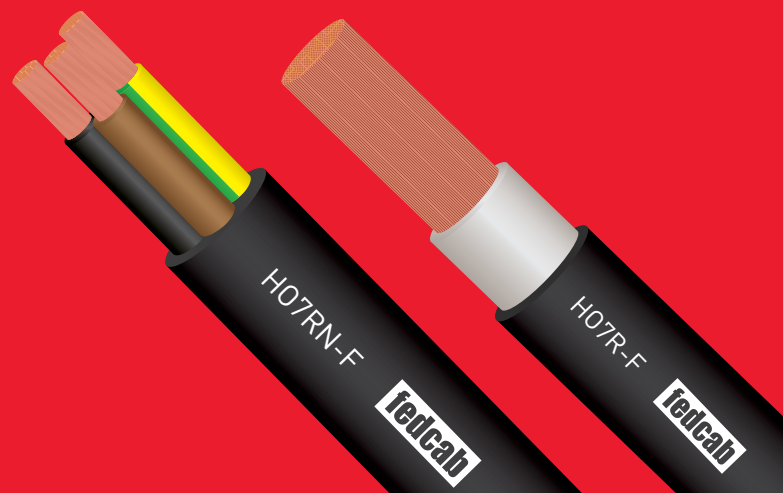




Quality Unmatched..
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RUBBER CABLES





RUBBER CABLES





INTRODUCTION

“**FEDERAL CABLES**” (Fedcab) is part of Federal group of companies established in the year 1999. We are proud partners to the various energy needs of Middle east through different sectors. Fedcab’s manufacturing facility is located in Abu Dhabi, UAE with state of the art machineries and integrated technical expertise. Apart from cables, **Federal** manufactures power and distribution transformers, bus ducts and switchgear Panels.

Fedcab current range of cables include XLPE, PVC, LSZH and H07RN-F insulation conforming to international standards such as BS, IEC, VDE, GOST or any other standard that may be desired by a client.

PRODUCT RANGE

- Low Voltage XLPE or PVC Insulated Power Cables
- LV PVC Insulated building wires
- LV PVC Insulated trirated Panel Wires
- PVC Flexible cables
- LV XLPE Insulated LSZH Cables
- LV LSZH Insulated Wires
- H07RN-F Rubber Cables
- Fire resistant Power Cables
- Fire resistant Screened Muticore & Multipair Cables.
- Instrumentation Cables
- Control & Auxiliary Cables



MANUFACTURING, INHOUSE TESTING & QUALITY MEASURES

Fedcab takes utmost care while manufacturing its products. We have the latest plant and equipment from manufacturers such as Niehoff-Germany, Rosendhal-Austria and Royle systems-USA. We have online diameter gauges from BETA Lasermike, USA, Sikora, Germany and state of the art cable quicke optical non-contact measurement system from Sweden. We have online high voltage testing facility on our extrusion lines. Entire production process is carried out in-house and quality checks are carried out at each stage of production right from raw material to the finished product. We procure raw materials from best available sources which qualify to our in-house quality standards.

Federal Cables have most modern and fully equipped laboratory for testing materials and finished cables. Raw materials, in process materials and finished cables are all tested as per well documented quality norms. The laboratory is manned by engineers and managers having rich experience. We have complete facility for testing cables for fire performance, flame retardance, low smoke and halogen free characteristics etc.

Final testing is done according to the requirement of the various specifications, ensuring full compliance and long term product reliability. In addition to all electrical testing, all cables are subjected to stringent physical and mechanical testing. We have complete Type Testing facility for all types of cables that we produce.



FEDCAB FLEXIBLE RUBBER CABLES H07RN-F



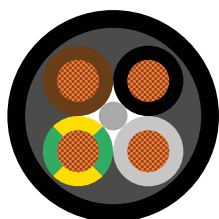
APPLICATION

These cables provide good flexibility and can be used in a wide range of applications requiring higher mechanical and thermal stresses. These cables are weather resistant, oil resistant, UV resistant and flame retardant. They can be used for power supplies at construction sites, workshops, mobile and fixed power supplies, industrial areas, agriculture, indoor and outdoor applications.





Voltage rating (U ₀ /U)	450 / 750 Volt
Applicable standards	BS EN 60228 / IEC 60228 BS EN 50525-2-21(BS 7919) EN 60332-1-2 / IEC 60332-1-2 EN 50363, EN 60811-404
Temperature rating	-30 °C to +60 °C
Short Circuit temperature	200 °C
Minimum bending radius	Fixed: 4 x overall diameter Flexing: 6 x overall diameter
Test voltage	2500 Volt

CONSTRUCTION

Conductor	Flexible class 5 plain copper conductor to BS EN 60228 or IEC 60228
Insulation	Cross-linked Ethylene Propylene Rubber type EI4 to EN 50363-1
Sheath	Cross-linked Synthetic Elastomer type EM2 to EN 50363-2-1



CORE IDENTIFICATION

-  2 Core: Blue, Brown
-  3 Core: Green/Yellow, Blue, Brown
-  4 Core: Green/Yellow, Brown, Black, Grey or Green/Yellow, Blue, Brown, Black
-  5 Core: Green/Yellow, Blue, Brown, Black, Grey

Sheath Colour: Black



450/750 V SINGLE CORE RUBBER CABLES H07RN-F TO BS EN 50525-2-21

Nominal Size	Max. diameter of wire in conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Approx. Overall Cable Diameter	Approx. Cable weight	Packing length
(mm ²)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(m)
1 x 1.5	0.26	0.8	1.4	6.2	50	1000
1 x 2.5	0.26	0.9	1.4	6.8	66	1000
1 x 4	0.31	1.0	1.5	7.7	90	1000
1 x 6	0.31	1.0	1.6	8.5	115	1000
1 x 10	0.41	1.2	1.8	10.2	178	1000
1 x 16	0.41	1.2	1.9	11.4	246	1000

450/750 V MULTI CORE RUBBER CABLES H07RN-F TO BS EN 50525-2-21

Nominal Size	Max. diameter of wire in conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Approx. Overall Cable Diameter	Approx. Cable weight	Packing length
(mm ²)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(m)
2 x 1.5	0.26	0.8	1.5	9.7	112	1000
2 x 2.5	0.26	0.9	1.7	11.4	154	1000
2 x 4	0.31	1.0	1.8	13.0	209	1000
2 x 6	0.31	1.0	2.0	14.5	273	1000
2 x 10	0.41	1.2	3.1	19.5	500	1000
3 x 1.5	0.26	0.8	1.6	10.4	145	1000
3 x 2.5	0.26	0.9	1.8	12.2	208	1000
3 x 4	0.31	1.0	1.9	13.9	285	1000
3 x 6	0.31	1.0	2.1	15.5	373	1000
3 x 10	0.41	1.2	3.3	20.6	675	1000
4 x 1.5	0.26	0.8	1.7	11.5	190	1000
4 x 2.5	0.26	0.9	1.9	13.4	274	1000
4 x 4	0.31	1.0	2.0	15.3	376	1000
4 x 6	0.31	1.0	2.3	17.3	501	1000
4 x 10	0.41	1.2	3.4	22.5	850	1000
5 x 1.5	0.26	0.8	1.8	12.6	235	1000
5 x 2.5	0.26	0.9	2.0	14.7	343	1000
5 x 4	0.31	1.0	2.2	17.0	483	1000
5 x 6	0.31	1.0	2.5	19.1	638	1000
5 x 10	0.41	1.2	3.6	25.0	1050	1000

FEDCAB FLEXIBLE RUBBER CABLES H07R-F

APPLICATION





These cables provide good flexibility and can be used in a wide range of applications requiring higher mechanical and thermal stresses. These cables are weather resistant, oil resistant, UV resistant and flame retardant. They can be used for power supplies at construction sites, workshops, mobile and fixed power supplies, industrial areas, agriculture, indoor and outdoor applications.

Voltage rating (Uo/U)	450 / 750 Volt
Applicable standards	BS EN 60228 / IEC 60228 BS EN 50525-2-21(BS 7919) EN 60332-1-2 / IEC 60332-1-2 EN 50363, EN 60811-404
Temperature rating	-30 °C to +60 °C
Short Circuit temperature	200 °C
Minimum bending radius	Fixed: 4 x overall diameter Flexing: 6 x overall diameter
Test voltage	2500 Volt

CONSTRUCTION

Conductor	Flexible class 5 plain copper conductor as per BS EN 60228 or IEC 60228
Insulation	Special Thermoplastic Elastomer generally to type EI4
Sheath	Special Thermoplastic Elastomer generally to type EM2

CORE IDENTIFICATION

-  2 Core: Blue, Brown
-  3 Core: Green/Yellow, Blue, Brown
-  4 Core: Green/Yellow, Brown, Black, Grey or Green/Yellow, Blue, Brown, Black
-  5 Core: Green/Yellow, Blue, Brown, Black, Grey

Sheath Colour: Black

PRODUCT RANGE

Single core cables: 1.5 Sq.mm to 300 Sq.mm

Multicore cables: 2 core to 5 core & 25 Sq.mm to 150 Sq.mm



450/750 V SINGLE CORE RUBBER CABLES H07R-F GEN. TO BS EN 50525-2-21

Nominal Size	Max. diameter of wire in conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Approx. Overall Cable Diameter	Approx. Cable weight	Packing length
(mm ²)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(m)
1 x 1.5	0.26	0.8	1.4	6.2	50	1000
1 x 2.5	0.26	0.9	1.4	6.8	66	1000
1 x 4	0.31	1.0	1.5	7.7	90	1000
1 x 6	0.31	1.0	1.6	8.5	115	1000
1 x 10	0.41	1.2	1.8	10.2	178	1000
1 x 16	0.41	1.2	1.9	11.4	246	1000
1 x 25	0.41	1.4	2.0	13.2	351	1000
1 x 35	0.41	1.4	2.2	14.8	465	1000
1 x 50	0.41	1.6	2.4	17.0	638	1000
1 x 70	0.51	1.6	2.6	19.3	863	1000
1 x 95	0.51	1.8	2.8	21.6	1122	1000
1 x 120	0.51	1.8	3.0	24.1	1407	1000
1 x 150	0.51	2.0	3.2	26.6	1760	500
1 x 185	0.51	2.2	3.4	29.4	2144	500
1 x 240	0.51	2.4	3.5	33.0	2764	500
1 x 300	0.51	2.6	3.6	34.6	3354	500



ELECTRICAL CHARACTERISTICS

H07RN-F

Nominal Size	Maximum conductor Resistance DC at @20° C	Current Rating			Short circuit rating for 1 Sec	Approx Volatge Drop	
		Single phase		3Phase		Single Phase	Three Phase
		2 Single Core	2 Core or 3 core	3, 4 or 5C			
(mm ²)	(Ω/km)	(A)	(A)	(A)	kA	V/A/km	V/A/km
1.5	13.3	21	16	16	0.211	32	27
2.5	7.98	33	25	20	0.352	19	16
4	4.95	40	30	26	0.563	12	10
6	3.30	52	39	34	0.844	7.8	6.7
10	1.91	68	51	47	1.41	4.6	4.0
16	1.21	98	73	63	2.25	2.9	2.5

H07R-F

Nominal Size	Maximum conductor Resistance DC at @20° C	Current Rating			Short circuit rating for 1 Sec	Approx Volatge Drop	
		Single phase		3Phase		Single Phase	Three Phase
		2 Single Core	2 Core or 3 core	3, 4 or 5C			
(mm ²)	(Ω/km)	(A)	(A)	(A)	kA	V/A/km	V/A/km
25	0.780		97	83	3.52	1.85	1.55
35	0.554	140	--	102	4.92	1.32	1.15
50	0.386	175	--	124	7.04	0.93	0.84
70	0.272	216	--	158	9.85	0.67	0.58
95	0.206	258	--	192	13.37	0.53	0.44
120	0.161	302	--	222	16.88	0.43	0.36
150	0.129	347	--	255	21.11	0.36	0.30
185	0.106	394	--	291	26.03	0.27	0.26
240	0.0801	471	--	343	33.77	0.24	0.21
300	0.0641	541	--	394	42.21	0.21	0.185

Air Temperature(°C)	20	25	30	35	40	45	50	55
Rating Factor	1.11	1.08	1.00	0.91	0.82	0.71	0.58	0.41



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Quality Unmatched..

Federal Cables

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