Tel: +353 1 4597088 | Mail: sales@ledburncables.com

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LEDBURN CABLES IS AN INDEPENDENTLY OWNED CABLE DISTRIBUTOR.

SINGLE CORE CABLE-2491X PVC H05V-K CABLE 300/500V

Internal equipment wire. Also used in instrumentation panels of power switchgear. Suitable for installations in signalling and control circuits

Application: Internal equipment wire. Also used in instrumentation panels of power switchgear. Suitable for installations in signalling and control circuits

Conductor: Plain annealed flexible copper,class5

Insulation: 0.6mm

Sheath: PVC (Polyvinyl chloride)

Operating temperature: Maximum 70°C, Minimum bending 0°C

Voltage: 300/500V

Standards: BS6500: Electric Cables. Flexible cords rated up to 300/500V, for use with appliances and equipment intended for domestic, office and similar environments (H05V-K)

Specification

Size sqmm	0.5mm	0.75	1.00
Approx. conductor diameter mm	0.77	0.95	1.30
Nom overall diameter mm	2.2	2.6	2.8
Weight kg/km	10	13	16
Electrical resistance at 20°C OHM/KM	39.0	26.0	19.5
Insulation resistance min at 70°C OHM/KM	0.013	0.011	0.010
Current carrying capacitance at 30°C I n air or pipe	12	15.5	15.5
Blue	37005	37490	37491
Brown	37006	37019	37031
Red	37003	37487	37028
Grey	37008	37021	37032
Black	37004	37016	37029
Green / Yellow	37014	37027	37040
Yellow	37007	37020	37034
White	37009	37018	37030
Green	37013	37026	37039
Violet	37010	37655	37037
Pink	37011	37024	37035
Orange	37012	37023	37036

Harmonised Codes-Technical Information

Part 1 of the designation

Table 1a: Relationship to standards

Symbol	Relationship of cable to standards
H	Cable conforming with harmonised standards
A	Recognised National Type of cable listed in the relevantSupplement to harmonised standards

Table 1b: Rated voltage

Symbol	Value, U?/U*
01	=100/100V; (<300/300V)
03	300/300V
05	300/500V
07	450/750V

The rated voltages not yet harmonised are given in brackets

Part 2 of the designation

Table 2a: Insulating and non-metallic sheathing materials

Note: The descriptions given for the symbols are used in certain instances to cover a group of materials which have similar performance requirements for a given cable type will be found in the appropriate cable standard.

Symbol	Material
B	Ethylene-propylene rubber
G	Ethylene-vinyl-acetate
J	Glass-fibre braid
M	Mineral
N	Polychloroprene (or equivalent material)
N2	Special polychloroprene compound for covering of welding cables according to HD 22.6
N4	Chlorosulfonated polyethylene or chlorinated polyethylene
N8	Special water resistant polychloroprene compound
Q	Polyurethane
Q4	Polyamide
R	Ordinary ethylene propylene rubber or equivalent synthetic elastomer for a continuous operating temperature of 60ºC
S	Silicone rubber
T	Textile braid, impregnated or not, on assembled cores
T6	Textile braid, impregnated or not, on individual cores of a multi-core cable
V	Ordinary PVC
V2	PVC compound for a continuous operating temperature of 90ºC
V3	PVC compound for cables installed at low temperature
V4	Cross-linked PVC
V5	Special oil resistant PVC compound
Z	Polyolefin-based cross-linked compound having low level of emission of corrosive gases and which is suitable for use in cables which, when burned, have low emission of smoke
Z1	Polyolefin-based thermoplastic compound having low level of emission of corrosive gases and which is suitable for use in cables which, when burned, have low emission of smoke

Table 2b Metallic coverings

Symbol	Sheath, concentric conductors and screens
C	Concentric copper conductor

C4	Copper screen as braid over the assembled cores

Table 2c: Special constructional components of a cable

Note: These symbols, when required, are to follow the symbols selected from any of the previous tables 2a and 2b.

Symbol	Constructional components
D3	Strain-bearing element consisting of one or more textile components, placed at the centre of a round cable or distributed inside a flat cable.
D5	Central heart (non strain-bearing for lift cables only)
D9	Strain-bearing element consisting of one or more metallic components, placed at the centre of a round cable or distributed inside a flat cable.

Table 2d: Special construction of cable

Note: These symbols, when required, are to follow the symbols selected from any of the previous tables 2a to 2c.

Symbol	Special construction
No Symbol	Circular construction of cable
H	Flat construction of "divisible" cables and cores, either sheathed or non-sheathed
H2	Flat construction of "non-divisible" cables and cores
H6	Flat cable having three or more cores, according to DH 359 or EN 50214
H7	Cable having a double layer insulation applied by extrusion
H8	Extensible lead

Table 2e: Conductor material

Note: These symbols, when required are to follow after a dash, the symbols selected from any previous tables 2a to 2d.

Symbol	Conductor material
No Symbol	Copper
-A	Aluminium

Table 2f: Conductor form

Note: These symbols are to follow after a dash (already included in the symbol –A, in the case of aluminium conductors) the symbols selected from any of the previous tables 2a to 2e. For cables containing two forms of conductors the symbol shall designate the form of the phase conductor only.

Symbol	Conductor form
-D	Flexible conductor for use in arc welding cables to HD 22 Part 6 (flexibility to different from class 5 of HD 383)
-E	Highly flexible conductor for use in arc welding cables to HD22 Part 6 (flexibility different from Class 6 of HD 383)
-F	Flexible conductor of a flexible cable or cord (flexibility according to Class 5 of HD 383)
-H	Highly flexible conductor of a flexible cable or cord (flexibility according to Class 6 of HD 383)
-K	Flexible conductor of a cable for fixed installations (unless otherwise specified, flexibility according to Class 5 of HD 383)
-R	Rigid, round conductor, stranded
-U	Rigid round conductor, solid
-Y	Tinsel conductor

Part 3 of the designation

Table 3: Number(s) of cores and nominal cross-section(s) of conductors

Symbol	Number and size of conductors
(number)	Number, n of cores
X	Times, where a green/yellow core is not included
G	Times, when a green/yellow core is included
(number)*	Nominal cross-section, s, of conductor in mm²
Y	For a tinsel conductor where the cross-section is not specified

Countries are free to assign the "N" (placed after the conductor cross-section) to indicate that the cores are identified by number.

General Examples

nXs or nGs	n cores of s mm² conductor cross-section
nXs+n-Xs-	n cores of s mm² and n- cores of s- mm² conductor cross-section
nXs/s-	n cores of s mm² conductor cross-section and concentric conductor of s- mm² cross-section
nXs + n-Xs-/s®	n cores of s mm² + n- cores of s- mm² conductor cross-section + concentric conductor of s® mm² cross-section

Particular Examples

4 G 50	A cable with four cores having 50mm² conductor cross-section, one of the cored being green/yellow
4 X 50	A4-core cable without green/yellow core, all the cores having 50mm² conductor cross-section
3X50 + 1G25	A cable with four cores, three of which have 50mm² conductor cross-section, while the green/yellow core has a reduced conductor cross-section of 25mm²
3X70/35	A cable with three cores having 70mm² conductor cross-section and a concentric conductor of 35mm² cross-section
2 X Y	A2-core cord with tinsel conductors

Table 4: Survey of symbols and their sequence in cable designations(1)

1	2	3	4	5	6	7	8	9	10	11
Part 1	2	3	4	5	Part 2	7	8	9	Part 3	11
Related Standard	Rated voltage	Insulating material	Metalic coverings (s)	Non-metallic sheath (2)	Constructional components & special instructions	Conductor material	Conductor forms	No. of cores	Times	Conductor size mm²
				Symbols according to table (s)						
1a	1b	2a	2b	2c and 2d	2e	2f	3			
H	01	B	C	B	D3	No	-D	1	X	Y
					D5	Symbol:	-E	2		0.5
A	03	G	C4	G	D9	Copper	-F	3	G	
					-----	-H	4		0.75	
	05	J		J	No symbol:	-A	-K	5		
					Circular		-R	Etc		
	07	M			Construction		-U			
					Of cable		-Y			

	N, N4	N, N2, 4, 8		
			H	2.5
	R	Q, Q4	H2	
			H6	4
	S	R	H7	
			H8	R
		S		
	V, V2	T, T6		
	V3, V4			16
		V, V1, V2		
	Z, Z1	V4, V5		25
		Z, Z1		etc

(1) If two or more symbols listed in the same column need to be used in a given designation, they shall follow each other in their radial sequence starting from the core axis to cable axis.
(2) The symbols might change their position in the designation with respect to the construction of the cable.

4H3A,17th Edition-Technical Information

TABLE 4F3A Flexible cords, non-armoured (Copper Conductors) CURRENT-CARRYING CAPACITY (amperes): and MASS SUPPORTABLE (kg):

Conductor cross-sectional area	current carrying capacity		Maximum mass suporatble by twin flexible cord (see Regulations 522.7.2 & 559.6.1.5)
	single-phase a.c.	three-phase a.c.	
1	2	3	4
(mm²)	(A)	(A)	(kg)
0.5	3	3	2
0.75	6	6	3
1	10	10	5
1.25	13	-	5
1.5	16	16	5
2.5	25	20	5
4	32	25	5

Notes- Where cable is on a reel see the notes to Table 4F1A

Rating factor for ambient temperature

60⁰C thermoplastic or thermosetting insulated cords:					
Ambient Temp (⁰C)	35	40	45	50	55
Rating Factor	0.91	0.82	0.71	0.58	0.41

90⁰C thermoplastic or thermosetting insulated cords:					
Ambient Temp (⁰C)	35 to 50	55	60	65	70
Rating Factor	1.0	0.96	0.83	0.67	0.47

180⁰C thermosetting insulated cords:						
Ambient Temp (⁰C)	35 to 120	125	130	135	140	145
Rating Factor	1.0	0.96	0.85	0.74	0.60	0.42

Glass fibre cords:						
Ambient Temp (⁰C)	35 to 150	155	160	165	170	175
Rating Factor	1.0	0.92	0.82	0.71	0.57	0.40

TABLE 4F3B

VOLTAGE DROP (per ampere per metre):Conductor operating temperature:60°C*

Conductorcross-sectionalarea	d.c orsingle-phasea.c.	three-phasea.c.
1	2	3
(mm²)	(mV/A/m)	(mV/A/m)
0.5	93	80
0.75	62	54
1	46	40
1.25	37	-
1.5	32	27
2.5	19	16
4	12	10

Notes

The tabulated values above are for 60⁰C thermoplastic or thermosetting insulated flexible cords and for other types of flexible cords they are to be multiplied by the following factors:

90⁰C thermoplastic or thermosetting insulated	1.09
180⁰C thermosetting insulated	1.31
185⁰C glass fibre	1.43

4H3A-Technical Information

TABLE 4H3A Flexible Cords (Copper Conductors).

CURRENT-CARRYING CAPACITY (amperes): and MASS SUPPORTABLE (kg):

Conductor cross-sectional area	current carrying capacity		Maximum mass suporatble by twin flexible cord (see Regulations 522.7.2 & 559.6.1.5)
	single-phase a.c.	three-phase a.c.	
1	2	3	4
(mm²)	(A)	(A)	(kg)
0.5	3	3	2
0.75	6	6	3
1	10	10	5
1.25	13	-	5
1.5	16	16	5
2.5	25	20	5
4	32	25	5

Notes

Where cable is on a reel see the notes to Table 4H1A

Rating factor for ambient temperature

60⁰C rubber and pvc cords::					
Ambient Temp (⁰C)	35	40	45	50	55
Correction factor	0.91	0.82	0.71	0.58	0.41

85°C rubber cords having h.o.f.r. sheath or a heat-resisting pvc sheath and for 85°C and 90°C heat-resisting cords: :

Ambient Temp (⁰C)	35 to 50	55	60	65	70
Correction factor	1.0	0.96	0.83	0.67	0.47

150°C rubber cords:

Ambient Temp (⁰C)	35 to 120	125	130	135	140	145
Correction factor	1.0	0.96	0.85	0.74	0.60	0.42

Glass fibre cords:

Ambient Temp (⁰C)	35 to 150	155	160	165	170	175
Correction factor	1.0	0.92	0.82	0.71	0.57	0.40

TABLE 4F3B

VOLTAGE DROP (per ampere per metre):Conductor operating temperature:60°C*

Conductorcross-sectionalarea	d.c orsingle-phasea.c.	three-phasea.c.
1	2	3
(mm²)	(mV/A/m)	(mV/A/m)
0.5	93	80
0.75	62	54
1	46	40
1.25	37	-
1.5	32	27
2.5	19	16
4	12	10

Notes

The tabulated values above are for 60°C rubber-insulated and pvc-insulated flexible cords and for other types of flexible cords they are to be multiplied by the following factors:

85°C rubber or 85°C and 90°C pvc-insulated	**1.09**
150°C rubber insulated	1.31
185°C glass fibre	1.43

Parts options

Part No.	Core	Size	Colour/Reference
37013	1	0.5sqmm (Class 5)	Green
37012	1	0.5sqmm (Class 5)	Orange
37010	1	0.5sqmm (Class 5)	Violet
37003	1	0.5sqmm (Class 5)	Red
37004	1	0.5sqmm (Class 5)	Black
37014	1	0.5sqmm (Class 5)	Green/yellow
37005	1	0.5sqmm (Class 5)	Blue
37007	1	0.5sqmm (Class 5)	Yellow
37006	1	0.5sqmm (Class 5)	Brown
37008	1	0.5sqmm (Class 5)	Grey
37009	1	0.5sqmm (Class 5)	White
37011	1	0.5sqmm (Class 5)	Pink
37026	1	0.75sqmm (Class 5)	Green
37487	1	0.75sqmm (Class 5)	Red
37025	1	0.75sqmm (Class 5)	Transparent
37022	1	0.75sqmm (Class 5)	Purple
37016	1	0.75sqmm (Class 5)	Black
37027	1	0.75sqmm (Class 5)	Green/yellow
37490	1	0.75sqmm (Class 5)	Blue
37020	1	0.75sqmm (Class 5)	Yellow
37019	1	0.75sqmm (Class 5)	Brown
37021	1	0.75sqmm (Class 5)	Grey
37018	1	0.75sqmm (Class 5)	White
37024	1	0.75sqmm (Class 5)	Pink
37023	1	0.75sqmm (Class 5)	Orange
37039	1	1.0sqmm (Class 5)	Green
37037	1	1.0sqmm (Class 5)	Violet

37028	1	1.0sqmm (Class 5)	Red
37029	1	1.0sqmm (Class 5)	Black
37040	1	1.0sqmm (Class 5)	Green/yellow
37491	1	1.0sqmm (Class 5)	Blue
37034	1	1.0sqmm (Class 5)	Yellow
37031	1	1.0sqmm (Class 5)	Brown
37030	1	1.0sqmm (Class 5)	White
37035	1	1.0sqmm (Class 5)	Pink
37036	1	1.0sqmm (Class 5)	Orange