GAALFLEX® VFD FG7(O)CR

Inverter, connection to frequency converters, 0,6/1 kV

Construction:

Conductor:	flexible red copper conductor Cl. 5, acc to IEC 60228, DIN VDE 0295
Insulation:	rubber HEPR compound
Cores color:	acc. to DIN VDE 0293-308, HD 308 S2 3 phase cores: brown-black-gray
Stranding:	in layers
Inner sheath:	PVC type R2
Screen:	red copper braid of the same section as the phase conductor (for sections up to 16 mm^2) or equal to half phase conductor, with a minimum of 16 mm^2 (for section greater than 25 $mm^{2)}$
Outer Sheath:	grey (similar RAL 7035), special PVC compound

Resistance:

Self-extinguishing and flame retardant acc. to:
DIN VDE 0482 part 265-2-1,
EN 50265-2-1,
IEC 60332-1-2,
DIN VDE 0482 part 266-2-4,
EN 50266-2-4,
IEC 60332-3-24

Technical data:

Nominal voltage:	Uo/U 0,6/1 kV
Test voltage:	4 kV
Temperature range	
Fixed laying:	- 15 °C up to + 90 °C
Flexible installation:	- 0 °C up to + 90 °C
Max. temperature on conductor:	+ 90°C
Max. temperature in short circuit:	+ 250 °C
Min. bending radius	8 x d

Features:

acc. to IEC 60502-1 and CEI 20-13, CEI-UNEL 35375

RoHS and CE approval

RoHS CE

Part no.	No. of cores x cross section n x mm^2	Outer Ø Ca. mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
33190G83030M25	3 x 2,5 + SH	14,6	96	340	14
33190G83030M40	3 x 4 +SH	15,8	134	400	12
33190G83030M60	3 x 6 + SH	18,7	231	490	10
33190G83030M61	3 x 10 + SH	21,7	336	720	8
33190G83030M62	3 x 16 + SH	25,3	615	1040	6
33190G83030M63	3 x 25 + SH	28,8	873	1410	4
33190G83030M64	3 x 35 + SH	32,2	1162	1870	2
33190G83030M65	3 x 50 + SH	36	1680	2400	1
33190G83030M66	3x70+SH	40,7	2352	3360	2/0
33190G83030M67	3x95+SH	47,6	3192	4350	3/0
33190G83030M68	3x120+SH	52,2	4032	5540	4/0
33190G83030M69	3x150+SH	56,4	5040	6880	250 MCM
33190G83030M70	3x185+SH	64,8	6216	8350	350 MCM
33190G83030M71	3x240+SH	74,5	8604	11540	450 MCM
33190G83030M72	3x300+SH	85,5	10080	13480	550 MCM

Other dimension and colours available on request.

GAALFLEX® VFD FE4(O)CR

Inverter, connection to frequency converters, 0,6/1 kV

Construction:

Conductor: flexible red copper conductor Cl. 5, acc to IEC 60228, DIN VDE 0295

Insulation: XLPE compound

Cores color: acc. to DIN VDE 0293-308, HD 308 S2
3 phase cores: brown-black-gray

Stranding: in layers

Inner sheath: PVC type R2

Screen: red copper braid of the same section as the phase conductor (for sections up to 16 mm²) or equal to half phase conductor, with a minimum of 16 mm² (for section greater than 25 mm²)

Outer Sheath: grey (similar RAL 7035), special PVC compound

Resistance:

Self-extinguishing and flame retardant acc. to:
DIN VDE 0482 part 265-2-1,
EN 50265-2-1,
IEC 60332-1-2,
DIN VDE 0482 part 266-2-4,
EN 50266-2-4,
IEC 60332-3-24

Technical data:

Nominal voltage: Uo/U 0,6/1 kV

Test voltage: 4 kV

Temperature range

Fixed laying: - 20 °C up to + 90 °C

Flexible installation: - 0 °C up to + 90 °C

Max. temperature on conductor: + 90°C

Max. temperature in short circuit: + 250 °C

Min. bending radius 8 x d

Features:

acc. to IEC 60502-1 and CEI 20-13, CEI-UNEL 35375

RoHS and CE approval

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
33200G83030M25	3 x 2,5 + SH	14,6	96	340	14
33200G83030M40	3 x 4 + SH	15,8	134	400	12
33200G83030M60	3 x 6 + SH	18,7	231	490	10
33200G83030M61	3 x 10 + SH	21,7	336	720	8
33200G83030M62	3 x 16 +SH	25,3	615	1040	6
33200G83030M63	3 x 25 +SH	28,8	873	1410	4
33200G83030M64	3 x 35 + SH	32,2	1162	1870	2
33200G83030M65	3 x 50 +SH	36	1680	2400	1
33200G83030M66	3 x 70 + SH	40,7	2352	3360	2/0
33200G83030M67	3 x 95 + SH	47,6	3192	4350	3/0
33200G83030M68	3 x 120 + SH	52,2	4032	5540	4/0
33200G83030M69	3 x 150 + SH	56,4	5040	6880	250 MCM
33200G83030M70	3 x 185 + SH	64,8	6216	8350	350 MCM
33200G83030M71	3 x 240 + SH	74,5	8604	11540	450 MCM
33200G83030M72	3 x 300 + SH	85,5	10080	13480	550 MCM

Other dimension and colours available on request.

GAALFLEX® VFD EMV-FC 3GSEGCY

Medium voltage motor power supply cables, overall copper screen, 3,6/6 kV and 6/10 kV

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Inner semi-conductive layer:	semi-conductive rubber compound, acc. to IEC 60502-2
Insulation:	rubber EPR compound acc. To IEC 60502-2
Outer semi-conductive layer:	semi-conductive rubber compound, acc. to IEC 60502-2
Cores identification:	numerical 1-2-3 imprint on the outer semi-conductive layer
Screen:	two red copper tapes *conductor cross section:* 35 to 120 mm^2 > 120 mm^2 *screen cross. section:* 16 mm^2 25 mm^2
Inner sheath:	black, polyolefin compound acc. to IEC 60502-2
Concentric overall copper screen:	red copper wires and one or two copper tape(s) applied helically *screen cross section:* approx. 0,5 conductor cross-section (electrical)
Outer Sheath:	red (similar RAL 3005), PVC type ST2 acc. to IEC 60502-1

Resistance:

Self-extinguishing and flame retardant acc. to:
DIN VDE 0482 part 265-2-1,
EN 50265-2-1,
IEC 60332-1-2

Technical data:

Nominal voltage:	Uo/U 3,6/6 kV Uo/U 6/10 kV
Test voltage:	Uo/U 3,6/6 kV / 21kV Uo/U 6/10 kV / 29 kV
Temperature range:	- 30 °C up to + 70 °C
Installation temperature range:	- 10 °C up to + 50 °C
Max. temperature on conductor:	+ 90°C
Max. temperature in short circuit:	+ 250 °C
Min. bending radius:	10 x d
Current carrying capacity:	acc. to DIN VDE 0276-620 6
Tensile strenght:	up to 50 N/mm^2
(RFI) and RFI-voltage:	EMC-optimized cables acc. to DIN EN 55011/DIN 0875 part. 11, classes A1 and B1

Features:

on request:
acc. to DIN VDE 0482 part 266-2-2 / EN 50266-2-2 / IEC 60332-3/22
identified with "5 " on the 5th number of the Part no.

On request is possible:
GAALSHOCK technology version

RoHS approval

RoHS

Applications:

for frequency converter converter controlled AC drives.
For fixed installation outdoor as well as indoors in dry, damp and wet conditions and in explosion hazard areas.
This cable can be installed directly in ground

GAALFLEX® VFD EMV-FC 3GSEGCY

Medium voltage motor power supply cables, overall copper screen, 3,6/6 kV and 6/10 kV

3,6/6 kV

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
33210MR1030M64	3 x 35	45,5	1330	3500	2
33210MR1030M65	3 x 50	48	1835	4200	1
33210MR1030M66	3 x 70	52,5	2510	5200	2/0
33210MR1030M67	3 x 95	56,5	3350	6400	3/0
33210MR1030M68	3 x 120	60	4190	7600	4/0
33210MR1030M69	3 x 150	64	5280	8700	250 MCM
33210MR1030M70	3 x 185	68	6460	10500	350 MCM
33210MR1030M71	3 x 240	73,5	8310	13000	450 MCM

6/10 kV

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
33210QR1030M70	3 x 185/95	76,3	6642	11880	350 MCM

Other dimension and colours available on request.

GAALFLEX® VFD EMV-FC 3GSEGCH

Medium voltage motor power supply cables, halogen-free, overall copper screen, 3,6/6 kV

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Inner semi-conductive layer:	semi-conductive rubber compound, acc. to IEC 60502-2
Insulation:	rubber EPR compound acc. to IEC 60502-2
Outer semi-conductive layer:	semi-conductive rubber compound, acc. to IEC 60502-2
Cores identification:	numerical 1-2-3 imprint on the outer semi-conductive layer
Screen:	two red copper tapes *conductor cross section:* 35 to 120 mm^2 > 120 mm^2 *screen cross. section:* 16 mm^2 25 mm^2
Inner sheath:	black, polyolefin compound acc. to IEC 60502-2
Concentric overall copper screen:	red copper wires and one or two copper tape(s) applied helically *screen cross section:* approx. 0,5 conductor cross-section (electrical)
Outer Sheath:	red (similar RAL 3005), halogen-free type ST8, acc. to IEC 60502-1

Technical data:

Nominal voltage:	Uo/U 3,6/6 kV
Test voltage:	21 kV
Max. perm. voltage U:	14,6 kV
for connection on 3 level frequency converters with a nominal voltage:	6,6 kV
Temperature range:	- 30 °C up to + 70 °C
Installation temperature range:	- 10 °C up to + 50 °C
Max. temperature on conductor:	+ 90°C
Max. temperature in short circuit:	+ 250 °C
Min. bending radius	10 x d
Current carrying capacity:	acc. to DIN VDE 0276-620 6
Tensile strenght:	up to 50 N/mm^2
(RFI) and RFI-voltage:	EMC-optimized cables acc. to DIN EN 55011/DIN 0875 part. 11, classes A1 and B1

Resistance:

Self-extinguishing and flame retardant acc. to:
DIN VDE 0482 part 265-2-1,
EN 50265-2-1,
IEC 60332-1-2,
DIN VDE 0482 part 266-2-2,
EN 50266-2-2,
IEC 60332-3-22

Halogen-free acc. to:
DIN VDE 0482 part 267,
EN 50267-2-1,
IEC 60754-1

Smoke density acc. to:
DIN VDE 0482 part 268-1/-2,
EN 50268-1/-2,
DIN EN 61034-1+2,
IEC 61034-1+2 part 1+2

Features:

On request is possible:
GAALSHOCK technology version

RoHS approval

Applications:

for frequency converter converter controlled AC drives.
For fixed installation outdoor as well as indoors in dry, damp and wet conditions and in explosion hazard areas.
This cable can be installed directly in ground or in water

GAALFLEX® VFD EMV-FC 3GSEGCH

Medium voltage motor power supply cables, halogen-free, overall copper screen, 3,6/6 kV

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
33220MR1030M64	3 x 35	45,5	1330	3500	2
33220MR1030M65	3 x 50	48	1835	4200	1
33220MR1030M66	3 x 70	52,5	2510	5200	2/0
33220MR1030M67	3 x 95	56,5	3350	6400	3/0
33220MR1030M68	3 x 120	60	4190	7600	4/0
33220MR1030M69	3 x 150	64	5280	8700	250 MCM
33220MR1030M70	3 x 185	68	6460	10500	350 MCM
33220MR1030M71	3 x 240	73,5	8310	13000	450 MCM

GAALFLEX® VFD EMV-FC 2XSEHCHRH

Medium voltage motor power supply cables, halogen-free, overall copper screen and steel wire armouring, 3,6/6 kV

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Inner semi-conductive layer:	semi-conductive rubber compound
Insulation:	XLPE compound
Outer semi-conductive layer:	semi-conductive rubber compound
Cores identification:	numerical 1-2-3 imprint on the outer semi-conductive layer
Screen:	two red copper tapes *conductor cross section:* 35 to 120 mm² > 120 mm² — *screen cross. section:* 16 mm² 25 mm²
1st Inner sheath:	black (RAL 9005), halogen-free compound
Concentric overall copper screen:	red copper wires and one or two copper tape(s) applied helically *screen cross section:* approx. 0,5 conductor cross-section (electrical)
2nd Inner sheath:	black (similar RAL 9005), halogen-free compound
Armouring:	galvanized steel wires
Outer Sheath:	black (similar RAL 9005), halogen-free compound

Resistance:

Self-extinguishing and flame retardant acc. to:
DIN VDE 0482 part 265-2-1,
EN 50265-2-1,
IEC 60332-1-2,
DIN VDE 0482 part 266-2-2,
EN 50266-2-2,
IEC 60332-3-22

Halogen-free acc. to:
DIN VDE 0482 part 267,
EN 50267-2-1,
IEC 60754-1

Corrosivenes of conflagration gases:
acc. to DIN VDE 0482 part 267,
EN 50267-2-2,
IEC 60754-2

Smoke density acc. to:
DIN VDE 0482 part 268-1/-2,
EN 50268-1/-2,
DIN EN 61034-1+2,
IEC 61034-1+2 part 1+2

Technical data:

Nominal voltage:	Uo/U 3,6/6 kV
Test voltage:	21 kV
Max. perm. voltage U:	14,6 kV
for connection on 3 level frequency converters with a nominal voltage:	6,6 kV
Temperature range:	- 30 °C up to + 90 °C
Installation temperature range:	- 10 °C up to + 50 °C
Max. temperature on conductor:	+ 90°C
Max. temperature in short circuit:	+ 250 °C
Min. bending radius	10 x d
Current carrying capacity:	acc. to DIN VDE 0276-620 6
Max. tensile strenght:	up to 50 N/mm²
(RFI) and RFI-voltage:	EMC-optimized cables acc. to DIN EN 55011/DIN 0875 part. 11, classes A1 and B1

Features:

UV resistant

acc. to IEC 60502-1

RoHS approval

Applications:

for frequency converter converter controlled AC drives.
For fixed installation outdoor as well as indoors in dry, damp and wet conditions and in explosion hazard areas.
This cable can be installed directly in ground

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
33260M71030M69	3 x 150	67,6	4859	10744	350 MCM

Other dimension and colours available on request.

GAALFLEX® VFD 600

XLPE/PVC, Low voltage variable frequency drive systems, 600 V

LISTED

Construction:

Conductor:	stranded red copper, acc.to ASTM B-3 and ASTM B-8
Insulation:	XLPE compound, acc. to UL 44 and VW-1 flame test
Earth conductor:	stranded red copper, acc.to ASTM B-3 and ASTM B-8
Cores color:	acc. to ICEA S-73-352 (NEMA WC 57) black conductors with number print
Stranding:	in layers + fillers + 3 earth conductor in interstices
Screen :	corrugated red copper tape
Outer Sheath:	black (similar RAL 9005), PVC compound, heat and moisture resistant acc. to UL1581 and UL 1277

Technical data:

Nominal voltage UL:	600 V
Temperature range	
Fixed laiyng:	- 40 °C up to + 90 °C
Flexible installation:	- 5 °C up to + 90 °C
Min. bending radius:	12 x d

Resistance:

Flame test acc. to:
IEEE 1202 , Flame test
ICEA T-29-520, Flame test

Features:

MSHA APPROVED

On request is possible:
2000 V nominal voltage version
Optional features are:

1. EPR insulation
2. CPE, LSZH or TPE Outer sheath

RoHS approval

RoHS

UL Standards:

UL standard 44

UL standard 1277

Applications:

these cables are designed for use with low voltage (600 V) AC motors controlled for speed by modern PWM inverters.

Part no.	No. of cores x cross section n x AWG/MCM	Outer Ø Inches/mm ±10%	Cable weight approx. Lbs/Mft-kg/km
33230F70037A16	3 x 16 + 3 x 18	0,43 -10,9	92 - 136
33230F70037A14	3 x 14 + 3 x 18	0,46 - 11,7	144 - 213
33230F70037A12	3 x 12 + 3 x 18	0,519 - 13	176 - 260
33230F70037A10	3 x 10 + 3 x 16	0,59 - 15	254 - 376
33230F70037A08	3 x 8 + 3 x 14	0,73 - 18,5	390 - 577
33230F70037A06	3 x 6 + 3 x 12	0,78 - 19,8	263 - 389
33230F70037A04	3 x 4 + 3 x 10	0,93 - 23,6	769 - 1138
33230F70037A02	3 x 2 + 3 x 8	1,11 - 28,2	1154 - 1655
33230F70037A01	3 x 1 + 3 x 8	1,28 - 32,5	1427 - 2112
33230F70037A1C	3 x 1/0 + 3 x 6	1,37 - 34,8	1764 - 2611)
33230F70037A2C	3 x 2/0 + 3 x 6	1,43 - 36,3	2077 - 3074
33230F70037A3C	3 x 3/0 + 3 x 4	1,55 - 39,4	2599 - 3847
33230F70037A4C	3 x 4/0 + 3 x 4	1,66 - 42,2	3093 - 4578
33230F70037A5C	3 x 250 MCM+ 3 x 4	1,88 - 47,8	3791 - 5611
33230F70037A7C	3 x 350 MCM + 3 x 2	2 - 50,8	5020 - 7430
33230F70037AAC	3 x 500 MCM + 3 x 1	2,3 - 58,4	7012 - 10378

Other dimension and colours available on request.