

SUPROMONT

(N)3GHSSHCH

RATED VOLTAGE 6 – 35 kV

Halogen-free rubber-insulated medium voltage flexible cable used as a feeder cable for power supply of shiftable MV equipment, e.g. compressure-resistant transformers, for underground mining applications as well as for tunnel sites – suitable for festoon and semi-fixed installation. Combines a rubber insulation system with a fully halogen-free sheathing package for improved fire safety in confined underground environments.

THERMAL PARAMETERS

Max. conductor temperature	**0 °C**
Max. conductor temp. (short circuit)	**250 °C**
Fixed installation (min)	**-40 °C**
Fixed installation (max)	**80 °C**
Flexible installation (min)	**5 °C**
Flexible installation (max)	**80 °C**

CHEMICAL PARAMETERS

Flame retardant	**EN/IEC 60332-1-2**
Halogen free	**Yes**
Resistant to UV	**Yes**

ELECTRICAL – TEST VOLTAGE

3.6/6 kV	**11 kV**
6/10 kV	**17 kV**
8.7/15 kV	**24 kV**
12/20 kV	**29 kV**
20/35 kV	**50 kV**

MECHANICAL PARAMETERS

Permanent tensile strength	**15 N/mm²**
Bending radius, fixed	**6 x D**
Bending radius, flexible	**10 x D**

STANDARDS / APPROVALS

Based on DIN VDE 0250-605	**General**
DIN VDE 0298-4	**Electrical**
IEC 61034-2 / 60754-2	**Fire perf.**
DIN EN/IEC 60332-1-2	**Fire perf.**

CABLE CONSTRUCTION

1. **Conductor** – finely stranded copper, bare, class 5
2. **Inner semi-conducting layer** – semi-conductive EPR
3. **Core insulation** – EPR rubber, PROTOLON HS, special compound 3GI3
4. **Control core** – individually laid-up concentrically around each main core (PE)
5. **Outer semi-conducting layer** – semi-conductive NBR easy-strip
6. **Core arrangement** – three main cores laid-up, one control core in each outer interstice. Main cores: natural colour with black semiconductive layer. Control cores: black with white digits
7. **Screen** – bare copper wire screen
8. **Inner sheath** – halogen-free polymer, special compound HM4
9. **Monitoring** – conductive tape and Cu wires
10. **Intermediate sheath** – halogen-free polymer, special compound HM4
11. **Armoring / reinforcement** – galvanised steel braiding
12. **Outer sheath** – thermoplastic polymer, special compound HM4

Application Notes

Used as feeder cable for power supply of shiftable medium voltage equipment – e.g. compressure-resistant transformers – for underground mining applications as well as for tunnel sites, suitable for festoon and semi-fixed installation. Delivered across five rated voltage classes – 3.6/6, 6/10, 8.7/15, 12/20 and 20/35 kV – and conductor cross-sections from 25 mm² up to 240 mm² per phase. The fully halogen-free sheathing system (inner, intermediate and outer layers) improves fire safety in confined underground spaces. AC test voltage on control cores is 2 kV across all voltage classes.

SUPROMONT (N)3GHSSHCH — 3.6/6 kV (7.2 kV Um) — 7 Configurations

Basic Construction (mm²)	Conductor Ø (mm)	Cable Ø min (mm)	Cable Ø max (mm)	Cable Weight (kg/km)	Max. Tensile Strength (N)	Nom. Op. Capacitance (nF/km)	Operation Self Inductance (mH/km)	Conductor Resistance @20°C (Ω/km)	Current Carrying Capacity (A)
3x25+3x16/3E+3x2,5ST+UEL	6.4	42.7	45.7	3,178	1,125	360	0.32	0.78	131
3x35+3x16/3E+3x2,5ST+UEL	7.6	45.3	48.3	3,696	1,575	410	0.3	0.554	162
3x50+3x25/3E+3x2,5ST+UEL	9.1	48.5	52.5	4,508	2,250	470	0.29	0.386	202
3x70+3x35/3E+3x2,5ST+UEL	10.8	52.1	56.1	5,437	3,150	530	0.28	0.272	250
3x95+3x50/3E+3x2,5ST+UEL	12.7	56.6	60.6	6,638	4,275	610	0.27	0.206	301
3x120+3x70/3E+3x2,5ST+UEL	14.3	60.5	64.5	7,953	5,400	670	0.26	0.161	352
3x150+3x70/3E+3x2,5ST+UEL	16.1	65	71	9,150	6,750	740	0.25	0.129	404

SUPROMONT (N)3GHSSHCH — 6/10 kV (12 kV Um) — 7 Configurations

Basic Construction (mm²)	Conductor Ø (mm)	Cable Ø min (mm)	Cable Ø max (mm)	Cable Weight (kg/km)	Max. Tensile Strength (N)	Nom. Op. Capacitance (nF/km)	Operation Self Inductance (mH/km)	Conductor Resistance @20°C (Ω/km)	Current Carrying Capacity (A)
3x25+3x16/3E+3x2,5ST+UEL	6.4	44.7	48.7	3,586	1,125	320	0.33	0.78	131
3x35+3x16/3E+3x2,5ST+UEL	7.6	48.7	51.7	4,020	1,575	360	0.31	0.554	162
3x50+3x25/3E+3x2,5ST+UEL	9.1	50.7	54.7	4,840	2,250	420	0.3	0.386	202
3x70+3x35/3E+3x2,5ST+UEL	10.8	55.1	59.1	5,680	3,150	470	0.28	0.272	250
3x95+3x50/3E+3x2,5ST+UEL	12.7	59.5	63.5	7,090	4,275	540	0.27	0.206	301
3x120+3x70/3E+3x2,5ST+UEL	14.3	63.9	67.9	8,460	5,400	590	0.26	0.161	352
3x150+3x70/3E+3x2,5ST+UEL	16.1	72.5	77.5	9,950	6,750	650	0.25	0.129	404

SUPROMONT (N)3GHSSHCH — 8.7/15 kV (17.5 kV Um) — 7 Configurations

Basic Construction (mm²)	Conductor Ø (mm)	Cable Ø min (mm)	Cable Ø max (mm)	Cable Weight (kg/km)	Max. Tensile Strength (N)	Nom. Op. Capacitance (nF/km)	Operation Self Inductance (mH/km)	Conductor Resistance @20°C (Ω/km)	Current Carrying Capacity (A)
3x25+3x16/3E+3x2,5ST+UEL	6.4	49.1	53.1	3,985	1,125	260	0.35	0.78	139
3x35+3x16/3E+3x2,5ST+UEL	7.6	52.1	56.1	4,636	1,575	290	0.33	0.554	172
3x50+3x25/3E+3x2,5ST+UEL	9.1	53.9	57.9	5,410	2,250	330	0.31	0.386	215
3x70+3x35/3E+3x2,5ST+UEL	10.8	57.6	61.6	6,200	3,150	380	0.3	0.272	265
3x95+3x50/3E+3x2,5ST+UEL *	12.7	63.6	67.6	7,660	4,275	430	0.29	0.206	319
3x120+3x70/3E+3x2,5ST+UEL	14.3	67	71	8,991	5,400	470	0.28	0.161	371
3x240+3x120/3E+3x2,5ST+UEL	20.5	82.5	86.5	14,500	10,800	600	0.26	0.0801	574

SUPROMONT (N)3GHSSHCH — 12/20 kV (24 kV Um) — 7 Configurations

Basic Construction (mm²)	Conductor Ø (mm)	Cable Ø min (mm)	Cable Ø max (mm)	Cable Weight (kg/km)	Max. Tensile Strength (N)	Nom. Op. Capacitance (nF/km)	Operation Self Inductance (mH/km)	Conductor Resistance @20°C (Ω/km)	Current Carrying Capacity (A)
3x25+3x16/3E+3x2,5ST+UEL *	6.4	52.6	56.6	4,501	1,125	220	0.37	0.78	139
3x35+3x16/3E+3x2,5ST+UEL	7.6	53.6	57.6	4,850	1,575	250	0.35	0.554	172
3x50+3x25/3E+3x2,5ST+UEL	9.1	56.8	60.8	5,630	2,250	280	0.33	0.386	215
3x70+3x35/3E+3x2,5ST+UEL	10.8	61	65	6,740	3,150	320	0.31	0.272	265
3x95+3x50/3E+3x2,5ST+UEL	12.7	66	70	8,150	4,275	360	0.3	0.206	319
3x120+3x70/3E+3x2,5ST+UEL	14.3	70.5	74.5	9,502	5,400	390	0.29	0.161	371
3x150+3x70/3E+3x2,5ST+UEL	16.5	76.5	80.5	10,900	6,750	440	0.28	0.129	428

* Basic construction code corrected against the consistent conductor/control-core pairing used throughout this product's other 20 configurations (25 mm² main conductor pairs with a 16 mm² control core; 95 mm² main conductor pairs with a 50 mm² control core) — the source document printed the control core size equal to the main conductor size in these two rows only.

SUPROMONT (N)3GHSSHCH — 20/35 kV (42 kV Um) — 3 Configurations

Basic Construction (mm²)	Conductor Ø (mm)	Cable Ø min (mm)	Cable Ø max (mm)	Cable Weight (kg/km)	Max. Tensile Strength (N)	Nom. Op. Capacitance (nF/km)	Operation Self Inductance (mH/km)	Conductor Resistance @20°C (Ω/km)	Current Carrying Capacity (A)
3x70+3x35/3E+3x2,5ST+UEL	10.8	75.3	79.3	9,450	3,150	200	0.37	0.272	265
3x95+3x50/3E+3x2,5ST+UEL	12.7	80.3	84.3	10,800	4,275	220	0.35	0.206	319
3x120+3x70/3E+3x2,5ST+UEL	14.3	83.2	88.2	12,050	5,400	240	0.34	0.161	371

PRODUCT RANGE SUMMARY

Voltage Class	Um (kV)	Test Voltage	Nominal Voltage U	Configurations	Conductor Range
3.6/6 kV	7.2 kV	11 kV	6,000 V	7	25 – 150 mm²
6/10 kV	12 kV	17 kV	10,000 V	7	25 – 150 mm²
8.7/15 kV	17.5 kV	24 kV	15,000 V	7	25 – 240 mm²
12/20 kV	24 kV	29 kV	20,000 V	7	25 – 150 mm²
20/35 kV	42 kV	50 kV	35,000 V	3	70 – 120 mm²
			TOTAL CONFIGURATIONS	**31**	**—**

APPLICATIONS & ADVANTAGES

Typical Applications

- Feeder cable for shiftable MV equipment
- Compressure-resistant transformer supply
- Underground mining power distribution
- Tunnel construction sites
- Festoon and semi-fixed MV installations

Design Advantages

- Fully halogen-free sheathing system
- Bare copper wire screen per phase
- Galvanised steel braiding for protection
- Flame retardant to EN/IEC 60332-1-2
- Wide operating range: -40°C to +80°C

Why AnHui Feichun

- 31 factory-verified configurations
- Custom conductor sizing on request
- Rigorous factory electrical testing
- Global export & OEM support
- Fast quotation & technical response

ORDERING INFORMATION

Please specify: **1)** Product code (SUPROMONT (N)3GHSSHCH) **2)** Rated voltage class (3.6/6 – 20/35 kV) **3)** Basic construction / conductor cross-section **4)** Cable length required **5)** Any project-specific installation or termination requirements. Our engineering team is available to assist with cable selection, custom configurations and technical documentation.

ANHUI FEICHUN SPECIAL CABLE CO., LTD

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