SPECIALCAVI

WE BRIDGE PEOPLE

CABLE DESIGNATION CODES

ITALIAN SYSTEM according to CEI UNEL 35011

TYPE AND SHAPE OF CONDUCTOR

-	Withour designation: copper conductor
A	Aluminum conductor
F	Round flexible rope conductor
FF	Round highly flexible rope conductor
R	Round rigid rope conductor, normal or compact
S	Sectoral rope conductor
SU	Sectoral single wire conductor
U	Round single wire conductor

NATURE AND QUALITY OF INSULATION

G29	Silicone-based elastomeric compound type G29
E29	Halogen-free cross-linked compound type E29
S29	Halogen-free thermoplastic compound type S29
S18	PVC-based compound, quality S18
C4	Paper impregnated with stabilized mixture
E	Thermoplastic polyethylene-based compound
E4	Cross-linked polyethylene-based compound, characteristic temperature 85°C
G	Natural and/or synthetic rubber-based compound,
G4	characteristic temperature 60°C
G16	Silicone rubber-based compound, characteristic temperature 180°C
G8	High modulus ethylene propylene rubber-based compound, characteristic temperature 90°C
G17	Ethylene propylene rubber-based compound also suitable for cables without protective coating, characteristic temperature 90°C
G18	Cross-linked elastomeric compound with low smoke and toxic and corrosive gas emission, also suitable for cables without protective coating, characteristic temperature 90°C
G19	Cross-linked elastomeric compound with low smoke and toxic and corrosive gas emission, characteristic temperature 90°C
G20	Cross-linked elastomeric compound with low smoke and toxic and corrosive gas emission, characteristic temperature 90°C
M	Cross-linked elastomeric compound with low smoke and toxic and corrosive gas emission, characteristic temperature 90°C
M9	Mineral insulator Thermoplastic compound with low emission of toxic and corrosive fumes and gases, characteristic temperature 70°C
R	Polyvinyl chloride-based compound, TI1 and TI2 quality, t.c. 70°C
R2	Polyvinyl chloride-based compound, R2 quality, temp. c. 70°C
R4	Polyamide resin-based compound
R5	Fluorocarbon resin-based compound
R7	Polyvinyl chloride-based compound, quality TI3, characteristic
S17	temperature 90°C PVC-based compound, quality S17
V	Glass cloth, impregnated if necessary

CABLE COMPOSITION AND SHAPE

-	Without designation: single-core cables
O	Cores, possibly with their own sheathing, joined with or without fillers to form a round cable
D	Cores as above, laid parallel (flattened external shape cable)
X	Cores, possibly with their own coating, joined together in a visible helix, with or without fillers (e.g., pre-stranded cable)
W	Parallel cores joined together with an intermediate groove
W1	Parallel cores joined together with an intermediate insulating strip

CONCENTRIC SCREENS AND CONDUCTORS

AC	Concentric aluminum conductor, if not metal sheath
C	Concentric copper conductor, if not metal sheath
H	Metallized paper/carbon paper/aluminum tape shield
H1	Copper tape, flat wire, or stranded wire shield
H2	Copper braid or braided shield
H3	Double copper braid or double braided shield
H4	Longitudinal corrugated steel tape shield
H5	Longitudinal coated aluminum tape shield

ARMOURING (METAL REINFORCEMENT)

A	Smooth aluminum sheath, or metal braided armor
A1	Corrugated aluminum sheath
EL	Lead alloy sheath, with underlying continuity conductor
EP	Non-alloy lead sheath, with underlying continuity conductor
F	Cylindrical wire armor, normally made of steel
H4	Longitudinal corrugated steel tape shield
H5	Longitudinal coated aluminum tape shield
L	Lead alloy sheath
N	Tape armor, normally steel
P	Non-alloy lead sheath
Q	Copper sheath
Z	Flat wire armor, normally steel

SHEATH (NON-METALLIC COATINGS)

E	Thermoplastic sheath, Ez quality
E4	Cross-linked polyethylene sheath, E4M quality
R16	Polyvinyl chloride-based sheath, R16 quality
K	Polychloroprene-based sheath or equivalent, Ky, Kn, Kz quality
R	Polyvinyl chloride-based sheath, Tm1, Tm2, Rz quality
R4	Polyamide resin-based sheathing
M1	Thermoplastic sheathing, low smoke and toxic or corrosive gas emission
M18	Elastomeric sheathing, low smoke and toxic and corrosive gas emission, M18 quality
M16	Thermoplastic sheathing, low smoke and toxic or corrosive gas emission, M16 quality
Z1	Thermoplastic sheath, low emission of toxic or corrosive fumes and gases
T1	Glass tape wrapping
T	Normal type textile braid (possibly impregnated)
T2	Special type textile braid, possibly impregnated
S18	Polyvinyl chloride sheath, quality S18

GERMAN SYSTEM according to VDE Standards

CONDUCTOR TYPE

Li	Stranded wires conductor
f	Flexible
e	Single wire, solid
re	Round, single wire
rm	Round, multiwire

TYPE OF CABLE USE

A-	Outdoor cable
A	Approved national design
AB	Outdoor cable with lightning protection
AD	Outdoor cable with differential protection
AJ-	Outdoor cable with induction protection
FL	Flat cable
G-	Mining cable
GJ	Mining cable with induction protection
H	Harmonized cable
M	Plastic-sheath cable
N	VDE standard
(N)	Cable adapted to VDE standard
RD-	Rhenomatic cable
RE-	Computer cable
RG-	Coaxial cable according to MIL specification
-S	Signal cable for German Railway
SL	Flexible sheathed cable
T-	Fan-out cable
Z	Twin cable

INSULATION AND SHEATH MATERIAL

G	Rubber
2G	Silicon rubber (SIR)
3G	Ethylene propylene rubber (EPR)
4G	Ethylene propylene rubber (EVA)
5G	Chloroprene rubber (CR)
6G	Chlorosulphonated polyethylene (CSM)
7G	Flouroelastomer (FKM)
8G	Nitrile rubber (NBR)
9G	PE-C rubber (CM)
53G	CM
H	Halogen free compound, flame retardant
HX	Cross-linked, halogen free compound
02Y	Foam-PE, insulation (PEE)
X	Cross-linked polyvinyl chloride (X-PVC)
XP	Cross-linked polyethylene (X-PE)
2X	Cross-linked polyethylene
7X	Cross-linked Ethylentetrafluorethylen (X-ETFE)
10X	Cross-linked Polyvinylidenfluorid (X-PVDF)
Y	PVC, polyvinylchloride
Yu	PVC, polyvinylchloride, non-flammable, flame-retardant
Yv	PVC, polyvinylchloride, with reinforced sheath
Yw	PVC, polyvinylchlorid, heat resistant upto 90°C
2Y	Polyethylene (PE)
2Yv	Polyethylene, reinforced sheath
02Y	Cellular polyethylene
3Y	insulation polystyrene (PS)
4Y	Polyamide (PA)
5Y	Polytetrafluorethylene (PTFE)
5YX	Perfluoralkoxy (PFA)
6Y	Perfluoroethylene-propylene (FEP),
7Y	Ethylentetrafluorethylen (ETFE)
8Y	Polyimid (PI)
9Y	Polypropylen (PP)
10Y	PVDF, Polyvinylidene Fluoride
11Y	Pulyurethan (PUR)
12Y	Polyester (PET)

SCREENS

C	Screen of bare copper braid
CE	Screen of bare copper braid on single pair
D	Copper screen, helically stranded
(St)	Aluminium tape screen
PiMF	Aluminum tape screen on single pair
TiMF	Aluminum tape screen on singel triad

ARMOURING

M	Lead sheath
Mz	Alloyed lead sheath
Q	Steel braid armouring
B	Steel tape armouring
R	Steel wire armouring

SPECIAL CHARACTERISTICS

FR	Flame retardant
T	with rodent protection
Ö	Oil resistant
NC	Non-corrosive

ADDITIONAL INFORMATION

-OB	Cable without Green/Yellow protective conductor
-JB	Cable with Green/Yellow protective conductor
-OZ	Numbered cable without Green/Yellow protective conductor
-JZ	Numbered cable with Green/Yellow protective conductor

EUROPEAN SYSTEM according to CEI 20-27/CENELEC HD361

STANDARD IDENTIFICATION

H	Cable compliant with harmonized standards
A	Authorized national standards
F	National cable not compliant with IEC standards

NOMINAL VOLTAGE U_0/U

01	100/100V ≤ U_0/U < 300/300V
03	300/300V
05	300/500V
07	450/750V
1	600/1000V

INSULATION MATERIAL FOR SHEATH

B	Ethylene propylene rubber for continuous operating temperatures of 60°C
G	Ethylene vinyl acetate
J	Trace of glass fiber
M	Mineral
N	Polychloroprene
N2	Special polychloroprene compound for coating welding machine cables
N4	Chlorosulfonated polyethylene or chlorinated polyethylene
N8	Special water-resistant polychloroprene compound
Q	Polyurethane
Q4	Polyamide
R	Ordinary ethylene propylene rubber and synthetic elastomer - equivalent for a continuous operating temperature of 60°C
S	Silicone rubber
T	Textile braid, impregnated or not, on the individual cores of a multipolar cable
T6	Textile braid, impregnated or not, on the individual cores of a multipolar cable
V	Commonly used polyvinyl chloride (or PVC)
V2	PVC compound for a continuous operating temperature of 90°C
V3	PVC compound for cables installed at low temperatures
V4	Cross-linked PVC
V5	Special oil-resistant PVC compound
Z	Cross-linked polyolefin-based compound that emits low levels of smoke, toxic and corrosive gases when burned
Z1	Cross-linked polyolefin-based compound that emits low levels of smoke, toxic and corrosive gases when burned

METAL COATINGS

C	Concentric copper conductor
C4	Copper braided shield over the entire set of cores
A7	Aluminum shield
C5	Copper braided shield over individual cores
C7	Copper braided shield over individual cores

ARMOURING

Z2	Steel wire armouring
Z3	Steel flat bar armouring
Z4	Steel strip armouring
Z5	Steel wire braid

SPECIAL SHAPES AND CONSTRUCTIONS

-	No symbol: circular cable
H	Divisible flat cables, with or without sheathing
H2	Non-divisible flat cables
H3	Flat cables with cores separated by a strip
H6	Flat cable with 3 or more cores, according to HD 359 or EN 50214
H7	Double-layer insulating cable applied by extrusion
H8	Extendable cord

CONDUCTOR FLEXIBILITY

D	Flexible conductor for use in cables for arc welding machines according to HD 22 Part 6 (flexibility different from class 5 of HD 383)
E	Highly flexible conductor for use in cables for arc welding machines according to HD 22 Part 6 (flexibility different from class 6 of HD 383)
F	Flexible conductor of a flexible cable (unless otherwise specified, flexibility according to class 5 of HD 383)
H	Very flexible conductor of a flexible cable (unless otherwise specified, 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, stranded conductor
U	Rigid, round, single-wire conductor
Y	Copper-like conductor

CONDUCTOR MATERIAL

-	No symbol: copper
A	Aluminium