

M E S C

Middle East Specialized Cables
FIRE RESISTANT POWER/CONTROL CABLE
0.6/1.0 kV, WIRE ARMORED
IEC60502-1, IEC 60331



MESC DOC. REF# 255288-01-02 Date: 30.01.2025

CONSTRUCTION:	
Conductor	Annealed plain copper conductors stranded as per Class 2 of IEC-60228.
Insulation	Flame Barrier Glass Mica + XLPE as per IEC-60502.
Core colors	3 Core : Red, Yellow & Blue 4 Core : Red, Yellow, Blue & Black.
Assembly	Cores assembled in a concentric layer. Assembly with 5 cores or more wrapped with a Synthetic Binder tape.
Inner covering	Extruded Black LSHF.
Steel Wire Armour	Galvanized Steel wire as per IEC-60502-1.
Outer Sheath	Extruded Black Low Smoke Halogen Free type ST8 to IEC 60502-1
Marking text (example) By EMBOSSING	FIRE RESISTANT CABLE CU/MICA/XLPE/SWA/LSHF 3CX2.5MM2 600/1000V MESC YEAR IEC60502-1 ,IEC 60331-21(180) MADE IN KSA METER MARKING

TECHNICAL DATA:	
Flame/Fire Resistant	IEC 60331-21(180min. at 750Ctemp.). BS6387 CWZ Flame Retardant to IEC 60332. Passes Low Smoke Test as per IEC 61034-2 Passes Halogen content Test as per IEC 60754-1
Light Transmission	≥ 60% (IEC 61034)
Limiting Oxygen index (outer sheath)	≥ 30% (ASTM D2863)
Halogen acid gas	≤ 0.5% (IEC 60754-1)
Oil resistance (outer sheath)	Passes (ICEA S-73-532)
UV / Sunlight Resistance	Passes after 720 Hrs. (UL 1581)
Temperature Range	- 5°C to 50°C (During installation) - 30°C to 90°C (During Operation)
Voltage Rating	600/1000 Volts
Conductor Resistance	As per class 2 of IEC 60228.
Minimum bending radius	10 X Cable Ø
Test Voltage	3.5 kV. RMS or 8.4 kV. DC for 5 minutes
Maximum short circuit temperature	250°C (5 Seconds Max.).

TECHNICAL DATA:											
MESC CODE	NO. OF CORES	SIZE	NUMBER OF STRANDS	INSULATION THICK.	DIA. OVER BEDDING	SWA DIAMETER Ø	DIA. OVER ARMOR	OUT. SHEATH THICK mm		OVERALL DIAMETER	APPROX. WEIGHT
		mm ²	N	mm	mm	mm	mm	Nom	Min	mm	kg/km
761G-03C00250-W0BK8-H0	3	2.5	7	0.7	11.8	0.9	13.6	1.8	1.24	16.9	488
761G-03C00400-W0BK8-H0	3	4.0	7	0.7	13.1	0.9	14.9	1.8	1.24	18.1	576
761G-03C00600-W0BK8-H0	3	6.0	7	0.7	14.2	0.9	16.7	1.8	1.24	20.0	684
761G-04C00400-W0BK8-H0	4	4.0	7	0.7	14.3	0.9	16.1	1.8	1.24	19.3	663
761G-04C00600-W0BK8-H0	4	6.0	7	0.7	15.7	1.25	18.2	1.8	1.24	21.4	894
761G-04C01600-W0BK8-H0	4	16.0	7	0.7	20.4	1.6	23.6	1.8	1.24	26.8	1602
761G-04C02500-W0BK8-H0	4	25.0	7	0.9	24.4	1.6	27.6	1.8	1.24	30.8	2141
761G-04C03500-W0BK8-H0	4	35.0	7	0.9	27.2	1.6	30.4	1.9	1.32	33.8	2662

Note: Diameter tolerance of ±2mm up to 20mm & ±3mm for above 20mm

Packing : The cables shall be supplied in non-returnable wooden reels up to the manufacturer discretion. Both ends of the cable shall be sealed to prevent the ingress of moisture during transportation and storage. Cable ends shall be firmly and properly secured to the reel. Each reel shall be marked with the MESC standard practice

M E S C

Middle East Specialized Cables Co.

FIRE RESISTANT LV POWER / CONTROL CABLE
CU/MICA/XLPE/LSHF/SWA/LSHF, 0.6/1.0 kV, WIRE ARMoured CABLES
Specification: IEC 60502-1



CONSTRUCTION:

Conductor	Sector shaped stranded annealed copper Class 2 as per IEC 60228
Insulation	Flame Barrier Glass Mica + XLPE as per IEC-60502
Core Colours	Red, Yellow, Blue & Black
Inner covering	Extruded BLACK Low smoke halogen free type ST-8 as per IEC 60502-1
Steel Wire Armour	Galvanized Steel wire as per IEC-60502-1
Outer Sheath	Extruded Black Low Smoke Halogen Free type ST8 to IEC 60502-1
Embossing on the sheath (Example)	CU/MICA/XLPE/SWA/LSHF 4C X 120MM2 600/1000V MESC YEAR IEC60502-1 , IEC 60331-21(180) METER MARKING MADE IN KSA

TECHNICAL DATA:

Flame/Fire Resistant properties	Fire Resistant IEC 60331-21(180) Flame Retardant to IEC 60332-1 Passes Low Smoke Test as per IEC 61034 Passes Halogen content Test as per IEC 60754-2
Limiting Oxygen index (outer sheath)	≥ 30% (ASTM D2863)
Oil Resistance (outer sheath)	Passes (ICEA S-73-532)
Conductor Resistance	As per Class 2 of IEC-60228
Working voltage	600 / 1000 Volts
Test Voltage	3.5 kV _{RMS} or 8.4 kV _{DC} for 5 minutes
Temperature Range	- 5°C to 50°C (During installation) - 30°C to 90°C (During Operation)
Bending Radius	12 X Cable Ø
Maximum short circuit temperature	250°C (5 Seconds Max.)

DIMENSION AND WEIGHT DETAILS:

MESC CODE	NO. OF CORES X SZIE	SHAPE OF CONDUCTOR	NUMBER OF STRANDS (N)	INSULATION THICKNESS (mm)	DIAMETER OVER BEDDING (mm)	SWA DIAMETER Ø (mm)	DIAMETER OVER ARMOR (mm)	OUTER SHEATH THICKNESS Nom./Min. (mm)		OVERALL DIAMETER (mm)	APPROX. WEIGHT (kg/km)
76FG-04C07000-W0BK8-H0	4C X 70	Stranded Sector Shaped	19	1.1	30.8	2.0	34.9	2.2	1.56	38.9	4373
76FG-04C09500-W0BK8-H0	4C X 95	Stranded Sector Shaped	19	1.1	34.2	2.0	38.2	2.3	1.64	42.2	5459
76FG-04C12000-W0BK8-H0	4C X 120	Stranded Sector Shaped	19	1.2	40.7	2.5	45.7	2.5	1.80	50.1	7273

Note: Diameter tolerance of ±2mm up to 20mm & ±3mm for above 20mm

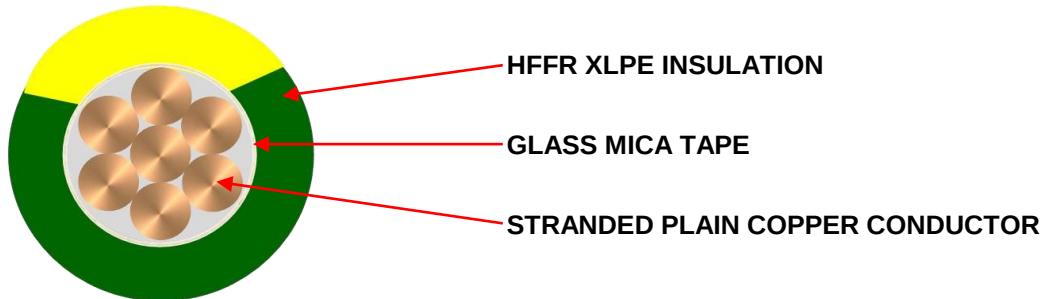
Packing: The cables shall be supplied in non-returnable wooden reels up to the manufacturer discretion. Both ends of the cable shall be sealed to prevent the ingress of moisture during transportation and storage. Cable ends shall be firmly and properly secured to the reel. Each reel shall be marked with the MESC standard practice

M E S C

Middle East Specialized Cables
FIRE RESISTANT SINGLE CORE CABLE



APPLICATION:	These cables are used for the purpose of lighting in residential and commercial building in surface mounted or embedded conduits. Particularly suitable for places where fire, smoke emission and toxic fumes create a potential threat.
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CONSTRUCTION:

Conductor	Plain annealed copper stranded as per class 2 of IEC 60228
Insulation	Glass Mica + XL LSHF
Printing Text (example)	MESC FIRE RESISTANT CU/MICA+XL LSHF 1.5 mm ² 450/750V Made in KSA

TECHNICAL DATA:

Specification	Gen. to BS EN 50525-3-41
Temperature range	0°C to + 90°C
Working voltage	450/750 V
Flame retardance	IEC 60332-1
Light transmission	≥ 60% BS EN/IEC 61034-2
Halogen acid gas	≤ 0.5% IEC 60754-1
Limiting Oxygen index	≥ 30 (ASTM D2863)

DIMENSION AND WEIGHT DETAILS:

S/NO.	MESC CODE	COLOR	SIZE (mm ²)	INSULATION THICKNESS (mm)	APPROX. OVERALL DIAMETER (mm)	APPROX. WEIGHT (kg/km)
	711Y-01C01000-U0YG8-00	GREEN/YELLOW	10	1.0	7.1	135
	711Y-01C01600-U0YG8-00	GREEN/YELLOW	16	1.0	8.1	195
	711Y-01C03500-U0YG8-00	GREEN/YELLOW	35	1.2	11.0	388
	711Y-01C05000-U0YG8-00	GREEN/YELLOW	50	1.4	12.7	523
	711Y-01C07000-U0YG8-00	GREEN/YELLOW	70	1.4	14.4	715
	711Y-01C09500-U0YG8-00	GREEN/YELLOW	95	1.6	16.7	980

**For other color than Green/Yellow, please replace YG in the MESC code by 'BL' for Blue, 'BN' for brown, 'GN' for Green, 'GY' for Grey, 'OR' for Orange, 'PK' for Pink, 'RD' for Red, 'TR' for Turquoise, 'VT' for Violet, 'WT' for White, 'BK' for Black and 'YL' for Yellow.*

APPLICATION:	These cables are used for the purpose of lighting in residential and commercial building in surface mounted or embedded conduits. Suitable for voltages up to 1000 AC or up to 750 to earth DC when used for fixed installation inside appliances, switchgear and control gear.
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CONSTRUCTION:

1. Conductor	Plain annealed high conductivity copper stranded as per class 2 of IEC60228
2. Insulation	Low smoke halogen free material.
3. Printing text (example)	MESC CU/LSHF 35 450/750 V 70C Made in KSA

TECHNICAL DATA:

1. Temperature range	- 25°C to + 70°C
2. Working voltage	450/750 V
3. Conductor resistance	As per class 2 of IEC60228
4. Flame retardance	IEC60332-1

DIMENSION AND WEIGHT TABLE:

*MESC CODE (Green/Yellow Color)	SIZE (Sq. mm)	NO. OF STRANDS (N)	INSULATION THICKNESS (mm)	APPROX. OVERALL DIAMETER (mm)	APPROX. WEIGHT (kg/km)
711D-01C00600-U0YG8-00	6	7	0.8	4.8	72
711D-01C01000-U0YG8-00	10	7	1.0	6.1	118
711D-01C01600-U0YG8-00	16	7	1.0	6.6	177
711D-01C02500-U0YG8-00	25	7	1.2	8.8	274
711D-01C03500-U0YG8-00	35	7	1.2	9.5	367
711D-01C05000-U0YG8-00	50	19	1.4	11.0	491
711D-01C07000-U0YG8-00	70	19	1.4	13.0	703
711D-01C09500-U0YG8-00	95	19	1.6	14.9	960