

# 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 (distribution points incorporating switches [H02B](#); guiding telephone cords [H04M 1/15](#); cable ducts or mountings for telephone or telegraph exchange installations [H04Q 1/06](#))

### 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>	1/1217	. . . . . {making a longitudinal cut}
		1/1219	. . . . . {making a transverse and longitudinal cut}
1/005	. {for cutting cables or wires, or splicing}	1/1221	. . . . {the cutting element rotating about the wire or cable (making longitudinal and transverse or helical cut <a href="#">H02G 1/1229</a> )}
1/02	. for overhead lines or cables		
1/04	. . for mounting or stretching (wire stretchers in general <a href="#">B25B 25/00</a> )	1/1224	. . . . . {making a transverse cut}
1/06	. for laying cables, e.g. laying apparatus on vehicle (combined with trench digging or back-filling machines or dredgers <a href="#">E02F 5/00</a> )	1/1226	. . . . . {making a helical cut}
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> )}	1/1229	. . . . {the cutting element making a longitudinal, and a transverse or a helical cut}
1/081	. . . {using pulling means at cable ends, e.g. pulling eyes or anchors}	1/1231	. . . . . {using a swivelling cutting element}
1/083	. . . {using lines, e.g. needles, rods or tapes}	1/1234	. . . . . {the tool being of the plier type}
1/085	. . . {using portable tools}	1/1236	. . . . {Features relating to cutting elements}
1/086	. . . {using fluid as pulling means, e.g. liquid, pressurised gas or suction means}	1/1239	. . . . . {the cutting element being a disc or a circular saw}
1/088	. . . {using pulling devices movable inside conduits}	1/1241	. . . . . {the cutting element being a stack of blades}
1/10	. . in or under water	1/1243	. . . . . {the cutting element being a wire or filament}
1/12	. for removing insulation or armouring from cables, e.g. from the end thereof (pliers in general <a href="#">B25B</a> ; cutters in general <a href="#">B26B</a> )	1/1246	. . . . . {the cutting element being of tubular construction}
1/1202	. . {by cutting and withdrawing insulation}	1/1248	. . . {Machines}
1/1204	. . . {Hand-held tools}	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> )}
1/1207	. . . . {the cutting element not rotating about the wire or cable (making longitudinal and transverse or helical cut <a href="#">H02G 1/1229</a> )}	1/1253	. . . . . {making a transverse cut}
1/1209	. . . . . {making a transverse cut}	1/1256	. . . . . {using wire or cable-clamping means}
1/1212	. . . . . {using wire or cable clamping means}	1/1258	. . . . . {not using wire or cable-clamping means}
1/1214	. . . . . {not using wire or cable clamping means}	1/126	. . . . . {making a longitudinal cut}
		1/1263	. . . . . {making a transverse and longitudinal cut}
		1/1265	. . . . {the cutting element rotating about the wire or cable (making longitudinal and transverse or helical cut <a href="#">H02G 1/1268</a> )}

- 1/1268 . . . . {the cutting element making a longitudinal in combination with a transverse or a helical cut}
- 1/127 . . . . {Features relating to cutting elements}
- 1/1273 . . {by pushing backwards insulation}
- 1/1275 . . {by applying heat}
- 1/1278 . . . . {using heated blades}
- 1/128 . . . . {using radiant energy, e.g. a laser beam}
- 1/1282 . . . . {removing metallic shields}
- 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}
- 1/1295 . . {Devices for splitting and dismantling flat cables}
- 1/1297 . . {Removing armouring from cables}
- 1/14 . . for joining or terminating cables ([joining electric conductors H01R 43/00](#))
- 1/145 . . {Moulds}
- 1/16 . . for repairing insulation or armouring of cables
- 3/00 Installations of electric cables or lines in or on buildings, equivalent structures or vehicles** ([installations of bus-bars H02G 5/00](#); [overhead installations H02G 7/00](#); [installations in or on the ground H02G 9/00](#); [channels or vertical ducts for receiving utility lines E04F 17/08](#); [wiring of electric apparatus in general H05K](#))
- 3/02 . . Details
- 3/03 . . Cooling
- 3/04 . . Protective tubings or conduits {or channels or other supports} ([pipes or tubings in general F16L](#))
- 3/0406 . . . . {Details thereof ([installation or suspension of conduit channels and other supports H02G 3/263](#))}
- 3/0412 . . . . {Heat or fire protective means (for fire in electric circuits [A62C 3/16](#))}
- 3/0418 . . . . {Covers or lids; Their fastenings}
- 3/0425 . . . . {Plinths ([borders for use between floor or ceiling and wall E04F 19/04](#))}
- 3/0431 . . . . {Wall trunking}
- 3/0437 . . . . {Channels}
- 3/0443 . . . . {formed by wire or analogous netting}
- 3/045 . . . . {provided with perforations or slots permitting introduction or exit of wires}
- 3/0456 . . . . {Ladders or other supports}
- 3/0462 . . . . {Tubings, i.e. having a closed section}
- 3/0468 . . . . {Corrugated}
- 3/0475 . . . . {formed by a succession of articulated units}
- 3/0481 . . . . {with a circular cross-section ([H02G 3/0468](#), [H02G 3/0475 take precedence](#))}
- 3/0487 . . . . {with a non-circular cross-section ([H02G 3/0468](#), [H02G 3/0475 take precedence](#))}
- 3/0493 . . . . {Service poles}
- 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
- 3/0608 . . . . {Joints for connecting non cylindrical conduits, e.g. channels}
- 3/0616 . . . . {Joints for connecting tubing to casing}
- 3/0625 . . . . {with means for preventing disengagement of conductors}
- 3/0633 . . . . . {with means urging the conductors to follow a non-straight line}
- 3/0641 . . . . . {with means distorted around the conductors}
- 3/065 . . . . . {with means biting into the conductor-insulation, e.g. teeth-like elements or gripping fingers ([H02G 3/0675](#), [H02G 3/0683 take precedence](#))}
- 3/0658 . . . . . {with means constricting the conductor-insulation ([H02G 3/065](#), [H02G 3/0675](#), [H02G 3/0683 take precedence](#))}
- 3/0666 . . . . . {with means clamping the armour of the conductor ([H02G 3/0675](#), [H02G 3/0683 take precedence](#))}
- 3/0675 . . . . . {with bolts operating in a direction parallel to the conductors}
- 3/0683 . . . . . {with bolts operating in a direction transverse to the conductors}
- 3/0691 . . . . . {Fixing tubing to casing by auxiliary means co-operating with indentations of the tubing, e.g. with tubing-convolutions}
- 3/08 . . Distribution boxes; Connection or junction boxes ([cable terminations H02G 15/02](#))
- 3/081 . . . . {Bases, casings or covers}
- 3/083 . . . . {Inlets}
- 3/085 . . . . . {including knock-out or tear-out sections}
- 3/086 . . . . {Assembled boxes}
- 3/088 . . . . {Dustproof, splashproof, drip-proof, waterproof, or flameproof casings or inlets}
- 3/10 . . . . for surface mounting on a wall
- 3/105 . . . . . {in association with a plinth, channel, raceway or similar}
- 3/12 . . . . for flush mounting
- 3/121 . . . . . {in plain walls}
- 3/123 . . . . . {in thin walls}
- 3/125 . . . . . {with supporting bar extending between two separate studs of a wall frame}
- 3/126 . . . . . {with supporting means for mounting on a single wall stud}
- 3/128 . . . . . {in plinths, channels, raceways or similar}
- 3/14 . . . . Fastening of cover or lid to box
- 3/16 . . . . structurally associated with support for line-connecting terminals within the box ([terminals H01R 9/00](#))
- 3/18 . . . . providing line outlets
- 3/185 . . . . . {Floor outlets and access cups}
- 3/20 . . . . . Ceiling roses {or other lighting sets}
- 3/22 . . Arrangements for leading cables or lines through walls, floors, or ceilings, e.g. into building ([devices for use where pipes, cables or protective tubing pass through walls or partitions F16L 5/00](#); [lead-in or lead-through insulators H01B 17/26](#); [insulating tubes or sleeves H01B 17/58](#))
- 3/24 . . {Installation of lines or cables on walls, ceilings or floors by means of insulators ([insulators H01B 17/00](#))}
- 3/26 . . {Installations of cables, lines, or separate protective tubing therefor directly on or in walls, ceilings, or floors ([by means of insulators H02G 3/24](#); [supports for pipes, cables or protective tubing F16L 3/00](#); [hose-clips F16L 33/02](#))}
- 3/263 . . . . {Installation, e.g. suspension, of conduit channels or other supports}
- 3/266 . . . . {Mounting by adhesive material}

- 3/28 . {Installations of cables, lines, or separate protective tubing therefor in conduits or ducts pre-established in walls, ceilings or floors}
- 3/281 . . {in ceilings}
- 3/283 . . {in floors}
- 3/285 . . . {in modular floors, e.g. access floors}
- 3/286 . . {in walls}
- 3/288 . . . {in modular walls, e.g. wall panels}
- 3/30 . Installations of cables or lines on walls, floors or ceilings (supports for pipes, cables or protective tubing [F16L 3/00](#); hose clips [F16L 33/02](#))
- 3/305 . . {Mounting by adhesive material}
- 3/32 . . using mounting clamps
- 3/34 . . using separate protective tubing
- 3/36 . Installations of cables or lines in walls, floors or ceilings ([H02G 3/22](#) takes precedence)
- 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 (non-rotary current collectors [H01R 41/00](#))
- 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](#); trolley wires or contact lines for electric railways [B60M](#); fastening conductors to insulators [H01B 17/00](#), e.g. [H01B 17/06](#), [H01B 17/16](#), [H01B 17/22](#); protection against abnormal electric conditions [H01H](#); hook contacts for temporary connections to overhead lines [H01R 11/14](#))
- 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 ([from insulators](#) [H01B 17/52](#))
- 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 ([construction of poles, posts or towers](#) [E04H 12/22](#))
- 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** ([cathodic protection](#) [C23F 13/02](#); [detection of buried cables](#) [G01V](#))
- 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, in handhole ([building aspects of cable chambers](#) [Section E](#), e.g. [E04H 5/06](#))
- 9/12 . supported on or from floats, e.g. in water ([floating cables](#) [H01B 7/12](#))
- 11/00 Arrangements of electric cables or lines between relatively-movable parts** ({[storing means for coiled material specially adapted for repeatedly paying-out and re-storing length of material for particular purposes](#) [B65H 75/34](#)}; [current collectors](#) [H01R](#) {; [winding-up telephone cord](#) [H04M 1/15](#)})
- 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

<b>13/00</b>	<b>Installations of lightning conductors; Fastening thereof to supporting structure</b> (indicating, counting or recording lightning strokes <a href="#">G01</a> ; lightning arrestors <a href="#">H01C 7/12</a> , <a href="#">H01C 8/04</a> , <a href="#">H01G 9/18</a> , <a href="#">H01T</a> ; earth plates, pins or other contacts <a href="#">H01R</a> )	15/1806	. . . {Heat shrinkable sleeves (insulation of electrical connections using a heat shrinking insulating sleeve <a href="#">H01R 4/72</a> )}
13/20	. {Active discharge triggering}	15/1813	. . . {Wraparound or slotted sleeves}
13/40	. {Connection to earth}	15/182	. . . {held in expanded condition in radial direction prior to installation}
13/60	. {Detecting; Measuring; Sensing; Testing; Simulating}	15/1826	. . . {on a removable hollow core, e.g. a tube}
13/80	. {Discharge by conduction or dissipation, e.g. rods, arresters, spark gaps}	15/1833	. . . . {formed of helically wound strip with adjacent windings, which are removable by applying a pulling force to a strip end}
<b>15/00</b>	<b>Cable fittings</b>	15/184	. . . with devices for relieving electrical stress
15/003	. {Filling materials, e.g. solid or fluid insulation}	15/188	. . . . connected to a cable shield only
15/007	. Devices for relieving mechanical stress	15/192	. . . with support means for ends of the sleeves
15/013	. Sealing means for cable inlets (inlets for cables filled with, or surrounded by, gas or oil <a href="#">H02G 15/32</a> )	15/196	. . . having lapped insulation
15/02	. Cable terminations (for gas- or oil-filled cables <a href="#">H02G 15/22</a> )	15/20	. Cable fittings for cables filled with or surrounded by gas or oil ( <a href="#">H02G 15/34</a> takes precedence)
15/025	. . {for coaxial cables or hollow conductors (connections between HF conductors <a href="#">H01P 1/04</a> ; plug and socket connections per se <a href="#">H01R 24/38</a> )}	15/205	. . {for coaxial cables}
15/04	. . Cable-end sealings	15/22	. . Cable terminations
15/043	. . . {with end caps, e.g. sleeve closed at one end}	15/23	. . . Cable-end sealings
15/046	. . . . {with bores or protruding portions allowing passage of cable conductors}	15/24	. . Cable junctions
15/06	. . Cable terminating boxes, frames, or other structures (terminal blocks <a href="#">H01R 9/00</a> )	15/25	. . . Stop junctions
15/064	. . . with devices for relieving electrical stress	15/26	. . Expansion vessels; Locking heads; Auxiliary pipe-lines
15/068	. . . . connected to the cable shield only ( <a href="#">H02G 15/072</a> takes precedence)	15/28	. . structurally associated with devices for indicating the presence or location of non-electric faults (combined with electric protective means <a href="#">H02H</a> )
15/072	. . . . of the condenser type	15/30	. . with devices for relieving electrical stress
15/076	. . . for multi-conductor cables	15/32	. . Cable inlets
15/08	. Cable junctions (for gas- or oil-filled cables <a href="#">H02G 15/24</a> ; disconnectable junctions, electrical connections <a href="#">H01R</a> )	15/34	. Cable fittings for cryogenic cables ({superconductive cables per se <a href="#">H01B 12/00</a> )}
15/085	. . {for coaxial cables or hollow conductors (plug and socket connections between HF conductors <a href="#">H01P 1/04</a> ; plug and socket connections per se <a href="#">H01R 24/38</a> )}	<b>2200/00</b>	<b>Indexing scheme relating to installation of electric cables or lines covered by <a href="#">H02G</a></b>
15/10	. . protected by boxes, e.g. by distribution, connection or junction boxes (terminal blocks <a href="#">H01R 9/00</a> ; distribution boxes per se <a href="#">H02G 3/08</a> )	2200/10	. Prevention of theft of valuable metals
15/103	. . . with devices for relieving electrical stress	2200/20	. Identification of installed cables
15/105	. . . . connected to the cable shield only ( <a href="#">H02G 15/107</a> takes precedence)	2200/30	. Tools for installing cables comprising a spirit level
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 <a href="#">H02G 15/10</a> ; preforms having internal stresses <a href="#">B29C 61/00</a> )		