

Specification kit

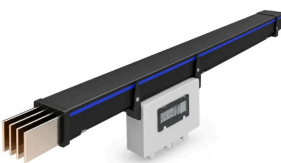
Ready-to-paste text for design narratives and bid documents · LVA · GM · Data Pro · GM-Z MV

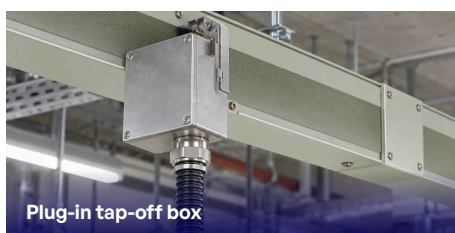
Illustrative image

HOW TO USE THIS KIT

- 1 Choose the product**
By voltage, environment and load: LVA, GM, Data Pro or GM-Z MV (guide below).
- 2 Copy the text**
Paste the specification into your design narrative, specification or bid documents.
- 3 Fill in the fields**
Highlighted **[fields]** are your project data. Do not lower the minimum values without checking with us.
- 4 Send us the one-line and drawings**
We validate the sizing and lay out the route at no cost.

WHICH PRODUCT TO SPECIFY

 LVA LV · INDOOR · 250–5000 A Feeders and risers in residential towers, retail, offices and industry. Specification 1 Sales sheet →	 GM LV · OUTDOOR / BURIED · 400–5000 A Buried, submerged or outdoor runs, or with salt and chemicals. Specification 2 Sales sheet →	 Data Pro LV · TECHNICAL ROOMS · 160–1000 A Distribution above rack rows in data centers and telecom. Specification 3 Sales sheet →	 GM-Z MV MV · 3.6–40.5 KV · 800–6300 A Transformer – switchgear links, generation, mining and power plants, including nuclear. Specification 4 Sales sheet →
---	---	--	--



Altitude. Normal service conditions in IEC 61439 (low voltage) go up to 2000 m and in IEC 62271-1 (GM-Z MV) up to 1000 m. Quito (~2850 m) and Cuenca (~2550 m) exceed them: state the site altitude in the specification so the right correction is applied.

Neutral text. The specifications are written in bid-document style, without brand names, so you can use them in public and private tenders.

SPECIFICATION 1

Sandwich busway LVA

[Technical manual →](#)

- 1.1 Scope.** Furnish and install a low-voltage sandwich-type busway system for [main feeder / riser / floor-by-floor distribution], from [origin: transformer / switchboard] to [destination], complete with all fittings and accessories.
- 1.2 Standards.** The system shall be manufactured and tested to IEC 61439-6. The manufacturer shall submit type-test reports.
- 1.3 Electrical ratings.** Rated current [] A; operating voltage up to 690 V; rated insulation voltage 1000 V; frequency 60 Hz; system [3P4W / 3P5W with housing as PE / 3P5W with internal PE bar]; rated short-time withstand current for 1 s not less than [] kA.
- 1.4 Conductors.** Aluminum bars in sandwich construction, with no air gaps between phases, and silver-plated contacts.
- 1.5 Insulation.** Halogen-free, class B (polyester) or class H (epoxy) per IEC 60085.
- 1.6 Housing.** Extruded aluminum with finned surface for heat dissipation, used as a low-impedance ground conductor. Minimum degree of protection [IP54 / IP65 / IP66].
- 1.7 Joints.** Single-bolt bridge joint with Belleville washers and break-off-head torque bolt, minimum longitudinal adjustment of ± 8 mm, and a device that prevents connection with reversed phases.
- 1.8 Plug-in sections.** Factory-sealed tap-off outlets with covers, ready for future plug-in units. Number of outlets per drawings.
- 1.9 Tap-off boxes.** With [molded-case circuit breaker / fuses], [3P / 4P], mechanical interlock that prevents opening the cover while energized, minimum IP54.
- 1.10 Fittings.** BENDs, TEEs, offsets, reducers, expansion joints (one per 60 m of straight run), fire barriers at wall and floor penetrations, flanged connections to switchboard and transformer, end closures, hangers and supports.
- 1.11 Installation.** Horizontal supports at no more than 2 m. Minimum spacing of 350 mm between parallel vertical runs.

SPECIFICATION 2

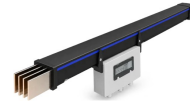
Cast-resin busway GM

[Technical manual →](#)

- 2.1 Scope.** Furnish and install a cast-resin busway system for [outdoor / buried / wet or corrosive environment], from [origin] to [destination].
- 2.2 Standards.** IEC 61439-6. The manufacturer shall submit type-test reports.
- 2.3 Electrical ratings.** Rated current [] A; operating voltage 690 V; rated insulation voltage 1000 V; frequency 60 Hz; system [3P+N+PE / other]; short-circuit withstand not less than [] kA.
- 2.4 Conductors.** Electrolytic copper bars fully encapsulated in mineral-filled epoxy resin compound, with no air gaps.
- 2.5 Protection.** IP68 degree of protection on sections and joints (joints cast on site). Minimum mechanical resistance IK10. Self-extinguishing (UL94 V0), halogen-free compound.
- 2.6 Environment.** Suitable for outdoor, buried or submerged installation, resistant to salt spray and chemical agents.
- 2.7 Fittings.** Custom-built switchboard and transformer connections, BENDs, TEEs, reducers, joints and supports from the same manufacturer.

SPECIFICATION 3

Track busway for data centers Data Pro


[Technical manual →](#)

- 3.1 Scope.** Furnish and install track busway to feed [racks / loads] in [room], mounted [above the aisle / under the raised floor].
- 3.2 Electrical ratings.** Rated current [] A (range 160 – 1000 A); system 3L+N+PE; operating voltage with tap-offs 400 V; short-circuit withstand not less than [] kA.
- 3.3 Construction.** Silver-plated electrolytic copper conductor along its full length; aluminum-alloy housing; IP42 degree of protection; spring-loaded joints with no adjustment bolts.
- 3.4 Tap-offs.** Tap-off boxes of [] A (range 16 – 100 A) with [1 / 3 / 6] circuits, installable at any point along the run without tools, with automatic locking and PE connection made before the phases.
- 3.5 Monitoring.** [Optional] Voltage, current and temperature metering module per tap-off, communicating with the management system (DCIM / BMS).
- 3.6 Certifications.** Busway certified DEKRA (formerly KEMA-KEUR) and CE; tap-off boxes DEKRA and CE; seismic test IEC 60068-3-3.

SPECIFICATION 4

Cast-resin MV busway GM-Z MV


[Technical manual →](#)

Medium voltage: every project is custom-engineered. MV links depend on coordination with switchgear, transformers and generators, on the short-circuit level and on the route. Use this text as a starting point and validate it with our engineering team before issuing the bid documents: we review the one-line and help you complete the values.

- 4.1 Scope.** Furnish and install a cast-resin insulated medium-voltage busway system for [transformer – switchgear link / generator – transformer / MV feeder], [indoor / outdoor / buried / wet or corrosive environment], from [origin] to [destination], with its terminations and fittings.
- 4.2 Standards.** Designed and tested to the applicable requirements of IEC 62271-1 and IEC 62271-200. The manufacturer shall submit type-test reports. [Nuclear power plants: compliance with NB/T 25076-2017.]
- 4.3 Electrical ratings.** Rated voltage [] kV (range 3.6 – 40.5 kV); rated current [] A (800 – 6300 A in 12 kV class; 1600 – 4000 A in 35 kV class); frequency 60 Hz; rated short-time withstand current not less than [] kA for [2 / 4] s and peak withstand not less than [] kA.
- 4.4 Insulation level.** 1-min power-frequency withstand and lightning-impulse withstand not less than 45 kV and 105 kV (12 kV class) or 100 kV and 185 kV (35 kV class).
- 4.5 Conductors and insulation.** High-purity electrolytic copper bars (conductivity $\geq 98\%$ IACS), cast and sealed in resin as a single three-phase body with no air gaps. Flame-retardant, self-extinguishing insulating material.
- 4.6 Protection.** Minimum degree of protection [IP68 (12 kV class) / IP67 (35 kV class)] and mechanical resistance IK10, on sections and joints (joints sealed with resin on site).
- 4.7 Environment.** Ambient temperature from $-50\text{ }^{\circ}\text{C}$ to $+65\text{ }^{\circ}\text{C}$. Design altitude up to 1000 m; state the site altitude so the insulation correction can be applied. [Optional] Nuclear-grade seismic qualification: intensity 8, 0.2 g.
- 4.8 Fittings and engineering.** Custom-built terminations to switchgear, transformers and generators, BENDs, joints, expansion joints, supports and grounding from the same manufacturer. The supplier shall submit the sizing calculation and the route drawing for approval.

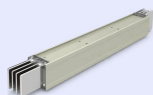
5 · DATA TO SIZE AND QUOTE

DATA	WHAT WE USE IT FOR
One-line diagram	Currents, switchboards and transformers to connect
Drawings (plans and sections) or route	Meters, BENDs, floor and wall penetrations
Rated current and short-circuit level	System amperage and kA
System (3P4W / 3P5W) and grounding type	Conductor configuration
System voltage (LV or MV) and environment	Product (LVA / GM / Data Pro / GM-Z MV) and IP
Site altitude and temperature	Capacity derating (Quito and Cuenca > 2000 m)
Tap-offs: quantity, amperage, protection	Tap-off boxes
Switchboard and transformer make and model	Design of flanged connections
Required on-site date	Manufacturing and delivery plan

6 · DOCUMENTS WE DELIVER

- ✓ Product sales sheet and technical manual
- ✓ Type-test reports and certificates
- ✓ Field test protocol, if installation is included
- ✓ Route drawing and bill of materials
- ✓ Installation manual
- ✓ Warranty terms stated in the quote

FULL TECHNICAL DETAIL



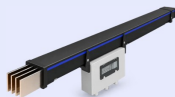
LVA manual

Dimensions, fittings and electrical tables



GM manual

Dimensions, fittings and electrical tables



Data Pro manual

Dimensions, fittings and electrical tables



GM-Z MV manual

Dimensions, fittings and electrical tables

Medium-voltage project? GM-Z MV links are quoted with project engineering. Send us the MV one-line, the voltage and short-circuit levels and the route: we help you complete the specification.

[Talk to engineering →](#)