

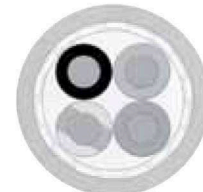
# MOTOR POWER SUPPLY CABLES



CE

## GAALFLEX® 2YSLCY-J

Connection to frequency converters 0,6/1 kV



### Construction:

<b>Conductor:</b>	bare copper , fine wire conductor to DIN VDE 0295 cl.5 and IEC 60228 cl. 5
<b>Insulation:</b>	polyethylene (PE) core insulation.
<b>Cores colour:</b>	black, brown, blue, green-yellow (earth core divided into 3, in the cable version with 3 conductors).
<b>Cores:</b>	cores stranded in concentric layers. 3+3 cores design (in the second version).
<b>Screen:</b>	1. screening with special aluminium foil 2. screening with copper braiding, tinned copper approx. 80%
<b>Outer sheath:</b>	special PVC outer sheath, transparent-orange (for the version with 3 conductors), and transparent (for the version with 4 conductors).
<b>Tests:</b>	- Behavior in fire, to DIN VDE 0472 part 804, test method B and IEC 60332-1 - Low mutual capacitance, to DIN VDE 0472 part 504, test method B
<b>Features:</b>	- PE insulation secures a lower dielectric loss, double potential strenght, high longevity and low screen-interference currents. - Installation in hazardous areas - Low mutual capacitance, (for 3 conductors version) - Meets EMC requirements according to EN 55011 and DIN VDE 0875 part 11 - Low coupling resistance for high electromagnetic compatibility

### Application:

This motor power supply cables for the frequency converters assures electromagnetic compatibility in plants and buildings, facilities with units and operating equipment where the fields of electromagnetic interference might cause adverse effects on the surroundings.

As a supply and connecting cable for medium mechanical stresses in fixed installations and forced movements in dry, moist and wet environments, not however for outdoor applications.

Used in the automobile industry, food industry, environmental engineering, packaging industry, toolmaking machinery, handling equipment, for SIMOVERT drivers, they are particularly suitable for use with industrial pumps, ventilators, conveyor belts and air-conditioning installations and similar applications. This screened motor supply cable with low mutual capacitance of the single cores because of the special PE core insulation and low screen capacitance enable a low-loss transmission of the power compared to PVC-sheathed connecting cables.

Due to the optimal screening an interference-free operation of frequency converters is obtained.

The 3 plus-construction of motor power supply cables features a symmetrical 3 - core design, improved in terms of EMC characteristics comparing favorably with a 4 - core version.

The protective conductor PE, divided into 3 is uniformly stranded in interstices.

The minimum cross-section of 0,75 mm<sup>2</sup> meets the requirements of DIN EN 60204 part. 1

### Technical data:

<b>Temperature range:</b>	
<i>Fixed installation:</i>	- 40°C to + 70°C
<i>Flexible application:</i>	+ 5°C to + 70°C
<b>Nominal voltage:</b>	U <sub>o</sub> /U 600/1000 kV
<b>Test voltage:</b>	4000 V
<b>Operating voltage max.:</b>	A.C. and 3-phase 700/1200 V D.C. operation 900/1800 V
<b>Peak value <math>\hat{U}</math>:</b>	1700 V
<b>Insulation resistance:</b>	min. 200 MOhm x km
<b>Coupling resistance:</b>	depending on the cross-section: max. 250 Ohm/km
<b>Mutual capacitance:</b>	depending on the cross-section: core/core 70 to 250 nF/km core/screen 110 to 410 nF/km
<b>Min. bending radius:</b>	- Fixed installation for outer $\varnothing$ : up to 12 mm : 5 x d 12 to 20 mm : 7.5 x d 20 mm : 10 x d  - Free movement for outer $\varnothing$ : up to 12 mm : 10 x d 12 to 20 mm : 15 x d 20 mm : 20 x d
<b>Radiation resistance:</b>	up to 80x10 <sup>6</sup> cJ/kg (up to 80 Mrad).
<b>Note:</b>	the screen must be connected at both ends and ensure large-area contact over the entire cable circumference for compliance with the functional interference requirements of EN 55011
<b>Max. permissible temperature at the conductor continuous load:</b>	+ 70°C
<b>Short circuit temperature:</b>	+ 160°C



\* EMC = Electromagnetic compatibility

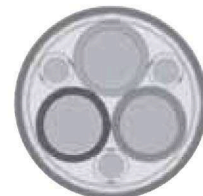
# MOTOR POWER SUPPLY CABLES



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## GAALFLEX® 2YSLCY-J

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Item no.	No. of cores x cross section no. x mm <sup>2</sup>	Outer-Ø mm	Current capacity at +30°C	Copper weight kg/km	Cable weight kg/km	AWG. no. *)
<b>TRANSPARENT 4 CONDUCTORS</b>						
04040415	4G1.5	10.6	18	95	230	16
04040425	4G2.5	12.3	26	150	300	14
04040440	4G4	14.5	34	235	485	12
04040460	4G6	16.4	44	320	633	10
04040461	4G10	20.1	61	533	863	8
04040462	4G16	23.4	82	789	1291	6
04040463	4G25	27.0	108	1236	1862	4
04040464	4G35	30.7	135	1662	2611	2
04040465	4G50	36.1	168	2345	2955	1
04040466	4G70	42.3	207	3196	3953	2/0
04040467	4G95	47.7	250	4316	5304	3/0
04040468	4G120	51.9	292	5435	6604	4/0
04040469	4G150	57.5	335	6394	7043	250 MCM
04040470	4G185	61.1	382	7639	8384	350 MCM
04040471	4G240	67.0	453	10013	11010	450 MCM
04040472	4G300	71.5	523	12570	13800	550 MCM

Temperature °C: 15 | 20 | 25 | 35 | 40 | 45 | 50 | 55 | 60  
K Factor: 1,17 | 1,12 | 1,06 | 0,94 | 0,87 | 0,79 | 0,71 | 0,61 | 0,50

Item no.	No. of cores x cross section no. x mm <sup>2</sup>	Outer-Ø mm	Current capacity at +30°C	Copper weight kg/km	Cable weight kg/km	AWG. no. *)
<b>TRANSPARENT/ORANGE 3 CONDUCTORS</b>						
04030315	3x1.5+3G0.25	10.2	18	86	140	16
04030325	3x2.5+3G0.5	11.4	26	144	220	14
04030340	3x4 +3G0.75	13.0	34	224	323	12
04030360	3x6 +3G1	15.0	44	298	420	10
04030361	3x10 +3G1.5	18.4	61	491	615	8
04030362	3x16 +3G2.5	21.6	82	723	819	6
04030363	3x25 +3G4	25.3	108	1138	1325	4
04030364	3x35 +3G6	27.8	135	1535	1718	2
04030365	3x50 +3G10	32.6	168	2208	2399	0
04030366	3x70 +3G10	39.0	207	2871	3056	2/0
04030367	3x95 +3G16	44.3	250	3953	4162	3/0
04030368	3x120 +3G16	46.3	292	4836	5074	4/0
04030369	3x150 +3G25	53.5	335	5412	6128	250 MCM
04030370	3x185 +3G35	59.5	382	6969	7189	350 MCM
04030371	3x240 +3G42.5	65.2	453	8540	9540	450 MCM
04030372	3x300 +3G50	69.5	523	11050	11560	550 MCM

Other dimensions and colours available on request.

On request is possible **2XSLSTCH-J, Halogen free** Version

**Insulation:** special XLPE compound, acc. to IEC 60502-4 (max. core temperature + 90°C)

**Outer sheath:** special SHF1 (HM2) compound, acc. to IEC 60092-353



Thomas Cable