

Harmonised Codes

PART 1 OF THE DESIGNATION

Table 1: Relationship to standards

SYMBOL	RELATIONSHIP OF CABLE TO STANDARDS
H	Cable conforming with harmonised standards
A	Recognised National Type of cable listed in the relevant Supplement to harmonised standards

Table 1b: Rated voltage

SYMBOL	VALUE U ₀ /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

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	Chlorosulphonated 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 60°C
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 90°C
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

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

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

SYMBOL	SHEATH, CONCENTRIC CONDUCTORS AND SCREENS
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

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

Table 2d: Special construction of cable

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

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

Table 2e: Conductor material

SYMBOL	CONDUCTOR MATERIAL
No symbol	Copper
-A	Aluminium

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

Table 2f: Conductor form

SYMBOL	CONDUCTOR MATERIAL
-D	Flexible conductor for use in arc welding cables to HD 22Part 6 (flexibility 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	Tinse conductor

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.

PART 3 OF THE DESIGNATION

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

SYMBOL	NO. 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 mm ²
Y	For a tinsel conductor where the cross-section is not specified

Countries are free to assign the symbol “N” (placed after the conductor cross-section) to indicate that the cored are identified by numbers.

General examples

nXs or nGs	n cores of s mm ² conductor cross-section
nXs + n - Xs -	n cores of s mm ² and n- cores of s- mm ² conductor cross-section
nXs/s -	n cores of s mm ² conductor cross-section and concentric conductor of s- mm ² cross-section
nXs + n - Xs/s [®]	n cores of s mm ² + n- cores of s- mm ² conductor cross-section + concentric conductor of s [®] mm ² cross-section

Particular examples

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

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

Related Standard	PART 1				PART 2				PART 3
	Rated Voltage	Insulating Material	Metallic Coverings (2)	Non- Metallic Sheath (2)	Constructional components & special instructions	Conductor Material	Conductor Forms	Number of Cores	Times
Symbols according to tables (s)									
1a	1b	2a	2b	2a	2c and 2d	2e	2f	3	
H	01	B	C	B	D3	No	-D	1	X
A	03	G	C4	G	D9	Copper	-F	3	G
								4	0.75
	05	J		J	----- No Symbol:	-H	-K	5	
	07	M			Circular Construction of Cable		-R	etc	
		N,N4		N, N3, 4, 8	H				2.5
		R		Q, Q4	H2				4
		S		R	H6				6
				S	H7				10
					H8				16t
		V, V2		T, T6					25
		V3, V4		V, V2, V3					etc
		Z, Z1		V4, V5					
				Z, Z1					