AN ISO 9001 & 14001 COMPANY

ALGO CABLES
CONNECTING TECHNOLOGIES

ALGO CABLES
CONNECTING TECHNOLOGIES

Cables & Wires

ALGO GROUP OF COMPANIES

ALGO FLUID SYSTEMS PRIVATE LIMITED
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ALGO FLUID TECHNIKS SA (PTY) LTD.
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INTL. STOCK HUBS : NAIROBI - KENYA, VALENCIA - SPAIN

National Top Exporter Award Winner

One Star Export House Status

AXCCAB-D17-E1

• Submersible Cables • Industrial Cables • Winding Wires • Housing Wires • Solar Cables

Algo Profile

ALGO positions itself as not just a pump manufacturing company but as a dependable, technologically sound and one stop solution provider to meet the diverse needs of customers across the globe. Understanding the need of efficient and cost effective pumping solutions and fluid management systems ALGO is established by the veterans having more than 33 years of diversified experience.

To overcome the current challenges in providing energy efficient and complete pumping solutions and meet the requirement of discerning customers ALGO is determined to offer technologically integrated and inventive pumping systems & Solutions at affordable prices.

With the vast experience gained in both domestic and international markets ALGO products are designed and produced with synergy of best in class technologies and processes with international standards. Most of its products are ISI certified and manufacturing facilities are accredited with ISO 9001 & 14001 COMPANY

ALGO stays abreast of the major changes worldwide in terms of technology and processes. This combines with the ability to understand customers' requirement allows for the development of products that meet the challenges of tomorrow.

ALGO has comprehensive range of products to cater Residential, Agriculture, Building services, Industrial & waste water segments. ALGO 's highly qualified Engineers and technicians assure satisfactory service at all time

The ability & Impetus of ALGO in product development, Pricing, Promotion, e-commerce strategies will result in sustainable competitive advantages for all stake holders. We at ALGO always strive to focus on current industry trend and meet the next generation pumping requirements.

Mission, Vision & Value

To provide technologically integrated and ultramodern fluid management systems and solutions for diversified applications at affordable prices and become one of the pump majors globally.

To ensure that we meet all the standards of safety, efficiency, hygiene and environment protection and contribute significantly in developing systems for energy saving.

Our Values are defined by our dedication to Quality, Principles, & Integrity that lead to customers' satisfaction all time and ultimate success of the company and its stakeholders.

Quality Policy

We are determined to offer reliable & Innovative products and services with high standards, Dedicated to understand & meet customers' requirements on time.

We are committed to focus on introducing industry best technologies & Concepts to save energy, protect environment and to give high priority for customers' satisfaction all time.

Our Infrastructure


RM 201


S 631

ALGO CABLES
CONNECTING TECHNOLOGIES

Algo Cables & Wires

Algo Cables always drive innovation to meet the changing and developing energy & communication needs of our society and growing infrastructure today, tomorrow and into the future for an all-in-one service.

We manufacture a wide range of Low and Medium Voltage electric cables for various applications in different segments. We serve customers in major market channels including Residential & Commercial construction Projects, Pumping Systems, Industries, Dewatering Railway, Mining, Renewable energy like windmill and solar systems and OEM's.

Our leading wire and cable products are known for their high quality and outstanding performance. This creates a unique mix of products, technologies and services to make Algo Cables a strong, long term business partner to our customers.

Highly flexible cables and wires are engineered for greater durability and reliability, increasing the customers and Installers' safety, productivity and profitability, and can be customized to meet any specific needs under our focus segments. Our cables are certified by internationally recognized organizations.

ALGO CABLES
CONNECTING TECHNOLOGIES

ALGO SUBMERSIBLE CABLES

(PVC / RUBBER, FLAT / ROUND, 3 / 4 CORE)

Specifications	
Sizes in sq.mm	Flat 1.0 to 150 sq.mm, Round 1.0 to 240 sq.mm 3 core and 4 core, 1100 V
Sizes in AWG	14 AWG to 250 mcm 3 core and 4 core, 600 V / 1100 V
Temperature range	PVC -15°C to +70°C, Rubber -40°C to +90°C
Conductor	High conductivity annealed and bunched copper
Conductor material	Copper EC Grade
Insulation material	Flexible water proof PVC / EPDM / EPR
Sheath material	Flexible water proof PVC / Rubber (EPDM / NBR / PCP)
Sheath colour	Black / Blue / Green / Any other color as be specified by the customer

Colour Coding: PVC / Rubber Insulated & Sheathed 3 & 4 core, Flat & Round (Single/ Double sheathed)

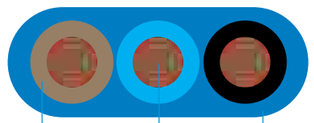
Country	Core Color	Sheath Color
European Standard	4 core – Brown Blue Black Yellow with Green line 3 core - Brown Blue Black	Blue
USA Standard - AWG	4 core – Yellow Black Red Green 3 core – Yellow Black Red	Blue / Black
UAE	3 core – Red Yellow Blue	3 Core double sheathed Round – Black
South Africa	4 core – Red Yellow Blue Green with Yellow line 3 core – Red Yellow Blue	4 core Round / Flat – Green 3 core Round / Flat – Blue
Australia	4 core – Brown Blue Black Yellow with Green line 3 core - Brown Blue Yellow with Green line	Blue
Other countries	European Standard can be followed	Blue

Note :

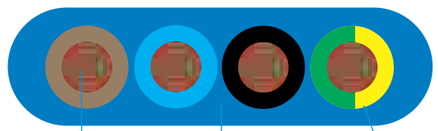
In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

PVC 3 & 4 CORE FLAT CABLES

(3 CORE)



(4 CORE)



CONSTRUCTION

Conductor : Finely stranded bare flexible copper conductor.
Insulation : PVC
sheath : PVC
Core Colours :3core : Red, Yellow, Blue OR Brown, Blue, Black
4core: Red, Yellow, Blue, Green OR Brown, Blue, Black, Yellow with Green line OR Green with Yellow line

APPLICATIONS

For continuous use in deep well to supply power to submersible motors for the depth upto 500 mtrs.

SPECIAL FEATURES

- Excellent resistant to moisture, abrasion, greace, oil.
- Excellent mechanical & electrical properties.
- Generally Conforming to : CENELEC HD 21, IEC 60227, BS 6500, DIN VDE 0281, IS 694.
- Temperature range -15°C to +70°C

PVC 3 & 4 CORE FLAT CABLES

ALGO CABLES
CONNECTING TECHNOLOGIES

PVC 3 CORE FLAT CABLE FOR SUBMERSIBLE PUMPS (1100 VOLTS)

Conductor		PVC Insulation		PVC Sheath			Conductor Resistance at 20°C (Max) ohms/km	Current Rating at 40°C Amps.
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Core Dia.	Nominal Thickness	Approx. Overall Dimensions			
sq.mm	Nos. / mm	mm	mm	mm	Height mm	Width mm		
1.50	22/0.30	0.80	3.25	1.15	6.20	12.80	12.10	14
2.50	36/0.30	0.90	3.80	1.15	6.40	14.60	7.41	18
4.00	56/0.30	1.00	4.50	1.15	7.40	16.80	4.95	26
6.00	84/0.30	1.00	5.25	1.15	8.00	18.70	3.30	31
10.00	140/0.30	1.00	6.50	1.40	9.90	23.70	1.91	42
16.00	224/0.30	1.00	8.00	1.40	11.80	28.00	1.21	57
25.00	350/0.30	1.20	10.10	2.00	14.70	35.50	0.780	72
35.00	490/0.30	1.20	11.30	2.00	16.80	39.50	0.554	90
50.00	703/0.30	1.40	13.30	2.20	18.30	45.50	0.386	115
70.00	988/0.30	1.40	15.30	2.20	21.00	51.00	0.272	143
95.00	1349/0.30	1.60	18.00	2.40	23.50	60.00	0.206	165
120.00	608/0.50	1.80	19.80	2.80	25.00	65.00	0.161	188
150.00	760/0.50	2.20	22.70	4.00	30.70	76.10	0.129	216

PVC 4 CORE FLAT CABLE FOR SUBMERSIBLE PUMPS (1100 VOLTS)

Conductor		PVC Insulation		PVC Sheath			Conductor Resistance at 20°C (Max) ohms/km	Current Rating at 40°C Amps.
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Core Dia.	Nominal Thickness	Approx. Overall Dimensions			
sq.mm	Nos. / mm	mm	mm	mm	Height mm	Width mm		
1.50	22/0.30	0.80	3.25	1.30	6.20	15.80	12.10	14
2.50	36/0.30	0.90	3.80	1.30	6.40	18.00	7.41	18
4.00	56/0.30	1.00	4.50	1.45	7.40	21.00	4.95	26
6.00	84/0.30	1.00	5.25	1.50	8.00	24.50	3.30	31
10.00	140/0.30	1.00	6.50	1.80	9.90	29.70	1.91	42
16.00	224/0.30	1.00	8.00	1.95	11.80	36.00	1.21	57
25.00	350/0.30	1.20	10.10	2.00	14.70	45.10	0.780	72
35.00	490/0.30	1.20	11.30	2.00	16.80	50.10	0.554	90
50.00	703/0.30	1.40	13.30	2.20	18.30	58.10	0.386	115
70.00	988/0.30	1.40	15.30	2.20	20.00	66.50	0.272	143
95.00	1349/0.30	1.60	18.00	2.40	23.50	77.30	0.206	165
120.00	608/0.50	1.80	19.80	3.50	27.40	87.00	0.161	188

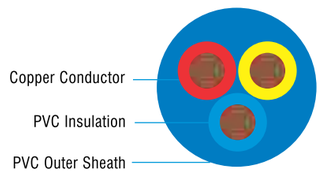
Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

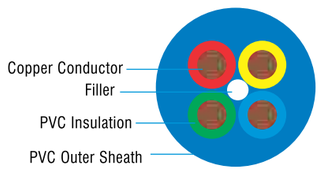
In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

PVC 3 & 4 CORE ROUND CABLES

(3 CORE)



(4 CORE)



CONSTRUCTION

Conductor	: Finely stranded bare flexible copper conductor.
Insulation	: PVC
sheath	: PVC
Core Colours	: 3core : Red, Yellow, Blue OR Brown, Blue, Black 4core: Red, Yellow, Blue, Green OR Brown, Blue, Black, Yellow with Green line OR Green with Yellow line

APPLICATIONS

For continuous use in deep well to supply power to submersible motors for the depth upto 500 mtrs.

SPECIAL FEATURES

- Excellent resistant to moisture, abrasion, greace, oil.
- Excellent mechanical & electrical properties.
- Generally Conforming to : CENELEC HD 21, IEC 60227, BS 6500, DIN VDE 0281, IS 694.
- Temperature range -15°C to +70°C

PVC 3 & 4 CORE ROUND CABLES

ALGO CABLES
CONNECTING TECHNOLOGIES

PVC 3 CORE ROUND CABLE FOR SUBMERSIBLE PUMPS (1100 VOLTS)

CONDUCTOR		PVC INSULATION		PVC SHEATH		Conductor Resistance at 20°C (Max) ohms/km	Current Rating at 40°C Amps.
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Core Dia.	Nominal Thickness	Approx. Overall Dimensions		
sq.mm	Nos. / mm	mm	mm	mm	mm		
1.50	22/0.30	0.80	3.25	1.50	10.00	12.10	14
2.50	36/0.30	0.90	3.80	1.50	11.00	7.41	18
4.00	56/0.30	1.00	4.50	1.60	13.00	4.95	26
6.00	84/0.30	1.00	5.25	1.60	14.60	3.30	31
10.00	140/0.30	1.00	6.50	2.00	18.00	1.91	42
16.00	224/0.30	1.00	8.00	2.00	21.20	1.21	57
25.00	350/0.30	1.20	10.10	2.40	26.50	0.780	72
35.00	490/0.30	1.20	11.30	2.60	29.50	0.554	90
50.00	703/0.30	1.40	13.30	3.10	34.80	0.386	115
70.00	988/0.30	1.40	15.30	3.20	39.30	0.272	143
95.00	1349/0.30	1.60	18.00	3.50	45.70	0.206	165
120.00	608/0.50	1.90	19.80	3.80	50.20	0.161	188
150.00	760/0.50	2.00	22.00	4.00	55.30	0.129	216

PVC 4 CORE ROUND CABLE FOR SUBMERSIBLE PUMPS (1100 VOLTS)

CONDUCTOR		PVC INSULATION		PVC SHEATH		Conductor Resistance at 20°C (Max) ohms/km	Current Rating at 40°C Amps.
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Core Dia.	Nominal Thickness	Approx. Overall Dimensions		
sq.mm	Nos. / mm	mm	mm	mm	mm		
1.50	22/0.30	0.80	3.25	1.50	10.80	12.10	14
2.50	36/0.30	0.90	3.80	1.65	12.50	7.41	18
4.00	56/0.30	1.00	4.50	1.65	14.10	4.95	26
6.00	84/0.30	1.00	5.25	1.65	16.00	3.30	31
10.00	140/0.30	1.00	6.50	2.00	20.35	1.91	42
16.00	224/0.30	1.00	8.00	2.00	23.40	1.21	57
25.00	350/0.30	1.20	10.10	2.40	29.20	0.780	72
35.00	490/0.30	1.20	11.30	2.60	32.40	0.554	90
50.00	703/0.30	1.40	13.30	3.10	38.25	0.386	115
70.00	988/0.30	1.40	15.30	3.20	43.30	0.272	143
95.00	1349/0.30	1.60	18.00	3.50	50.40	0.206	165
120.00	608/0.50	1.90	19.80	3.80	55.30	0.161	188
150.00	760/0.50	2.00	22.00	4.00	61.00	0.129	216

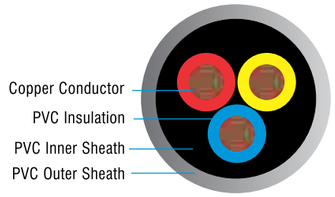
Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

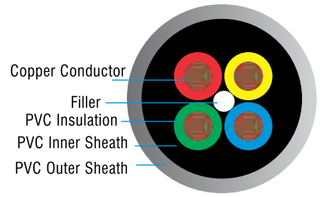
In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

PVC 3 & 4 CORE DOUBLE SHEATHED ROUND CABLES

(3 CORE)



(4 CORE)



CONSTRUCTION

Conductor : Finely stranded bare flexible copper conductor.
Insulation : PVC
sheath : PVC (sheath 1 & 2)
Core Colours :3core : Red, Yellow, Blue OR Brown, Blue, Black
4core: Red, Yellow, Blue, Green OR Brown, Blue, Black, Yellow with Green line OR Green with Yellow line

APPLICATION :

For Equipment used in the following applications

- Irrigation
- Drinking water-supply
- Industries
- Mine De-watering
- Offshore Drilling Rigs
- Sewage Treatment Plant
- Sea Water Handling
- Fire Fighting

SPECIAL FEATURES

- Excellent resistant to moisture, abrasion, greace, oil.
- Excellent mechanical & electrical properties.
- Generally Conforming to : CENELEC HD 21, IEC 60227, BS 6500, DIN VDE 0281, IS 694.
- Temperature range -15°C to +70°C

PVC 3 & 4 CORE DOUBLE SHEATHED ROUND CABLES

ALGO CABLES
CONNECTING TECHNOLOGIES

Technical Data

Operating Temp.	-20°C to max.+70°C
Nominal voltage	1100 V
Test voltage	3000 V
Min. bending radius	6 x cable diameter
Flame propagation	Flame retardant test per IEC 60332-1

PVC 3 Core Round Cables for Submersible Pumps (1100 Volts)

Conductor		PVC Insulation		Total Thickness Of Double PVC Sheath		Conductor Resistance at 20°C (Max) ohms/km	Current Rating at 40°C Amps.
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Core Dia.	Sheath Thickness	Approx. Overall Dimensions		
sq.mm	Nos.\mm	mm	mm	mm	mm		
1.50	22/0.30	0.60	3.00	1.65	10.00	12.10	14
2.50	36/0.30	0.70	3.60	1.65	11.00	7.41	18
4.00	56/0.30	0.80	4.30	1.85	13.00	4.95	26
6.00	84/0.30	0.80	5.10	1.80	14.60	3.30	31
10.00	140/0.30	1.00	6.50	2.00	18.00	1.91	42
16.00	226/0.30	1.00	8.00	2.00	21.20	1.21	57
25.00	354/0.30	1.20	10.10	2.15	26.00	0.780	72
35.00	495/0.30	1.20	11.30	2.15	28.30	0.554	90
50.00	703/0.30	1.40	13.60	2.25	33.50	0.386	115
70.00	988/0.30	1.40	15.30	2.45	37.80	0.272	143
95.00	1349/0.30	1.60	18.00	2.40	43.50	0.206	165

PVC 4 Core Round Cables for Submersible Pumps (1100 Volts)

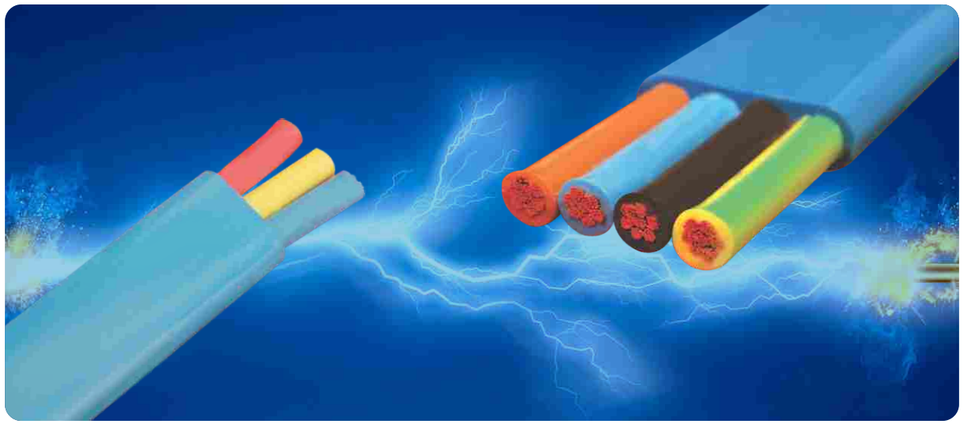
Conductor		PVC Insulation		Total Thickness Of Double PVC Sheath		Conductor Resistance at 20°C (Max) ohms/km	Current Rating at 40°C Amps.
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Core Dia.	Sheath Thickness	Approx. Overall Dimensions		
sq.mm	Nos.\mm	mm	mm	mm	mm		
1.50	22/0.30	0.60	3.00	1.80	10.80	12.10	14
2.50	36/0.30	0.70	3.60	1.85	12.50	7.41	18
4.00	56/0.30	0.80	4.30	1.85	14.10	4.95	26
6.00	84/0.30	0.80	5.10	1.85	16.00	3.30	31
10.00	140/0.30	1.00	6.50	2.00	20.35	1.91	42
16.00	226/0.30	1.00	8.00	2.00	23.40	1.21	57
25.00	354/0.30	1.20	10.10	2.20	28.80	0.780	72
35.00	495/0.30	1.20	11.30	2.20	31.50	0.554	90
50.00	703/0.30	1.40	13.60	2.30	37.30	0.386	115
70.00	988/0.30	1.40	15.30	2.60	42.20	0.272	143
95.00	1349/0.30	1.60	18.00	2.65	48.80	0.206	165

Note :

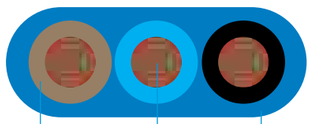
The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

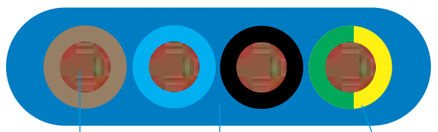
RUBBER 3 & 4 CORE FLAT CABLES
EPDM



(3 CORE)



(4 CORE)



CONSTRUCTION

Conductor : Finely stranded bare flexible copper conductor.
Insulation : EPR rubber,
Sheath : Black \ Blue heavy duty EPR.
Core Colours : 3core : Red, Yellow, Blue OR Brown, Blue, Black
4core: Red, Yellow, Blue, Green OR Brown, Blue, Black, Yellow with Green line OR Green with Yellow line

SPECIAL FEATURES

- Meets the requirement of CENELEC HD 22.1.S2, DIN VDE 0282 PART 810, IEC 245, CEI 20-19 & BS 6007, BS 6899.
- Designed for heavy duty use.
- Excellent resistant to oils, acids, chemicals, ozone & solvents.
- Excellent Weather Resistant.
- Excellent Electrical Properties.
- Temperature range -40°C to +90°C

APPLICATION :

For continuous use in deep well to supply power to submersible motors for the depth upto 500 mtrs.

RUBBER 3 & 4 CORE FLAT CABLES
EPDM

ALGO CABLES
CONNECTING TECHNOLOGIES

EPDM RUBBER 3 CORE FLAT CABLE FOR SUBMERSIBLE PUMPS (1100 VOLTS)

Conductor		Rubber Insulation		Rubber Sheath			Conductor Resistance at 20°C (Max) ohms/km	Current Rating at 40°C Amps.
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Core Dia.	Nominal Thickness	Approx. Overall Dimensions			
sq.mm	Nos. / mm	mm	mm	mm	Height mm	Width mm		
1.50	22/0.30	0.80	3.25	1.15	6.20	12.80	12.10	23
2.50	36/0.30	0.90	3.80	1.15	6.40	14.60	7.41	30
4.00	56/0.30	1.00	4.50	1.15	7.40	16.80	4.95	34
6.00	84/0.30	1.00	5.25	1.15	8.00	18.70	3.30	43
10.00	140/0.30	1.00	6.50	1.40	9.90	23.70	1.91	61
16.00	224/0.30	1.00	8.00	1.40	11.80	28.00	1.21	81
25.00	350/0.30	1.20	10.10	2.00	14.70	35.50	0.780	108
35.00	490/0.30	1.20	11.30	2.00	16.80	39.50	0.554	135
50.00	703/0.30	1.40	13.30	2.20	18.30	45.50	0.386	170
70.00	988/0.30	1.40	15.30	2.20	20.00	51.00	0.272	220
95.00	1349/0.30	1.60	18.00	2.40	23.50	60.00	0.206	265
120.00	608/0.50	1.80	19.80	2.80	25.00	65.00	0.161	306
150.00	760/0.50	2.20	22.70	4.00	30.70	76.10	0.129	365

EPDM RUBBER 4 CORE FLAT CABLE FOR SUBMERSIBLE PUMPS (1100 VOLTS)

Conductor		Rubber Insulation		Rubber Sheath			Conductor Resistance at 20°C (Max) ohms/km	Current Rating at 40°C Amps.
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Core Dia.	Nominal Thickness	Approx. Overall Dimensions			
sq.mm	Nos. / mm	mm	mm	mm	Height mm	Width mm		
1.50	22/0.30	0.80	3.25	1.30	6.20	15.80	12.10	23
2.50	36/0.30	0.90	3.80	1.30	6.40	18.00	7.41	30
4.00	56/0.30	1.00	4.50	1.45	7.40	21.00	4.95	34
6.00	84/0.30	1.00	5.25	1.50	8.00	24.50	3.30	43
10.00	140/0.30	1.00	6.50	1.80	9.90	29.70	1.91	61
16.00	224/0.30	1.00	8.00	1.95	11.80	36.00	1.21	81
25.00	350/0.30	1.20	10.10	2.00	14.70	45.10	0.780	108
35.00	490/0.30	1.20	11.30	2.00	16.80	50.10	0.554	135
50.00	703/0.30	1.40	13.30	2.20	18.30	58.10	0.386	170
70.00	988/0.30	1.40	15.30	2.20	20.00	66.50	0.272	220
95.00	1349/0.30	1.60	18.00	2.40	23.50	77.30	0.206	265
120.00	608/0.50	1.80	19.80	3.50	27.40	87.00	0.161	306

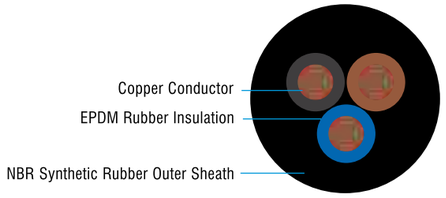
Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

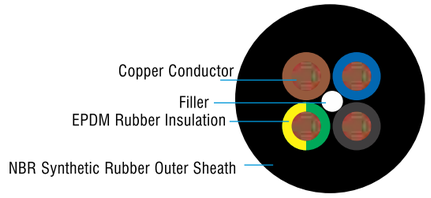
In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

RUBBER 3 & 4 CORE ROUND CABLES
HO7RN-F

(3 CORE)



(4 CORE)



Construction

• Conductor	Finely stranded bare flexible copper conductor.
• Insulation	EPDM / NBR Rubber
• Sheath	NBR Synthetic Rubber
• Core Colours	3core: Brown, Blue, Black
	4core: Brown, Blue, Black & Yellow/Green

APPLICATIONS

For Equipment used in the following applications

- Irrigation
- Drinking water-supply
- Industries
- Mine De-watering
- Offshore Drilling Rigs
- Sewage Treatment Plant
- Sea Water Handling
- Fire Fighting

Special Features

- Designed for heavy duty use.
- Excellent resistant to oils, chemicals, ozone & Solvents.
- Excellent Weather Resistant.
- Excellent Electrical Properties.
- Temperature range-40°C to +90°C

RUBBER 3 & 4 CORE ROUND CABLES
HO7RN-F

ALGO CABLES
CONNECTING TECHNOLOGIES

3 CORE ROUND CABLE FOR SUBMERSIBLE PUMPS (450/750 VOLTS)

Conductor		Rubber Insulation	Rubber Sheath	Approx. Overall Dia.	Conductor Resistance at 20°C (Max)
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Thickness		
sq.mm	Nos. / mm	mm	mm	mm	ohms/km
1.50	22/0.30	0.80	1.60	10.20	12.10
2.50	36/0.30	0.90	1.80	11.90	7.41
4.00	56/0.30	1.00	1.90	13.50	4.95
6.00	84/0.30	1.00	2.10	15.60	3.30
10.00	140/0.30	1.20	3.30	20.60	1.91
16.00	226/0.30	1.20	3.50	24.20	1.21
25.00	354/0.30	1.40	3.80	29.10	0.780
35.00	495/0.30	1.40	4.10	32.10	0.554
50.00	703/0.30	1.60	4.50	38.10	0.386
70.00	988/0.30	1.60	4.80	42.30	0.272
95.00	1349/0.30	1.80	5.30	49.10	0.206

4 CORE ROUND CABLE FOR SUBMERSIBLE PUMPS (450/750 VOLTS)

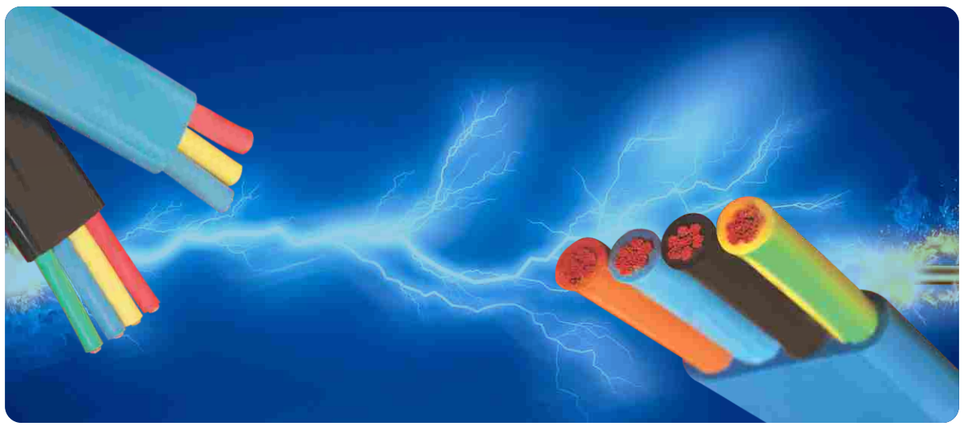
Conductor		Rubber Insulation	Rubber Sheath	Approx. Overall Dia.	Conductor Resistance at 20°C (Max)
Nominal Size in	Nos. & Dia of Wire	Nominal Thickness	Nominal Thickness		
sq.mm	Nos. / mm	mm	mm	mm	ohms/km
1.50	22/0.30	0.80	1.70	11.20	12.10
2.50	36/0.30	0.90	1.90	13.00	7.41
4.00	56/0.30	1.00	2.00	14.90	4.95
6.00	84/0.30	1.00	2.30	17.50	3.30
10.00	140/0.30	1.20	3.40	22.60	1.91
16.00	224/0.30	1.20	3.60	27.10	1.21
25.00	350/0.30	1.40	4.10	32.70	0.780
35.00	490/0.30	1.40	4.40	36.20	0.554
50.00	703/0.30	1.60	4.80	42.30	0.386
70.00	988/0.30	1.60	5.20	48.20	0.272
95.00	1349/0.30	1.80	5.90	55.60	0.206

Note :

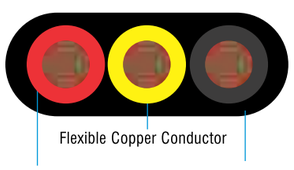
The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

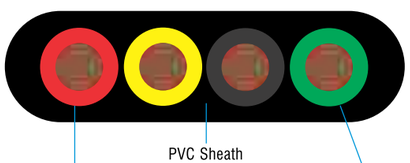
PVC 3 & 4 CORE FLAT CABLES - AWG



(3 CORE)



(4 CORE)



CONSTRUCTION

Conductor : Finely stranded bare flexible copper conductor.
Insulation : PVC
sheath : PVC
Core Colours :3core : Red, Yellow, Black,
4core: Red, Yellow, Black, Green

APPLICATION

For continuous use in deep well to supply power to submersible motors for the depth upto 500 mtrs.

SPECIAL FEATURES

- Cable is in accordance with UL specification for 75 degree C type TW cable.
- Generally conforming to: UL 83, IEC 60227, BS 6500, ISI 694
- Excellent resistant to moisture, abrasion, grease and oil
- Excellent resistance to oils, acids, chemicals and ozone.

PVC 3 & 4 CORE FLAT CABLES - AWG

ALGO CABLES
CONNECTING TECHNOLOGIES

PVC 3 Core Flat Submersible Pump Cables (Without Ground)

Conductor Size (AWG)	Nos and Dia. of wire (Nos. x mm)	Core Dia. (mm)	Nominal Sheath Thickness (mm)	Cable Overall Dimension (mm)
14	41 x 0.254	3.60	1.15	13.30 x 6.20
12	65 x 0.254	4.30	1.15	15.60 x 7.00
10	105 x 0.254	5.10	1.15	17.70 x 7.40
8	168 x 0.254	6.30	1.40	22.30 x 9.30
6	226 x 0.254	7.60	1.40	26.30 x 10.80
4	420 x 0.254	9.90	2.00	32.30 x 13.10
2	665 x 0.254	11.10	2.00	35.90 x 14.30
1	817 x 0.254	13.60	2.20	45.50 x 18.30
1/0	1045 x 0.254	13.60	2.20	45.50 x 18.30
2/0	1330 x 0.254	15.60	2.20	51.00 x 21.00
3/0	1672 x 0.254	18.00	2.40	61.00 x 23.50
4/0	2116 x 0.254	19.80	2.65	65.00 x 25.20
250 MCM	2503 x 0.254	20.60	2.80	68.00 x 28.00

PVC 4 Core Flat Submersible Pump Cables (With Ground)

Conductor Size (AWG)	Nos and Dia. of wire (Nos. x mm)	Ground Conductor Size (AWG)	Core Dia. (mm)	Nominal Sheath Thickness (mm)	Cable Overall Dimension (mm)
14	41 x 0.254	14	3.85	1.15	18.00 x 6.50
12	65 x 0.254	12	4.50	1.15	21.00 x 7.60
10	105 x 0.254	10	5.30	1.15	24.30 x 7.90
8	168 x 0.254	10	6.50	1.40	29.70 x 9.90
6	266 x 0.254	8	8.00	2.00	36.00 x 11.80
4	420 x 0.254	8	10.10	2.00	45.10 x 14.70
2	665 x 0.254	6	11.30	2.20	50.10 x 16.20
1	817 x 0.254	6	13.60	2.20	58.10 x 19.00
1/0	1045 x 0.254	6	13.60	2.20	58.10 x 19.00
2/0	1330 x 0.254	4	15.60	2.20	66.50 x 21.50
3/0	1672 x 0.254	2	18.00	2.65	77.30 x 23.50
4/0	2116 x 0.254	2	19.80	3.85	87.00 x 27.80

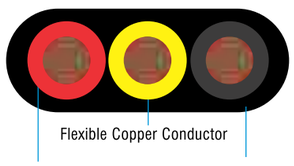
Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

RUBBER 3 & 4 CORE FLAT CABLE- AWG
EPDM

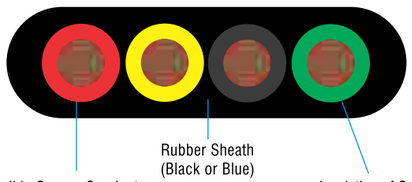
(3 CORE)



Rubber Insulation of Cores
(Red, Yellow, Black)

Rubber Sheath (Black or Blue)

(4 CORE)



Flexible Copper Conductor

Insulation of Core
(R, Y, BK & Green)

CONSTRUCTION

Conductor : Finely stranded bare flexible copper conductor.
Insulation : EPR rubber,
Sheath : Black \ Blue heavy duty EPR.
Core Colours : 3core : Red, Yellow, Black,
4core: Red, Yellow, Black, Green

SPECIAL FEATURES

- Meets the requirement of CENELEC HD 22.1.S2, DIN VDE 0282 PART 810, IEC 245, CEI 20-19 & BS 6007, BS 6899.
- Designed for heavy duty use.
- Excellent resistant to oils, acids, chemicals, ozone & solvents.
- Excellent Weather Resistant.
- Excellent Electrical Properties.
- Temperature range -40°C to +90°C

APPLICATION :

For continuous use in deep well to supply power to submersible motors for the depth upto 500 mtrs.

RUBBER 3 & 4 CORE FLAT CABLE- AWG
EPDM

ALGO CABLES
CONNECTING TECHNOLOGIES

EPDM 3 Core Flat Submersible Pump Cables (Without Ground)

Conductor Size (AWG)	Nos and Dia. of wire (Nos. x mm)	Core Dia. (mm)	Nominal Sheath Thickness (mm)	Cable Overall Dimension (mm)
14	41 x 0.254	3.85	1.15	14.60 x 6.40
12	65 x 0.254	4.50	1.15	16.80 x 7.40
10	105 x 0.254	5.30	1.15	18.70 x 7.90
8	168 x 0.254	6.50	1.40	23.70 x 9.90
6	226 x 0.254	8.00	1.40	28.00 x 11.40
4	420 x 0.254	10.10	2.00	35.50 x 14.70
2	665 x 0.254	11.30	2.00	39.50 x 16.20
1	817 x 0.254	13.60	2.20	45.50 x 18.30
1/0	1045 x 0.254	13.60	2.20	45.50 x 18.30
2/0	1330 x 0.254	15.60	2.20	51.00 x 20.00
3/0	1672 x 0.254	18.00	2.40	60.00 x 23.50
4/0	2116 x 0.254	19.80	2.65	65.00 x 25.00
250 MCM	2503 x 0.254	20.60	2.80	68.00 x 28.00

EPDM 4 Core Flat Submersible Pump Cable (With Ground)

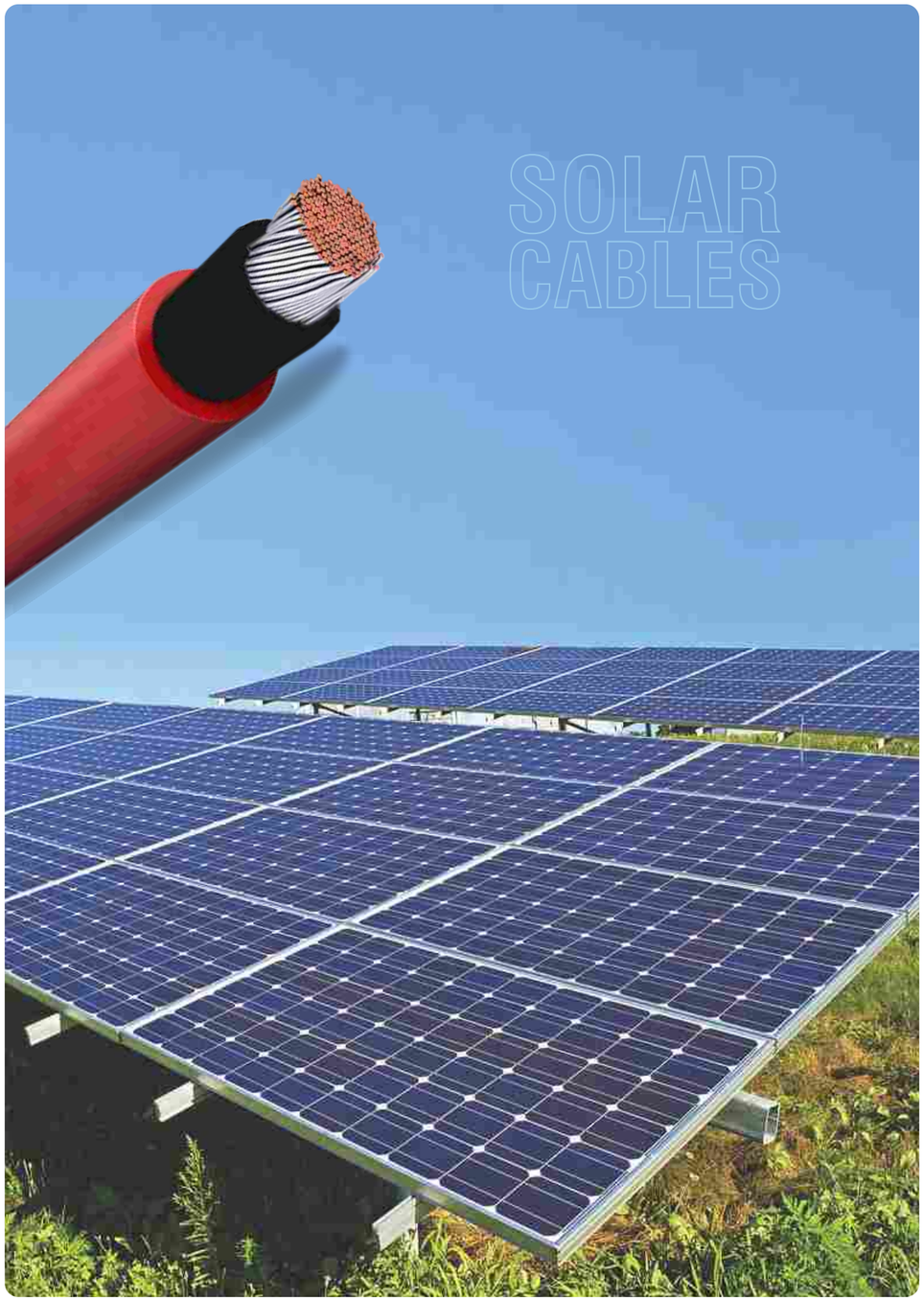
Conductor Size (AWG)	Nos and Dia. of wire (Nos. x mm)	Ground Conductor Size (AWG)	Core Dia. (mm)	Nominal Sheath Thickness (mm)	Cable Overall Dimension (mm)
14	41 x 0.254	14	3.85	1.15	18.00 x 6.50
12	65 x 0.254	12	4.50	1.15	21.00 x 7.60
10	105 x 0.254	10	5.30	1.15	24.30 x 7.90
8	168 x 0254	10	6.50	1.40	29.70 x 9.90
6	266 x 0.254	8	8.00	2.00	36.00 x 11.80
4	420 x 0.254	8	10.10	2.00	45.10 x 14.70
2	665 x 0.254	6	11.30	2.2Q	50.10 x 16.20
1	817 x 0.254	6	13.60	2.20	58.10 x 19.00
1/0	1045 x 0.254	6	13.60	2.20	58.10 x 19.00
2/0	1330 x 0.254	4	15.60	2.20	66.50 x 21.50
3/0	1672 x 0.254	2	18.00	2.65	77.30 x 23.50
4/0	2116 x 0.254	2	19.80	3.85	87.00 x 27.80

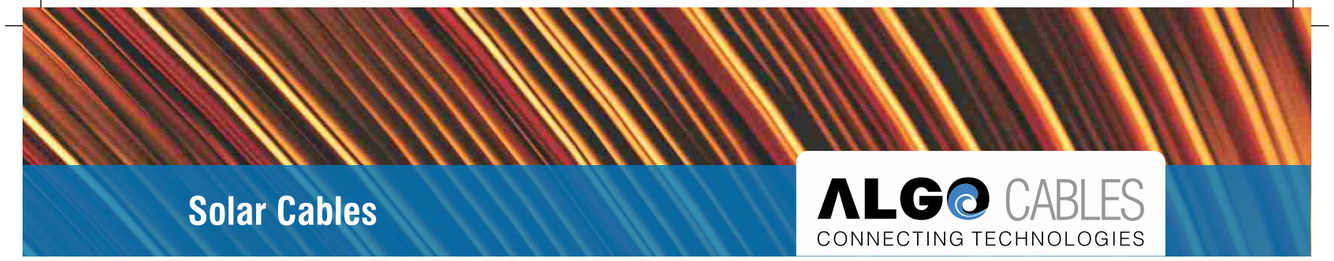
Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

Solar Cables





Solar Cables

ALGO CABLES
CONNECTING TECHNOLOGIES

Type

Algo PV Solar cables

Conductor

Electrolytic tinned copper of class 5 as per (IEC 60228)

Insulation

XLPO to operate at max. temp. of 120°C similar to (E16/E18)IEC 60502-1

Sheath

XLPO / cross linked EVA solidly connected with insulation (visible layers)

Marking

ALGO P V Solar cables size:xxxx spec.TUV 2Pfg 1169/08.2007 Mth/year.

Single Core Industrial Flexible Cable up to 1100V

Nominal Cross Section (sq.mm)	Conductor Diameter (mm)	Overall Diameter of Cable Min. Value (mm)	Overall Diameter of Cable Max. Value (mm)	Approx. Net wt. (kg/km)	Min. Bending Radius (mm)	Max. Permissible Tensile Load (N)	Max. Current Carrying Capacity at 60°C Ambient, Free in Air (A)	Permissible Short Circuit Current (Isc) 5 sec. (kA)
1.5	1.6	4.4	4.8	33.1	14.4	23	29	0.19
2.5	1.9	4.7	5.1	44.2	15.3	38	41	0.32
4	2.5	5.2	5.6	64.2	16.8	60	55	0.5
6	3	5.7	6.1	85.4	18.3	90	70	0.76
10	4	6.8	7.2	118.6	21.6	150	98	1.26
16	5.5	8.3	9	187.7	36	240	132	2
25	6.4	10	10.7	309	43	375	176	3.15
35	7.5	11.1	11.8	405	47	525	218	4.41
50	9	12.6	13.3	553	53	750	276	6.3
70	10.8	14.4	15.2	749	61	1050	347	8.82
95	12.6	16.2	17	1008	68	1425	416	12
120	14.3	17.7	18.7	1247	75	1800	488	15.1
150	15.9	19.7	20.7	1566	83	2250	566	18.9
185	17.5	21.3	22.3	1870	89	2775	644	23.3
240	20.5	24.2	25.5	2429	102	3600	775	30.4

Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

SUBMERSIBLE MOTOR WINDING WIRE POLYWRAP

Special Features

- Good Temperature Resistance
- Excellent Corrosion Resistance
- Good Tear Resistance
- High Tensile Strength
- High Dielectric Strength
- Negligible Leakage Current
- Easily Bendable for easy Winding
- Firm Insulation for high mechanical strength
- Good Chemical and Thermal Resistant Properties

INSTRUCTION FOR USE

- Do not stack more than 4 coils otherwise, bottom coil is likely to get damaged due to upper coil weight.
- Always keep away winding wire from those things having sharp edges and equipment generate heat to avoid unintentional damage. Also avoid welding spark falling on winding.
- Motor manufacturers must ensure proper cable joining after winding to avoid megger or winding failer.

Construction

Conductor : EC Grade Annealed Bare Copper
Tape : White Color BOPP (Bi-axially oriented poly propylene)

STANDARDS

Generally conforms to IS : 8783, DIN 53483, and VDE 0472

PACKING:

500 Meters and 1000 Meters bundles available

SIZE

0.4 mm to 3 mm conductor

SUBMERSIBLE MOTOR WINDING WIRE POLYWRAP

ALGO CABLES
CONNECTING TECHNOLOGIES

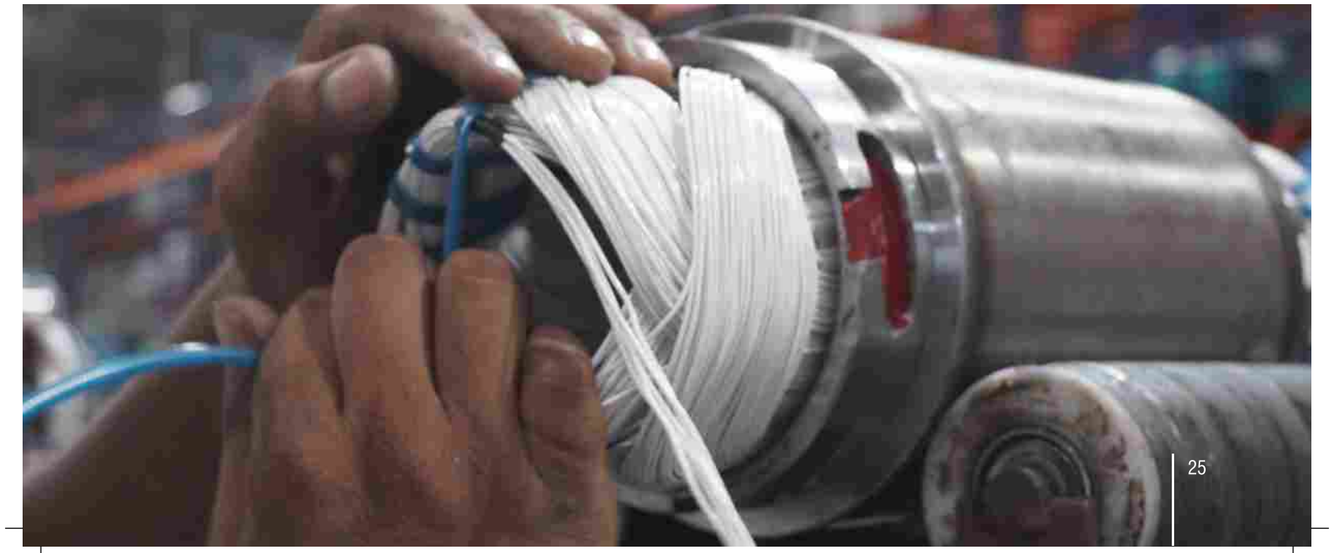
Specification

Sr. No.	Nominal Conductor Diameter mm	Conductor Cross Sectional Area Nominal mm	Appx. Overall Diameter mm	Max. D.C Conductor Resistance ohm/km	Elongation (min.) %	Appx. Weight Per 1000m kg.
1	0.40	0.126	0.80	140	24	1.47
2	0.50	0.196	0.90	89.6	25	2.15
3	0.60	0.283	1.00	62.2	26	2.98
4	0.70	0.385	1.10	45.7	28	3.95
5	0.80	0.502	1.20	* 35	28	5.05
6	0.90	0.636	1.30	27.6	29	6.30
7	1.00	0.785	1.40	22.4	30	7.80
8	1.10	0.95	1.50	18.5	30	9.20
9	1.20	1.13	1.60	15.5	31	10.90
10	1.30	1.33	1.70	13.2	32	12.70
11	1.40	1.54	1.90	11.4	32	14.90
12	1.50	1.77	2.00	9.95	32	17.00
13	1.60	2.01	2.10	8.75	32	19.20
14	1.70	2.27	2.20	7.75	32	21.60
15	1.80	2.54	2.30	6.91	32	24.20
16	1.90	2.83	2.40	6.2	32	26.80
17	2.00	3.14	2.50	5.6	33	29.60
18	2.10	3.46	2.60	5.08	33	32.55
19	2.20	3.8	2.70	4.63	33	35.60
20	2.30	4.15	2.80	4.23	33	38.85
21	2.40	4.52	2.90	3.89	33	42.20
22	2.50	4.91	3.00	3.58	33	45.70
23	2.60	5.31	3.10	3.31	34	49.30
24	2.70	5.73	3.20	3.07	34	53.10
25	2.80	6.16	3.30	2.86	34	57.00
26	2.90	6.61	3.40	2.66	34	61.05
27	3.00	7.07	3.50	2.49	34	65.25

Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.



SUBMERSIBLE MOTOR WINDING WIRE
PVC

PHYSICAL PROPERTIES

- The limiting values of solid copper conductor diameter, Elongation at Break and other technical details are as given in IS 8783 (Part 1) : 1995.
- The properties of PVC compound are as given in IS 8783 (Part 2) : 1995.
- The Winding Wires are tested as per IS 8783 (Part 3) : 1995.

INSTRUCTION FOR USE

- Do not stack more than 4 coils otherwise, bottom coil is likely to get damaged due to upper coil weight.
- Always keep away winding wire from those things having sharp edges and equipment generate heat to avoid unintentional damage. Also avoid welding spark falling on winding.
- Motor manufacturers must ensure proper cable joining after winding to avoid megger or winding failer.

Table 2 - Specific Insulation Resistance Vs. Temperature

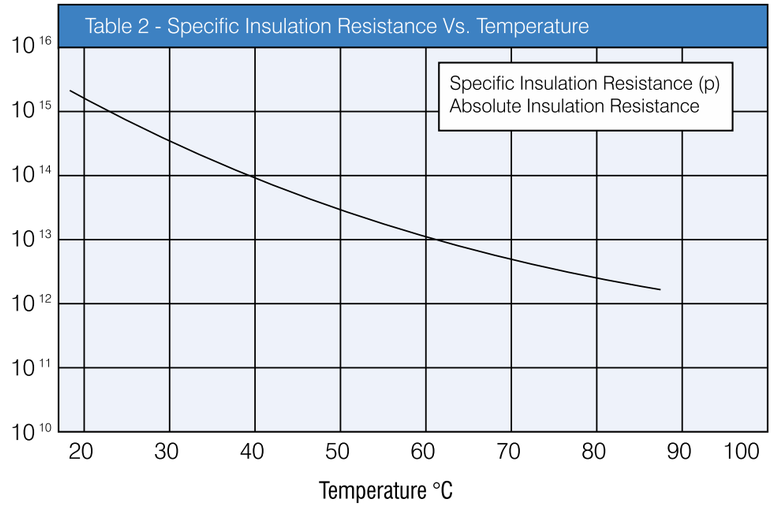


Table 1 :- HR PVC Insulated winding wires as per IS : 8783 (Part 4/ sec 1): 1995 (Solid Copper Conductor)

Conductor Diameter (mm)	Nom. Cross-Sectional Area (sq.mm)	Min. Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Max. Conductor Resistance at 20°C (Ohms/km)
0.80	0.502	0.30	1.47	35.00
0.90	0.638	0.30	1.57	27.60
1.00	0.785	0.30	1.67	22.40
1.10	0.850	0.30	1.77	18.50
1.20	1.13	0.30	1.87	15.50
1.30	1.33	0.30	1.97	13.20
1.40	1.54	0.35	2.17	11.40
1.50	1.77	0.35	2.27	9.95
1.60	2.01	0.35	2.37	8.75
1.70	2.27	0.35	2.47	7.75
1.80	2.54	0.35	2.62	6.91
1.90	2.84	0.35	2.72	6.20
2.00	3.14	0.45	3.02	5.60
2.10	3.46	0.45	3.12	5.08
2.20	3.80	0.45	3.22	4.63
2.30	4.15	0.45	3.32	4.23
2.40	4.52	0.50	3.52	3.89
2.50	4.91	0.50	3.62	3.58
2.60	5.31	0.50	3.72	3.31
2.70	5.73	0.50	3.82	3.07
2.80	6.19	0.55	4.02	2.86
3.00	7.07	0.55	4.22	2.49

Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

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Building Wires up to 1100V

Construction

Structure	Generally conforms to IS 694, BS 6004, IEC 60227, DIN VDE 0281 -3, IS 8130 & IS 5831
Conductor	EC grade flexible copper class 5 generally conforms IEC 60228, IS 8130
Insulation	FR+HR/FRLS-H/ZHFR Insulation compound with a high insulation resistance value (-15°C to +70°C / +90°C/ +105°C)
Colour	Red, Blue, Black, Brown, Grey, Orange, White, Green, Yellow (Any other Colour on specific request can also be supplied)
Application	Fixed installation in conduits and under plaster for Power distribution to electrical appliances & Lighting in Houses, Commercial Complexes, Shopping Malls, Buildings, Industries, Hospitals, Apartments etc.

Standard length cable packing:
Coils 90m & 180 m in carton boxes, reels

Features of "ALGO" Flexible Cables (FR/ FRLS/ ZHFR)

" FR "PVC Insulated cable
- High flame retardant properties
- Excellent resistant to moisture, abrasion, grace, oil
- Longer Flex Life
- Excellent mechanical & electrical properties
- Tested by SGS, EIL, RITES, NPC, INTERTEK
- Steam and boiling water resistant

"FRLS" PVC Insulated cable
- Better Flame retardant property
- Less Halogen acid gas evolution
- Resistant to tarnishing of copper
- Excellent resistant to moisture, abrasion, grace, oil
- Excellent mechanical & electrical properties

"ZHFR" Cable
- Zero Halogen acid gas evolution
- Non corrosive and non toxic insulation
- High temperature resistant insulation
- Resistance to tarnishing of copper

Single Core Industrial Flexible Cable up to 1100V

Nominal cross sectional area of conductor	Number/ Nominal dia of strands	Nominal Insulation Thickness	Max. Overall Diameter	Max. Conductor Resistance at 20°C	Current Rating	
					Casing	Concealed
Sq.mm	mm	mm	mm	Ohm / km	AMPS	AMPS
1.0	14/0.30*	0.7	2.8	18.1	14	13
1.5	22/0.30*	0.7	3.0	12.1	18	16
2.5	36/0.30*	0.8	3.7	7.41	24	20
4.0	56/0.30**	0.8	4.2	4.95	32	26
6.0	84/0.30**	0.8	4.8	3.30	42	35

* Class 2 Stranded conductor
** Class 5 Flexible conductor

FR Properties

Test	Specified	Specified Values
Limited Oxygen Index Test	IS 10810-58	>29%
Limited Temperature Index Test	IS 10810-65	>250%

FRLS/ ZHFR Properties

Test	Specified	Specified Values
Limited Oxygen Index Test	ASTM-D 2863	> 32%
Limited Temperature Index Test	ASTM-D 2863	>250%
Smoke Density (Light Absorption)	ASTM-D 2843	<50%
Acid Gas Generation	1 EC-607 54-1	<18%

Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

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PVC Industrial Cables up to 1100V (Single & Multi-Core)

CONSTRUCTION

Conductor : Finely stranded bare flexible copper conductor.
Insulation : PVC
sheath : PVC
Core Colours :3core : Red, Yellow, Blue OR Brown, Blue, Black
4core: Red, Yellow, Blue, Green OR Brown, Blue, Black, Yellow with Green line OR Green with Yellow line

Cable Features

- Special heat resistant insulation
- Higher current carrying capacity
- Fine copper wires
- Highly thermal stable insulation
- Excellent resistant to moisture, abrasion, grace, oil
- Longer Flex Life
- Excellent mechanical & electrical properties
- Tested by SGS, EIL, RITES, NPC, INTERTEK
- Operating Temp -15°C to +70°C / +90°C/ +105°C

Application

- Power wiring to appliance Sockets, Machineries, Industrial lighting. Penal boards. Batteries, D.C. Power Transfer etc.

Standard length cable packing:

- Coils 90m, 100m, 500m, 1000m, 2000m in carton boxes, reels

PVC Industrial Cables up to 1100V (Single & Multi-Core)

ALGO CABLES
CONNECTING TECHNOLOGIES

PVC Single Core Industrial Flexible Cable up to 1100V

Nominal cross sectional area of conductor	Number/ Nominal dia of strands	Nominal Insulation Thickness	Max. Overall Diameter	Max. conductor resistance at 20°C	Current Rating
sq.mm	mm	mm	mm	ohms / km	Amps
0.50	16/0.20	0.60	2.60	39.0	6
0.75	24/0.20	0.60	2.80	26.0	9
1.00	32/0.20	0.60	3.00	19.5	14
1.50	30/0.25	0.60	3.40	13.3	18
2.50	50/0.25	0.70	4.10	7.98	24
4.00	56/0.30	0.80	4.80	4.95	32
6.00	84/0.30	0.80	5.30	3.30	42
10.00	140/0.30	1.00	7.00	1.91	55
16.00	224/0.30	1.00	8.10	1.21	75
25.00	350/0.30	1.20	10.20	0.78	100
35.00	490/0.30	1.40	11.70	0.554	125
50.00	703/0.30	1.40	13.90	0.386	165
70.00	988/0.30	1.40	16.00	0.272	240
95.00	1349/0.30	1.60	18.20	0.206	300
120.00	608/0.50	1.60	20.20	0.161	325
185.00	943/0.50	1.80	22.50	0.106	400
240.00	1223/0.50	2.00	24.90	0.0801	475
300.00	1528/0.50	2.20	28.40	0.0641	550
400.00	2035/0.50	2.40	31.00	0.0486	670
500.00	2553/0.50	2.60	41.00	0.0384	750

- All are class 5 conductor
- HR/FR/FRLS-H/ZHFR insulation is also available as per customer requirements

PVC Multi-Core Round Flexible Industrial Cable up to 1100V

Nominal cross sectional area of conductor	Number/ Nominal dia of strands	Nominal Insulation Thickness	Nominal Sheath Thickness mm			Max. Overall Diameter in mm			Max. conductor resistance at 20°C	Current Rating
sq.mm	mm	mm	2 core	3 core	4 core	2 core	3 core	4 core	ohms / km	Amps
0.50	16/0.20	0.60	0.90	0.90	0.90	6.90	7.30	8.00	39.00	6
0.75	24/0.20	0.60	0.90	0.90	0.90	7.30	7.70	8.40	26.00	9
1.00	32/0.20	0.60	0.90	0.90	0.90	7.60	8.10	8.80	19.50	14
1.50	30/0.25	0.60	0.90	0.90	1.00	8.90	9.40	10.40	13.30	18
2.50	50/0.25	0.70	1.00	1.00	1.00	10.30	10.80	12.00	7.98	24
4.00	56/0.30	0.80	1.00	1.00	1.00	11.60	12.40	13.60	4.95	32
6.00	84/0.30	0.80	1.10	1.20	1.20	13.00	13.80	15.47	3.30	33
10.00	140/0.30	1.00	1.30	1.40	1.40	16.50	17.69	19.50	1.91	45
16.00	224/0.30	1.00	1.40	1.40	1.40	19.40	20.60	23.00	1.21	60
25.00	350/0.30	1.20	1.40	1.50	1.60	23.80	29.30	28.50	0.78	75
35.00	490/0.30	1.20	1.60	1.60	1.70	27.20	34.60	32.70	0.554	95
50.00	703/0.30	1.40	2.00	2.00	2.00	32.00	39.60	38.60	0.386	125

Core Colours : 2 Core- Red, Black
: 3 Core- Red, Black & Green
: 4 Core - Red, Yellow, Blur & Green

Note :

The number of wires and diameter mentioned in the table are approximate and nominal; however they shall meet the requirements of conductor resistance as per standards.

In view of continuous improvements in our design and process, the information, Dimensions and specifications given herein are subject to change without notice.

LT Power and Control Cables 1100V

- **PVC LT Copper Armoured/ Un-armoured Cables**
- **XLPE LT Copper Armoured/Un-armoured Cables**

PVC/XLPE LT POWER AND CONTROL CABLES

1100 Volts grade PVC/ XLPE Insulated, cores laid up. PVC/FR/ ST2/ FRLS/ LSZH taped/ extruded inner-sheath. Un-armoured / Armoured, extruded PVC / FR / ST2/FRLS / LSZH sheathed cables from 2 to 61 Core in 1.5 and 2.5 sq.mm as per IS 1554/IS 7098 (Part 1) 1988 and generally confirming to IEC 60502-1 / BS 5467/BS 6724.

Application

Heavy Duty Power and Control Cables are used for Underground power supply by utility provider for Street Lights, Industrial Automation with mechanical strength for protection on Insulated cores and other industrial applications.

Specifications: IS 1554 (P-1) & IS 7098 (P-1)

Construction	IS Specifications
Conductor: ETP Grade Copper/Aluminium	8130
Insulation : PVC Type A or C / XLPE	5831, 7098 (P-1)
Inner Sheath: PVC Type ST 1 or ST 2	5831
Armour. Galvanised Steel Wire Strip	3975
Outer Sheath : PVC Type ST 1 or ST 2	5831

The sheath is also provided in with FR and FRLSH PVC

Core Identification

For power cable and control cable up to 4 cores, the cores are identified by different colours as per IS 1554: (Part-1J & 7098 (Part-1)

Single Core: Red, Yellow. Blue, Black, etc.
2Core: Red and Black.
3core : Red, Yellow and Blue.
4Core: Red. Yellow, Blue and Black.
5Core: Red. Yellow, Blue, Black and Grey.

COMPARATIVE CURRENT RATINGS OF 650/1100 VOLTS MULTICORE HEAVY DUTY PVC INSULATED CABLES & XLPE INSULATED CABLES.

(3. 3.5 & 4 Core Unarmoured / Armoured PVC Sheathed Cables with Aluminium Conductor.)

Nominal Size of cable sq.mm	3, 3.5 & 4 Core PVC Insulated & Sheathed Cables as per IS -1554 (Part-1) 1988			3, 3.5 & 4 Core XLPE Insulated & Sheathed Cables as per IS - 7098 (Part-1) 1988		
	In Ground Amp	In Air Amp	Approx Voltage Drop mV/amp/ mtr	In Ground Amp	In Air Amp	Approx Voltage Drop mV/amp/ mtr
16	60	51	4.0	73	70	4.20
25	76	70	2.5	94	96	2.70
35	92	86	1.8	113	117	1.90
50	110	105	1.3	133	142	1.40
70	135	130	0.93	164	179	0.99
95	165	155	0.68	196	221	0.72
120	185	180	0.54	223	257	0.58
150	210	205	0.46	249	292	0.48
185	235	240	0.38	282	337	0.39
240	275	280	0.28	326	399	0.31
300	305	315	0.25	367	455	0.26
400	335	375	0.20	420	530	0.21

(3. 3.5 & 4 Core Unarmoured / Armoured PVC Sheathed Cables with Copper Conductor.)

Nominal Size of cable sq.mm	3, 3.5 & 4 Core PVC Insulated & Sheathed Cables as per IS -1554 (Part-1) 1988		3, 3.5 & 4 Core XLPE Insulated & Sheathed Cables as per IS - 7098 (Part-1) 1988	
	In Ground Amp	In Air Amp	In Ground Amp	In Air Amp
16	71	64	95	89
25	99	81	122	119
35	120	99	146	147
50	145	125	173	179
70	175	150	212	226
95	210	175	254	279
120	240	195	287	320
150	270	225	321	365
185	300	255	362	422
240	345	295	418	500
300	385	335	469	574
400	425	360	528	662

COMPARISON OF SHORT CIRCUIT RATING FOR 1 SECOND DURATION FOR

* PVC & XLPE Insulated Cables ** with Copper and Aluminum Conductors, (Current in kAmps)

Nominal Size Sq.mm	PVC Insulated		XLPE Insulated	
	Copper	Aluminium	Copper	Aluminium
1.5	0.173	-	0.21	-
2.5	0.283	-	0.36	-
4	0.46	0.303	0.57	0.38
6	0.690	0.455	0.86	0.57
10	1.15	0.758	1.40	0.94
16	1.84	1.21	2.30	1.50
25	2.86	1.90	3.60	2.40
35	4.03	2.65	5.00	3.30
50	5.75	3.79	7.10	4.70
70	8.05	5.31	10.00	6.60
95	10.90	7.20	13.60	9.00

Nominal Size Sq.mm	PVC Insulated		XLPE Insulated	
	Copper	Aluminium	Copper	Aluminium
120	13.80	9.10	17.10	11.30
150	17.30	11.40	21.40	14.20
185	21.30	14.02	26.40	17.50
240	27.60	18.20	34.30	22.60
300	34.50	22.80	42.90	28.30
400	46.00	30.40	57.10	37.70
500	57.50	38.00	71.40	47.20
630	72.50	47.25	90.00	59.40
800	92.00	60.00	114.30	75.50
1000	115.00	75.00	142.90	94.30

* PVC Type A & Type C Insulation as per IS-5831 '84. ** PVC Cables as per IS-1554 <Part-I)-1988. ** XLPE Cables as per IS-7098 (Part-1)-1988.

1) Max. Conductor Temperature during operation PVC 70°C XLPE 90°C

2) Max. Conductor Temperature During Short circuit. 160°C 250°C

Formula relating Short Circuit Rating with duration it = I sh St
Where It = Short Circuit Rating for t Seconds.
t = Duration in seconds Ish = Short Circuit rating for 1 second.

Note :

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Note

Note