

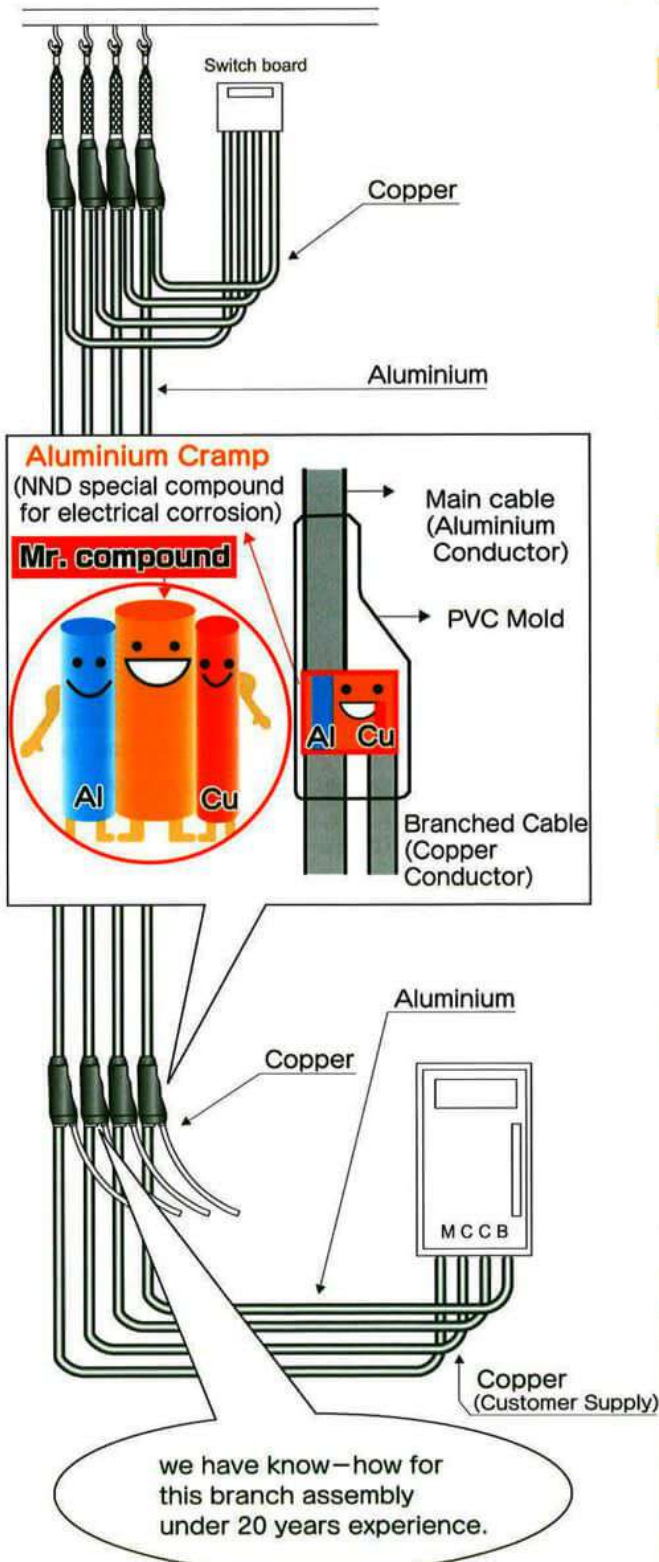
Aluminium Branch Cable



(Prefabricated Branch Cable for Building)

Features of Aluminium Branch Cable

- ① Cost & Time Saving
- ② Easy Connection with Switchboard
- ③ Prefabrication is warranted by NND
- ④ Power company in Japan started using more than 20 years ago



Advantages on Aluminium Branch Cable

① Cost & Time Saving

- a) Material cost can be saved.
- b) Easy installation can reduce labour cost at site. Because..
 - Prefabrication is made at NND factory
 - Easy handling owing to light weight

② Easy connection with switchboard

Since Aluminium branch cable system uses copper branch cable, connection with a switchboard is in the same way as all copper branch cable system. Aluminium cable (Main Cable) is jointed to copper cable (Branch Cable) with a branch mold.

③ Prefabrication in NND factory

Molding is done by NND Factory, fully controlled by Japanese management, who warrants the quality and delivery on time.

④ Power company prefers NND products.

Reliable quality satisfies power company.

⑤ As like long time favoured all copper branch cable,

Aluminium branch cable still boasts the belows.

- a) Airtight and waterproof
- b) Decrease shaft space
- c) Regular maintenance free

See the difference of the weight

- Lightness of Aluminium cable helps you to handle more easily on transportation and at site.

Weight Comparison between Al & Cu

Conductor	Apprx. Cable Weight(Kg./Km)	
	Aluminium	Copper
120mm ²	500	1,280
150mm ²	630	1,590
185mm ²	740	1,950
240mm ²	940	2,490
300mm ²	1,160	3,140
400mm ²	1,490	4,140
500mm ²	1,900	5,140
630mm ²	2,370	6,440
800mm ²	2,950	8,450
1,000mm ²	3,750	10,600

Aluminium Cable Specification

No. of core	Conductor			Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Maximum conductor resistance @20°C	Maximum packing length	Approx. cable weight	Current carrying capacity in air @30°C		Current carrying capacity in air @40°C	
	Nominal sectional area	Wire composition	Approx. outer diameter							(Spacing=1d)	(Spacing=2d)	(Spacing=1d)	(Spacing=2d)
mm ²	No./mm	mm	mm	mm	mm	mm	Ω/km	m	kg/km	A	A	A	A
1	120	CRS	13.1	1.2	1.5	19	0.253	1200	500	285	340	260	310
1	150	CRS	14.7	1.4	1.6	21	0.206	1000	630	325	390	300	364
1	185	CRS	16.1	1.6	1.6	23	0.164	1000	740	402	450	356	453
1	240	CRS	18.6	1.7	1.7	26	0.125	1000	940	450	540	418	501
1	300	CRS	20.7	1.8	1.8	28.5	0.100	1000	1160	515	620	475	569
1	400	CRS	23.0	2.0	1.9	31	0.0778	1000	1490	605	720	569	662
1	500	CRS	26.6	2.2	2.0	35.5	0.0605	1000	1900	705	845	645	774
1	630	CRS	30.2	2.4	2.2	40	0.0469	500	2370	815	985	751	895
1	800	CRS	33.7	2.6	2.3	44	0.0367	500	2950	945	1150	871	1050
1	1000	91/3.74	41.14	2.8	2.4	52	0.0291	500	3750	1125	1380	1025	1260

CRS : Compacted round stranded

Tolerance of overall diameter of sheath: Up to 20mm : ±1.0mm

20mm and above : ±5%

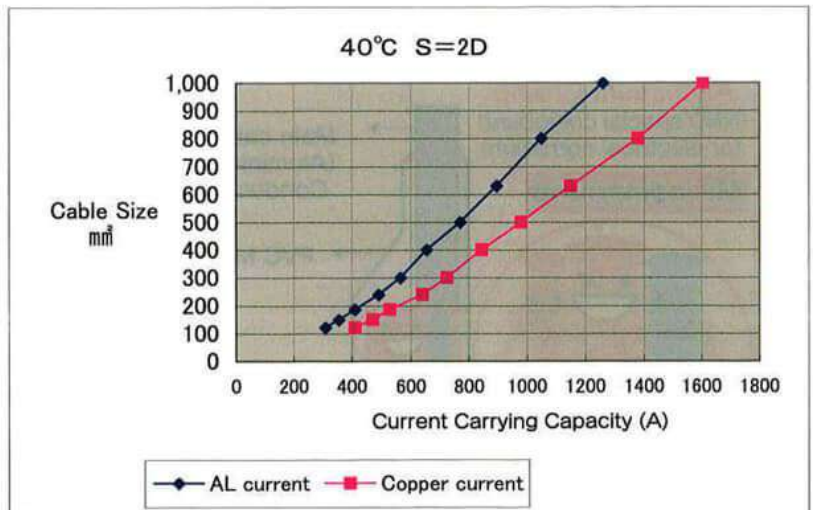
d=Cable overall diameter

[Comparison of Current Carrying Capacity @40°C between Al & Cu cable]

*2 size-bigger Al cable than Cu is chosen to meet with the difference of Current Carrying Capacity between Al & Cu.

Conductor	S=2D @40°C	
	Aluminum	Copper
120mm ²	310	410
150mm ²	364	470
185mm ²	453	530
240mm ²	501	640
300mm ²	569	725
400mm ²	662	845
500mm ²	774	980
630mm ²	895	1,150
800mm ²	1,050	1,380
1,000mm ²	1,260	1,605

※ Applied to size 1,000 mm² or below



Main Cable (Aluminium)

XLPE/PVC Cable, in accordance with IEC60502-1, 60332-1

Branch Cable (Copper)

XLPE/PVC Cable, in accordance with IEC60502-1, 60332-1

Branch Joint

Conductor Joint: Sleeve in accordance with JIS C2801

Mold of Branch Section: Black coloured PVC in accordance with JIS C2801

(Manufacturers)

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