

Aaron-Flex



2XSLCYK-J VFD

0.6/1 kV EMC 3+3 Motor Power Supply Cable

Special motor power supply cable for frequency converters adapted to DIN VDE 0250

Construction

Conductor

Bare copper-conductor, to DIN VDE 0295 cl.5, fine-wire, BS 6360 cl.5, IEC 60228 cl.5

Insulation

Core insulation of cross-linked polyethylene (XLPE) compound 2X11 according to DIN VDE 0276-604

Core identification

BK, BN, GY

Core identification

GN-YE conductor (divided into 3) according to DIN VDE 0293-308

Cores stranded in concentric layers

1. Screen with special aluminium film
2. Tinned copper braided screen, approx. 85% coverage

Outer sheath:

Outer sheath of special PVC, compound ST2 according to IEC 60502, self-extinguishing and flame retardant (as per EN 60332-1-2), UV resistant; colour: black

Current-carrying capacity

*)The current carrying capacity for permanent operation at ambient temperature of 30°C. For deviating ambient temperatures the conversion factors should be used and for further see the indication in DIN VDE 0298 part 4.

Standards

. Self-extinguishing and flame retardant
acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1
(equivalent DIN VDE 0472 part 804 test method B)

. Meets EMC requirements
acc. to EN 55011 and DIN VDE 0875 part 11



Characteristics

Temperature range

flexing -5°C to +90°C

fixed installation -40°C to +90°C

Operating temperature

Max. conductor operating temperature: 90 °C

Max. conductor temperature in shortcircuit
250 °C (max. 5 s)

Nominal voltage

U₀/U 600/1000 V

Max. operating voltage

A.C. and 3-phase 700/1200 V

DC operation 900/1800 V

Test voltage

5000 V

Max. permissible peak AC voltage: \hat{U} 2.4 kV

Insulation resistance

min. 200 MOhm x km

Coupling resistance

acc. to different cross-sections

max. 250 Ohm/km

Minimum bending radius

free-movement for outer \varnothing :

up to 12 mm: 10x cable \varnothing

> 12-20 mm: 15x cable \varnothing

> 20 mm: 20x cable \varnothing

fixed installation for outer \varnothing :

up to 12 mm: 5x cable \varnothing

> 12-20 mm: 7,5x cable \varnothing

> 20 mm: 10x cable \varnothing

Permissible pulling force

when in motion: max 15 N/mm²

when stationary: max 50 N/mm²

when in motion: max 15 N/mm²

when stationary: max 50 N/mm²

Permissible pulling force

DIN EN 6033212

Ozone resistance of sheath:

DIN EN 6081121 clause 8

Application

Cables with 3+3 construction, used to supply power to motors from frequency converters while maintaining full electromagnetic compatibility (EMC).

The XLPE insulation improves current carrying capacity maintaining at the same time low capacitance in comparison to PVC insulated cables.

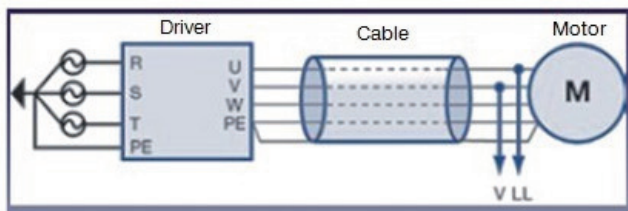
The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and wet rooms. Black UV-resistant sheath enables installation outdoor and being installed in the port environment.

The symmetric construction of the cable (3+3PE) ensures symmetry of voltages on motor terminals.

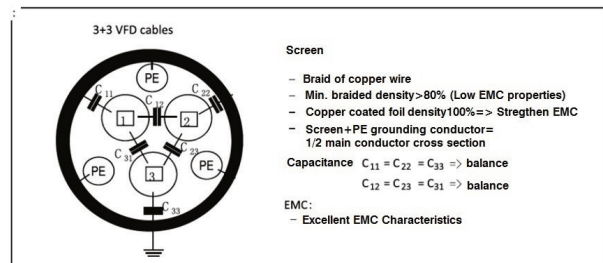
Introduction

We should pay attention to following four items in order to build a reliable cable distribution:

1. Common mode current (CMC): current noise
2. Capacitance coupling: charging current of cable
3. Reflective wave: Withstand voltage of insulation
4. Reliability on overall installation



Typical converter system diagram



Product Selection

2XSLCKY-J VFD

Cat. no.	n x mm ²	Outer diameter** [mm]	Current-carrying capacity * [A]	Approximate cable weight** [kg/km]
V0001	3x1,5+3G0,25	10.0	23	147.5
V0002	3x2,5+3G0,5	11.4	32	212.5
V0003	3x4+3G0,75	12.7	42	296.5
V0004	3x6+3G1	14.2	54	382.5
V0005	3x10+3G1,5	17.2	75	567.5
V0006	3x16+3G2,5	19.9	100	784.5
V0007	3x25+3G4	23.2	127	1230
V0008	3x35+3G6	26.1	158	1621.5
V0009	3x50+3G10	30.5	192	2264.5
V0010	3x70+3G10	34.5	246	2935.5
V0011	3x95+3G16	38.3	298	3943.5
V0012	3x120+3G16	42.3	346	4800
V0013	3x150+3G25	47.9	399	5981.5
V0014	3x185+3G35	53.8	456	7144.5
V0015	3x240+3G50	59.4	528	9427.5

Aaron-Flex reserves the right to carry out any modification to the data sheets whatsoever without giving previous notice.

**For reference only, the actual parameters of the manufacturer prevail