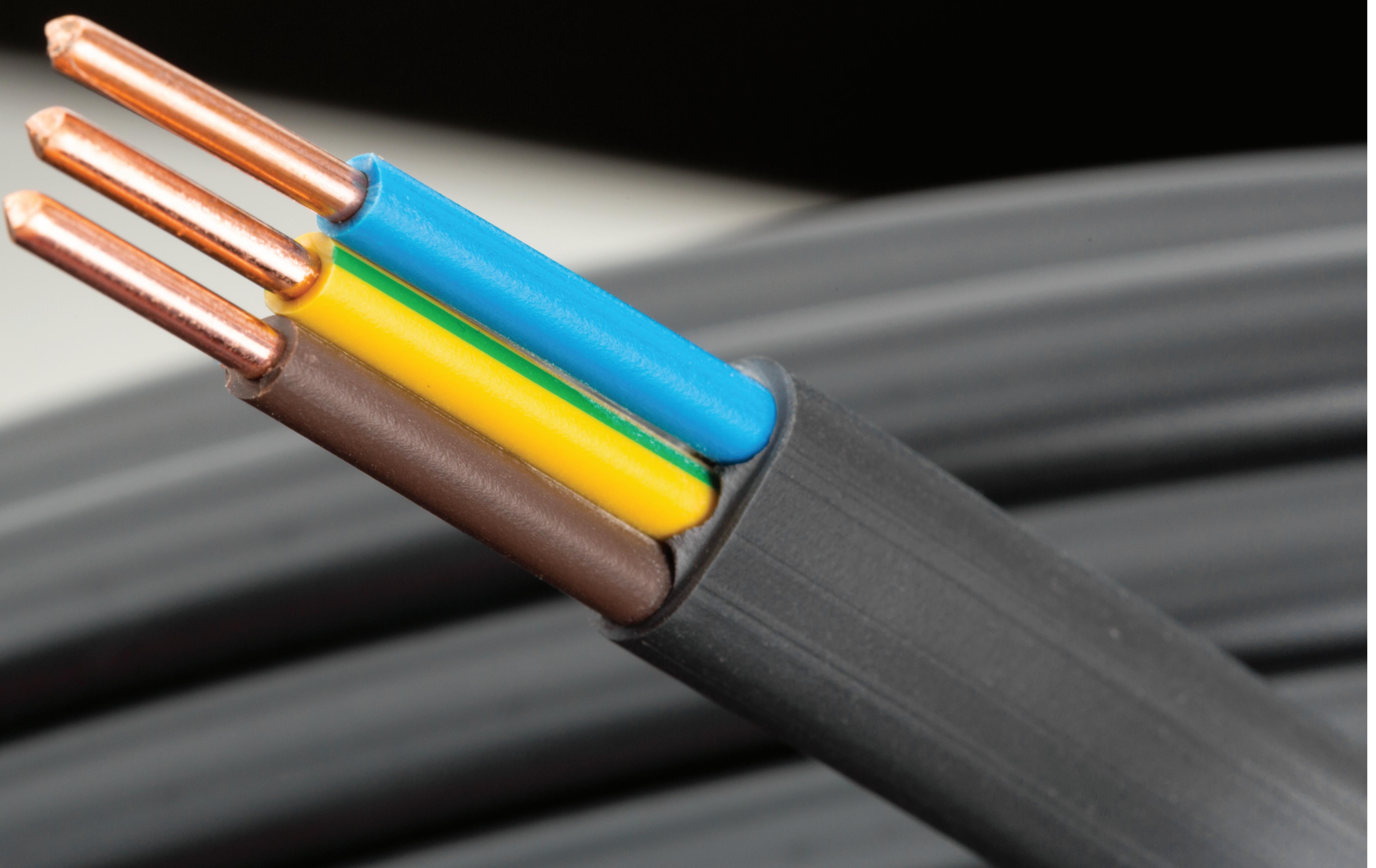




## FLEXIBLE PVC WIRES CABLES FOR DOMESTIC AND INDUSTRIAL APPLICATIONS



IS:694-2010



**STANLEY** has established itself as supplier of Power, Control Cables & flexible wires of various leading customers in industry, projects, domestic, commercial & power network Since Year 1980.

**STANLEY** has developed an extensive range of PVC Flexible wires to meet the requirement of its customers. All the products are manufactured as per IS:694-2010

**STANLEY** is committed to provide quality products & services to its customers.

### CONSTRUCTION DETAIL OF **STANLEY FLEXIBLES WIRES**

- CONDUCTOR** : Electrolytic grade, high conductivity, solid / stranded / flexible, plain / tinned copper conductor as per IS 8130:2013
- INSULATION** : PVC Insulation of heat resistance PVC compound by extrusion process with automatic diameter control.
- SHEATH** : In case of Sheathed flexible wires the outer sheath is provided of PVC by extrusion process with automatic diameter control.
- NOTE** : **STANLEY** Flexible wires can also be supplied with HR/FR/FRLS PVC insulation and outer sheath as per the requirement of the customers.

**AA:** **STANLEY** Single Core PVC insulated Flexible Copper Conductor (Unsheathed) heavy duty Electric wires in Voltage grade upto & including 1100 volts as per IS:694-2010- Supplied in 90 meter.

Conductor Area (Sq.mm)	Conductor Construction No./dia mm	Current Carrying Capacity (AMPS)	Standard Resistance at 20 C (Ohm/Km)	Nominal Thickness of Insulation (mm)	Overall Diameter (mm) (Approx)
0.75	24/0.20	7	26.0	0.6	2.5
1.0	32/0.20	12	19.5	0.7	2.8
1.5	30/0.25	16	13.3	0.6	3.1
2.5	50/0.25	22	7.98	0.7	3.7
4.0	56/0.30	29	4.95	0.8	4.3
6.0	84/0.30	37	3.30	0.8	5.3
10	80/0.40	51	1.91	1.0	6.7

**AA:** **STANLEY** PVC insulated Unsheathed Single Core Industrial Wires with bright Annealed Bare Copper Solid/Stranded Conductor as per IS:694-2010-Supplied in 100 metres.

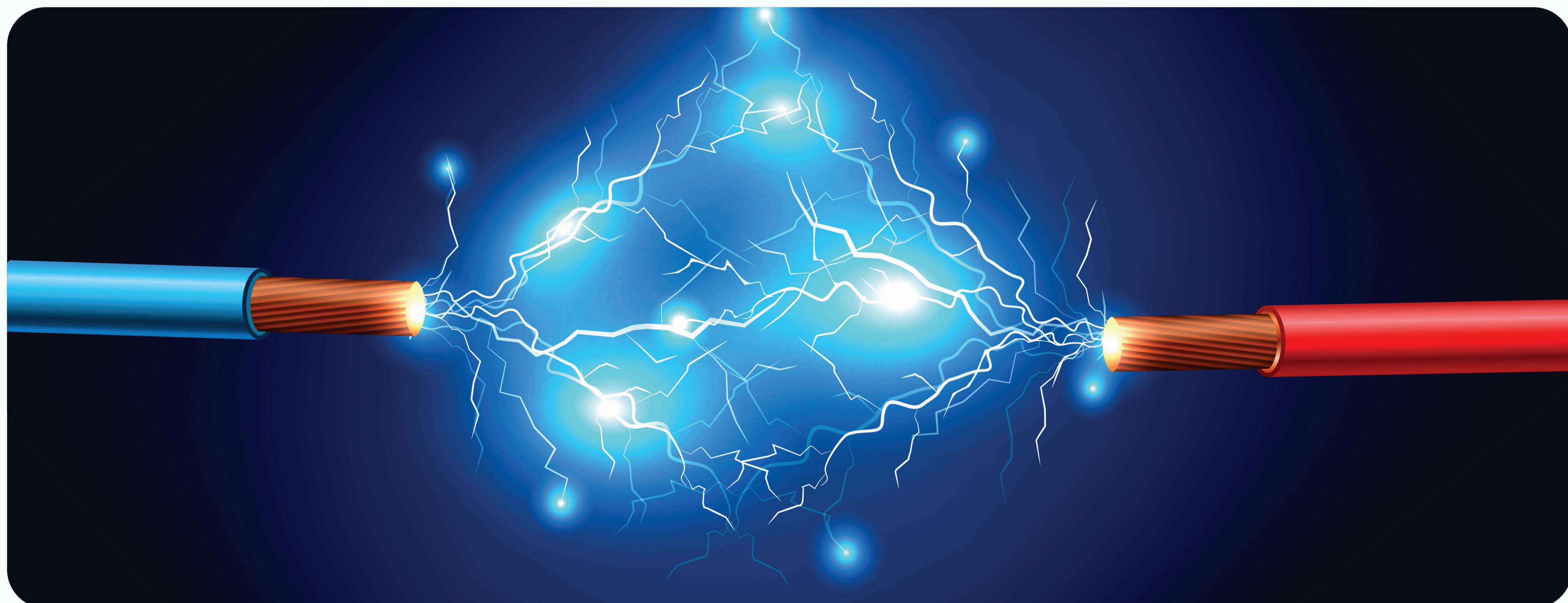
Conductor Area (Sq.mm)	No. of Strands Conductor dia/(mm)	Current Carrying Capacity (AMPS)	Standard Resistance at 20 C (Ohm/Km)	Nominal Thickness of Insulation (mm)	Overall Diameter (mm) (Approx)
1.0	1/1.13	12	18.10	0.7	2.65
1.5	7/0.53	16	12.10	0.7	3.1
2.5	7/0.67	22	7.41	0.8	3.75
4.0	7/0.85	29	4.61	0.8	4.3
6.0	7/1.04	37	3.08	0.8	4.9
10	7/1.35	51	1.83	1.0	6.2
16	7/1.70	60	1.15	1.0	7.3
25	7/2.14	75	0.727	1.2	9.0
35	7/2.52	95	0.524	1.2	10.0
50	19/1.78	125	0.387	1.4	11.9
70	19/2.14	170	0.268	1.4	13.7
95	19/2.52	210	0.193	1.6	15.9
120	37/2.03	235	0.153	1.6	17.6
150	37/2.25	295	0.124	1.8	19.5

## APPLICATIONS

**STANLEY** Flexible wires can be used at 70°C Conductor Temperature.

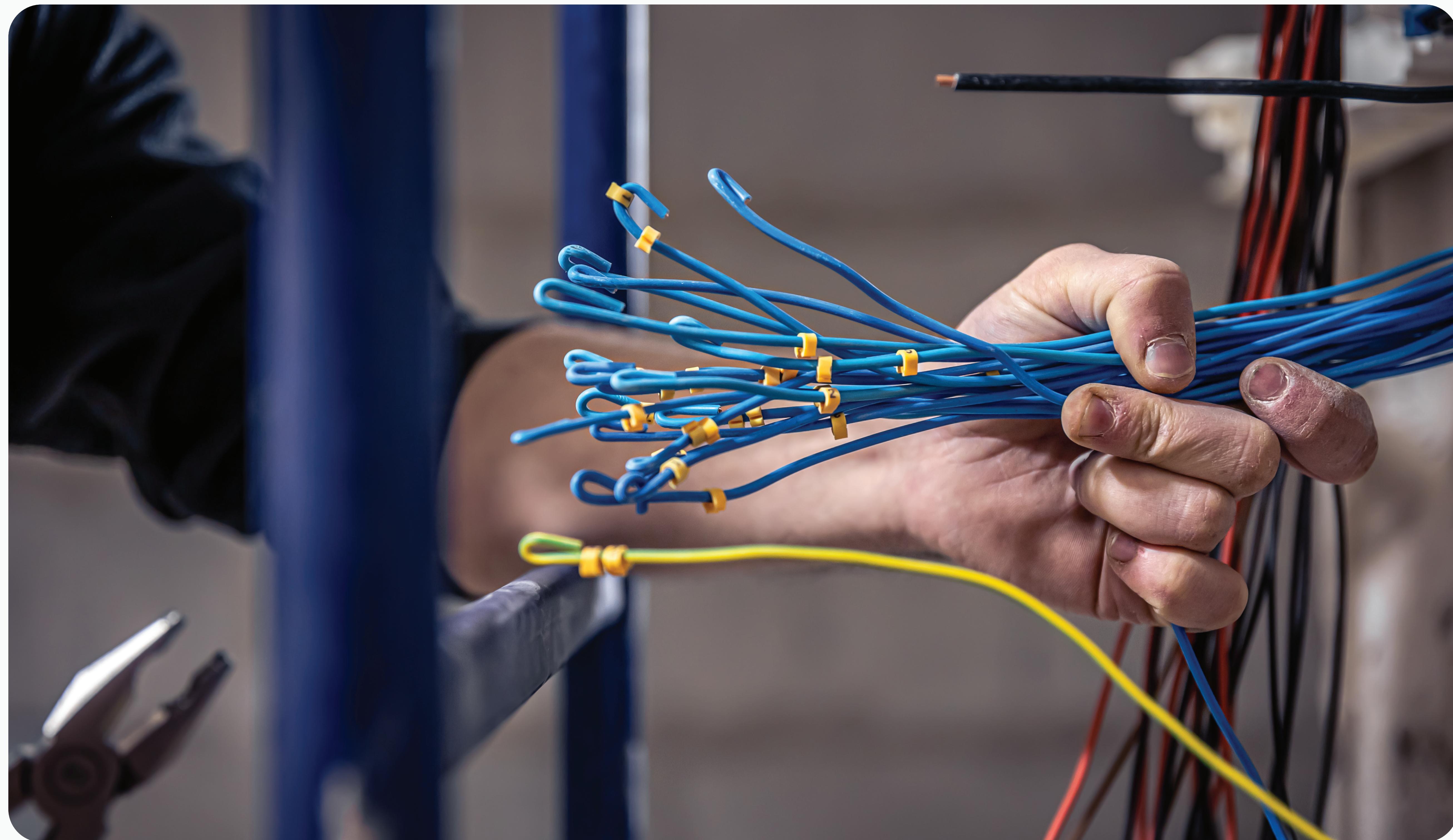
**STANLEY** Flexible wires with HR Insulation can be used at can be used at 85°C.

**STANLEY** FR/FRLS Flexible wires can be used for low smoke, less generation of gas & acid, with self extinguishing & flame retardent properties.



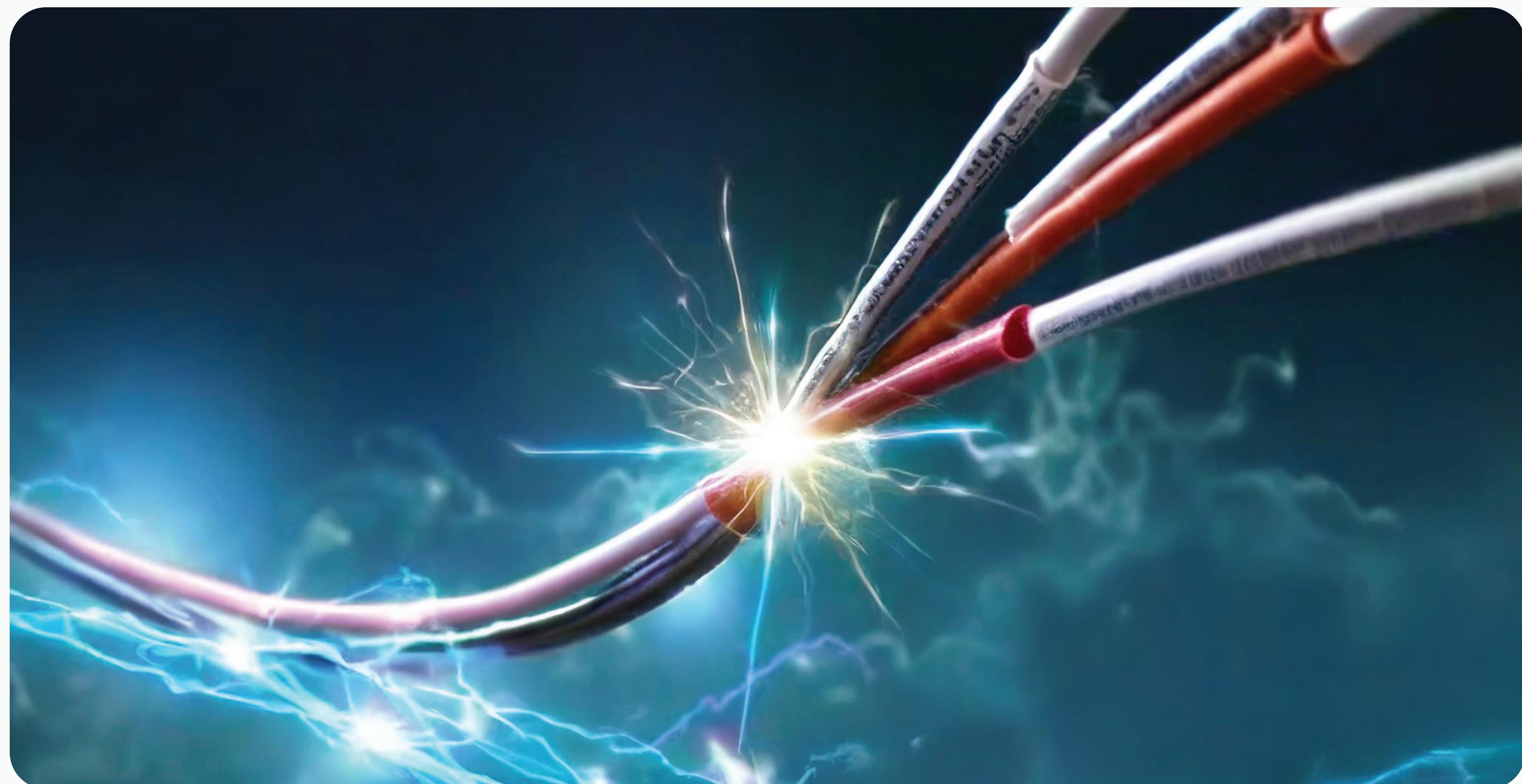
**BB: STANLEY** PVC Insulated Unsheathed Bright Annealed Bare/Flexible Copper Conductor Single Core Unsheathed Wires for Voltage grade upto 1100 volts as per can be used at 70°C Conductor Temperature.

Conductor Area (Sq.mm)	Conductor Construction No./dia mm	Current Carrying Capacity (AMPS)	Nominal Thickness of Insulation (mm)	Max.DC Resistance (OHM/Km) at 20 C	Overall Diameter (mm) (Approx)
0.50	16/0.20	4	0.6	39.0	2.2
0.75	24/0.20	7	0.6	26.0	2.5
1.0	32/0.20	12	0.6	19.5	2.8
1.5	30/0.25	16	0.6	13.3	3.1
2.5	50/0.25	22	0.7	7.98	3.8
4.0	56/0.30	29	0.8	4.95	4.4
6.0	84/0.30	37	0.8	3.30	5.2
10	80/0.40	51	1.0	1.91	6.6
16	126/0.40	68	1.0	1.21	7.8
25	196/0.40	86	1.2	0.780	9.7
35	276/0.40	110	1.2	0.554	10.9
50	396/0.40	145	1.2	0.386	11.5
70	360/0.50	215	1.4	0.272	14.6
95	475/0.50	260	1.6	0.206	16.6
120	608/0.50	305	1.6	0.161	18.5
150	756/0.50	355	1.8	0.129	21.2
185	925/0.50	415	2.0	0.106	24.4
240	1221/0.50	500	2.2	0.0801	27.6
300	1525/0.50	585	2.4	0.0641	31.2
400	2013/0.50	695	2.6	0.0486	35.6
500	2540/0.50	790	2.8	0.0384	38.0



**CC: STANLEY** PVC Insulated, PVC Sheathed Bare/Flexible Copper Conductor Multicore Industrial Cables Voltage Grade 100 Volts as per IS 694-2010.

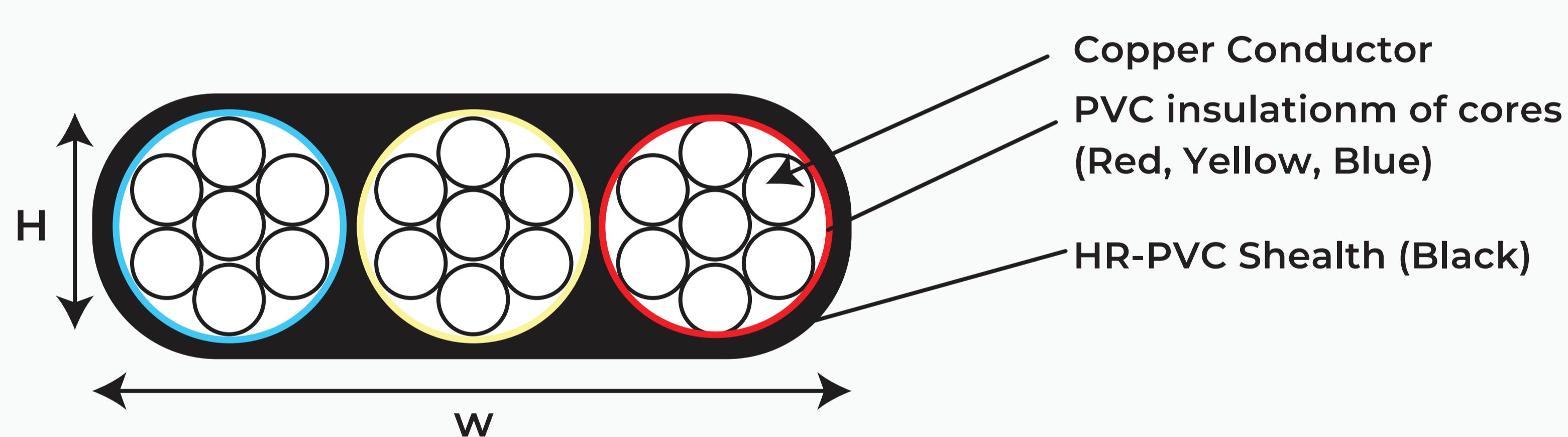
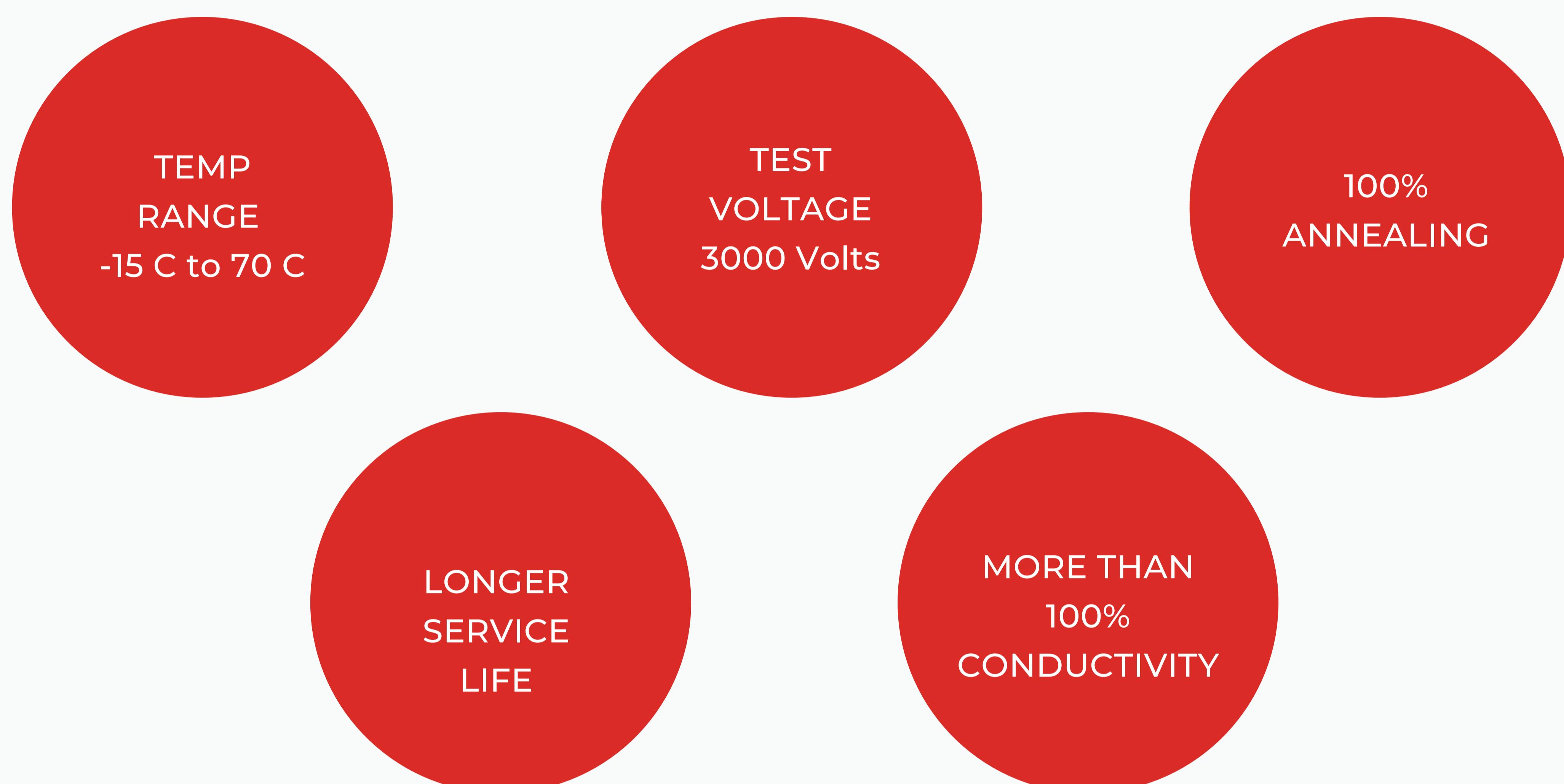
Conductor Area (Sq.mm)	Conductor Construction No./dia mm	Current Carrying Capacity (AMPS)	Max, DC Resistance at 20 °C (OHM/Km)	Nominal Thickness of Insulation (mm)	Outer Sheath Thickness in mm Nominal			Overall Diameter in mm Approx			Current Rating AMP
					2 Core	3 Core	4 Core	2 Core	3 Core	4 Core	
0.50	16/.20	4	39.0	0.6	0.90	0.90	0.90	6.20	6.60	7.20	4
0.75	24/.20	7	26.0	0.6	0.90	0.90	0.90	6.50	6.90	7.60	7
1.0	32/.20	12	19.5	0.6	0.90	0.90	0.90	6.90	7.30	8.20	12
1.5	30/.25	16	13.3	0.6	0.90	0.90	0.90	7.60	8.20	9.30	16
2.5	50/.25	22	7.98	0.7	1.00	1.00	1.00	9.00	9.60	10.50	22
4.0	56/.30	29	4.95	0.8	1.00	1.00	1.00	10.30	10.90	12.30	29
6.0	84/.30	37	3.30	0.8	1.10	1.20	1.20	12.10	12.90	14.30	37
10.	140/.30	51	1.91	1.0	1.30	1.40	1.40	16.20	1720	19.20	51
16.	126/.40	68	1.21	1.0	1.40	1.40	1.40	17.40	18.50	20.60	68
25.	196/.40	86	0.780	1.2	1.40	1.50	1.60	22.40	24.20	26.90	86
35	276/.40	110	0.554	1.2	1.60	1.60	1.70	25.6	27.40	30.50	110
50	396/.40	145	0.386	1.4	2.00	2.00	2.00	30.60	33.00	36.50	145
70	360/.50	215	0.272	1.4	2.20	2.20	2.20	35.00	37.70	41.70	215
95	475/.50	260	0.206	1.6	2.40	2.40	2.40	40.20	43.50	47.80	260
120	608/.50	305	0.161	1.6	2.50	2.50	2.50	43.00	46.50	51.50	305
150	756/0.5	-	0.129	1.8	-	2.60	2.60	-	51.80	57.50	355
185	925/0.5	-	0.106	2.0	-	2.80	2.80	-	57.40	63.70	415
240	1221/0.5	-	0.0801	2.2	-	3.00	3.00	-	65.20	72.30	500
300	1525/0.5	-	0.0641	2.4	-	3.20	3.20	-	72.90	80.90	585



**STANLEY** Multicore Round Flexible Cables (6 Cores to Cores) Generally as per IS:694/2010

Area Sq.mm	0.50	0.75	1.00	1.50	2.50
General Construction no./dia	16/0.2	24/0.2	32/0.2	30/0.25	50/0.25
Conductor Dia in MM	0.90	1.10	1.30	1.60	2.00
Avg.Insu. Thickness in MM	0.60	0.60	0.60	0.60	0.70
Core Dia in mm (Approx)	2.20	2.50	2.60	2.90	3.50
<b>No. of Cores</b>					
6	Avg. Sheath thickness MM App. Overall Dia MM	0.9 8.5	1.0 9.5	1.0 9.8	1.0 10.7
7	Avg. Sheath thickness MM App. Overall Dia MM	0.9 8.5	1.0 9.5	1.0 9.8	1.0 10.7
8	Avg. Sheath thickness MM App. Overall Dia MM	1.0 9.3	1.0 10.4	1.0 10.7	1.0 11.9
10	Avg. Sheath thickness MM App. Overall Dia MM	1.0 10.8	1.1 12.2	1.1 12.6	1.1 13.8
12	Avg. Sheath thickness MM App. Overall Dia MM	1.0 11.2	1.1 12.6	1.1 13.0	1.1 14.3
14	Avg. Sheath thickness MM App. Overall Dia MM	1.1 12.0	1.1 13.3	1.1 13.7	1.1 15.2
16	Avg. Sheath thickness MM App. Overall Dia MM	1.1 12.6	1.2 14.2	1.2 14.6	1.2 16.0
19	Avg. Sheath thickness MM App. Overall Dia MM	1.1 13.2	1.2 14.9	1.2 15.6	1.2 17.1
24	Avg. Sheath thickness MM App. Overall Dia MM	1.2 15.6	1.3 17.6	1.3 18.2	1.3 20.2
30	Avg. Sheath thickness MM App. Overall Dia MM	1.3 16.8	1.3 18.7	1.3 19.3	1.3 21.5
	Max. Conductor Resistance in Ohm/Km at 20 deg.C	39.0	26.0	19.5	13.3
	Recommended Current Rating in AMP	4	7	12	16
					22

# 3 CORE FLAT PVC INDUSTRIAL CABLES



Conductor	Insulation	Sheath Overall Dimensions	Conductor Resistance @ 20 C(MAX) Ohm/Km.	Current Carrying Capacity @ 40 C(AMP.)
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Area (Nom.) Sq. mm	No. /size of Wires mm	Thickness (Nom.) mm	Thickness (Nom.) mm	Width "W" mm	Thickness "T" mm
1.5	22/03*	0.6	0.90	11.20	5.40
2.5	36/0.3*	0.7	1.00	13.50	6.20
4.0	56/0.3*	0.8	1.00	15.20	6.50

3 Core Flat Cables as per IS:694:201 with ISI mark

\*As per conductor Class 2 of IS:8130:2013

\*\*As per conductor class 5 of IS:8130:2013

Conductor	Insulation	Sheath Overall Dimensions			Conductor Resistance @ 20 C(MAX) Ohm/Km.	Current Carrying Capacity @ 40 C(AMP.)
Area (Nom.) Sq. mm	No. /size of Wires mm	Thickness (Nom.) mm	Thickness (Nom.) mm	Width "W" mm	Thickness "T" mm	
6.0	84/0.3	1.0	1.15	17.30	7.60	31
10.0	140/0.3	1.0	1.40	23.70	9.90	42
16.0	126/0.40	1.0	1.40	24.50	10.70	57
25.0	196/0.40	1.2	2.00	30.60	13.50	72
35.0	276/0.40	1.2	2.00	34.40	14.70	90

Selection Guide for 3 Core Flat Cables

Notes:

- The number of wires is approximate and wire diameter nominal they shall be such as to meet the requirement specified in IS:8130/2013 4Core and 5 Core cables are available on request.
- Insulation Thickness Sheath Thickness Overall Dimensions given in this table are nominal values.

#### HP vs Current: The Full load current for submersible pump motors, 3 phase, 50 cycle, 415-425V

HP	5.0	7.5	10.0	12.5	15.0	17.5	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0
Amp.	7.5	11.0	14.9	18.9	22.5	25.2	28.4	35.6	42.3	50.4	58.1	62.1	67.5	73.8	81.0	87.3	93.6	100.80	108.00

#### Derating factors : Multiply the current capacity of the cable by factors given below for various ambient temperature

Ambients Temperature	30	35	40	45	50
Operating Factor	1.09	1.04	1.00	0.95	0.77

Notes:

- Supplied in 500(+5%) meter packing on Bags and Drums. Can also supplies in 100m 300 mtr. 1000 m packing on request.
- The strand diameter is nominal however, construction of conductor is design to satisfy the requirements of conductor resistance as per IS:8130: 1964



Address Manufactured By:

B-46/1, 1st 2nd & 3rd Floor, Jhilmil Industrial Area, Shahdara, Delhi-110095