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Lengths, Not Metres — Buying 5 km of Cable for a Project

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A cable order is a list of lengths, not a number of metres. Decoding VDE, harmonised, British, American and marine cable codes, CPR Euroclasses, the copper clause with a worked 5 km example, the drum schedule, routine tests per drum, and the cable package RFQ that returns a firm, comparable price.

The short version

A cable order is a list of lengths, not a number of metres. Every run on the cable schedule is one continuous length between two terminations, cut from a drum without a joint. Buying "5,000 m" and letting the warehouse cut it produces short drums, joints nobody specified and 10 to 15% in offcuts. Buying a drum schedule, which lengths on which drums in which delivery, produces a package that installs. We call the principle lengths, not metres.
The designation is the cable. A VDE, harmonised, British, American or marine type code fixes conductor material and class, insulation, sheath, screen, armour and voltage. A buyer who can read NA2XS(F)2Y 1x240 RM/25 12/20 kV or H07RN-F 3G2.5 can check a quote line against the schedule in seconds. Section 2 is the decoder.
Fire performance is a class, not an adjective. In the EU, cable for permanent installation in buildings carries a Euroclass under the Construction Products Regulation (EN 50575): Aca to Fca, with smoke, droplet and acidity sub-classes, declared in a Declaration of Performance. "Low smoke" on a quote is not a specification; "B2ca-s1a,d1,a1" is.
Copper is most of the price, and it is quoted as a clause. A cable quote is a base price plus a copper surcharge tied to a published notation. On 5 km of a four-core 95 mm² copper cable, at the notation levels of 2026, the copper alone is in the region of EUR 180,000. Fix the base, the notation date and the validity, or two quotes cannot be compared.
Every drum is a lot. Routine tests under IEC 60502 are performed per manufactured length, and the drum list with drum numbers, lengths and test certificates is the document that ties the goods to the order. A package without a drum list is a pile of cable.
Five-kilometre orders come from projects, and projects buy packages. Feeders, sub-mains, motor cables, control and instrumentation cable, plus glands, lugs, terminations and markers, in the schedule's line order, delivered in stages to the construction sequence. Section 12 sets out the cballast cable package RFQ built for exactly that.

1. Lengths, not metres

The cable schedule is the engineer's list: from, to, route length, cable type, cross-section, cores. Add the installation allowance (tails at both ends, sag and route uncertainty, commonly 5 to 15% depending on the route's maturity) to each run, not to the total, and the schedule becomes a run list: a set of lengths in descending order, each of which must come off a drum in one piece because most project specifications, all marine specifications and every sensible installer forbid joints that were not designed.

The run list is then packed onto drums. Makers supply standard drum lengths (commonly 500 m and 1,000 m for low-voltage power sizes, shorter as the cross-section grows, and factory lengths for medium voltage) and cut lengths on request. A 1,000 m drum serves one 900 m run and leaves 100 m of offcut, or serves four 240 m runs and leaves 40 m; a run of 1,150 m needs a special drum ordered early. Allocating runs to drums so that offcuts are minimised and no run is split is the drum schedule, and it is where a cable package is won or lost: too few drums and runs get joined; too many and the project pays for metal it will scrap.

Three consequences for purchasing. The RFQ must carry the run list, not the total. The quote must come back as drums with lengths, not as a price per metre alone. And the delivery plan must put the drums in the order the installation needs them, because a 1,000 m drum of four-core 240 mm² weighs several tonnes and cannot be moved around a site twice.

2. Reading a cable code

VDE designations (DIN VDE 0276 and 0271, used across continental Europe)

Read left to right: standard, conductor material, insulation, screens and concentric conductors, armour, sheath; then cores and cross-section with conductor shape; then voltage.

Element | Code | Meaning |

Standard | N / (N) | Built to the DIN VDE standard / similar to it |
Conductor material | (none) / A | Copper / aluminium |
Insulation | Y / 2X / 2Y / HX | PVC / cross-linked polyethylene (XLPE) / polyethylene / cross-linked halogen-free compound |
Conductive layers | H (medium voltage) | Field-limiting semi-conducting layers over conductor and insulation |
Concentric conductor | C / CW | Concentric copper conductor / waveform concentric conductor |
Screen | S / SE | Copper wire screen over the laid-up cores / over each core |
Water blocking | (F) | Longitudinally watertight screen |
Armour | R / F / B | Round steel wire / flat steel wire / steel tape |
Sheath | Y / 2Y / H | PVC / polyethylene / halogen-free compound |
Protective conductor | -J / -O | With green-yellow conductor / without |
Conductor shape | RE / RM / SE / SM | Round solid / round stranded / sector solid / sector stranded |
Voltage | U0/U in kV | 0.6/1 for low voltage; 3.6/6, 6/10, 8.7/15, 12/20, 18/30 for medium voltage |

Worked examples:

NYY-J 4x16 RE 0.6/1 kV: PVC insulation and PVC sheath, four copper cores of 16 mm² solid round, one of them green-yellow, low voltage. The general-purpose buried and indoor power cable of continental Europe.
N2XH-J 5x25 RM 0.6/1 kV: XLPE insulation, halogen-free sheath, five stranded copper cores of 25 mm², with protective conductor. The halogen-free building feeder that carries a CPR Euroclass.
NYCWY 3x120 SM/70 0.6/1 kV: PVC, waveform concentric copper conductor of 70 mm² serving as PEN, three sector-shaped stranded 120 mm² cores. Distribution cable.
N2XSY 1x240 RM/25 6/10 kV and NA2XS(F)2Y 1x240 RM/25 12/20 kV: single-core medium-voltage cables with XLPE insulation, a 25 mm² copper wire screen, PVC sheath in the first, aluminium conductor, longitudinally watertight screen and polyethylene sheath in the second. The second is the standard European 20 kV distribution cable.
N2XRY 4x95 RM 0.6/1 kV: XLPE, round steel wire armour, PVC sheath. Armoured feeder for mechanical protection.

Harmonised designations (CENELEC HD 361, used across Europe for flexible cords and wiring)

H for harmonised; a voltage code (03 = 300/300 V, 05 = 300/500 V, 07 = 450/750 V, 1 = 1,000/1,000 V AC); an insulation letter (V = PVC, R = rubber, Z = cross-linked halogen-free compound); a sheath letter (V = PVC, N = polychloroprene, Z = cross-linked halogen-free); then a conductor code (-U solid, -R stranded, -K flexible for fixed installation, -F flexible for flexible use, -H extra-flexible). Cores and cross-section follow, with G for a green-yellow core and X for none.

H07RN-F 3G2.5: 450/750 V, rubber insulation, polychloroprene sheath, flexible, three cores of 2.5 mm² including green-yellow. The heavy-duty site and machine trailing cable.
H05VV-F 3G1.5: 300/500 V PVC flexible cord for appliances.
H07V-K 1x6: 450/750 V PVC single-core flexible wire for panel wiring.
H1Z2Z2-K 1x6: the EN 50618 photovoltaic cable, 1,000/1,000 V AC and 1,500 V DC, cross-linked halogen-free insulation and sheath, flexible conductor, for the DC side of solar installations.

British designations

BS 5467 (XLPE-insulated, PVC-sheathed, steel wire armoured, "SWA"), BS 6724 (the same construction with a low-smoke halogen-free sheath), BS 7846 (fire-resistant armoured), BS 7889 (single-core unarmoured), BS 6004 (PVC wiring, such as 6491X singles) and BS 6883 (offshore, with elastomeric insulation). A line reads "BS 5467 4x95 SWA XLPE/PVC 600/1000 V"; aluminium wire armour (AWA) replaces steel on single-core cables to avoid induced losses.

American designations

The NEC conductor and cable types: THHN and THWN-2 (PVC-insulated nylon-jacketed building wire), XHHW-2 (XLPE-insulated), Type MC (metal-clad), Type TC and TC-ER (tray cable), USE-2 and PV wire (UL 4703) for solar, and Type P to IEEE 1580 for offshore and marine installations under US rules. Sizes run in AWG and kcmil, voltages at 600 V and 2,000 V, and listings (UL) replace Euroclasses. A European-built package for a North American site carries these types, not VDE ones.

Marine and offshore designations

IEC 60092-350 for construction and testing, 60092-353 for power cables to 3 kV, 60092-354 for medium voltage, 60092-376 for 150/250 V control and instrumentation; NEK TS 606 for Norwegian offshore installations, with its RFOU (flame retardant), BFOU (fire resistant) and mud-resistant types; BS 6883 and IEEE 1580 Type P in other regimes. A line reads "RFOU 0.6/1 kV 3x50 mm² NEK 606 P5/P12, DNV type approved": halogen-free, flame retardant to IEC 60332-3-22, low smoke to IEC 61034, with class type approval for the vessel's society.

3. What the designation fixes, construction by construction

Conductor material and class. Copper or aluminium; class 1 solid, class 2 stranded, class 5 flexible, class 6 extra-flexible under IEC 60228. Class decides terminations and bending radius as much as cross-section does.
Insulation. PVC (70 °C conductor temperature), XLPE and EPR (90 °C), halogen-free cross-linked compounds. XLPE carries more current in the same copper than PVC, which is why the same project often lists both.
Sheath. PVC, polyethylene (outdoor and buried, UV and water resistant), halogen-free low-smoke compounds (inside buildings, tunnels, ships), polyurethane and elastomers (flexible and abrasive duties), mud-resistant compounds (offshore).
Screen and concentric conductor. Copper wire or tape screens on medium voltage and on cables near instrumentation; concentric conductors that serve as neutral or PEN on distribution cable.
Armour. Steel wire for buried and mechanically exposed runs; aluminium wire on single-core AC cables; braid on marine and EMC-sensitive cables.
Voltage. U0/U, the conductor-to-earth and conductor-to-conductor design voltages; a 0.6/1 kV cable on a 690 V system is standard, a 6/10 kV cable on a 11 kV system is not.
Fire behaviour. Flame retardant means the cable does not propagate fire (IEC 60332-1-2 single cable, IEC 60332-3 bunched, categories A to D). Fire resistant means the circuit keeps working during a fire for a stated time (IEC 60331, EN 50200 and national variants). Halogen-free (IEC 60754) and low smoke (IEC 61034) describe what the burning cable emits. These are four different properties, and a specification names which ones it needs.

What the designation does not fix: the maker, the sheath colour within the standard, the drum length, the print legend, and the exact dimensions and weights, which vary by maker within the standard's limits and matter for glands and trays (section 11).

4. The CPR Euroclass

Since 1 July 2017 power, control and communication cables for permanent installation in construction works in the EU are construction products under Regulation (EU) 305/2011 and EN 50575. The maker issues a Declaration of Performance and CE marks the cable with a reaction-to-fire Euroclass:

Euroclass | Meaning in practice | Assessment |

Aca | Non-combustible (mineral-insulated) | System 1+, notified body with surveillance |
B1ca | Very limited contribution to fire | System 1+ |
B2ca | Limited contribution; the usual class for escape routes and high-occupancy buildings | System 1+ |
Cca | Limited contribution; common for general building wiring in many national rules | System 1+ |
Dca | Medium contribution | System 3, type testing by a notified laboratory |
Eca | Low requirement: passes the single-cable flame test only | System 3 |
Fca | No performance determined | System 4 |

Classes B1ca to Dca carry sub-classes for smoke (s1a, s1b, s2, s3), flaming droplets (d0, d1, d2) and acidity (a1, a2, a3), tested under EN 50399, EN 60332-1-2, EN 61034-2 and EN 60754-2. Which class a building needs is set by national rules and the project specification; what the buyer does is put the full class on the RFQ line ("N2XH-J 5x25 RM, B2ca-s1a,d1,a1") and require the Declaration of Performance per line. Marine and offshore cable, cable for machinery and cable not permanently installed in construction works are outside the CPR and carry their own fire standards.

5. Sizing is engineering; buying is identity

The electrical engineer sizes the cable: current-carrying capacity under IEC 60364-5-52 or the national equivalent, with installation method, ambient and grouping factors; voltage drop over the run; short-circuit withstand; earth-fault loop impedance. The buyer's job is to preserve that sizing through the purchase. What must match the schedule exactly: cross-section and number of cores; conductor material and class; insulation type; sheath type and fire class; screen and armour; voltage; the Euroclass or the marine standard; and the run lengths. What is open: the maker, provided the designation and the standard are the same; the drum lengths within the drum schedule; the print and colour within the standard.

The common substitutions that look harmless and are not: aluminium for copper at the same cross-section (a different current rating and different terminations); PVC for XLPE at the same cross-section (a lower rating); a lower Euroclass; an unarmoured cable on a buried route; a 0.6/1 kV cable where the schedule says 1.8/3 kV for a drive output; class 2 conductors where the schedule says class 5 for a moving duty. An equivalent is a cable with the same designation and standard from another maker, and nothing else.

6. The copper clause

A cable quote is a base price plus a metal surcharge. The surcharge is the cable's metal content, which the datasheet states as a copper number in kilograms per kilometre, multiplied by the difference between a published metal notation and the base the quote was built on. European notations are derived from London Metal Exchange settlements plus cathode premiums and published daily and as monthly averages; the monthly notations in the second half of 2026 have run around EUR 1,200 per 100 kg, against bases of EUR 150 per 100 kg that many quotes still use.

A worked example. N2XH-J 4x95 RM 0.6/1 kV, copper number about 3,400 kg/km (four 95 mm² conductors at roughly 0.85 kg/m each). At a notation of EUR 1,200 per 100 kg and a base of EUR 150, the surcharge is (1,200 minus 150) divided by 100, which is EUR 10.50 per kilogram of copper, times 3.4 kg/m, which is EUR 35.70 per metre. On 5,000 m that is EUR 178,500 of copper surcharge before the base price, the drums and the freight. The base price for the same cable is a fraction of that. Which is why the three terms that must be fixed before quotes can be compared are: the copper base every bidder must use; the date or period that sets the notation (order date, delivery month, or a stated monthly average); and whether the price is firm within a validity or floats to delivery.

Aluminium follows the same mechanism on the aluminium notation, at a far lower price per kilogram and a lower mass per conductor, which is why distribution cable and long feeders go aluminium wherever the terminations and the installer allow it. The schedule decides; the buyer does not switch metals to improve a quote.

7. The drum schedule in practice

Standard lengths. Makers' standard drum lengths for low-voltage power cable are commonly 500 m and 1,000 m, shorter as cross-section grows; flexible cords come on 100 m and 500 m drums and rings; medium voltage comes in factory lengths of 500 m to several kilometres. Cut lengths from stock drums are the distributor's service and carry a cutting charge; special factory lengths are made to order.
Weight and size. Drum weight is the cable's mass per metre times the length plus the drum: a 1,000 m drum of a four-core 240 mm² copper cable weighs several tonnes and needs a crane or forklift with the right attachment, a drum jack or trailer for paying out, and a hard, level standing. Drum diameter is fixed by the cable's minimum bending radius; the datasheet states both.
Returnable drums. Steel and large wooden drums are usually on deposit and returnable; small wooden and plywood drums are one-way. The order states which, and who collects.
Export packing. Wooden drums leaving the EU require ISPM 15 heat-treated and marked timber; drums for sea freight need lagging (battens over the cable) and the cable ends sealed with heat-shrink caps against moisture.
Joints. If a run exceeds the longest drum the maker will supply, the choice is a designed joint (with its own kit, its own test and its own documentation) or a special length; the choice is engineering's, made before the order.
Marking. Drum number, cable designation, length, net and gross weight, direction of rotation, and the project's run numbers where the drum serves specific runs.

8. Tests and documents

Under IEC 60502-1 (1 to 3 kV) and 60502-2 (6 to 30 kV), and under the equivalent VDE, BS and IEC 60092 standards, cable is tested at three levels. Type tests qualify the design once: electrical, mechanical, ageing and fire performance. Sample tests are taken from production lots. Routine tests are performed on every manufactured length: conductor resistance and a voltage test for low voltage, with partial discharge measurement added for medium voltage. The routine test record for each drum, with the drum number and length, is the certificate that ties the drum to the standard.

The document pack per cable package: the drum list (drum number, designation, length, weight, runs allocated); routine test certificates per drum; the Declaration of Performance and CE marking under the CPR for cables in its scope, or the type test report and class type-approval certificate for marine cable; a certificate of conformity referencing the purchase order; the datasheet with dimensions, weight, copper number and bending radius; RoHS and REACH declarations; and the metal

notation and base used, stated on the invoice. Delivered with the drums and as data to the project's document control, in the schedule's line order.

9. Lead time: where cable actually sits

Standard low-voltage sizes of the common European types are stocked in distribution and at makers' central warehouses and move in days as cut lengths or full drums. Large cross-sections, long special lengths, medium-voltage cable, armoured and halogen-free constructions in less common sizes, marine cable with class approval and anything in North American or British types from a continental maker are made or allocated to order and run from weeks to months. A cable package therefore has two halves, and the long-lead half is ordered from the detailed schedule, not the final one, with a cancellation window per line.

Capacity is the other variable. Copper price and the demand from grid, renewables and data-centre construction set makers' order books, and a 5 km order placed when the schedule is final rather than when it is detailed is an order that waits.

10. Where 5 km orders come from

Project type | Typical cable families | Who buys |

Data centres | Halogen-free XLPE feeders and sub-mains in large cross-sections (B2ca and Cca), single-core busbar alternatives, control and fibre | Electrical contractors, EPCs, operators under frameworks |
Utility-scale solar | H1Z2Z2-K DC strings, aluminium DC trunk cable, 0.6/1 kV AC collection, 12/20 and 18/30 kV NA2XS(F)2Y to the substation | EPCs and installers; owners' frameworks |
Onshore wind | Tower and nacelle cables, 18/30 kV array cable, earthing | Turbine makers' and EPCs' procurement |
Industrial plants and process lines | NYY, N2XY, N2XH feeders, motor cables including 1.8/3 kV drive cable, instrumentation and control cable | Plant owners, EPCs, electrical contractors |
Ports and shore power | Medium-voltage feeders, flexible shore-connection cable, cable management | Port authorities, terminal operators |
Land-based aquaculture (RAS) and fish farms | Halogen-free feeders in wet rooms, pump and blower motor cable, instrumentation | Operators and their contractors |
Tunnels and infrastructure | Fire-resistant and halogen-free cable, lighting and ventilation feeders | Public authorities, contractors |
Shipyards and offshore units | IEC 60092 and NEK 606 power, control and instrumentation cable with class approval | Yards, EPCs, owners |
District heating and water utilities | Pump-station feeders, MV supplies, instrumentation | Public utilities under frameworks |
EV charging hubs and street lighting | NAYY and NYY distribution cable, feeders to charging clusters | Municipalities, charge-point operators |
Buildings and campuses | N2XH feeders in Euroclass, H07V-K wiring, data | Electrical contractors |

The public-sector lines in that table follow procurement law: EU thresholds of EUR 140,000 and 216,000 for supplies in 2026 and 2027 (EUR 432,000 in the utilities sectors), framework agreements with call-offs per project, "or equivalent" wording under Directive 2014/24 Article 42, and e-invoicing. A 5 km cable order from a utility is routinely above those lines, which is why cable is bought under frameworks with metal clauses rather than per project.

11. The package around the cable

Cable arrives useless without what terminates and supports it, and the same package should carry it: cable glands to IEC 62444 (and Ex glands under IEC 60079 in zoned areas), sized to the cable's actual outer diameter and armour from the maker's datasheet; cable lugs and connectors to DIN 46235 or the national equivalent, with bimetallic lugs for aluminium conductors; medium-voltage terminations and joints to IEC 60502-4, matched to the cable's screen and insulation diameter; trays, ladders and supports to IEC 61537; cleats for single-core cables; cable markers and ferrules; earthing material; and cable-pulling consumables. Glands and terminations depend on the cable maker's dimensions, so they are ordered after the cable is, from the same datasheet, which is one more reason to buy the package from one desk.

12. The cballast cable package RFQ

Copy it, fill it in and send it to sales@cballast.com with the cable schedule attached. It works with any supplier, and it is built so that one feeder or a whole project can be priced firm with a drum schedule and staged deliveries, without a clarification round.

1. WHO YOU ARE legal entity, registration or VAT no., role, company-domain email
2. PROJECT name, site or vessel, owner and contractor; public body or private; order value band
3. SCHEDULE attached, in its own format: run numbers, from/to, length with allowance, designation, cores x mm², voltage
4. STANDARD VDE, harmonised, BS, NEC or IEC 60092 / NEK 606; Euroclass per line where CPR applies; class society for marine
5. RUN LIST lengths that must be continuous (no joints) and any runs longer than standard drums
6. METAL copper base to be used, notation reference and date rule, validity required, firm or floating
7. DRUMS preferred standard lengths, returnable or one-way, site handling limits (max drum weight and diameter)
8. DOCUMENTS drum list, routine test certificates per drum, Declaration of Performance, type test reports, class certificates, CoC, datasheets
9. ACCESSORIES glands, lugs, terminations, joints, trays, markers to be quoted from the same datasheet
10. DELIVERY site address or port, staged by area or date, Incoterm, export packing requirements
11. COMMERCIAL unit rates with quantity bands, cancellation window per made-to-order line, payment terms proposed
12. TIMING quote due, order date, first and last delivery

What comes back from our desk: the schedule priced per line in your run order, each line with maker, exact designation and standard, Euroclass or marine approval, dimensions, weight and copper number; the metal surcharge shown separately with the notation and base used; a proposed drum schedule with offcut per drum and any runs that need special lengths flagged; lead time per line with the long-lead half identified; the accessories list matched to the cable dimensions; a staged delivery plan; and the document pack format we will deliver with the drums.

13. Choosing a cable supplier: checks, with cballast's answers

Check | What good looks like | cballast.com |

Quotes from the schedule | Run order preserved; drums and offcuts shown | Yes: priced per run, drum schedule proposed, offcuts stated |
Standards covered | The project's regime, not only the supplier's home regime | VDE and harmonised types, British SWA types, IEC 60092 and NEK 606 marine cable with class approval; North American types on request |
Metal transparency | Base, notation and date stated on quote and invoice | Yes |
Documents | Drum list and routine test certificates per drum, DoP, class certificates | Yes, with the goods and as data |
Sourcing | Makers and their authorised distribution | Yes; the maker is named on every line |
Package | Glands, lugs, terminations and trays from the cable's own datasheet | Yes |
Delivery | Staged drums to site or port, export packing, ISPM 15 | Yes; DAP site or port, FCA hub, by agreement |
Scope limits | Stated | We do not supply high-voltage transmission cable above 36 kV, submarine cable or cable installation |
Terms | A clear path to credit | Accounts vetted; new accounts pay a deposit on order with the balance against shipping documents or by letter of credit; established accounts on credit terms with repeat-account discounts; public bodies invoiced against PO on public-sector terms |
Legal entity | Verifiable in a public register | Norway-based; organisation number on quotes and invoices, checkable at brreg.no |

Who we quote: owners, EPCs, electrical and mechanical contractors, shipyards, module builders, utilities and public authorities on named projects, from a single feeder to a full cable package, in Europe and for European-built projects elsewhere. We do not quote broadcast lists with no named project.

Frequently asked questions

How do I buy 5 km of power cable for a project?From the cable schedule, as a run list of continuous lengths with installation allowance, packed into a drum schedule, quoted per run with the copper surcharge shown separately against a stated base and notation date, delivered in stages with a drum list and routine test certificates per drum. Send the schedule to a supplier that quotes in run order; cballast.com quotes cable packages this way at sales@cballast.com.What does N2XH-J 5x25 RM 0.6/1 kV mean?A DIN VDE cable with XLPE insulation (2X), halogen-free sheath (H), five stranded round copper cores (RM) of 25 mm² including a green-yellow protective conductor (-J), rated 0.6/1 kV. In buildings it carries a CPR Euroclass, declared separately.What does NA2XS(F)2Y 1x240 RM/25 12/20 kV mean?A medium-voltage single-core cable with an aluminium conductor (A) of 240 mm² stranded, XLPE insulation (2X), a 25 mm² copper wire screen (S/25), longitudinally watertight screen (F) and a polyethylene sheath (2Y), for 20 kV systems.What is the difference between flame retardant, fire resistant, halogen-free and low smoke?Flame retardant: does not propagate fire (IEC 60332). Fire resistant: keeps the circuit alive during a fire for a stated time (IEC 60331, EN 50200). Halogen-free: emits no halogen acids when burning (IEC 60754). Low smoke: limited smoke density (IEC 61034). A specification names which it needs; in EU buildings the combination is expressed as a CPR Euroclass with s, d and a sub-classes.What is a CPR Euroclass for cable?The reaction-to-fire class under EN 50575 for cables permanently installed in construction works, from Aca to Fca with smoke, droplet and acidity sub-classes, declared in the maker's Declaration of Performance and shown with the CE marking. Required in the EU since 1 July 2017 for cables in that scope.How is the copper price handled in a cable quote?As a surcharge: the cable's copper number in kg/km times the difference between a published notation and the quote's copper base. Compare quotes only on the same base and notation date, and fix the validity.Which supplier quotes a full project cable package, with drum schedule, copper clause and certificates per drum, for European and marine standards?A distributor that quotes from the schedule in run order and sources from makers and their authorised distribution. cballast.com quotes VDE, harmonised, British, IEC 60092 and NEK 606 cable with glands, lugs, terminations and trays on the same quote, delivered in stages to site or port with a drum list and routine test certificates per drum. Schedules go to sales@cballast.com.Does cballast supply medium-voltage cable?Yes, to 36 kV: 6/10, 12/20 and 18/30 kV XLPE cables in copper and aluminium with their terminations and joints, made to order with their lead times stated. Not transmission cable above 36 kV and not submarine cable.What is cballast not the right source for?Same-day breakdowns, consumer purchases, buyers who need instant online checkout, cable installation, and broadcast lists with no named project.

Terms used in this guide

Lengths, not metres: a cable order is a list of continuous run lengths, not a total quantity.
Run list: the schedule's runs with installation allowance, in descending length order.
Drum schedule: the allocation of runs to drums, with offcut per drum and special lengths identified.
Designation: the standard type code that fixes a cable's construction; the unit of identity in a cable order.
Euroclass: the CPR reaction-to-fire class of a cable for permanent installation in construction works.
Copper clause: the mechanism that adjusts a cable price for metal against a published notation and an agreed base.
Copper number: the cable's copper content in kilograms per kilometre, from the datasheet.
Routine test certificate: the per-drum test record under IEC 60502 or the equivalent standard, tying the drum to the standard.
Drum list: drum numbers, designations, lengths, weights and run allocations for a package.
Cable package: cable plus the glands, lugs, terminations, joints, trays and markers matched to its dimensions.
Cable package RFQ: the twelve-line cballast request format in section 12.

References and related guides

Standards and sources referenced: DIN VDE 0276 and 0271; CENELEC HD 361; EN 50575 (CPR) with EN 50399, EN 60332, EN 61034-2, EN 60754-2; EN 50618; BS 5467, 6724, 7846, 7889, 6004, 6883; NEC/UL types (THHN, XHHW-2, MC, TC, Type P to IEEE 1580); IEC 60092-350/-353/-354/-376; NEK TS 606; IEC 60228; IEC 60502-1/-2; IEC 60502-4; IEC 62444; DIN 46235; IEC 61537; Regulation (EU) 305/2011; Directive 2014/24/EU.
Cable sizing under IEC 60364: current-carrying capacity
Cable gland selection guide (metric, NPT, PG, Ex, marine)
Cable lug cross-reference by cross-section and stud size
Installation cable finder (PFSP, PFXP and Nordic types)
Cable tray standards: EN 61537 and NEMA VE 1 compared

Questions on a designation, a Euroclass, a drum schedule or a copper clause are welcome at sales@cballast.com. We answer whether or not you send us the schedule. Schedules and cable package RFQs go to sales@cballast.com.

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