



# **ALUKAFLEX** **CONNECT**

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Aluminium Power Cable Solution

**DanCables.com**





# ALUKAFLEX CONNECT



Alukaflex Connect is a revolutionary power connection solution for low voltage power distribution up to 565 amps. The concept pairs Alukaflex® aluminium cables with bimetal connectors, allowing users to safely connect to copper circuits and equipment. Alukaflex Connect replaces copper leads, as it affords the user all the same benefits with huge cost savings.

Alukaflex Connect is the most powerful and safest aluminium power solution available. Users benefit from the high current transfer of single pole connectors and the low weight of the flexible aluminium cable. The concept offers clear advantages over traditional copper solutions with a weight reduction of up to 40% and a significantly lower price. Alukaflex Connect is incredibly reliable and fully tested at an independent third-party test centre for maximum load.



**Alukaflex Connect is an innovative connection solution, for the most powerful and safest aluminium power distribution**

## **Third-party tested for 3500 hours**

The Alukaflex® cables and connectors in the Alukaflex Connect solutions have been tested by an independent third-party test center to ensure that it can handle long-term operation without overheating. This test center has extensive experience with electrical connections and aluminum cables in general. This expertise ensures that the test results is impartial and trustworthy.

Cables, connectors and crimping system was tested with full load for 3500 hours straight without causing any malfunction or overheating. Concluding that Alukaflex Connect is a reliable solution for both temporary and long-term installation projects.



## ALUKAFLEX® CABLE

Alukaflex® is an aluminium power cable that is manufactured with cutting-edge technological advances that enables superior performance. The aluminium conductor is highly flexible, fine stranded aluminium. As the power industry's premier choice of flexible rubber aluminium leads, Alukaflex® can act as a perfect replacement for copper cables such as H07RN-F.



## BIMETAL CONNECTOR

Alukaflex Connect allows for power distribution up to 565 amps. The concept pairs Alukaflex® aluminium cables with Phase 3 Connectors Powersafe bimetal single pole connectors for single phase or three phase electrical supply. Powersafe bimetal connectors replace the use of lugs as they allow for a safe connection. The plug's powerlock mating system is mechanically keyed and locked, meaning power cables cannot be mis-mated or disconnected accidentally under load. In addition, each electrical phase has easily identifiable regionally colour harmonised thermoplastic insulation.

## WEIGHT ADVANTAGES

Choose the Alukaflex Connect solution if weight of the cables is important to your business. The table demonstrates how much weight you can save. When you compare the weight of aluminum cables to copper cables the advantages is clear. You get twice the length of cable in aluminum at the same weight in copper.

## CONNECTIVITY SOLUTIONS

Alukaflex Connect offers multiple choices for connectivity solutions. We can supply your solution with bimetal Powersafe connectors and/or cable lugs for a toally bespoke solution to meet your requirements.

MM²	Weight KG Cable		
	25 m	50 m	25 m
	Alukaflex®	Alukaflex®	CU
70	14,40	27,70	27,07
95	17,70	34,20	35,70
120	21,10	41,00	43,95
150	25,80	50,30	53,95
185	30,30	59,40	65,57
240	37,50	73,50	83,08




## TYPICAL APPLICATION AREAS

- Electrical Power Systems
- Power Distribution
- Outdoor Concerts & Events
- Outdoor Broadcasting
- Theatres
- Mobile Generators
- Industrial Vehicles
- Railway Installations
- Military Installations
- Back-up Power Systems
- Electrical Power Supply Companies
- Heavy Industry

# SELECT THE RIGHT CABLE FOR YOUR APPLICATION

Check the below table to find a suitable cable based on your load or generator size and taking the installation method into account.

Generators		Single Core Cables									
Cont. Power	Current @	Aluminum Cable				Copper cable					
		Alukaflex 90°C				H07RN-F 60°C		H07BN4-F 90°C			
		Cont. cable capacity horiz. spaced		Cont. cable capacity horiz. touching		Cont. cable capacity trefoil		Cont. cable capacity horiz. spaced		Cont. cable capacity horiz. touching	
50 Hz	415 V	Cable	Current	Cable	Current	Cable	Current	Cable	Current	Cable	Current
25 kVA	35 A										
27 kVA	38 A										
30 kVA	42 A										
35 kVA	49 A										
40 kVA	56 A										
41 kVA	57 A										
45 kVA	63 A										
60 kVA	83 A					1x25	94 A				
63 kVA	88 A					1x25	94 A				
65 kVA	90 A					1x25	94 A				
68 kVA	95 A					1x35	117 A				
80 kVA	111 A					1x35	117 A				
100 kVA	139 A	1x70	271 A	1x70	215 A	1x50	148 A	1x25	182 A	1x25	141 A
105 kVA	146 A	1x70	271 A	1x70	215 A	1x50	148 A	1x25	182 A	1x35	176 A
120 kVA	167 A	1x70	271 A	1x70	215 A	1x70	185 A	1x25	182 A	1x35	176 A
125 kVA	174 A	1x70	271 A	1x70	215 A	1x70	185 A	1x25	182 A	1x35	176 A
130 kVA	181 A	1x70	271 A	1x70	215 A	1x70	185 A	1x25	182 A	1x50	216 A
135 kVA	188 A	1x70	271 A	1x70	215 A	1x95	222 A	1x35	226 A	1x50	216 A
150 kVA	209 A	1x70	271 A	1x70	215 A	1x95	222 A	1x35	226 A	1x50	216 A
160 kVA	223 A	1x70	271 A	1x95	264 A	1x95	222 A	1x35	226 A	1x70	279 A
170 kVA	237 A	1x70	271 A	1x95	264 A	1x120	260 A	1x50	275 A	1x70	279 A
180 kVA	250 A	1x70	271 A	1x95	264 A	1x120	260 A	1x50	275 A	1x70	279 A
200 kVA	278 A	1x95	332 A	1x120	308 A	1x150	300 A	1x70	353 A	1x70	279 A
235 kVA	327 A	1x95	332 A	1x150	358 A	1x185	341 A	1x70	353 A	1x95	342 A
250 kVA	348 A	1x120	387 A	1x150	358 A	1x240	407 A	1x70	353 A	1x120	400 A
275 kVA	383 A	1x120	387 A	1x185	413 A	1x240	407 A	1x95	430 A	1x120	400 A
280 kVA	390 A	1x150	448 A	1x185	413 A	1x240	407 A	1x95	430 A	1x120	400 A
300 kVA	417 A	1x150	448 A	1x240	492 A	1x300	468 A	1x95	430 A	1x150	464 A
315 kVA	438 A	1x150	448 A	1x240	492 A	1x300	468 A	1x120	500 A	1x150	464 A
350 kVA	487 A	1x185	515 A	1x240	492 A			1x120	500 A	1x185	533 A
380 kVA	529 A	1x240	565 A					1x150	577 A	1x185	533 A
400 kVA	556 A	1x240	565 A					1x150	577 A	1x240	634 A
410 kVA	570 A	1x240	565 A					1x150	577 A	1x240	634 A
450 kVA	626 A							1x185	661 A	1x240	634 A
455 kVA	633 A							1x185	661 A	1x240	634 A
500 kVA	696 A							1x240	781 A	1x300	736 A
550 kVA	765 A							1x240	781 A		
600 kVA	835 A							1x300	902 A		
630 kVA	876 A							1x300	902 A		

Ambient Temperature	Cable Cross Section	Touching AI 90°C Alukaflex	Trefoil AI 90°C Alukaflex	Hor. Spaced AI 90°C Alukaflex
				
30°C	70 mm <sup>2</sup>	215 A	206 A	271 A
	95 mm <sup>2</sup>	264 A	253 A	332 A
	120 mm <sup>2</sup>	308 A	296 A	387 A
	150 mm <sup>2</sup>	358 A	343 A	448 A
	185 mm <sup>2</sup>	413 A	395 A	515 A
	240 mm <sup>2</sup>	492 A	471 A	565 A