PT. MAGNAKABEL NUSANTARA
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PRODUCT CATALOGUE

TRANSMISSON CONDUCTORS

PT. MAGNAKABEL NUSANTARA

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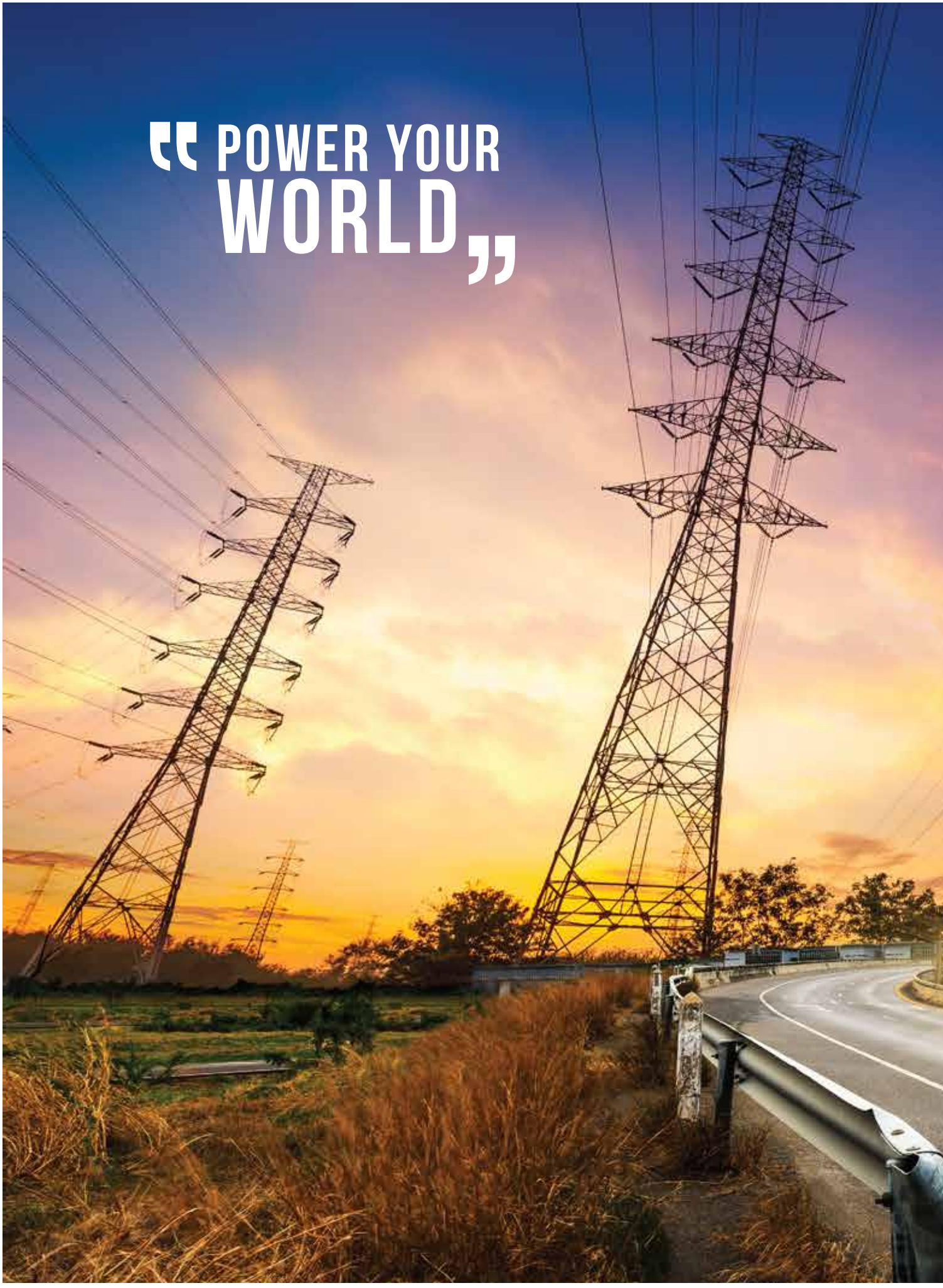
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Introduction

About Our Company

For over three decades, **PT. Magnakabel Nusantara** has held its place as a leading manufacturer and supplier of transmission conductors, power and distribution cables, building installation cables, and specialty cables for Indonesia's unique electrical infrastructure. In all its years of service, **PT. Magnakabel Nusantara** has showcased unwavering dedication, consistency, and commitment to service excellence. This devotion, grit, and tenacity saw us quickly climb the ranks as one of the most reputable electrical cable manufacturers registered in the selected provider list (DPT) at PT. Perusahaan Listrik Negara (Persero).

Vision, Mission, Core Values

Our Vision

To be a global sustainable company that drives communities by enabling access to energy and information.

Our Mission

To provide our employees with an honest and wholesome work environment, where every employee individually and collectively, can dedicate themselves to providing our customers with high quality products, extraordinary service, and professional integrity.

Our Core Values

Five principles beat at the heart of all we do:

- **M**utual Respect
- **A**daptability
- **G**rowth through Enterpreneurship
- **N**othing is Impossible
- **A**chievement through Excellence

Our core values These tenets allow us to do our best for the clients we serve.

Certification

PT. Magnakabel Nusantara's unfaltering commitment, management, and performance swiftly earned us SPM Certification ISO 9001:2015, ISO 14001:2015, SMK3 and SNI. With these quality control certificates in tow, we continue to give our clients a reason to place their faith in us time after time.

ACSR
Aluminium Conductor Steel Reinforced

Galvanized Steel Wire with Grease

All Aluminium Conductor

Application

Used for Overhead Distribution and Transmission

Specification

SPLN 41-7 : 1981
(Other specifications are available upon request)

Construction

- Inner Laying Solid or Stranded Galvanize Steel Wire.
- Outer Laying Stranded All Aluminium Conductor (AAC)

Classification

Bare Conductor

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)
SPLN 41 - 7 : 1981

Cross Section Area			No./Diameter of		Overall Diameter Approx	Weight Approx	DC Resistance At 20°C	Current Rating	Rated Ultimate Strength	Standard Length
Nominal	Actual		Aluminium	Steel						
	Aluminium	Steel								
mm^2	mm	mm	n / Ø	n / Ø	mm	kg/km	Ω/km	A	kg	m
16 / 2.5	15.27	2.54	6 / 1.8	1 / 1.8	5.40	61	1.879	100	606	10,000
25 / 4	23.86	3.98	6 / 2.25	1 / 2.25	6.75	96	1.2030	135	938	10,000
35 / 6	34.35	5.73	6 / 2.7	1 / 2.7	8.10	138	0.8353	165	1,290	10,000
44 / 32	43.98	31.67	14 / 2	7 / 2.4	11.20	368	0.6573	205	4,348	10,000
50 / 8	48.25	8.04	6 / 3.2	1 / 3.2	9.60	194	0.5946	205	1,743	10,000
50 / 30	51.17	29.85	12 / 2.33	7 / 2.33	11.65	373	0.5644	225	4,466	5,000
70 / 12	69.89	11.40	26 / 1.85	7 / 1.44	11.72	279	0.4130	260	2,732	5,000
95 / 15	94.39	15.33	26 / 2.15	7 / 1.67	13.61	376	0.3058	315	3,566	5,000
95 / 55	96.51	56.30	12 / 3.2	7 / 3.2	16.00	703	0.2992	335	8,091	3,000
105 / 75	105.67	75.55	14 / 3.1	19 / 2.25	17.45	908	0.2736	355	11,058	3,000
120 / 20	121.57	19.85	26 / 2.44	7 / 1.9	15.46	485	0.2374	370	4,655	3,000
120 / 70	122.15	71.25	12 / 3.6	7 / 3.6	18.00	890	0.2364	385	10,197	3,000
125 / 30	127.92	29.85	30 / 2.33	7 / 2.33	16.31	580	0.2259	385	5,873	3,000
150 / 25	148.86	24.25	26 / 2.7	7 / 2.1	17.10	593	0.1939	420	5,633	3,000
170 / 40	171.77	40.08	30 / 2.7	7 / 2.7	18.90	779	0.1682	465	7,826	3,000
185 / 30	183.78	29.85	26 / 3	7 / 2.33	18.99	731	0.1571	480	6,750	3,000
210 / 35	209.10	34.09	26 / 3.2	7 / 2.49	20.27	833	0.1380	520	7,637	3,000
210 / 50	212.06	49.48	30 / 3	7 / 3	21.00	962	0.1363	530	9,575	3,000
230 / 30	230.91	29.85	24 / 3.5	7 / 2.33	20.99	859	0.1249	555	7,454	3,000
240 / 40	243.05	39.49	26 / 3.45	7 / 2.68	21.84	967	0.1183	575	8,640	2,000
265 / 35	263.66	34.09	24 / 3.74	7 / 2.49	22.43	981	0.1094	600	8,468	2,000
300 / 50	304.26	49.48	26 / 3.86	7 / 3	24.44	1,211	0.09497	755	10,910	2,000
435 / 55	434.29	56.30	54 / 3.2	7 / 3.2	28.80	1,616	0.06656	940	13,914	2,000

Applications : Used for overhead transmission lines

ACSR/AS

Aluminium Conductor Aluminium Clad Steel Reinforced

Application

Used for Overhead Distribution and Transmission

Specification

IEC 61089, SPLN T3.001-1 ; 2015
(Other specifications are available upon request)

Construction

- Inner Laying Solid or Stranded Aluminium Clad Steel Wire.
- Outer Laying Stranded All Aluminium Conductor (AAC)

Classification

Bare Conductor

ALUMINIUM CONDUCTOR CLAD STEEL (ACSR/AS) A1/SA1A
SPLN T3.001 - 1 : 2015

Cross Section Area			No./Diameter of		Overall Diameter Approx	Weight Approx	DC Resistance At 20°C	Current Rating	Rated Ultimate Strength	Standard Grease	Standard Length
Nominal	Actual		Aluminium	Steel							
	Aluminium	Steel									
mm^2	mm	mm	n / Ø	n / Ø	mm	kg/km	Ω /km	A	kg	m	m
250	240.24	39.19	26 / 3.43	7 / 2.67	21.73	921.5	0.1154	575	8,640	≥ 5.0	2,000
450	437.01	56.65	54 / 3.21	7 / 3.21	28.89	1578.2	0.00642	940	13,914	≥7.2	2.000

Applications : Used for overhead transmission lines

TACSR/AS

Aluminium Clad Steel Core Thermal Ressistant Aluminium Alloy

Application

TACSR covers thermal-resistant aluminium alloy stranded conductors steel reinforced which could withstand high tensile load to be used mainly for overhead transmission lines, overhead distribution wire.

Specification

JFEPC A 242 : 1977
(Other specifications are available upon request)

Construction

The center wire or wires are of galvanized steel and the outer layer or layers of thermal-resistant aluminium-alloy.

Classification

Bare Conductor

THERMAL RESISTANCE - ALUMINIUM CONDUCTOR STEEL REINFORCED (TACSR)
JFEPC A 242 : 1977

Cross Section Area			No./Diameter of		Overall Diameter Approx	Weight Approx	DC Resistance At 20°C	Current Rating	Rated Ultimate Strength	Standard Length
Nominal	Actual		TAL	Steel						
	TAL	Steel								
mm^2	mm	mm	mm	mm	mm	kg/km	Ω/km	A	kg	m
58	57.73	9.62	6 / 3.5	1 / 3.5	10.50	232	0.505	375	1,980	5,000
80	83.13	13.85	6 / 4.2	1 / 4.2	12.60	334	0.3500	480	2,770	5,000
80	79.64	21.24	15 / 4.2	4 / 2.6	13.00	382	0.3680	470	3,810	5,000
95	95.43	15.90	6 / 4.5	1 / 4.5	13.50	383	0.3050	525	3,180	5,000
100	99.08	26.42	15 / 2.9	4 / 2.9	14.50	475	0.2960	545	4,740	5,000
120	120.64	32.17	15 / 3.2	4 / 3.2	16.00	579	0.2430	620	5,550	5,000
120	124.64	29.08	30 / 2.3	7 / 2.3	16.10	566	0.2370	630	5,460	5,000
160	159.28	37.17	30 / 2.6	7 / 2.6	18.20	723	0.1850	745	6,980	5,000
200	198.16	46.24	30 / 2.9	7 / 2.9	20.30	899	0.1490	860	8,680	3,000
240	241.27	56.30	30 / 3.2	7 / 3.2	22.40	908	0.1220	980	10,170	2,000
330	326.73	52.83	26 / 4	7 / 3.1	25.30	1,298	0.0901	1,190	10,940	2,000
410	413.51	67.35	26 / 4.5	7 / 3.5	28.50	1,647	0.0712	1,390	13,900	2,000
520	519.54	67.35	54 / 3.5	7 / 3.5	31.50	1,934	0.0567	1,610	15,990	2,000
610	612.42	79.39	54 / 3.8	7 / 3.8	34.20	2,279	0.0481	1,795	18,380	2,000
680	678.59	87.96	54 / 4	7 / 4	36.00	2,526	0.0434	1,920	19,790	2,000

Applications : Used for overhead transmission lines

GSW
Galvanized Steel Wire Strands

Galvanized Stainless Steel

Application

Galvanized steel wire strand /guy wire /stay wire is used for ACSR Core, pulling pole, overhead conductor, Messenger wire, Static wire, Guy wire, Guide rail cable

Specification

- ASTM A-363 Zinc-Coated (Galvanized) Steel Overhead Ground Wire Strand
- ASTM A-475 Zinc-Coated Steel Wire Strand
- ASTM A-925 -5 % Aluminium-Mischmetal Alloy-Coated Steel Overhead Ground Wire Strand
- ASTM A-855 Zinc-5 % Aluminium-Mischmetal Alloy-Coated Steel Wire Strand
- ASTM A-640 Zinc-Coated Steel Strand for Messenger Support of Figure 8 Cable.

(Other specifications are available upon request)

GALVANIZED STEEL WIRE STRANDS (GSW)
JIS G 3537 : 1994

Cross Section Area		No. of wire Diameter	Overall Diameter Approx	Weight Approx	Tensile load of strand	Standard Length	Before Stranding					
Nominal	Steel	Steel					Tolerance dia. wire	Tensile load	Elongation	Weight of zinc coating	No. of torsion	Wrap test
mm^2	mm	n / Ø	mm	kg/km	ton	m	mm	kg	%	g / mm^2	No	
6	5.50	7 / 1	3.00	43	0.631	2,000	± 0.05	98	2	110	18	
8	7.92	7 / 1.2	3.60	62	0.908	2,000	± 0.05	141	2	110	18	
10	10.78	7 / 1.4	4.20	85	1.240	2,000	± 0.05	192	2	130	18	
14	14.07	7 / 1.6	4.80	111	1.620	2,000	± 0.05	251	2	130	18	
16	17.81	7 / 1.8	5.40	140	2.050	2,000	± 0.06	318	3	160	16	
22	21.99	7 / 2	6.00	173	2.530	2,000	± 0.06	393	3	160	16	
25	29.08	7 / 2.3	6.90	229	3.340	2,000	± 0.06	519	3	200	16	
35	37.17	7 / 2.6	7.80	292	4.280	2,000	± 0.08	664	3	200	16	6 x 15d
50	46.24	7 / 2.9	8.70	363	5.320	2,000	± 0.08	826	3	230	14	
55	56.30	7 / 3.2	9.60	442	6.500	2,000	± 0.08	1,010	4	230	14	
70	67.35	7 / 3.5	10.50	529	7.730	2,000	± 0.1	1,200	4	250	14	
80	79.39	7 / 3.8	11.40	624	9.140	1,000	± 0.1	1,420	4	250	14	
95	87.96	7 / 4	12.00	691	10.100	1,000	± 0.1	1,570	4	250	14	
100	101.65	7 / 4.3	12.90	799	11.700	1,000	± 0.1	1,820	4	270	12	
120	111.33	7 / 4.5	13.50	875	12.800	1,000	± 0.1	1,450	4	270	12	
135	137.45	7 / 5	15.00	1080	15.800	1,000	± 0.1	1,990	4	270	12	

Applications : Used for overhead transmission lines

PT. MAGNAKABEL NUSANTARA

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The cables are produced to confirm with the National and the International standards such as:

- SNI : Standar Nasional Indonesia
- SPLN : Standar Perusahaan Listrik Negara
- IEC : International Electrotechnical Comission
- BS : British Standards
- JIS : Japanese Industrial Standards
- VDE : Verband Deutscher Electrotechniker
- ASTM : American Society for Testing Material
- DIN : Deutsche Industries Norm

By request : We can also produce products according to other specifications

MAGNA