Energy storage monitoring cable for BMS and EMS links

BMS · SCREENED PAIRS

Screened pair and triad cable for BMS, EMS and Modbus communication inside storage containers and switch rooms.

RATED VOLTAGE	SCREEN	PAIRS	STANDARD
300/500 V	Foil + braid	1–24 pairs	IEC 60228

TYPICAL APPLICATIONS

- BMS rack-to-BCU communication
- EMS and plant controller links
- Modbus RTU / RS-485 networks
- Temperature and voltage sensing

CONSTRUCTION

- Tinned copper, Class 5
- Twisted pairs or triads
- Al-PET foil screen with drain wire
- Optional copper braid for high-noise routes
- LSZH or PVC sheath

TECHNICAL DATA

Rated voltage	300/500 V	**Temperature**	−30 °C to +80 °C
Conductor	Tinned copper, Class 5	**Impedance**	120 Ω nominal for RS-485 constructions
Pairs	1 to 24 pairs, plus triads	**Flame**	IEC 60332-1-2
Screen	Al-PET foil + drain, optional braid	**Standard**	IEC 60228, IEC 60332-1-2
Sheath	LSZH or PVC	**Packing**	500 m / 1000 m drums

Typical values. The final construction is confirmed on the order datasheet and the released drawing.

STANDARDS, TESTING AND DOCUMENTS

Routine tests	Conductor resistance, voltage test and insulation resistance on every length
Type tests	Type-test reports for each construction, witnessed by a third party on request
Documents with the drum	Packing list, drum list, routine test certificate, datasheet, CO / FORM A
Traceability	Drum number marked and recorded against the routine test certificate

OTHER CONSTRUCTIONS FROM THE SAME RANGE

Energy Storage Battery Connection Cable	www.zmsenergycable.com/products/energy-storage-cables/energy-storage-battery-cable/
Wind Turbine Torsion Resistant Cable	www.zmsenergycable.com/products/wind-turbine-cables/wind-turbine-torsion-cable/

PACKING AND DELIVERY

Drum	Wooden or steel-framed export drum, 250–500 m per drum by cross-section
Packing	Sealed ends, protected lugs, desiccant, UV-resistant wrap
Marking	Drum no., designation, voltage, cross-section, length, gross weight
Lead time	15–25 working days for standard builds
Terms	FOB Qingdao, Tianjin or Shanghai. CIF, CFR and DAP on request

HOW TO ORDER

To quote, send the voltage class (U0/U), conductor material and cross-section, screen or armour, sheath, drum length, delivery port and the standard the project specifies. We return a released drawing, the test programme and a drum plan with the quotation.

SELECTION NOTES

Which screen should be earthed?
The screen is normally earthed at one end to avoid circulating currents, with the drain wire connected at the controller. Both ends are used where high-frequency noise dominates.

Is 120 Ω impedance available?
Yes. RS-485 constructions are available with 120 Ω nominal impedance for long Modbus runs.

Can the cable be supplied with connectors?
Pre-terminated assemblies can be quoted where the rack layout and connector type are known.

Certification. Environmental management to ISO 14001:2015 and occupational health and safety to ISO 45001:2018, with CE marking under the EU low-voltage and EMC directives. Independent inspection and type testing are carried out through ISO/IEC 17020 and 17025 accredited laboratories. Certificate numbers and validity dates are published at www.zmsenergycable.com/certificates/.

Request a quotation for this cable

Send the specification sheet or the cable schedule and we return a released drawing, the test programme and a drum plan with the price.

Tel +86 371 6782 9333
WhatsApp +86 173 0383 6349
info@zmscable.com
www.zmsenergycable.com