# Polycab offers a comprehensive range of industrial cable in compliance with BIS specification & standard.



These are low voltage cable of 1100 V grade and widely used in building, Hospitals, Industrial parks and schools for major power supply. These cables are available with thermoplastic PVC compound having temperature rating of 70° C to 85°C.

**Conductor:** High conductivity annealed plain bunched/stranded copper conductor produced inhouse from state-of-the art Contirod line.

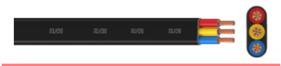
**Insulation**: Inhouse developed high insulation resistance thermoplastic PVC compound.

**Sheath:** The insulated cores are laid up to form circular core assembly, sheathing is provided with specially formulated PVC compound to facilitate stripping and withstand mechanical abrasion while in use.

Polycab assures the highest quality standard in every product by having stringent quality control with requisite testing which are applied at every single stage from raw material to finished goods.

The construction is based on the application and requirement of the user against IS 694.





POLYCAB 02YY-K Submersible - Industrial cables, 1100 V AC



POLYCAB 01Y-K FLAT & TWISTED - Twin twisted & Flat, 1100 V AC

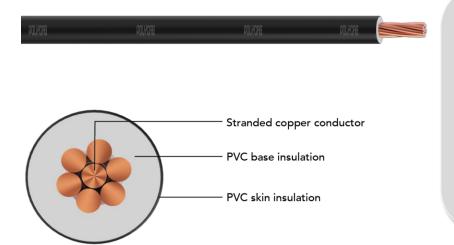


POLYCAB 02YY-K - Industrial cable, 1100 V AC

## POLYCAB 01Y-R SC

## **Industrial Cables 1100 V AC**





#### Salient Features:

- ✓ Optimised current carrying capacity
- ✓ Fire retardant and safe for protection
- ✓ Low emission of toxic gases
- ✓ Low carbon emission
- ✓ Low volatile organic content less contamination
- ✓ High conductivity electrolytic copper conductor

## **Application**

POLYCAB 01Y-R SC PVC cable, PVC insulated unsheathed cable confirming to IS 694 is suitable to use in electric power, lighting & panel wiring for indoor use in AC single phase or three phase (earthed or unearthed) systems with rated voltage up to and including 1100 V. This cable is also suitable for DC systems with rated voltage up to and including 1500 V to earth.

## **Voltage Rating**

1100 V

## **Operation Temperature**

Fixed: -15°C to 70° C

## **Construction**

- Annealed stranded plain copper conductor as per IS 8130, class 2
- Insulated with FR-PVC Type A as per IS 5831

#### **Core Identification**

Red/Black/Blue/Yellow/White/Grey.

### **Bending Radius**

4 x Overall Diameter Fixed Occasional 6 x Overall Diameter

#### **Standard and References**

IS 8130 IS 5831 IS 694 IEC 60332-1-2

## **Test Voltage**

3kV AC

### **Compliance**

Conductor resistance - IS 8130 Insulation resistance - IS 5831:1984 Flammability test - IEC 60332-1-2

Anti-Termite and anti-Rodent

#### **Approvals**





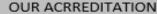


#### Note:

- The above cable is also available in HR PVC insulation with maximum operating temperature of 85°C.
- Outer sheath with additional properties of FR & FRLSH are also available.
- The cable is also available with tinned copper conductor.











## POLYCAB 01Y-R SC



## **Industrial Cables 1100 V AC**

Product Code	Nominal cross- sectional area mm²	insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.)
LDIS09CYUAYF001C001S	1	0.7	2.70	15
LDIS09CYUAYF001C1.5S	1.5	0.7	3.00	21
LDIS09CYUAYF001C2.5S	2.5	0.8	3.60	32
LDIS09CYUAYF001C004S	4	0.8	4.20	49
LDIS09CYUAYF001C006S	6	0.8	4.70	68
LDIS09CYUAYF001C010S	10	1	6.10	114
LDIS09CYUAYF001C016S	16	1	7.10	171
LDIS09CYUAYF001C025S	25	1.2	8.90	270
LDIS09CYUAYF001C035S	35	1.2	10.00	364
LDIS09CYUAYF001C050S	50	1.4	11.90	519
LDIS09CYUAYF001C070S	70	1.4	13.50	706
LDIS09CYUAYF001C095S	95	1.6	15.70	959
LDIS09CYUAYF001C120S	120	1.6	17.30	1198
LDIS09CYUAYF001C150S	150	1.8	19.30	1497
LDIS09CYUAYF001C185S	185	2	21.50	1848
LDIS09CYUAYF001C240S	240	2.2	24.30	2387
LDIS09CYUAYF001C300S	300	2.4	27.10	2981
LDIS09CYUAYF001C400S	400	2.6	30.80	3927
LDIS09CYUAYF001C500S	500	2.8	34.40	4929
LDIS09CYUAYF001C630S	630	3	38.30	6188



## POLYCAB 01Y-R SC



## **Industrial Cables 1100 V AC**

## **Electrical Characteristics**

Current carrying capacity and maximum DC conductor resistance.

	Refer meth				Reference			e air or on a poal or vertical)	erforated	
Nominal	enclos condu wall trunkii	sed in it on a or in	Reference C (clippe			Touching	HOHZOH	Spaced by one meter		Maximum DC
cross sectional area	2 cables single	3 or 4 cables three	2 cables single phase AC or	3 or 4 cables three phase	2 cables single phase	3 cables three	3 cables three	2 cables , phase AC or cables thre AC f	r DC or 3 ee phase	conductor resistance at 20°C
	phase AC or DC	phase AC	DC flat and touching	AC flat and touching or trefoil	AC or DC flat	phase AC flat	phase AC trefoil	Horizontal	Vertical	
mm²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp. Amp.		Ω/km
1	12	10	13	12	-	-	-	-	-	18.1
1.5	15	13	17	16	-	-	-	-	-	12.1
2.5	21	18	23	22	-	-	-	-	-	7.41
4	28	24	32	29	-	-	-	-	-	4.61
6	36	31	41	37	-	-	-	-	-	3.08
10	50	44	57	51	-	-	-	-	-	1.83
16	66	59	76	69	-	-	-	-	-	1.15
25	88	77	99	90	114	99	96	127	113	0.727
35	109	96	123	112	141	124	119	157	141	0.524
50	131	117	158	145	171	151	145	191	171	0.387
70	167	149	204	186	218	196	188	244	221	0.268
95	202	180	247	227	264	239	230	297	271	0.193
120	234	208	287	264	306	279	268	345	315	0.153
150	261	228	331	304	353	324	310	397	365	0.124
185	297	258	379	348	403	371	356	453	418	0.0991
240	348	301	448	411	475	441	422	535	495	0.0754
300	398	343	517	474	547	511	488	617	573	0.0601
400	475	406	604	552	656	599	571	741	692	0.047
500	545	464	689	629	755	686	652	854	800	0.0366
630	626	532	786	719	874	787	744	990	931	0.0283

Ambient temperature: 40°C

Conductor operating temperature: 70°C

The above table is in accordance with BS 7671(Table 4D1A)

## **De-Rating Factor**

De-rating factor at various air temperature.

Ambient Temperature	45°C	50°C	55°C	60°C	65°C
De-Rating Factor	0.91	0.82	0.71	0.58	0.41



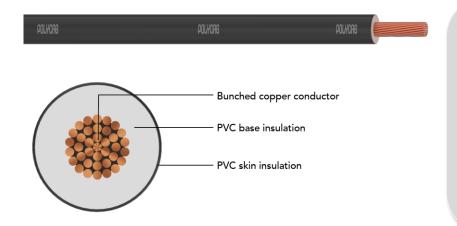








## Industrial Flexible Cables 1100 V AC



#### Salient Features:

- ✓ Optimised current carrying capacity
- ✓ Fire retardant and safe for protection
- ✓ Low emission of toxic gases
- ✓ Low carbon emission
- ✓ Low volatile organic content less contamination
- ✓ High conductivity electrolytic copper conductor

### **Application**

POLYCAB 01Y-K SC, PVC insulated unsheathed cable confirming to IS 694 is suitable to use in electric power, lighting & panel wiring for indoor and outdoor use in AC single phase or three phase (earthed or unearthed) systems with rated voltage up to and including 1100 V. This cable is also suitable for DC systems with rated voltage up to and including 1500 V to earth.

## **Voltage Rating**

1100 V

## **Operation Temperature**

Fixed: -15°C to 70° C

#### Construction

- Annealed bunched copper conductor as per IS 8130, class 5
- Insulated with FR-PVC Type D as per IS 5831

#### **Core Identification**

Red/Black/Blue/Yellow/White/Grey.

## **Bending Radius**

Fixed 4 x Overall Diameter Occasional 6 x Overall Diameter

### **Standard and References**

IS 8130 IS 5831 IS 694 IEC 60332-1-2

## **Test Voltage**

3kV AC

### **Compliance**

Conductor resistance - IS 8130 Insulation resistance - IS 5831:1984 - IEC 60332-1-2 Flammability test

Anti-Termite and anti-Rodent

**Approval** 







### Note:

- The above cable is also available in HR PVC insulation with maximum operating temperature of 85°C.
- Outer sheath with additional properties of FR & FRLSH are also available.
- The cable is also available with tinned copper conductor.















## **Industrial Flexible Cables 1100 V AC**

Product Code	Nominal cross sectional area mm <sup>2</sup>	insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.)
LDIS09CYUAYF001C0.5S	0.5	0.6	2.10	9
LDIS09CYUAYF001C.75S	0.75	0.6	2.30	11
LDIS09CYUAYF001C001S	1	0.6	2.50	14
LDIS09CYUAYF001C1.5S	1.5	0.6	2.80	19
LDIS09CYUAYF001C2.5S	2.5	0.7	3.40	31
LDIS09CYUAYF001C004S	4	0.7	4.00	46
LDIS09CYUAYF001C006S	6	0.7	4.50	65
LDIS09CYUAYF001C010S	10	1	6.10	114
LDIS09CYUAYF001C016S	16	1	7.10	171
LDIS09CYUAYF001C025S	25	1.2	8.80	264
LDIS09CYUAYF001C035S	35	1.2	10.00	362
LDIS09CYUAYF001C050S	50	1.4	11.90	517
LDIS09CYUAYF001C070S	70	1.4	13.60	711
LDIS09CYUAYF001C095S	95	1.6	15.70	961
LDIS09CYUAYF001C120S	120	1.6	17.30	1199
LDIS09CYUAYF001C150S	150	1.8	19.20	1474
LDIS09CYUAYF001C185S	185	2	21.50	1851
LDIS09CYUAYF001C240S	240	2.2	24.20	2369
LDIS09CYUAYF001C300S	300	2.4	27.10	2984







## **POLYCAB 01Y-K SC**



## **Industrial Flexible Cables 1100 V AC**

## **Electrical Characteristics**

Current carrying capacity and maximum DC conductor resistance.

	Refer metho	od B(			Reference method F (in free air or on a perforated cable tray horizontal or vertical)						
Nominal	enclos condu wall trunkin	it on a or in		method C d direct)		Touching	5	Spaced by one meter		Maximum DC	
cross- sectional area	2 cables single phase AC or	3 or 4 cables three phase	2 cables single phase AC or DC flat	3 or 4 cables three phase AC flat and	cables single phase AC or	3 cables three phase AC	3 cables three phase AC	2 cables phase ADC or 3 three phase fla	AC or cables ase AC	conductor resistance at 20°C	
	DC	AC	and touching	touching or trefoil	DC flat	flat	trefoil	Hori zontal	Verti cal		
mm²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Ω/km	
0.5	4	3.6	4	3.6	-	-	-	-	-	39	
0.75	7	6	7	6	-	-	-	-	-	26	
1	11	10	13	12	-	-	-	-	-	19.5	
1.5	14	13	17	15	-	ı	-	1	-	13.3	
2.5	20	17	22	21	-	ı	-	1	-	7.98	
4	26	23	31	27	-	ı	-	1	-	4.95	
6	34	30	39	36	-	-	-	-	-	3.3	
10	47	41	54	49	-	-	-	-	-	1.91	
16	63	56	72	65	-	-	-	-	-	1.21	
25	85	75	96	88	111	96	93	123	110	0.78	
35	105	93	119	109	137	121	116	153	137	0.554	
50	127	113	154	141	165	147	141	185	166	0.386	
70	162	144	197	181	212	190	182	237	214	0.272	
95	196	175	240	220	257	232	223	288	262	0.206	
120	227	202	278	256	297	271	260	334	305	0.161	
150	253	221	322	295	343	314	300	385	354	0.129	
185	288	250	368	338	391	360	345	440	405	0.106	
240	338	292	435	398	461	428	409	519	480	0.0801	
300	387	332	501	460	531	495	473	598	556	0.0641	

Ambient temperature: 40°C,

Conductor operating temperature: 70°C

The above table is in accordance with BS 7671 (Table 4D1A)

## **De-Rating Factor**

De-rating factor at various ambient temperature other than 40°C.

Ambient Temperature	35°C	40°C	45°C	50°C	55°C	60°C	65°C
De-Rating Factor	1.08	1	0.91	0.82	0.7	0.57	0.4







