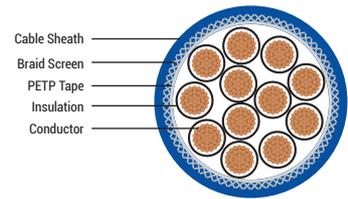
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031500500001	5 x 1	7.5	47.5	104
031500700001	7 x 1	8.9	66.5	148
031501200001	12 x 1	11.1	114	239
031501800001	18 x 1	13.2	171	346
031500201105	2 x 1.5	6.3	29	69
031500301105	3 x 1.5	6.7	43.5	87
031500401105	4 x 1.5	7.3	58	109
031500501105	5 x 1.5	8.2	72.5	137
031500311105	3 G 1.5	6.7	43.5	87
031500411105	4 G 1.5	7.3	58	109
031500511105	5 G 1.5	8.2	72.5	137
031501811105	18G 1.5	14.5	260	455
031502511105	25G 1.5	17.2	361	637

Note :

*G = With green/yellow earth core

x = Without green/yellow earth core

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

These cables are used for intrinsically safe circuits. For hazard prone areas cables with blue sheath are used for controlling and measuring requirements. These installations are not earthed and require a separate power circuit. Tinned copper braid screen ensures disturbance free transmission of data and signals.

Standard

Adapted to DIN EN 60079-14: VDE 0165 Part 1.

Technical Data

Nominal Voltage : U0 / U 300 / 500V.

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 20 x cable ø. Fixed installation 6 x cable ø

Test Voltage : 3000V

Mutual Capacitance : core to core (approx.) - 140 nF/km
core to screen (approx.) - 185 nF/km

Inductance : 0.68 mH/km (approx.)

Cable Construction

Bare copper, fine wire conductors, to DIN/BS EN 60228 Cl.5.

Core insulation of special PVC TI2 EN 50363-3.

Black core with continuous white numbering according to DIN VDE 0293.

Cores stranded in layers with optimal lay-length.

Plastic foil over the laid up cores.

Tinned-copper braided screen, approx. 85% coverage.

Outer sheath of special PVC, TM2 to DIN/BS EN 50363-4.1.

Colour Blue (RAL 5015).

Properties

PVC self-extinguishing and flame retardant according to IEC 60332-1-2.

Cable Design Parameters

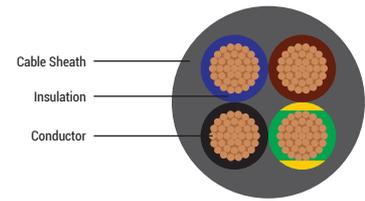
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031600201075	2 x 0.75	6.2	25	53.2
031600201075	3 x 0.75	6.5	31.3	64.0
031600201075	4 x 0.75	7.0	39.0	77.0
031600201075	4G 0.75	7.0	39.0	77.0
031600201075	5 x 0.75	7.7	47.2	93.4
031600201075	7 x 0.75	8.3	62.0	116.4
031600201075	12 x 0.75	10.9	98.9	189.7

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031600201075	18 x 0.75	12.7	141.0	265
031600201075	25 x 0.75	14.8	210.6	363.6
031600201075	2 x 1	6.5	29.5	59.7
031600201075	3 x 1	6.8	38.9	73.6
031600201075	4 x 1	7.3	49.1	89
031600201075	5 x 1	8.1	58.4	108.1
031600201075	7 x 1	8.8	77.2	136.8
031600201075	12 x 1	11.5	125.5	223.3
031600201075	18 x 1	13.9	180	328.9
031600201075	25 x 1	15.9	266.1	439.8
031600201075	2 x 1.5	7.1	39.4	73.9
031600201075	3 x 1.5	7.5	51.7	92.7
031600201075	4 x 1.5	8.2	66.2	115.9
031600201075	5 x 1.5	8.9	80.9	138.7
031600201075	7 x 1.5	9.9	108	182.3
031600201075	12 x 1.5	13	175.1	298
031600201075	18 x 1.5	15.6	276	450.8
031600201075	25 x 1.5	17.9	377.6	596.4

Note :

x = Without green/yellow earth core (OZ)

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

Halogen-free cables for airports railway station, plant engineering and Industrial machinery

Standard

Adapted to EN 50525-3-11

Technical Data

Nominal Voltage : U0 / U 450 / 750V

Temperature Range : Flexing -15°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing approx. 15 x cable ø. Fixed installation approx. 4 x cable ø

Test Voltage : 3000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl. 5.

Core insulation of halogen-free compound TI6 to EN 50363-7.

Colour coded to DIN VDE 0293-308 (Refer Appendix Table No. 1-1).

Green/Yellow earth core in outer layer.

Cores stranded in layers with optimal lay-length.

Halogen-Free sheath compound TM7, to EN 50363-8.

Sheath colour grey (RAL 7001).

Properties

Flame retardant to IEC 60332-1-2.

No flame propagation according to IEC 60332-3-24 (flame spread on Vertical cable or wire bundle).

Halogen free according to IEC 60754-1.

Corrosive gas evolution to IEC 60754-2.

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031700311105	3 G 1.5	8.2	38.2	110
031700411105	4 G 1.5	8.9	50.9	135
031700511105	5 G 1.5	10	63.7	169
031700311205	3G 2.5	10	63.7	169
031700411205	4G 2.5	10.9	84.9	209
031700511205	5G 2.5	12	106.1	256
031700310004	3G 4	11.2	101.2	231
031700410004	4G 4	12.5	135	295
031700510004	5G 4	13.9	168.7	366

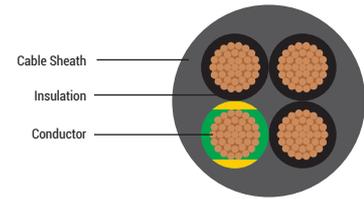
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031700410006	4G 6	14	202.4	398
031700510006	5G 6	15.5	253.1	492
031700410010	4G 10	17.4	344.7	642
031700510010	5G 10	19.4	430.8	800
031700410016	4G 16	20.2	574.1	959
031700510016	5G 16	22.5	717.7	1194
031700410025	4G 25	25.1	893.1	1486
031700510025	5G 25	28.1	1116.3	1860
031700410035	4G 35	28.6	1257.6	2013
031700510035	5G 35	32.1	1572	2525
031700410050	4G 50	33.9	1804.4	2860
031700410070	4G 70	39.2	2549.7	3940
031700410095	4G 95	44.8	3399.7	5205
031700410120	4G 120	50.3	4306.2	6579

Note :

*G = With green/yellow earth core

For current ratings conversion factors, refer table no. 11-3 of Appendix.

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

Halogen-free cables for airports railway station, plant engineering and Industrial machinery, in EMC sensitive instruments

Standard

Adapted to EN 50525-3-11.

Technical Data

Nominal Voltage : U0 / U 300 / 500V

Temperature Range : Flexing -15°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing approx. 10 x cable ø. Fixed installation approx. 4 x cable ø

Test Voltage : 4000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl. 5.

Core insulation of halogen-free compound TI6 to EN 50363-7.

Black colour with white numbers DIN VDE 0293.

Green/Yellow earth core in outer layer.

Cores stranded in layers with optimal lay-length.

Halogen-free sheath compound TM7, to EN 50363-8.

Sheath colour grey (RAL 7001).

Properties

Flame retardant to IEC 60332-1-2.

No flame propagation according to IEC 60332-3-24 (flame spread on Vertical cable or wire bundle).

Halogen free according to IEC 60754-1.

Corrosive gas evolution to IEC 60754-2.

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031800201050	2 x 0.5	4.8	9.5	35
031800311050	3G 0.5	5.1	14.0	42
031800301050	3 x 0.5	5.1	14.2	43
031800411050	4G 0.5	5.5	19.0	52
031800401050	4 x 0.5	5.5	19.0	52
031800511050	5G 0.5	6.0	24.0	62
031800711050	7G 0.5	6.6	33.5	81
031801211050	12G 0.5	8.7	57.0	141

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031800201075	2 x 0.75	5.3	14.5	45
031800311075	3G 0.75	5.6	21.5	55
031800301075	3 x 0.75	5.6	21.5	55
031800411075	4G 0.75	6.2	28.5	67
031800401075	4 x 0.75	6.2	28.5	67
031800511075	5G 0.75	6.8	36.0	86
031800501075	5 x 0.75	6.8	36.0	86
031800711075	7G 0.75	7.4	50.0	109
031800701075	7 x 0.75	7.4	50.0	109
031800911075	9G 0.75	9.0	64.0	165
031801211075	12G 0.75	9.8	85.5	192
031801811075	18G 0.75	11.5	128.0	275
031802511075	25G 0.75	12.6	178.0	400
031800200001	2 x 1	5.6	19.0	53
031800310001	3G 1	6.0	28.5	66
031800300001	3 x 1	6.0	28.5	66
031800410001	4G 1	6.6	38.0	87
031800400001	4 x 1	6.6	38.0	87
031800510001	5G 1	7.2	47.5	105
031800710001	7G 1	7.9	66.5	149
031800810001	8G 1	8.9	76.0	175
031801210001	12G 1	10.4	114.0	241
031801410001	14G 1	11.0	133.0	274
031801810001	18G 1	12.3	171.0	349
031802510001	25G 1	13.5	237.5	508
031804110001	41G 1	18.2	389.0	782
031800201105	2 x 1.5	6.3	25.5	67
031800311105	3G 1.5	6.7	38.2	84
031800301105	3 x 1.5	6.7	38.2	84
031800411105	4G 1.5	7.3	50.9	105
031800511105	5G 1.5	8.0	63.7	132
031800711105	7G 1.5	8.8	89.1	169
031800811105	8G 1.5	9.9	101.9	216
031800911105	9G 1.5	10.8	114.6	250
031801211105	12G 1.5	11.7	152.8	299
031801411105	14G 1.5	12.4	178.3	344

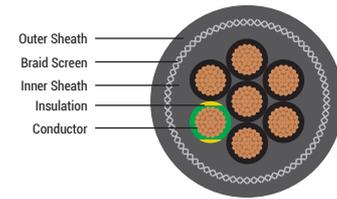
Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031801811105	18G 1.5	13.9	229.2	437
031802511105	25G 1.5	15.3	318.3	612
031803411105	34G 1.5	18.9	432.9	820
031800201205	2 x 2.5	7.5	40.1	103
031800311205	3G 2.5	8.0	61.0	134
031800411205	4G 2.5	8.9	82.0	168
031800511205	5G 2.5	9.8	102.0	210
031800711205	7G 2.5	10.7	142.0	271
031801211205	12G 2.5	14.4	248.0	469
031800410004	4G 4	10.1	128.0	250
031800510004	5G 4	11.2	159.5	312
031800710004	7G 4	12.3	223.5	405
031800410006	4G 6	12.2	191.5	367
031800510006	5G 6	13.5	239.5	458
031800710006	7G 6	14.8	335.0	596
031800410010	4G 10	14.5	326.0	570
031800510010	5G 10	16.0	407.5	703
031800410016	4G 16	17.8	543.0	896
031800510016	5G 16	19.7	678.5	1119
031800410025	4G 25	21.9	844.5	1391
031800510025	5G 25	25.8	1055.5	1717
031800410035	4G 35	26.4	1189.0	1872

Note :

*G = With green/yellow earth core

x = Without green/yellow earth core

For current ratings to DIN VDE 0298-4 refer table no. 12-3 of Appendix.



Application

Halogen-free cables for airports railway station, plant engineering and Industrial machinery, in EMC sensitive instruments. Tinned copper braid screen ensures disturbance free transmission of data and signals.

Standard

Adapted to EN 50525-3-11.

Technical Data

Nominal Voltage : U_0 / U 300 / 500V

Temperature Range : Flexing -15°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing approx. 15 x cable ϕ . Fixed installation approx. 6 x cable ϕ

Test Voltage : 4000V

Cable Construction

Bare copper, fine wire conductors, to EN 60228 Cl. 5.

Core insulation of halogen-free compound TI6 to EN 50363-7.

Black colour with white numbers DIN VDE 0293.

Green/Yellow earth core in outer layer.

Cores stranded in layers with optimal lay-length.

Halogen free inner sheath in Grey (RAL 7001).

Tinned-copper braided screen, approx. 85% coverage.

Halogen-free sheath compound TM7, to EN 50363-8.

Sheath colour grey (RAL 7001).

Properties

Flame retardant to IEC 60332-1-2.

No flame propagation according to IEC 60332-3-24 (flame spread on Vertical cable or wire bundle).

Halogen free according to IEC 60754-1.

Corrosive gas evolution to IEC 60754-2.

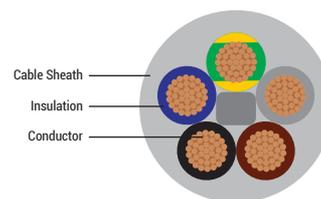
Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031900201050	2 x 0.5	7.1	21.6	72
031900311050	3G 0.5	7.5	27.6	82
031900301050	3 X 0.5	7.5	27.6	82
031900411050	4G 0.5	8.0	32.5	97
031900401050	4 X 0.5	8.0	32.5	97
031900511050	5G 0.5	8.5	38.7	111
031900711050	7G 0.5	9.1	47.7	129

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
031901211050	12G 0.5	75.2	75.2	208
031900201075	2 x 0.75	27.5	27.5	86
031900311075	3G 0.75	36.2	36.2	99
031900301075	3 X 0.75	36.2	36.2	99
031900411075	4G 0.75	42.4	42.4	114
031900401075	4 X 0.75	42.4	42.4	114
031900511075	5G 0.75	48.7	48.7	130
031900501075	5 X 0.75	48.7	48.7	130
031900711075	7G 0.75	64.0	64.0	163
031900701075	7 X 0.75	64.0	64.0	163
031901211075	12G 0.75	101.1	101.1	258
031901811075	18G 0.75	160.6	160.6	372
031902511075	25G 0.75	214.1	214.1	493
031900200001	2 x 1	32.0	32.0	96
031900310001	3G 1	42.2	42.2	111
031900300001	3 X 1	42.2	42.2	111
031900410001	4G 1	50.7	50.7	127
031900400001	4 X 1	50.7	50.7	127
031900510001	5G 1	61.3	61.3	153
031900710001	7G 1	79.5	79.5	192
031901210001	12G 1	146.2	146.2	322
031901810001	18G 1	202.5	202.5	444
031902510001	25G 1	271.5	271.5	586
031904110001	41G 1	437.1	437.1	923
031900201105	2 x 1.5	42.1	42.1	116
031900311105	3G 1.5	56.0	56.0	136
031900301105	3 X 1.5	56.0	56.0	136
031900411105	4G 1.5	9.6	69.1	163
031900511105	5G 1.5	10.6	99.2	209
031900711105	7G 1.5	11.3	124.6	247
031901211105	12G 1.5	14.8	198.6	416
031901811105	18G 1.5	17.2	279.6	575
031902511105	25G 1.5	20.1	375.2	783
031900311205	3G 2.5	10.4	99.1	204
031900411205	4G 2.5	11.4	121.1	248
031900511205	5G 2.5	12.6	146.4	302
031900711205	7G 1.5	13.9	124.6	382
031901211205	12G 2.5	17.6	304.4	613

H05Z1Z1-F (318B)

REACH | RoHS | CE | CPR Compliant



Application

Used as an indoor general wiring cable primarily for installations in public areas or in any application where fire safety is utmost important. The cable can be used as pendant lighting drops or as a general supply lead within hospital, hotels, airport, educational institutions, etc.

Standard

BS EN 50525-3-11

Technical Data

Nominal Voltage: U / U 300/500 V

Temperature Range: Flexing -5°C to +70°C. Fixed Installation : -30°C to +70°C

Minimum Bending Radius: Flexing 7.5 x cable \varnothing ; Fixed installation 4 x cable \varnothing

Cable Construction

Conductor : Bare copper, fine wire conductors, as per EN 60228 Cl.5.

Insulation : LSZH (Low Smoke Zero Halogen) core insulation Type TI6, BS EN 50363-7

Core colours : Harmonised core colour to HD 308 (Refer Appendix Table No. 1-1).

Cores stranded in layers with optimal lay-length

Outer sheath : LSZH (Low Smoke Zero Halogen) outer sheath Type TM7, to BS EN 50363-8

Properties

Self-extinguishing and flame retardant according to IEC 60332-1-2.

Please complete the part numbers for these cables by adding the suffix (in place of 'z') for the sheath colour required:

1 - black (RAL 9005), 3 - grey (RAL 7001), 5 - white (RAL 9010).

Cable Design Parameters

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Cable Weight (kg/km)
03200101007z	2 x 0.5	5.3	72
03200102007z	3G 0.5	5.6	82
03200103007z	4G 0.5	6.1	82
03200104007z	5G 0.5	6.4	97
03200105007z	2 x 0.75	6.5	97
03200106007z	3 G 0.75	6.8	111
03200107007z	4 G 0.75	7.4	129
03200108007z	5 G 0.75	8.3	106
03200109007z	7 G 0.75	9.0	130
03200110007z	12 G 0.75	12.4	239

Part Number	No. of Cores and Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Cable Weight (kg/km)
03200111007z	2 x 1	6.8	67
03200112007z	3 G 1	7.2	80
03200113007z	4 G 1	8.0	102
03200114007z	5 G 1	8.8	122
03200115007z	2 x 1.5	7.7	88
03200116007z	3 G 1.5	8.4	110
03200117007z	4 G 1.5	9.3	140
03200118007z	5 G 1.5	10.4	174
03200119007z	2 x 2.5	9.3	134
03200120007z	3 G 2.5	10.1	168
03200121007z	4 G 2.5	11.0	208
03200122007z	5 G 2.5	12.3	257
03200123007z	2 x 4	10.3	183
03200124007z	3 G 4	11.4	231
03200125007z	4 G 4	12.5	287
03200126007z	5 G 4	14.1	362

Note :

*G = With green/yellow earth core
x = Without green/yellow earth core

For electrical parameters refer table 11.1, ,11.2, 11.3 of Appendix.