Product Overview

QZ Cable supplies A3CS (AAACS) cables designed for medium-voltage power distribution networks. The cable features a stranded aluminium conductor with XLPE insulation and is intended for electrical power transmission at a rated voltage of 12/20 kV.

Compared with bare A3C / AAAC conductors, the A3CS cable incorporates an extruded XLPE insulation layer around the conductor. This construction provides an insulated conductor design for overhead medium-voltage power distribution applications.

Manufacturing can be based on SPLN 41-10 or the agreed manufacturer's specifications, subject to project requirements.

A3CS / AAACS Cable Construction

The cable consists of the following main components:

1. **Conductor:** Stranded aluminium conductor.
2. **Insulation:** Extruded cross-linked polyethylene (XLPE) insulation.

The supplied product description identifies a single-core construction. No additional outer sheath or metallic screen is specified in the source information.

Key Features

- **Aluminium conductor:** Lightweight conductor material for medium-voltage power distribution.
- **XLPE insulation:** Extruded cross-linked polyethylene insulation.
- **Single-core design:** Suitable for the specified single-core cable configuration.
- **Multiple conductor sizes:** Available in nominal sizes from 35 mm² to 1000 mm².
- **Manufacturing standard:** SPLN 41-10 or manufacturer's specifications, subject to confirmation.
- **Project-based supply:** Other specifications and configurations can be discussed upon request.

Applications

A3CS / AAACS 12/20 kV cable is intended for medium-voltage electrical power distribution. It can be used as an insulated aluminium conductor for transferring electrical energy between points in a power network.

The exact installation method and application should be confirmed against the project design, applicable Indonesian requirements, and the cable's approved technical specification.

Applicable Standards

- **SPLN 41-10** – Referenced for A3CS / AAACS cable projects.
- **IEC 60228** – Conductor requirements, where specified and applicable.

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- **IEC 60502-2** – Medium-voltage cable requirements; applicability to this particular overhead cable design must be confirmed against the project specification.

The final standard, test requirements and construction details should be confirmed against the customer's approved technical documents.

Technical Specifications

Parameter	Description
Product name	A3CS / AAACS Cable
Rated voltage	12/20 kV
Conductor material	Aluminium
Conductor construction	Stranded, single core
Insulation	XLPE
Applicable standard	SPLN 41-10 or manufacturer's specification
Nominal conductor size	35–1000 mm²
Standard delivery length	1,000 m or 500 m, depending on conductor size
Other specifications	Available upon request

A3CS / AAACS Cable Technical Data

The following values are transcribed from the supplied product data. Items requiring confirmation are identified in the notes below.

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES			
Cross Sectional Area Nominal Size	Number and Diameter Wire	Insulation Thickness	Approx. Overall Diameter	Approx. Cable Weight	Calculated Breaking Force	DC. Resistance at 20°C	Current Carrying Capacity	Standard Length
mm²	pcs/mm	mm	mm	kg/km	kg	ohm/km	A	m
35	7/2.50	3.00	14.00	199	980	0.958	167	1000
50	19/1.75	3.00	15.00	240	1300	0.724	200	1000
70	19/2.25	3.00	18.00	349	2150	0.438	275	1000
95	19/2.50	3.00	19.00	412	2660	0.355	315	1000
100	7/4.25	3.00	19.00	441	2830	0.332	325	1000
120	19/2.75	3.00	20.00	480	3220	0.293	356	1000
150	19/3.25	3.00	23.00	632	4490	0.210	423	1000
150	37/2.25	3.00	22.00	593	4190	0.225	423	1000
185	37/2.50	3.00	24.00	708	5170	0.183	484	1000
240	61/2.25	3.00	27.00	905	6910	0.139	596	1000
300	61/2.50	3.00	29.00	1088	8530	0.111	670	1000

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mm²	pcs/mm	mm	mm	kg/km	kg	ohm/km	A	m
400	61/3.00	3.00	34.00	1506	12290	0.077	810	1000
500	61/3.25	3.00	36.00	1740	14420	0.066	930	1000
630	91/3.00	3.00	40.00	2160	18330	0.052	1085	1000
800	91/3.25	3.00	42.00	2503	21515	0.044	1255	1000
1000	91/3.75	3.00	48.00	3265	28640	0.033	1450	1000

Values marked with an asterisk require confirmation against the original technical datasheet.

Manufacturing and Customization

QZ Cable can discuss A3CS / AAACS cable requirements based on the requested conductor size, construction, applicable standard, and project specifications.

Available nominal conductor sizes in the supplied data range from 35 mm² to 1000 mm². Other specifications may be considered upon request.

For an accurate quotation and technical confirmation, please provide:

- Required conductor size and quantity
- Applicable standard and project specification
- Required delivery length
- Installation and operating conditions
- Any additional technical or inspection requirements

Frequently Asked Questions

1. What is A3CS / AAACS cable?

A3CS / AAACS is an aluminium conductor cable with XLPE insulation, designed for medium-voltage power distribution. The supplied product specification identifies a single-core construction and a rated voltage of 12/20 kV.

2. What is the difference between A3CS and A3C / AAAC?

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The A3CS cable described here has an extruded XLPE insulation layer around its aluminium conductor. A3C / AAAC refers to a bare aluminium-alloy overhead conductor without this insulation layer. The exact conductor alloy and construction should be confirmed from the applicable product specification.

3. What voltage rating is available?

The supplied product data identifies a rated voltage of 12/20 kV. The precise voltage designation and applicable system requirements should be confirmed in the project specification.

4. Which standards apply to A3CS cable?

The supplied specification refers to SPLN 41-10 or manufacturer's specifications. The required standard and its applicable edition should be agreed before production.

5. What conductor sizes are available?

The supplied size range covers nominal conductor sizes from 35 mm² to 1000 mm². Other specifications may be discussed upon request.

6. Can the cable be manufactured to project requirements?

Project-specific requirements can be reviewed based on the required conductor construction, insulation, dimensions, applicable standards, and delivery conditions.

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