

# CPC COOPERATIVE PATENT CLASSIFICATION

## H ELECTRICITY

(NOTE omitted)

## H02 GENERATION; CONVERSION OR DISTRIBUTION OF ELECTRIC POWER

## H02G INSTALLATION OF ELECTRIC CABLES OR LINES, OR OF COMBINED OPTICAL AND ELECTRIC CABLES OR LINES

### NOTES

1. This subclass covers installation of communication cables or lines, including those comprising a combination of optical and electrical conductors, or of lightning conductors as well as installation of power cables or lines.
2. This subclass does not cover installation of purely optical cables, which is covered by groups {[G02B 6/4401](#)}, [G02B 6/46](#).
3. In this subclass, the following expression is used with the meaning indicated:
  - "electric cable" includes cables comprising optical conductors, e.g. fibres, in combination with electrical conductors.
4. In this subclass it is desirable to add indexing codes of group [H02G 2200/00](#) whenever appropriate

### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

|             |  |        |   |
|-------------|--|--------|---|
| <b>1/00</b> | <b>Methods or apparatus specially adapted for installing, maintaining, repairing or dismantling electric cables or lines</b>   | 1/1229 | . . . . {the cutting element making a longitudinal, and a transverse or a helical cut}  |
| 1/005       | . {for cutting cables or wires, or splicing}   | 1/1231 | . . . . . {using a swivelling cutting element}  |
| 1/02        | . for overhead lines or cables   | 1/1234 | . . . . . {the tool being of the plier type}  |
| 1/04        | . . for mounting or stretching   | 1/1236 | . . . . {Features relating to cutting elements}   |
| 1/06        | . for laying cables, e.g. laying apparatus on vehicle  | 1/1239 | . . . . . {the cutting element being a disc or a circular saw}  |
| 1/08        | . . through tubing or conduit, e.g. rod or draw wire for pushing or pulling {(inserting electrical cables into tubes using wallbores <a href="#">E21B 17/206</a> ; for optical cables <a href="#">G02B 6/4401</a> )} | 1/1241 | . . . . . {the cutting element being a stack of blades}   |
| 1/081       | . . . {using pulling means at cable ends, e.g. pulling eyes or anchors}  | 1/1243 | . . . . . {the cutting element being a wire or filament}  |
| 1/083       | . . . {using lines, e.g. needles, rods or tapes}   | 1/1246 | . . . . . {the cutting element being of tubular construction}   |
| 1/085       | . . . {using portable tools}   | 1/1248 | . . . {Machines}  |
| 1/086       | . . . {using fluid as pulling means, e.g. liquid, pressurised gas or suction means}  | 1/1251 | . . . . {the cutting element not rotating about the wire or cable (making longitudinal and transverse or helical cut <a href="#">H02G 1/1268</a> )} |
| 1/088       | . . . {using pulling devices movable inside conduits}  | 1/1253 | . . . . . {making a transverse cut}   |
| 1/10        | . . in or under water  | 1/1256 | . . . . . {using wire or cable-clamping means}  |
| 1/12        | . for removing insulation or armouring from cables, e.g. from the end thereof  | 1/1258 | . . . . . {not using wire or cable-clamping means}  |
| 1/1202      | . . {by cutting and withdrawing insulation}  | 1/126  | . . . . . {making a longitudinal cut}   |
| 1/1204      | . . . {Hand-held tools}  | 1/1263 | . . . . . {making a transverse and longitudinal cut}  |
| 1/1207      | . . . . {the cutting element not rotating about the wire or cable (making longitudinal and transverse or helical cut <a href="#">H02G 1/1229</a> )}  | 1/1265 | . . . . {the cutting element rotating about the wire or cable (making longitudinal and transverse or helical cut <a href="#">H02G 1/1268</a> )}     |
| 1/1209      | . . . . . {making a transverse cut}  | 1/1268 | . . . . {the cutting element making a longitudinal in combination with a transverse or a helical cut}   |
| 1/1212      | . . . . . {using wire or cable clamping means}   | 1/127  | . . . . . {Features relating to cutting elements}   |
| 1/1214      | . . . . . {not using wire or cable clamping means}   | 1/1273 | . . {by pushing backwards insulation}   |
| 1/1217      | . . . . . {making a longitudinal cut}  | 1/1275 | . . {by applying heat}  |
| 1/1219      | . . . . . {making a transverse and longitudinal cut}   | 1/1278 | . . . {using heated blades}   |
| 1/1221      | . . . . {the cutting element rotating about the wire or cable (making longitudinal and transverse or helical cut <a href="#">H02G 1/1229</a> )}  | 1/128  | . . . {using radiant energy, e.g. a laser beam}   |
| 1/1224      | . . . . . {making a transverse cut}  | 1/1282 | . . . {removing metallic shields}   |
| 1/1226      | . . . . . {making a helical cut}   | 1/1285 | . . {by friction, e.g. abrading, grinding, brushing}  |
|             |  | 1/1287 | . . {by means of a solvent}   |
|             |  | 1/129  | . . {by means of a cryogenic fluid}   |

|             |  |        |   |
|-------------|--|--------|---|
| 1/1292      | . . . {Devices for dismantling twisted filaments}  | 3/0683 | . . . . . {with bolts operating in a direction transverse to the conductors}  |
| 1/1295      | . . . {Devices for splitting and dismantling flat cables}  | 3/0691 | . . . . . {Fixing tubing to casing by auxiliary means co-operating with indentations of the tubing, e.g. with tubing-convolutions}  |
| 1/1297      | . . . {Removing armouring from cables}   | 3/08   | . . . Distribution boxes; Connection or junction boxes  |
| 1/14        | . for joining or terminating cables  | 3/081  | . . . {Bases, casings or covers}  |
| 1/145       | . . . {Moulds}   | 3/083  | . . . . . {Inlets}  |
| 1/16        | . for repairing insulation or armouring of cables  | 3/085  | . . . . . {including knock-out or tear-out sections}  |
| <b>3/00</b> | <b>Installations of electric cables or lines or protective tubing therefor in or on buildings, equivalent structures or vehicles</b> (installations of bus-bars <a href="#">H02G 5/00</a> ; overhead installations <a href="#">H02G 7/00</a> ; installations in or on the ground <a href="#">H02G 9/00</a> ) | 3/086  | . . . {Assembled boxes}   |
| 3/02        | . Details  | 3/088  | . . . {Dustproof, splashproof, drip-proof, waterproof, or flameproof casings or inlets}   |
| 3/03        | . . Cooling  | 3/10   | . . . for surface mounting on a wall  |
| 3/04        | . . Protective tubing or conduits, e.g. cable ladders or cable troughs   | 3/105  | . . . . . {in association with a plinth, channel, raceway or similar}   |
| 3/0406      | . . . {Details thereof (installation or suspension of conduit channels and other supports <a href="#">H02G 3/263</a> )}  | 3/12   | . . . for flush mounting  |
| 3/0412      | . . . . . {Heat or fire protective means (for fire in electric circuits <a href="#">A62C 3/16</a> )}   | 3/121  | . . . . . {in plain walls}  |
| 3/0418      | . . . . . {Covers or lids; Their fastenings}   | 3/123  | . . . . . {in thin walls}   |
| 3/0425      | . . . {Plinths (borders for use between floor or ceiling and wall <a href="#">E04F 19/04</a> )}  | 3/125  | . . . . . {with supporting bar extending between two separate studs of a wall frame}  |
| 3/0431      | . . . {Wall trunking}  | 3/126  | . . . . . {with supporting means for mounting on a single wall stud}  |
| 3/0437      | . . . {Channels}   | 3/128  | . . . . . {in plinths, channels, raceways or similar}   |
| 3/0443      | . . . . . {formed by wire or analogous netting}  | 3/14   | . . . Fastening of cover or lid to box  |
| 3/045       | . . . . . {provided with perforations or slots permitting introduction or exit of wires}   | 3/16   | . . . structurally associated with support for line-connecting terminals within the box   |
| 3/0456      | . . . {Ladders or other supports}  | 3/18   | . . . providing line outlets  |
| 3/0462      | . . . {Tubings, i.e. having a closed section}  | 3/185  | . . . . . {Floor outlets and access cups}   |
| 3/0468      | . . . . . {Corrugated}   | 3/20   | . . . . . Ceiling roses {or other lighting sets}  |
| 3/0475      | . . . . . {formed by a succession of articulated units}  | 3/22   | . Installations of cables or lines through walls, floors or ceilings, e.g. into buildings   |
| 3/0481      | . . . . . {with a circular cross-section ( <a href="#">H02G 3/0468</a> , <a href="#">H02G 3/0475</a> take precedence)}   | 3/24   | . {Installation of lines or cables on walls, ceilings or floors by means of insulators (insulators <a href="#">H01B 17/00</a> )}  |
| 3/0487      | . . . . . {with a non-circular cross-section ( <a href="#">H02G 3/0468</a> , <a href="#">H02G 3/0475</a> take precedence)}   | 3/26   | . {Installations of cables, lines, or separate protective tubing therefor directly on or in walls, ceilings, or floors (by means of insulators <a href="#">H02G 3/24</a> ; supports for pipes, cables or protective tubing <a href="#">F16L 3/00</a> ; hose-clips <a href="#">F16L 33/02</a> )} |
| 3/0493      | . . . {Service poles}  | 3/263  | . . {Installation, e.g. suspension, of conduit channels or other supports}  |
| 3/06        | . . Joints for connecting lengths of protective tubing {or channels}, to each other or to casings, e.g. to distribution boxes; Ensuring electrical continuity in the joint   | 3/266  | . . {Mounting by adhesive material}   |
| 3/0608      | . . . {Joints for connecting non cylindrical conduits, e.g. channels}  | 3/28   | . {Installations of cables, lines, or separate protective tubing therefor in conduits or ducts pre-established in walls, ceilings or floors}  |
| 3/0616      | . . . {Joints for connecting tubing to casing}   | 3/281  | . . {in ceilings}   |
| 3/0625      | . . . . . {with means for preventing disengagement of conductors}  | 3/283  | . . {in floors}   |
| 3/0633      | . . . . . {with means urging the conductors to follow a non-straight line}   | 3/285  | . . . {in modular floors, e.g. access floors}   |
| 3/0641      | . . . . . {with means distorted around the conductors}   | 3/286  | . . {in walls}  |
| 3/065       | . . . . . {with means biting into the conductor-insulation, e.g. teeth-like elements or gripping fingers ( <a href="#">H02G 3/0675</a> , <a href="#">H02G 3/0683</a> take precedence)}   | 3/288  | . . . {in modular walls, e.g. wall panels}  |
| 3/0658      | . . . . . {with means constricting the conductor-insulation ( <a href="#">H02G 3/065</a> , <a href="#">H02G 3/0675</a> , <a href="#">H02G 3/0683</a> take precedence)}   | 3/30   | . Installations of cables or lines on walls, floors or ceilings   |
| 3/0666      | . . . . . {with means clamping the armour of the conductor ( <a href="#">H02G 3/0675</a> , <a href="#">H02G 3/0683</a> take precedence)}   | 3/305  | . . {Mounting by adhesive material}   |
| 3/0675      | . . . . . {with bolts operating in a direction parallel to the conductors}   | 3/32   | . . using mounting clamps   |
|             |  | 3/34   | . . using separate protective tubing  |
|             |  | 3/36   | . Installations of cables or lines in walls, floors or ceilings   |
|             |  | 3/38   | . . the cables or lines being installed in preestablished conduits or ducts   |
|             |  | 3/381  | . . . {in ceilings}   |
|             |  | 3/383  | . . . {in floors}   |
|             |  | 3/385  | . . . . . {in modular floors, e.g. access floors}   |
|             |  | 3/386  | . . . {in walls}  |

- 3/388 . . . {in modular walls, e.g. wall panels}
- 3/40 . . . using separate protective tubing in the conduits or ducts
- 5/00 Installations of bus-bars**
- 5/002 . {Joints between bus-bars for compensating thermal expansion}
- 5/005 . {Laminated bus-bars}
- 5/007 . {Butt joining of bus-bars by means of a common bolt, e.g. splice joint (electrically conductive connections characterised by contacting members [H01R 4/58](#))}
- 5/02 . Open installations
- 5/025 . . {Supporting structures}
- 5/04 . Partially-enclosed installations, e.g. in ducts and adapted for sliding or rolling current collection
- 5/06 . Totally-enclosed installations, e.g. in metal casings
- 5/061 . . {Tubular casings ([H02G 5/063](#) takes precedence)}
- 5/063 . . {filled with oil or gas}
- 5/065 . . . {Particle traps (gettering in vacuum switches [H01H 33/6683](#); in discharge or vacuum tubes [H01J 7/18](#), [H01J 19/70](#))}
- 5/066 . . {Devices for maintaining distance between conductor and enclosure}
- 5/068 . . . {being part of the junction between two enclosures}
- 5/08 . . Connection boxes therefor
- 5/10 . Cooling
- 7/00 Overhead installations of electric lines or cables (installations of bus-bars [H02G 5/00](#))**
- 7/02 . Devices for adjusting or maintaining mechanical tension, e.g. take-up device
- 7/04 . Arrangements or devices for relieving mechanical tension
- 7/05 . Suspension arrangements or devices for electric cables or lines
- 7/053 . . {Suspension clamps and clips for electric overhead lines not suspended to a supporting wire}
- 7/056 . . . {Dead-end clamps}
- 7/06 . . Suspensions for lines or cables along a separate supporting wire, e.g. S-hook
- 7/08 . . . Members clamped to the supporting wire or to the line or cable
- 7/10 . . . Flexible members or lashings wrapped around both the supporting wire and the line or cable
- 7/12 . Devices for maintaining distance between parallel conductors, e.g. spacer
- 7/125 . . {Damping spacers}
- 7/14 . Arrangements or devices for damping mechanical oscillations of lines, e.g. for reducing production of sound {(damping spacers [H02G 7/125](#))}
- 7/16 . Devices for removing snow or ice from lines or cables
- 7/18 . Devices affording mechanical protection in the event of breakage of a line or cable, e.g. net for catching broken lines
- 7/20 . Spatial arrangements or dispositions of lines or cables on poles, posts or towers
- 7/205 . . {Installation of electric cables, extending along a pole}
- 7/22 . Arrangements of earthing wires suspended between mastheads
- 9/00 Installations of electric cables or lines in or on the ground or water**
- 9/02 . laid directly in or on the ground, river-bed or sea-bottom; Coverings therefor, e.g. tile
- 9/025 . . {Coverings therefor, e.g. tile}
- 9/04 . in surface ducts; Ducts or covers therefor
- 9/06 . in underground tubes or conduits; Tubes or conduits therefor
- 9/065 . . {Longitudinally split tubes or conduits therefor}
- 9/08 . in tunnels
- 9/10 . in cable chambers, e.g. in manhole or in handhole
- 9/12 . supported on or from floats, e.g. in water
- 11/00 Arrangements of electric cables or lines between relatively-movable parts**
- 11/003 . {using gravity-loaded or spring-loaded loop}
- 11/006 . {using extensible carrier for the cable, e.g. self-coiling spring (extensible conductors or cables [H01B 7/06](#))}
- 11/02 . using take-up reel or drum
- 13/00 Installations of lightning conductors; Fastening thereof to supporting structure**
- 13/20 . {Active discharge triggering}
- 13/40 . {Connection to earth}
- 13/60 . {Detecting; Measuring; Sensing; Testing; Simulating}
- 13/80 . {Discharge by conduction or dissipation, e.g. rods, arresters, spark gaps}
- 15/00 Cable fittings**
- 15/003 . {Filling materials, e.g. solid or fluid insulation}
- 15/007 . Devices for relieving mechanical stress
- 15/013 . Sealing means for cable inlets (inlets for cables filled with, or surrounded by, gas or oil [H02G 15/32](#))
- 15/02 . Cable terminations (for gas- or oil-filled cables [H02G 15/22](#))
- 15/025 . . {for coaxial cables or hollow conductors (connections between HF conductors [H01P 1/04](#); plug and socket connections [per se](#) [H01R 24/38](#))}
- 15/04 . . Cable-end sealings
- 15/043 . . . {with end caps, e.g. sleeve closed at one end}
- 15/046 . . . . {with bores or protruding portions allowing passage of cable conductors}
- 15/06 . . Cable terminating boxes, frames or other structures
- 15/064 . . . with devices for relieving electrical stress
- 15/068 . . . . connected to the cable shield only ([H02G 15/072](#) takes precedence)
- 15/072 . . . . of the condenser type
- 15/076 . . . for multi-conductor cables
- 15/08 . Cable junctions (for gas or oil filled cables [H02G 15/24](#))
- 15/085 . . {for coaxial cables or hollow conductors (plug and socket connections between HF conductors [H01P 1/04](#); plug and socket connections [per se](#) [H01R 24/38](#))}
- 15/10 . . protected by boxes, e.g. by distribution, connection or junction boxes
- 15/103 . . . with devices for relieving electrical stress

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- 15/105 . . . . connected to the cable shield only  
([H02G 15/107](#) takes precedence)
- 15/1055 . . . . . {with cross-bonding of cable shields}
- 15/107 . . . . of the condenser type
- 15/113 . . . Boxes split longitudinally in main cable direction
- 15/115 . . . Boxes split perpendicularly to main cable direction
- 15/117 . . . for multiconductor cables
- 15/12 . . . for incorporating transformers, loading coils or amplifiers
- 15/14 . . . . specially adapted for submarine cables
- 15/16 . . . structurally associated with support for line-connecting terminals within the box
- 15/18 . . protected by sleeves, e.g. for communication cable (two-part covers [H02G 15/10](#) {; preforms having internal stresses [B29C 61/00](#)})
- 15/1806 . . . {Heat shrinkable sleeves (insulation of electrical connections using a heat shrinking insulating sleeve [H01R 4/72](#))}
- 15/1813 . . . . {Wraparound or slotted sleeves}
- 15/182 . . . {held in expanded condition in radial direction prior to installation}
- 15/1826 . . . . {on a removable hollow core, e.g. a tube}
- 15/1833 . . . . . {formed of helically wound strip with adjacent windings, which are removable by applying a pulling force to a strip end}
- 15/184 . . . with devices for relieving electrical stress
- 15/188 . . . . connected to a cable shield only
- 15/192 . . . with support means for ends of the sleeves
- 15/196 . . . having lapped insulation
- 15/20 . . Cable fittings for cables filled with or surrounded by gas or oil ([H02G 15/34](#) takes precedence)
- 15/205 . . {for coaxial cables}
- 15/22 . . Cable terminations
- 15/23 . . . Cable-end sealings
- 15/24 . . Cable junctions
- 15/25 . . . Stop junctions
- 15/26 . . Expansion vessels; Locking heads; Auxiliary pipe-lines
- 15/28 . . structurally associated with devices for indicating the presence or location of non-electric faults
- 15/30 . . with devices for relieving electrical stress
- 15/32 . . Cable inlets
- 15/34 . . Cable fittings for cryogenic cables  
([superconductive cables per se H01B 12/00](#))}

### 2200/00 Indexing scheme relating to installation of electric cables or lines covered by [H02G](#)

- 2200/10 . Prevention of theft of valuable metals
- 2200/20 . Identification of installed cables
- 2200/30 . Tools for installing cables comprising a spirit level