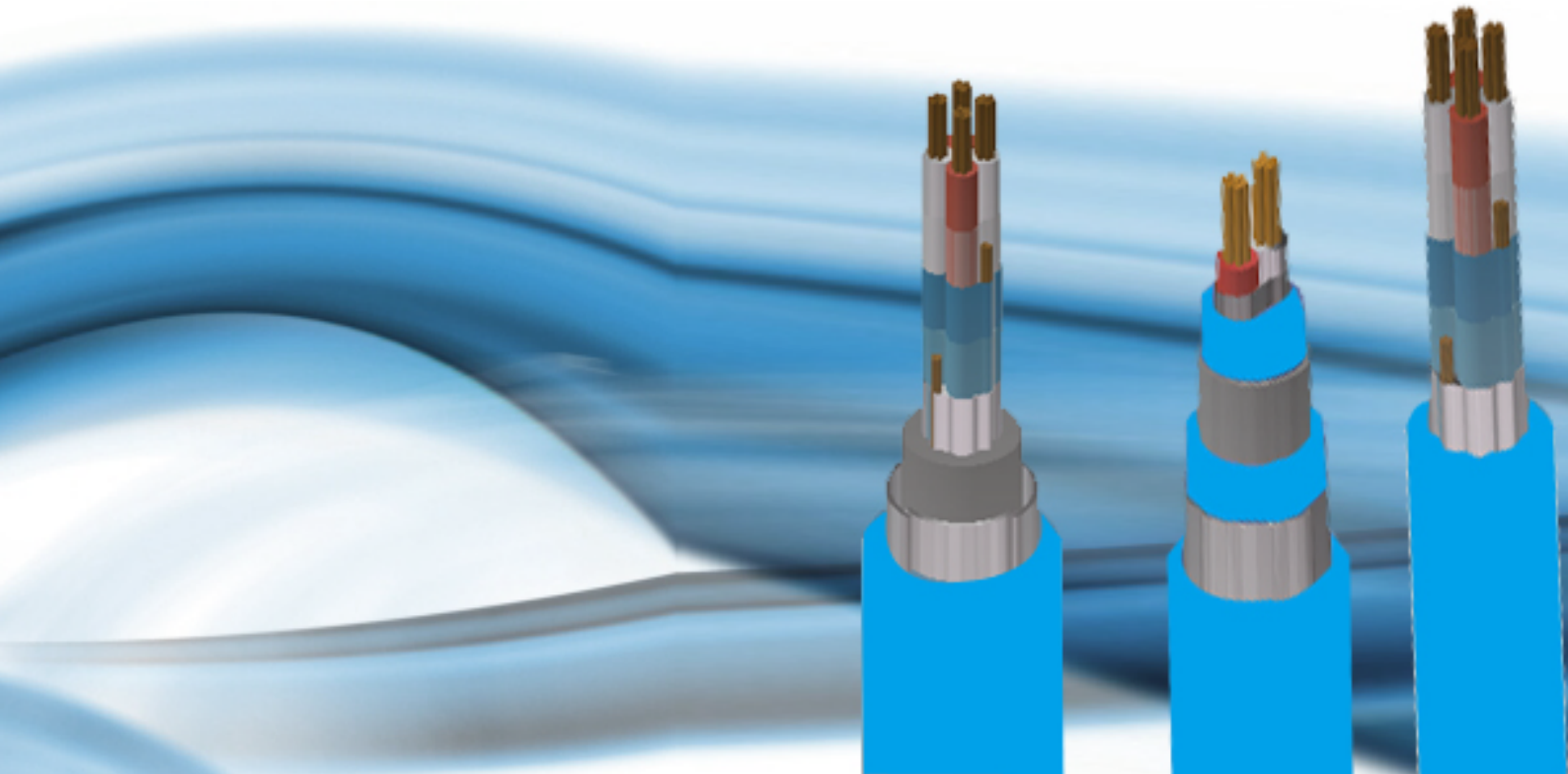
Caledonian

Instrumentation Cables

French Standard

NF M 87-202



Company Profile


ISO 9001
REGISTERED FIRM

Registration Certificate

This document certifies that the administration systems of

Caledonian Cables Limited / Addison Technology Limited

Marchants Industrial Centre, Mill Lane, Laughton, Lewes, Sussex, BN8 6AJ, United Kingdom

have been assessed and approved by QAS International to the following management systems, standards and guidelines:

ISO 9001 : 2008

With the permitted exclusion of clauses 7.3 Design and Development

The approved administration systems apply to the following:

The manufacture and supply of electrical cables and ancillary power equipment to customers internationally.

Original Approval 6th September 1997

Current Certificate 7th February 2013

Certificate Expiry 7th February 2014

Certificate Number AG211

On behalf of QAS International

www.qas-international.com

This certificate remains valid while the holder maintains their quality administration systems in accordance with the standards and guidelines stated above, which will be audited annually by QAS International. The holder is entitled to display the above registration mark for the duration of this certificate. This certificate must be returned to QAS International on reasonable request.

Issuing Office: QAS International, 3/4 Oxford Street, Malmesbury, Wiltshire, SN16 9AX

Caledonian. established in 1978.offers one of the most complete lines of fiber and copper cabling system solutions with over hundreds of different cabling system products. Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS-British Standard;LPCB Fire Performance Standard. ISO Standard etc. Caledonian Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables has continually expanded its global presence in Europe and Asia.

Caledonian & Addison. produces a wide range of cables for communication. power and electronics in its primary plants in UK. Italy and Spain. To stay in front. we continually keep expanding our manufacturing capabilities in more low cost region such as Romania. Taiwan. Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible. scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing. logistic services. and vertically integrated with our E commerce technologies. to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality. excellent service level. competitive pricing and a unique and innovative spirit. With our latest technologies. we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning. we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized. country and industry specific solutions. Caledonian & Addison has established an extensive network of design. manufacturing. and logistics facilities in the world's major markets to serve the growing outsourcing needs of both multinational and regional customers.

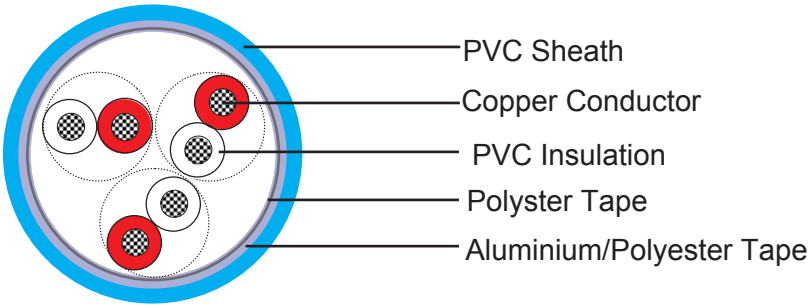
Table of content

NF M 87-202 EGSF

Applications:

These NF M 87-202 EGSF instrumentation cables are used for safety extra-low use in petroleum and petrochemical units particularly for the transmission of a.c. or d.c. analogue signals.

Construction:



Conductor:

Solid or Stranded copper conductor

Insulation:

PVC (70 mm maximum pair length)

Binder tape:

Polyster tape

Collective Screen:

Aluminium/polyester tape

Outer Sheath:

PVC (Flame retardant, sunlight, mineral oil and hydrocarbon resistant)

Outer Sheath Colour:

Light-blue

Core identification:

Colours	Natural	Red	Blue	Yellow
1 pair	X	X		
1 triple	X	X	X	
1 quad	X	X	X	X

Natural cores printed with pair/triple number

Standards References:

NF M 87-202

UTE C 32-014

NF C 32-020

IEC 60332-1

IEC 60332-3-24

Characteristics:

Voltage Rationg: 300/500V

Operating Temperature: -40°C/+90°C

Installation Temperature: MAX+50°C

Maximum Voltage: 250V

Voltage Test: 2000V

Maximum conductor d.c. Resistance:

Conductor Size	Ohm/km at +20°C
1/0.80mm(0.50 sqmm)	37.50
7/0.40mm(0.88 sqmm)	21.40
7/0.53mm(1.50 sqmm)	12.50

Capacitance between cond. (nf/km):

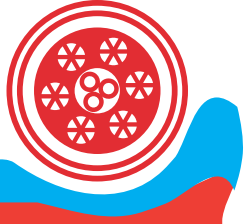
0.5 sqmm ≤ 145

0.88 sqmm ≤ 160

1.50 sqmm ≤ 180

Type/codification:

1 Serie	Number of pairs, triples or quads / 01 to 27
2 Serie	Lay up in pair(IP) ,triple (IT) , quads (IQ)
3 Serie	Core section 05 (0.5mm^2) , 09 (0.88 mm^2) or 15(1.5mm^2)
4 Serie	Overall screen(EG) or individual screen + overall screen(EI)
5 Serie	Mechanical protection: without armour (SF), with armour (FA), with lead + armour(PF)



French Standard (NF M 87-202)

Dimensions and Weight:

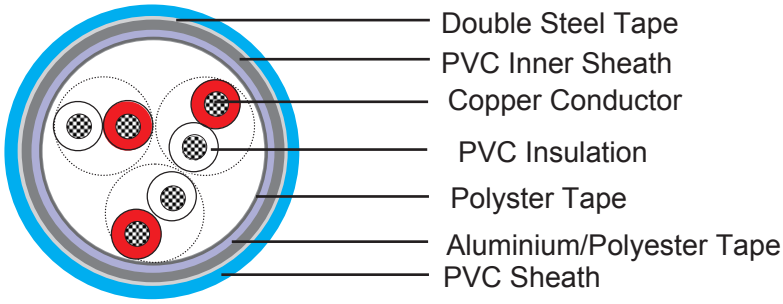
NF M 87-202	Number of beams x cross section	Cond. mm^2	Outer Diameter(mm)		Weight (kg/km)
			Min.	Max.	
03 IP 05 EGSF	3X2X0.5	0.50	8.00	9.30	95
07 IP 05 EGSF	7X2X0.5	0.50	10.50	12.10	160
12 IP 05 EGSF	12X2X0.5	0.50	13.40	15.40	255
19 IP 05 EGSF	19X2X0.5	0.50	16.60	19.00	380
27 IP 05 EGSF	27X2X0.5	0.50	19.20	22.00	510
01 IQ 09 EGSF	1X4X0.88	0.88	7.00	8.20	90
01 IP 09 EGSF	1X2X0.88	0.88	6.10	7.20	65
03 IP 09 EGSF	3X2X0.88	0.88	10.50	12.00	150
07 IP 09 EGSF	7X2X0.88	0.88	14.00	16.00	280
12 IP 09 EGSF	12X2X0.88	0.88	17.90	20.40	440
19 IP 09 EGSF	19X2X0.88	0.88	22.00	25.30	665
27 IP 09 EGSF	27X2X0.88	0.88	25.80	29.60	880
01 IP 15 EGSF	1X2X1.50	1.50	6.80	7.80	83
07 IT 05 EGSF	7X3X0.50	0.50	12.00	13.80	210
12 IT 05 EGSF	12X3X0.50	0.50	15.50	17.10	375
01 IT 09 EGSF	1X3X0.88	0.88	6.40	7.50	80
07 IT 09 EGSF	7X3X0.88	0.88	16.40	18.10	410
12 IT 09 EGSF	12X3X0.88	0.88	20.80	22.90	660
01 IT 15 EGSF	1X3X1.50	1.50	7.20	8.20	100

NF M 87-202 EGFA

Applications:

These NF M 87-202 EGFA instrumentation cables are used to transmit analogue or digital signals in measurement and process control where chemicals may be present.

Construction:



Conductor:

Solid or Stranded copper conductor

Insulation:

PVC (70 mm maximum pair length)

Binder tape:

Polyster tape

Collective Screen:

Aluminium/polyester tape

Inner Sheath:

PVC

Armouring:

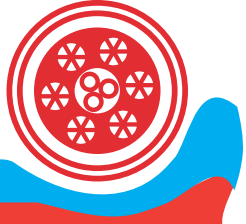
Double Steel Tap

Outer Sheath:

PVC (Flame retardant, sunlight, mineral oil and hydrocarbon resistant)

Outer Sheath Colour:

Light-blue



French Standard (NF M 87-202)

Core identification

Colours	Natural	Red	Blue	Yellow
1 pair	X	X		
1 triple	X	X	X	
1 quad	X	X	X	X

Natural cores printed with pair/triple number

Standards References:

NF M 87-202

UTE C 32-014

NF C 32-020

IEC 60332-1

IEC 60332-3-24

Characteristics:

Voltage Rationg: 300/500V

Operating Temperature: -40° C/+90° C

Installation Temperature: MAX+50° C

Maximum Voltage: 250V

Voltage Test: 2000V

Maximum conductor d.c. Resistance:

Conductor Size	Ohm/km at +20°C
1/0.80mm(0.50 sqmm)	37.50
7/0.40mm(0.88 sqmm)	21.40
7/0.53mm(1.50 sqmm)	12.50

Capacitance between cond. (nf/km):

0.5 sqmm ≤ 145

0.88 sqmm ≤ 160

1.50 sqmm ≤ 180

Type/codification:

1 Serie	Number of pairs, triples or quads / 01 to 27
2 Serie	Lay up in pair(IP) ,triple (IT) , quads (IQ)
3 Serie	Core section 05 (0.5mm^2) , 09 (0.88 mm^2) or 15(1.5mm^2)
4 Serie	Overall screen(EG) or individual screen + overall screen(EI)
5 Serie	Mechanical protection: without armour (SF), with armour (FA), with lead + armour(PF)

Dimensions and Weight:

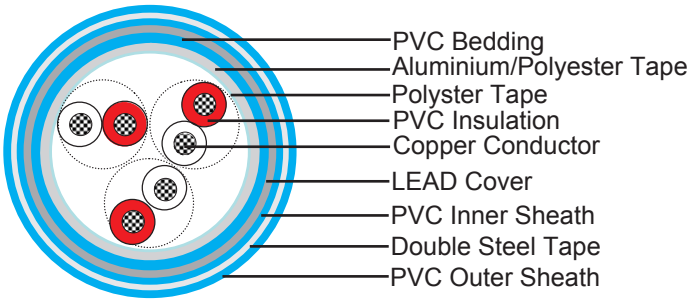
NF M 87-202	Number of beams x cross section	Cond. mm^2	Outer Diameter(mm)		Weight (kg/km)
			Min.	Max.	
03 IP 05 EGFA	3X2X0.5	0.50	10.90	12.50	215
07 IP 05 EGFA	7X2X 0.5	0.50	13.60	15.60	320
12 IP 05 EGFA	12X2X 0.5	0.50	16.60	19.10	465
19 IP 05 EGFA	19X2X 0.5	0.50	20.00	22.90	640
27 IP 05 EGFA	27X2X 0.5	0.50	22.60	25.90	610
01 IQ 09 EGFA	1X4X0.88	0.88	10.00	11.40	195
01 IP 09 EGFA	1X2X0.88	0.88	9.10	10.50	160
03 IP 09 EGFA	3X2X0.88	0.88	13.50	15.50	310
07 IP 09 EGFA	7X2X0.88	0.88	17.20	19.70	475
12 IP 09 EGFA	12X2X0.88	0.88	21.30	24.40	720
19 IP 09 EGFA	19X2X0.88	0.88	25.70	29.40	1000
27 IP 09 EGFA	27X2X0.88	0.88	29.60	34.00	1300
07 IT 05 EGFA	7X3X0.50	0.50	15.10	17.30	405
12 IT 05 EGFA	12X3X0.50	0.50	18.40	21.10	580
01 IT 09 EGFA	1X3X0.88	0.88	9.40	10.80	175
07 IT 09 EGFA	7X3X0.88	0.88	19.20	22.00	625
12 IT 09 EGFA	12X3X0.88	0.88	23.70	27.10	955
01 IT 15 EGFA	1X3X1.50	1.50	10.50	12.00	220

NF M 87-202 EGPF

Applications:

These NF M 87-202 EGPF instrumentation cables are used for safety extra-low use in petroleum and petrochemical units particularly for the transmission of a.c. or d.c. analogue signals, They lead cover brings an enhanced resistance to aromatics hydrocarbons.

Construction:



Conductor:

Solid or Stranded copper conductor

Insulation:

PVC (70 mm maximum pair length)

Binder tape:

Polyster tape

Collective Screen:

Aluminium/polyester tape

Bedding: PVC

LEAD Cover

Armouring:

Double Steel Tap

Outer Sheath:

PVC (Flame retardant, sunlight, mineral oil and hydrocarbon resistant)

Outer Sheath Colour:

Light-blue

Core identification:

Colours	Natural	Red	Blue	Yellow
1 pair	X	X		
1 triple	X	X	X	
1 quad	X	X	X	X

Natural cores printed with pair/triple number

Standards References:

NF M 87-202

UTE C 32-014

NF C 32-020

IEC 60332-1

IEC 60332-3-24

Characteristics:

Voltage Rationg: 300/500V

Operating Temperature: -40°C/+90°C

Installation Temperature: MAX+50°C

Maximum Voltage: 250V

Voltage Test: 2000V

Maximum conductor d.c. Resistance:

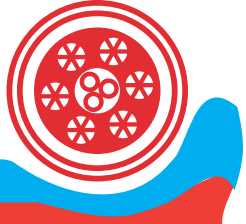
Conductor Size	Ohm/km at +20°C
1/0.80mm(0.50 sqmm)	37.50
7/0.40mm(0.88 sqmm)	21.40
7/0.53mm(1.50 sqmm)	12.50

Capacitance between cond. (nf/km):

0.5 sqmm ≤ 145

0.88 sqmm ≤ 160

1.50 sqmm ≤ 180



French Standard (NF M 87-202)

Type/codification:

1 Serie	Number of pairs, triples or quads / 01 to 27
2 Serie	Lay up in pair(IP) ,triple (IT) , quads (IQ)
3 Serie	Core section 05 (0.5mm^2) , 09 (0.88 mm^2) or 15(1.5mm^2)
4 Serie	Overall screen(EG) or individual screen + overall screen(EI)
5 Serie	Mechanical protection: without armour (SF), with armour (FA), with lead + armour(PF)

Dimensions and Weight:

NF M 87-202	Number of beams x cross section	Cond. mm^2	Outer Diameter(mm)		Weight (kg/km)
			Min.	Max.	
01 IQ 05 EGPF	1X4X0.50	0.50	11.30	12.60	453
02 IP 05 EGPF	2X2X0.50	0.50	10.60	11.90	401
03 IP 05 EGPF	3X2X0.50	0.50	13.70	15.70	635
07 IP 05 EGPF	7X2X0.50	0.50	16.30	18.70	840
12 IP 05 EGPF	12X2X0.50	0.50	19.40	22.20	1160
19 IP 05 EGPF	19X2X0.50	0.50	22.90	26.30	1550
27 IP 05 EGPF	27X2X0.50	0.50	25.90	19.80	1855
01 IQ 09 EGPF	1X4X0.88	0.88	12.70	14.60	575
01 IP 09 EGPF	1X2X0.88	0.88	11.70	13.40	500
02 IP 09 EGPF	2X2X0.88	0.88	11.80	13.20	485
03 IP 09 EGPF	3X2X0.88	0.88	16.80	18.50	759
07 IP 09 EGPF	7X2X0.88	0.88	20.80	22.90	1136
12 IP 09 EGPF	12X2X0.88	0.88	25.20	27.80	1605
19 IP 09 EGPF	19X2X0.88	0.88	30.00	33.10	2185
27 IP 09 EGPF	27X2X0.88	0.88	34.30	37.90	2798
03 IP 09 EGPF	3X2X0.88	0.88	16.20	18.60	825
07 IP 09 EGPF	7X2X0.88	0.88	19.90	22.90	1205
12 IP 09 EGPF	12X2X0.88	0.88	24.20	27.80	1740
19 IP 09 EGPF	19X2X0.88	0.88	28.80	33.00	2300
27 IP 09 EGPF	27X2X0.88	0.88	33.00	37.80	2910
01 IP 15 EGPF	1X2X1.50	1.50	12.70	14.10	546
03 IP 15 EGPF	3X2X1.50	1.50	18.00	19.80	887

French Standard (NF M 87-202)

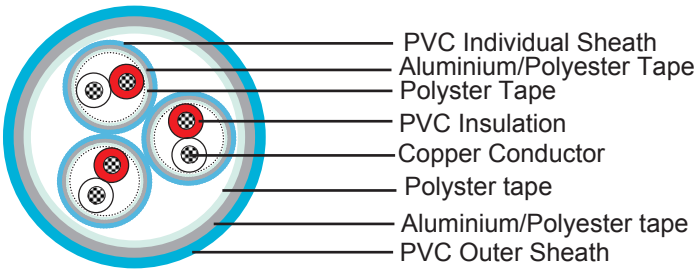
NF M 87-202	Number of beams x cross section	Cond. mm^2	Outer Diameter(mm)		Weight (kg/km)
			Min.	Max.	
07 IP 15 EGPF	7X2X1.50	1.50	22.60	24.90	1362
12 IP 15 EGPF	12X2X1.50	1.50	27.70	30.60	2039
19 IP 15 EGPF	19X2X1.50	1.50	33.20	36.60	2783
27 IP 15 EGPF	27X2X1.50	1.50	37.80	41.70	3556
01 IT 05 EGPF	01X3X0.50	0.50	10.90	12.20	421
07 IT 05 EGPF	7X3X0.50	0.50	18.50	20.40	959
12 IT 05 EGPF	12X3X0.50	0.50	22.30	24.60	1353
19 IT 05 EGPF	19X3X0.50	0.50	26.30	29.00	1838
01 IQ 09 EGPF	1X4X0.88	0.88	13.00	14.40	573
01 IT 09 EGPF	1X3X0.88	0.88	12.00	13.70	530
07 IT 09 EGPF	7X3X0.88	0.88	23.10	25.50	1396
12 IT 09 EGPF	12X3X0.88	0.88	28.20	31.10	2071
19 IT 09 EGPF	19X3X0.88	0.88	33.60	37.00	2821
01 IT 15 EGPF	1X3X1.50	1.50	13.10	14.60	594
07 IT 15 EGPF	7X3X1.50	1.50	25.40	28.00	1785
12 IT 15 EGPF	12X3X1.50	1.50	30.80	33.90	2526
19 IT 15 EGPF	19X3X1.50	1.50	37.00	40.80	3617

NF M 87-202 EISF

Applications:

These NF M 87-202 EISF instrumentation cables are used to transmit analogue or digital signals in easurement and process control where chemicals may be present.

Construction:



Conductor:

Solid or Stranded copper conductor

Insulation:

PVC (70 mm maximum pair length)

Individual Binder Tape:

Polyster tape

Individual Screen:

Aluminium/polyester tape

Individual Sheath:

PVC

Overall Binder Tape :

Polyster tape

Collective Screen:

Aluminium/polyester tape

Outer Sheath:

PVC (Flame retardant, sunlight, mineral oil and hydrocarbon resistant)

Outer Sheath Colour: Light-blue

Core identification:

Colours	Natural	Red	Blue	Yellow
1 pair	X	X		
1 triple	X	X	X	
1 quad	X	X	X	X

Natural cores printed with pair/triple number

Standards References:

NF M 87-202

UTE C 32-014

NF C 32-020

IEC 60332-1

IEC 60332-3-24

Characteristics:

Voltage Rationg: 300/500V

Operating Temperature: -40°C/+90°C

Installation Temperature: MAX+50° C

Maximum Voltage: 250V

Voltage Test: 2000V

Maximum conductor d.c. Resistance:

Conductor Size	Ohm/km at +20°C
1/0.80mm(0.50 sqmm)	37.50
7/0.40mm(0.88 sqmm)	21.40
7/0.53mm(1.50 sqmm)	12.50

Capacitance between cond. (nf/km):

0.5 sqmm ≤ 145

0.88 sqmm ≤ 160

1.50 sqmm ≤ 180

French Standard (NF M 87-202)

Type/codification:

1 Serie	Number of pairs, triples or quads / 01 to 27
2 Serie	Lay up in pair(IP) ,triple (IT) , quads (IQ)
3 Serie	Core section 05 (0.5mm^2) , 09 (0.88 mm^2) or 15(1.5mm^2)
4 Serie	Overall screen(EG) or individual screen + overall screen(EI)
5 Serie	Mechanical protection: without armour (SF), with armour (FA), with lead + armour(PF)

Dimensions and Weight:

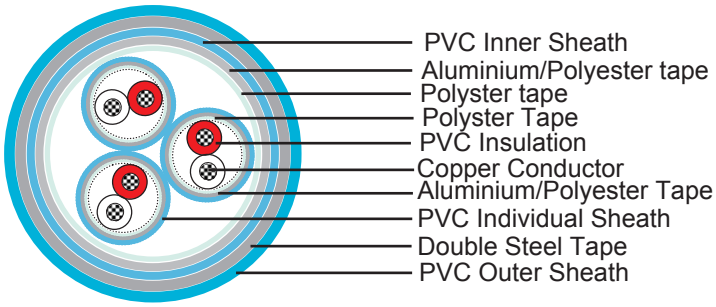
NF M 87-202	Number of beams x cross section	Cond. mm^2	Outer Diameter(mm)		Weight (kg/km)
			Min.	Max.	
03 IP 05 EISF	3X2X0.50	0.50	11.10	12.80	180
07 IP 05 EISF	7X2X0.50	0.50	15.40	17.70	335
12 IP 05 EISF	12X2X0.50	0.50	19.80	22.80	545
19 IP 05 EISF	19X2X0.50	0.50	24.50	28.10	820
27 IP 05 EISF	27X2X0.50	0.50	28.90	33.20	1135
03 IP 09 EISF	3X2X0.88	0.88	13.50	15.50	270
07 IP 09 EISF	7X2X0.88	0.88	19.00	21.80	500
12 IP 09 EISF	12X2X0.88	0.88	24.50	28.10	820
19 IP 09 EISF	19X2X0.88	0.88	30.30	34.80	1120
27 IP 09 EISF	27X2X0.88	0.88	35.80	41.10	1700
01 IP 15 EISF	1X2X1.50	1.50	7.20	8.40	90
07 IT 05 EISF	7X3X0.50	0.50	16.90	19.40	425
12 IT 05 EISF	12X3X0.50	0.50	21.50	24.60	695
07 IT 09 EISF	7X3X0.88	0.88	20.60	23.70	655
12 IT 09 EISF	12X3X0.88	0.88	26.50	30.40	1045
01 IT 15 EISF	1X3X1.50	1.50	7.50	8.80	110

NF M 87-202 EIFA

Applications:

These NF M 87-202 EIFA instrumentation cables are used for safety extra-low use in petroleum and petrochemical units particularly for the transmission of a.c. or d.c. analogue signals, They are well adapted to underground use in industrial applications where hydrocarbons may be present and mechanical protections are needed (refinery areas, chemical plant…).

Construction:



Conductor:

Solid or Stranded copper conductor

Insulation:

PVC (70 mm maximum pair length)

Individual Binder Tape:

Polyster tape

Individual Screen:

Aluminium/polyester tape

Individual Sheath:

PVC

Overall Binder Tape :

Polyster tape

Collective Screen:

Aluminium/polyester tape

Inner Sheath: PVC

Amouring:

Double Steel Tape

Outer Sheath:

PVC (Flame retardant, sunlight, mineral oil and hydrocarbon resistant)

Outer Sheath Colour:

Light-blue

Core identification:

Colours	Natural	Red	Blue	Yellow
1 pair	X	X		
1 triple	X	X	X	
1 quad	X	X	X	X

Natural cores printed with pair/triple number

Standards References:

NF M 87-202

UTE C 32-014

NF C 32-020

IEC 60332-1

IEC 60332-3-24

Characteristics:

Voltage Rationg: 300/500V

Operating Temperature: -40°C/+90°C

Installation Temperature: MAX+50°C

Maximum Voltage: 250V

Voltage Test: 2000V

Maximum conductor d.c. Resistance:

Conductor Size	Ohm/km at +20°C
1/0.80mm(0.50 sqmm)	37.50
7/0.40mm(0.88 sqmm)	21.40

7/0.53mm(1.50 sqmm)	12.50

Capacitance between cond. (nf/km):

0.5 sqmm ≤ 145

0.88 sqmm ≤ 160

1.50 sqmm ≤ 180

Type/codification:

1 Serie	Number of pairs, triples or quads / 01 to 27
2 Serie	Lay up in pair(IP) ,triple (IT) , quads (IQ)
3 Serie	Core section 05 (0.5mm^2) , 09 (0.88 mm^2) or 15(1.5mm^2)
4 Serie	Overall screen(EG) or individual screen + overall screen(EI)
5 Serie	Mechanical protection: without armour (SF), with armour (FA), with lead + armour(PF)

Dimensions and Weight:

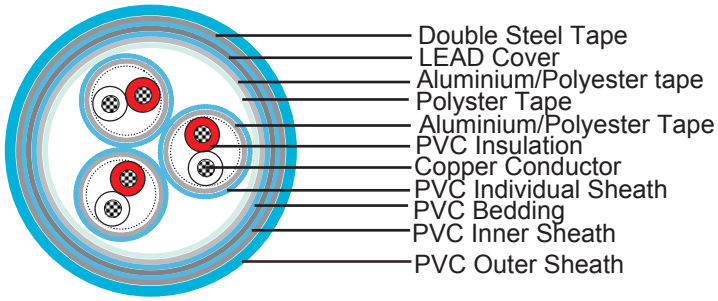
NF M 87-202	Number of beams x cross section	Cond. mm^2	Outer Diameter(mm)		Weight (kg/km)
			Min.	Max.	
03 IP 05 EIFA	3X2X0.50	0.50	14.20	16.20	355
07 IP 05 EIFA	7X2X0.50	0.50	18.60	21.40	570
12 IP 05 EIFA	12X2X0.50	0.50	23.30	26.70	850
19 IP 05 EIFA	19X2X0.50	0.50	28.10	32.30	1210
27 IP 05 EIFA	27X2X0.50	0.50	32.80	37.60	1600
03 IP 09 EIFA	3X2X0.88	0.88	18.50	20.40	465
07 IP 09 EIFA	7X2X0.88	0.88	22.90	25.30	792
12 IP 09 EIFA	12X2X0.88	0.88	29.00	32.00	1205
19 IP 09 EIFA	19X2X0.88	0.88	34.80	38.40	1709
27 IP 09 EIFA	27X2X0.88	0.88	40.60	44.80	2275
03 IP 09 EIFA	3X2X0.88	0.88	16.70	19.20	270
07 IP 09 EIFA	7X2X0.88	0.88	22.40	25.70	800
12 IP 09 EIFA	12X2X0.88	0.88	28.10	32.30	1185
19 IP 09 EIFA	19X2X0.88	0.88	34.10	39.10	1720
27 IP 09 EIFA	27X2X0.88	0.88	39.80	45.70	2285
01 IP 15 EIFA	1X2X1.50	1.50	10.20	11.70	200
07 IT 05 EIFA	7X3X0.50	0.50	20.30	23.30	690
12 IT 05 EIFA	12X3X0.50	0.50	25.40	28.00	1005
12 IT 09 EIFA	12X3X0.88	0.88	25.00	28.70	1025
01 IT 15 EIFA	1X3X1.50	1.50	10.50	12.00	220

NF M 87-202 EIPF

Applications:

These NF M 87-202 EIPF instrumentation cables are used for safety extra-low use in petroleum and petrochemical units particularly for the transmission of a.c. or d.c. analogue signals, They are well adapted to underground use in industrial applications, in moist areas, where chemical and mechanical protection are needed.

Construction:



Conductor:

Solid or Stranded copper conductor

Insulation:

PVC (70 mm maximum pair length)

Individual Screen:

Aluminium/polyester tape

Individual Sheath:

PVC

Overall Binder Tape :

Polyster tape

Collective Screen:

Aluminium/polyester tape

Bedding: PVC

LEAD Cover

Inner Sheath: PVC

Amouring:

Double Steel Tape

Outer Sheath:

PVC (Flame retardant, sunlight, mineral oil and hydrocarbon resistant)

Outer Sheath Colour: Light-blue

Core identification:

Colours	Natural	Red	Blue	Yellow
1 pair	X	X		
1 triple	X	X	X	
1 quad	X	X	X	X

Natural cores printed with pair/triple number

Standards References:

NF M 87-202

UTE C 32-014

NF C 32-020

IEC 60332-1

IEC 60332-3-24

Characteristics:

Voltage Rationg: 300/500V

Operating Temperature: -40°C/+90°C

Installation Temperature: MAX+50° C

Maximum Voltage: 250V

Voltage Test: 2000V

Maximum conductor d.c. Resistance:

Conductor Size	Ohm/km at +20°C
1/0.80mm(0.50 sqmm)	37.50
7/0.40mm(0.88 sqmm)	21.40
7/0.53mm(1.50 sqmm)	12.50

Capacitance between cond. (nf/km):

0.5 sqmm ≤ 145

0.88 sqmm ≤ 160

1.50 sqmm ≤ 180

Type/codification:

1 Serie	Number of pairs, triples or quads / 01 to 27
2 Serie	Lay up in pair(IP) ,triple (IT) , quads (IQ)
3 Serie	Core section 05 (0.5mm^2) , 09 (0.88 mm^2) or 15(1.5mm^2)
4 Serie	Overall screen(EG) or individual screen + overall screen(EI)
5 Serie	Mechanical protection: without armour (SF), with armour (FA), with lead + armour(PF)

Dimensions and Weight:

NF M 87-202	Number of beams x cross section	Cond. mm^2	Outer Diameter(mm)		Weight (kg/km)
			Min.	Max.	
03 IP 05 EIPF	3X2X0.50	0.50	17.10	19.60	950
07 IP 05 EIPF	7X2X0.50	0.50	21.80	25.00	1450
12 IP 05 EIPF	12X2X0.50	0.50	26.60	30.50	2025
19 IP 05 EIPF	19X2X0.50	0.50	31.60	36.30	2745
27 IP 05 EIPF	27X2X0.50	0.50	36.50	41.90	3400
03 IP 09 EIPF	3X2X0.88	0.88	19.50	22.30	1170
07 IP 09 EIPF	7X2X0.88	0.88	25.40	29.10	1810
12 IP 09 EIPF	12X2X0.88	0.88	31.60	36.30	2745
19 IP 09 EIPF	19X2X0.88	0.88	37.80	43.40	3770
27 IP 09 EIPF	27X2X0.88	0.88	43.90	50.40	4910
07 IT 05 EIPF	7X3X0.50	0.50	24.30	26.80	1549
12 IT 05 EIPF	12X3X0.50	0.50	29.30	32.30	2175
07 IT 09 EIPF	7X3X0.88	0.88	28.60	31.60	2074
12 IT 09 EIPF	12X3X0.88	0.88	34.70	38.30	1025

Caledonian Cables

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