Polycab, single core halogen free cross linked non-sheathed cable conforming to BS EN 50525-3-41 standard.

These are flexible fire performance cable with halogen free cross linked thermoset insulation having low emission of smoke and corrosive gases when exposed to fire. These are low voltage energy cable of voltage rating up to and including 450/750 V conforms the construction and performance of halogen free cross-linked thermoplastic insulated cable as per BS EN 50525-3-41.

These cables are available with maximum conductor operating temperature of 90˚C suitable to use for fixed installation with mechanical protection, within switch gear, control gear.

Conductor: High conductivity annealed solid, stranded or bunched copper conductor produced in-house from state-of-the art machine.

Insulation: In-house developed heat resistant halogen free cross linked thermoset compound having low emission of smoke and corrosive gases.

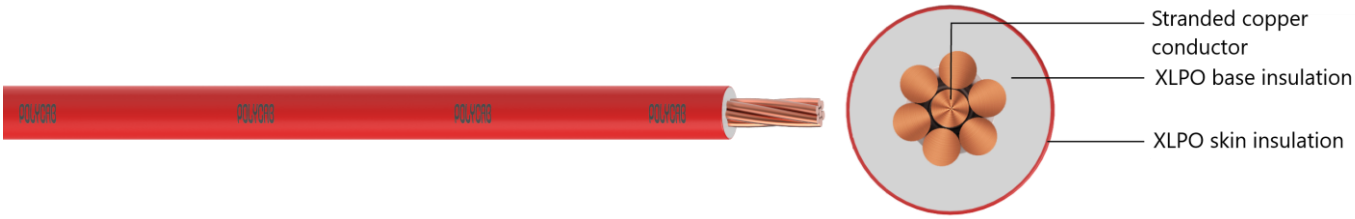
The construction based on the application and requirement of the user against BS EN 50525-3-41.

POLYCAB H07Z-R BS EN 50525-3-41 SC - Industrial Cable, 450/750 V AC

POLYCAB H05Z-K/H07Z-K BS EN 50525-3-41 SC - Industrial Cable, 300/500 & 450/750 V AC

POLYCAB H05Z-U/H07Z-U BS EN 50525-3-41 SC - Industrial Cable, 300/500 & 450/750 V AC

POLYCAB H07Z-R BS EN 50525-3-41
Industrial Cable, 450/750 V AC



Application
POLYCAB H07Z-R BS EN 50525-3-41 SC stranded copper conductor insulated with halogen free cross-linked compound with low smoke emission and corrosive gases when exposed to fire condition, fulfils the requirement of BS EN 50525-3-41. This Cable is intended to use for fixed wiring application in electric panels and switch boards.

Voltage Rating
450/750 V

Operation Temperature
Fixed: 0˚C to 90˚ C

Construction
- Annealed stranded copper conductor as per IEC 60228, class 2
- Insulated with cross linked polyolefin material Type EI 5 to EN 50363-5

Core Identification
Black/Blue/Brown/Grey/Orange/Pink/Red /Turquoise/Violet/White

Bending Radius
Fixed installation – 8 x Overall Dia.

Standard and References
IEC 60228
BS EN 50363-5
BS EN 50525-3-41
IEC 60332-1-2

Test Voltage
2500V AC at (20±5) °C

Compliance

Conductor resistance test	- IEC 60228
Insulation resistance	- EN 50525-3-41
Smoke emission test	- EN 61034-2
Test on vertical flame	- EN 60332-1-2

Flame retardant properties as per IEC 60332-1-2

Approval

POLYCAB H07Z-R BS EN 50525-3-41

Industrial Cable, 450/750 V AC

Product Code	Nominal cross sectional area mm²	Minimum insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.) kg/km	POLYCAB/DOWEL Gland Size
LDBS06CLUALC001C1.5S	1.5	0.7	2.99	21	-
LDBS06CLUALC001C2.5S	2.5	0.8	3.61	32	-
LDBS06CLUALC001C004S	4	0.8	4.18	48	-
LDBS06CLUALC001C006S	6	0.8	4.72	67	-
LDBS06CLUALC001C010S	10	1	6.05	112	DBW - 01SS (UN)
LDBS06CLUALC001C016S	16	1	7.10	169	DBW - 01SS (UN)
LDBS06CLUALC001C025S	25	1.2	8.82	266	DBW - 01SS (UN)
LDBS06CLUALC001C035S	35	1.2	9.96	360	DBW - 01SS (UN)
LDBS06CLUALC001C050S	50	1.4	11.95	514	DBW - 01SS (UN)
LDBS06CLUALC001C070S	70	1.4	13.60	701	DBW - 01S (UN)
LDBS06CLUALC001C095S	95	1.6	15.80	952	DBW - 01A (UN)
LDBS06CLUALC001C120S	120	1.6	17.41	1189	DBW - 02 (UN)
LDBS06CLUALC001C150S	150	1.8	19.49	1488	DBW - 02 (UN)
LDBS06CLUALC001C185S	185	2	21.64	1834	DBW - 02 (UN)
LDBS06CLUALC001C240S	240	2.2	24.49	2371	DBW - 04A (UN)
LDBS06CLUALC001C300S	300	2.4	27.3	2960	DBW - 05A (UN)
LDBS06CLUALC001C400S	400	2.6	31.12	3907	DBW - 06 SP (UN)
LDBS06CLUALC001C500S	500	2.8	34.67	4897	DBW - 07 SP (UN)
LDBS06CLUALC001C630S	630	2.8	38.27	6123	DBW - 08 (UN)

- DBW – Weather proof series

POLYCAB H07Z-R BS EN 50525-3-41

Industrial Cable, 450/750 V AC

Electrical Characteristics

Current carrying capacity and Max DC conductor resistance.

Nominal cross sectional area	Reference Method A (enclosed in conduit in thermally insulating wall etc.)		Reference Method B (enclosed in conduit on a wall or in trunking etc.)		Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray etc horizontal or vertical etc.)			Reference Method G (in free air)		Maximum DC conductor resistance at 20˚C
					Spaced by one cable diameter		Touching			Spaced by one cable diameter		
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat	3 cables, three-phase a.c. flat	3 cables, three-phase a.c. trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c. flat		
										Horizontal	Vertical	
mm²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Ω/km
1	14	13	17	15	19	17.5	–	–	–	–	–	18.1
1.5	19	17	23	20	25	23	–	–	–	–	–	12.1
2.5	26	23	31	28	34	31	–	–	–	–	–	7.41
4	35	31	42	37	46	41	–	–	–	–	–	4.61
6	45	40	54	48	59	54	–	–	–	–	–	3.08
10	61	54	75	66	81	74	–	–	–	–	–	1.83
16	81	73	100	88	109	99	–	–	–	–	–	1.15
25	106	95	133	117	143	130	161	141	135	182	161	0.727
35	131	117	164	144	176	161	200	176	169	226	201	0.524
50	158	141	198	175	228	209	242	216	207	275	246	0.387
70	200	179	253	222	293	268	310	279	268	353	318	0.268
95	241	216	306	269	355	326	377	342	328	430	389	0.193
120	278	249	354	312	413	379	437	400	383	500	454	0.153
150	318	285	393	342	476	4036	504	464	444	577	527	0.124
185	362	324	449	384	545	500	575	533	510	661	605	0.0991
240	424	380	528	450	644	590	679	634	607	781	719	0.0754
300	486	435	603	514	743	681	783	736	703	902	833	0.0601
400	–	–	683	584	868	793	940	868	823	1,085	1,008	0.047
500	–	–	783	666	990	904	1,083	998	946	1,253	1,169	0.0366
630	–	–	900	764	1,130	1,033	1,254	1,151	1,088	1,454	1,362	0.0283

The ambient temperature is 30°C.
Conductor operating temperature 90°C.
The above table is in accordance with Table 4E1A of BS 7671:2018

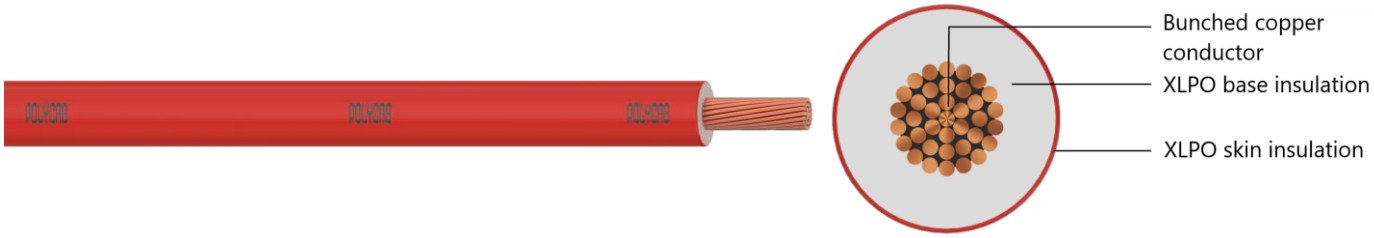
De-Rating Factor

De-rating factor for 90˚C thermosetting insulated cable

Air Temperature	35˚C to 50˚C	55˚C	60˚C	65˚C	70˚C
De-Rating Factor	1	0.96	0.83	0.67	0.47

POLYCAB H05Z-K/H07Z-K BS EN 50525-3-41 SC

Industrial Cable, 300/500 & 450/750 V AC



Application

POLYCAB H05Z-K/H07Z-K bunched copper conductor, insulated with halogen free cross-linked compound with low smoke emission and corrosive gases when exposed to fire condition fulfils the requirement of BS EN 50525-3-41. This Cable is intended to use for fixed wiring application in electrical panels.

Voltage Rating

H05Z-K - 300/500 V
H07Z-K - 450/750 V

Operation Temperature

Fixed: 0˚C to 90˚ C

Construction

- Annealed stranded copper conductor as per IEC 60228, class 5
- Insulated with cross linked polyolefin Type EI 5 to EN 50363-5

Core Identification

Black/Blue/Brown/Grey/Orange/Pink/Red
Turquoise/Violet/White/Green/Yellow

Bending Radius

Fixed installation – 8 x Overall Dia.

Standard and References

IEC 60228
BS EN 50363-5
BS EN 50525-3-41
IEC 60332-1-2

Test Voltage

H05Z-K - 2000V AC at (20±5) °C
H07Z-K - 2500V AC at (20±5) °C

Compliance

Conductor resistance test	- IEC 60228
Insulation resistance	- EN 50525-3-41
Smoke emission test	- EN 61034-2
Test on vertical flame	- EN 60332-1-2

Flame retardant properties as per IEC 60332-1-2

Approval

POLYCAB H05Z-K/H07Z-K BS EN 50525-3-41 SC

Industrial Cable, 300/500 & 450/750 V AC

Dimension:

Dimensions for H05Z-K

Product Code	Nominal cross sectional area mm²	No. of wire/wire dia No./mm	Minimum insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.) kg/km
LDBS04CLUALC001C0.5S	0.5	16/0.2	0.6	2.11	8
LDBS04CLUALC001C.75S	0.75	24/0.2	0.6	2.32	11
LDBS04CLUALC001C001S	1	32/0.2	0.6	2.49	14

Dimensions for H07Z-K

Product Code	Nominal cross sectional area mm²	No. of wire/wire dia No./mm	Minimum insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.) kg/km	POLYCAB/DOWEL Gland Size
LDBS06CLUALC001C1.5S	1.5	30/0.25	0.7	2.96	20	-
LDBS06CLUALC001C2.5S	2.5	50/0.25	0.8	3.62	31	-
LDBS06CLUALC001C004S	4	56/0.3	0.8	4.16	47	-
LDBS06CLUALC001C006S	6	84/0.3	0.8	4.73	67	-
LDBS06CLUALC001C010S	10	80/0.4	1	6.08	112	DBW - 01SS (UN)
LDBS06CLUALC001C016S	16	126/0.4	1	7.12	169	DBW - 01SS (UN)
LDBS06CLUALC001C025S	25	196/0.4	1.2	8.78	261	DBW - 01SS (UN)
LDBS06CLUALC001C035S	35	276/0.4	1.2	9.98	358	DBW - 01SS (UN)
LDBS06CLUALC001C050S	50	396/0.4	1.4	11.87	511	DBW - 01SS (UN)
LDBS06CLUALC001C070S	70	356/0.5	1.4	13.55	703	DBW - 01S (UN)
LDBS06CLUALC001C095S	95	484/0.5	1.6	15.74	954	DBW - 01A (UN)
LDBS06CLUALC001C120S	120	610/0.5	1.6	17.28	1189	DBW - 02 (UN)
LDBS06CLUALC001C150S	150	750/0.5	1.8	19.21	1464	DBW - 02 (UN)
LDBS06CLUALC001C185S	185	942/0.5	2	21.49	1837	DBW - 02 (UN)
LDBS06CLUALC001C240S	240	1210/0.5	2.2	24.23	2353	DBW - 04A (UN)

- DBW – Weatherproof series

POLYCAB H05Z-K/H07Z-K BS EN 50525-3-41 SC
Industrial Cable, 300/500 & 450/750 V AC

Electrical Characteristics

Current carrying capacity and maximum DC conductor resistance.

Nominal cross sectional area	Reference Method A (enclosed in conduit in thermally insulating wall etc.)		Reference Method B (enclosed in conduit on a wall or in trunking etc.)		Reference Method F (in free air or on a perforated cable tray etc horizontal or vertical etc.)			Reference Method G (in free air)		Max. DC conductor resistance at 20˚C Ω/km
					Touching			Spaced by one cable diameter		
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c. flat	3 cables, three-phase a.c. flat	3 cables, three-phase a.c. trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c. flat		
								Horizontal	Vertical	
mm²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	
1	14	13	17	15	19	17.5	–	–	–	19.5
1.5	19	17	23	20	–	–	–	–	–	13.3
2.5	26	23	31	28	–	–	–	–	–	7.98
4	35	31	42	37	–	–	–	–	–	4.95
6	45	40	54	48	–	–	–	–	–	3.3
10	61	54	75	66	–	–	–	–	–	1.91
16	81	73	100	88	–	–	–	–	–	1.21
25	106	95	133	117	161	141	135	182	161	0.78
35	131	117	164	144	200	176	169	226	201	0.554
50	158	141	198	175	242	216	207	275	246	0.386
70	200	179	253	222	310	279	268	353	318	0.272
95	241	216	306	269	377	342	328	430	389	0.206
120	278	249	354	312	437	400	383	500	454	0.161
150	318	285	393	342	504	464	444	577	527	0.129
185	362	324	449	384	575	533	510	661	605	0.106
240	424	380	528	450	679	634	607	781	719	0.0801

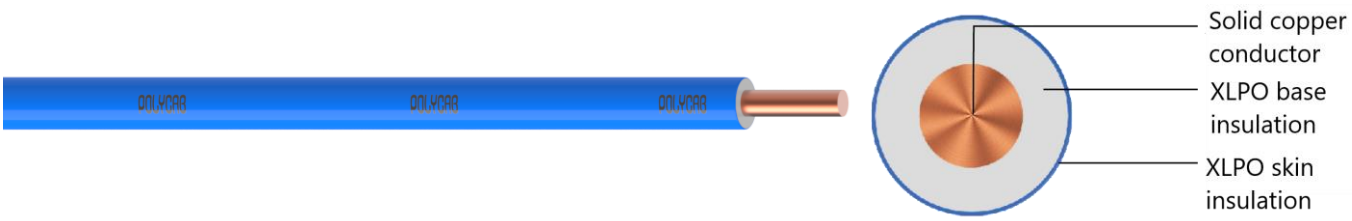
The ambient temperature is 30°C.
Conductor operating temperature 90°C.
The above table is in accordance with Table 4E1A of BS 7671:2018

De-Rating Factor

De-rating factor for 90˚C thermosetting insulated cable

Air Temperature	35˚C to 50˚C	55˚C	60˚C	65˚C	70˚C
De-Rating Factor	1	0.96	0.83	0.67	0.47

POLYCAB H05Z-U/H07Z-U BS EN 50525-3-41 SC
Industrial Cable, 300/500 & 450/750 V AC



Application
POLYCAB H05Z-U/H07Z-U BS EN 50525-3-41 SC, insulated with halogen free cross-linked compound and having low smoke emission and corrosive gases when exposed to fire condition. This cable fulfils the requirement of BS EN 50525-3-41. This Cable intended for fixed wiring application.

Voltage Rating
H05Z-U - 300/500 V
H07Z-U - 450/750 V

Operation Temperature
Fixed: 0˚C to 90˚ C

Construction
- Annealed stranded copper conductor as per IEC 60228, class 1
- Insulated with cross linked polyolefin Type EI 5 to EN 50363-5

Core Identification
Black/Blue/Brown/Grey/Orange/Pink/Red /Turquoise/Violet/White/Green/Yellow

Bending Radius
Fixed installation – 8 x Overall Dia.

Standard and References
IEC 60228
BS EN 50363-5
BS EN 50525-3-41
IEC 60332-1-2

Test Voltage
H05Z-U - 2000V AC at (20±5) °C
H07Z-U - 2500V AC at (20±5) °C

Compliance
Conductor resistance test	- IEC 60228
Insulation resistance	- EN 50525-3-41
Smoke emission test	- EN 61034-2
Test on vertical flame	- EN 60332-1-2

Flame retardant properties as per IEC 60332-1-2

Approval

POLYCAB H05Z-U/H07Z-U BS EN 50525-3-41 SC
Industrial Cable, 300/500 & 450/750 V AC

Dimension:

Dimensions for H05Z-U

Product basic code	Nominal cross sectional area mm²	Minimum insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.) kg/km
LDBS04CLUALC001C0.5S	0.5	0.6	2.00	8
LDBS04CLUALC001C.75S	0.75	0.6	2.20	11
LDBS04CLUALC001C001S	1	0.6	2.40	15

Dimensions for H07Z-U

Product basic code	Nominal cross sectional area mm²	Minimum insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.) kg/km
LDBS06CLUALC001C1.5S	1.5	0.7	2.80	20
LDBS06CLUALC001C2.5S	2.5	0.8	3.40	32
LDBS06CLUALC001C004S	4	0.8	3.90	48
LDBS06CLUALC001C006S	6	0.8	4.40	68
LDBS06CLUALC001C010S	10	1.0	5.60	111

Electrical Characteristics

Current carrying capacity and Max DC conductor resistance.

Nominal cross sectional area	Reference Method A (enclosed in conduit in thermally insulating wall etc.)		Reference Method B (enclosed in conduit on a wall or in trunking etc.)		Reference Method F (in free air or on a perforated cable tray etc horizontal or vertical etc.)			Reference Method G (in free air)		Max. DC conductor resistance at 20˚C
					Touching			Spaced by one cable diameter		
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c. flat	3 cables, three-phase a.c. flat	3 cables, three-phase a.c. trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c. flat		
								Horizontal	Vertical	
mm2	Amp	Amp	Amp	Amp	Amp	Amp	Amp	Amp	Amp	Ω/km
1.5	19	17	23	20	–	–	–	–	–	12.1
2.5	26	23	31	28	–	–	–	–	–	7.41
4	35	31	42	37	–	–	–	–	–	4.61
6	45	40	54	48	–	–	–	–	–	3.08
10	61	54	75	66	–	–	–	–	–	1.83

The ambient temperature is 30°C.
Conductor operating temperature 90°C.
The above table is in accordance with Table 4E1A of BS 7671:2018

De-Rating Factor

De-rating factor for 90˚C thermosetting insulated cable

Air Temperature	35˚C to 50˚C	55˚C	60˚C	65˚C	70˚C
De-Rating Factor	1	0.96	0.83	0.67	0.47