

SUPROMONT

(N)3GHSSYCY

RATED VOLTAGE 6 – 35 kV

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. Engineered for repeated flexing and demanding underground duty, combining a rubber insulation system with a PVC sheathing package for reliable, long-term performance.

THERMAL PARAMETERS

Max. conductor temperature	**90 °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)	**60 °C**

CHEMICAL PARAMETERS

Flame retardant	**EN/IEC 60332-1-2**
Ozone resistance	**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**
14/25 kV	**36 kV**
18/30 kV	**43 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**
DIN EN/IEC 60332-1-2	**Fire perf.**
VDE Reg. Nr. 8086	**Certified**

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** – polyvinyl chloride (PVC), special compound DMV6
9. **Monitoring** – conductive tape and Cu wires
10. **Intermediate sheath** – polyvinyl chloride (PVC), special compound DMV6
11. **Armoring / reinforcement** – galvanised steel braiding
12. **Outer sheath** – polyvinyl chloride (PVC), special compound DMV6

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. Delivered across seven rated voltage classes – 3.6/6, 6/10, 8.7/15, 12/20, 14/25, 18/30 and 20/35 kV – and conductor cross-sections from 25 mm² up to 185/120 mm² per phase, allowing precise matching to project power and flexing requirements. AC test voltage on control cores is 2 kV across all voltage classes.

SUPROMONT (N)3GHSSYCY — 3.6/6 kV (7.2 kV Um) — 8 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	3,180	1,125	360	0.32	0.78	131
3x35+3x16/3E+3x2,5ST+UEL	7.6	45.3	48.3	3,700	1,575	410	0.3	0.554	162
3x50+3x25/3E+3x2,5ST+UEL	9.1	49.5	53.5	4,730	2,250	470	0.29	0.386	202
3x70+3x35/3E+3x2,5ST+UEL	10.8	53.2	57.2	5,720	3,150	530	0.28	0.272	250
3x95+3x50/3E+3x2,5ST+UEL	12.7	58.2	62.2	7,010	4,275	610	0.27	0.206	301
3x120+3x70/3E+3x2,5ST+UEL	14.3	62.7	66.7	8,311	5,400	670	0.26	0.161	352
3x150+3x70/3E+3x2,5ST+UEL	16	67.6	71.6	9,634	6,750	740	0.25	0.129	404
3x185+3x120/3E+3x2,5ST+UEL	17.7	71.7	75.7	11,202	8,325	800	0.25	0.106	461

SUPROMONT (N)3GHSSYCY — 6/10 kV (12 kV Um) — 8 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	45.7	48.7	3,580	1,125	320	0.33	0.78	131
3x35+3x16/3E+3x2,5ST+UEL	7.6	47.8	50.8	4,130	1,575	360	0.31	0.554	162
3x50+3x25/3E+3x2,5ST+UEL	9.1	50.8	54.8	4,890	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	60	64	7,130	4,275	540	0.27	0.206	301
3x120+3x70/3E+3x2,5ST+UEL	14.3	63.9	67.9	8,450	5,400	590	0.26	0.161	352
3x150+3x70/3E+3x2,5ST+UEL	16	68.9	72.9	9,840	6,750	660	0.25	0.129	404
3x185+3x120/3E+3x2,5ST+UEL	17.7	73	77	11,408	8,325	740	0.25	0.106	461

SUPROMONT (N)3GHSSYCY — 8.7/15 kV (17.5 kV Um) — 8 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	220	0.36	0.78	139
3x35+3x16/3E+3x2,5ST+UEL	7.6	50.4	54.4	4,481	1,575	290	0.33	0.554	172
3x50+3x25/3E+3x2,5ST+UEL	9.1	53.9	57.9	5,300	2,250	330	0.31	0.386	215
3x70+3x35/3E+3x2,5ST+UEL	10.8	57.6	61.6	6,380	3,150	380	0.3	0.272	265
3x95+3x50/3E+3x2,5ST+UEL	12.7	63.1	67.1	7,652	4,275	430	0.29	0.206	319
3x120+3x70/3E+3x2,5ST+UEL	14.3	67.4	71.4	8,940	5,400	470	0.28	0.161	371
3x150+3x70/3E+3x2,5ST+UEL	16	72	76	10,400	6,750	540	0.27	0.129	428
3x185+3x120/3E+3x2,5ST+UEL	17.7	75.6	79.6	11,865	8,325	580	0.26	0.106	488

SUPROMONT (N)3GHSSYCY — 12/20 kV (24 kV Um) — 8 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	3,900	1,125	200	0.37	0.78	139 *
3x35+3x16/3E+3x2,5ST+UEL	7.6	53.6	57.6	5,090	1,575	250	0.35	0.554	172 *
3x50+3x25/3E+3x2,5ST+UEL	9.1	56.8	60.8	5,730	2,250	280	0.33	0.386	215
3x70+3x35/3E+3x2,5ST+UEL	10.8	61	65	6,840	3,150	320	0.31	0.272	265
3x95+3x50/3E+3x2,5ST+UEL	12.7	66	70	8,200	4,275	360	0.3	0.206	319
3x120+3x70/3E+3x2,5ST+UEL	14.3	69.9	73.9	9,650	5,400	390	0.29	0.161	371
3x150+3x70/3E+3x2,5ST+UEL	16	71	75	10,932	6,750	430	0.28	0.129	428
3x185+3x120/3E+3x2,5ST+UEL	17.7	78.7	82.7	12,417	8,325	470	0.27	0.106	488

* 12/20 kV, 25 mm² and 35 mm² rows: tensile strength, conductor resistance and current carrying capacity corrected by cross-reference with the equivalent conductor sizes in every other voltage class of this product (25 mm²: 1,125 N / 0.78 Ω/km / 139 A; 35 mm²: 1,575 N / 0.554 Ω/km / 172 A) — these two source figures were transposed between the rows in the original document.

SUPROMONT (N)3GHSSYCY — 14/25 kV (29 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)
3x35+3x16/3E+3x2,5ST+UEL	7.6	57.6	61.6	5,502	1,575	210	0.37	0.554	172
3x50+3x25/3E+3x2,5ST+UEL	9.1	61.4	65.4	6,517	2,250	240	0.35	0.386	215
3x70+3x35/3E+3x2,5ST+UEL	10.8	65	69	7,526	3,150	270	0.33	0.272	265
3x95+3x50/3E+3x2,5ST+UEL	12.7	70	73.9	8,790	4,275	300	0.32	0.206	319
3x120+3x70/3E+3x2,5ST+UEL	14.3	73.9	77.8	10,137	5,400	330	0.3	0.161	371
3x150+3x70/3E+3x2,5ST+UEL	16	78.9	82.8	11,679	6,750	360	0.29	0.129	428
3x185+3x95/3E+3x2,5ST+UEL	17.7	82.5	86.4	13,095	8,325	390	0.29	0.106	488

SUPROMONT (N)3GHSSYCY — 18/30 kV (36 kV Um) — 5 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)
3x50+3x25/3E+3x2,5ST+UEL	9.1	67.4	71.4	7,487	2,250	200	0.37	0.386	215
3x70+3x35/3E+3x2,5ST+UEL	10.8	71.1	75.1	8,549	3,150	220	0.35	0.272	265
3x95+3x50/3E+3x2,5ST+UEL	12.7	76.5	80.4	10,091	4,275	250	0.34	0.206	319
3x120+3x70/3E+3x2,5ST+UEL	14.3	79.9	83.8	11,268	5,400	270	0.33	0.161	371
3x150+3x70/3E+3x2,5ST+UEL	16	84.4	89.3	12,887	6,750	290	0.31	0.129	428

SUPROMONT (N)3GHSSYCY — 20/35 kV (42 kV Um) — 4 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)
3x50+3x25/3E+3x2,5ST+UEL	9.1	71.2	75.2	8,120	2,250	180	0.39	0.386	215
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	8	25 – 185 mm²
6/10 kV	12 kV	17 kV	10,000 V	8	25 – 185 mm²
8.7/15 kV	17.5 kV	24 kV	15,000 V	8	25 – 185 mm²
12/20 kV	24 kV	29 kV	20,000 V	8	25 – 185 mm²
14/25 kV	29 kV	36 kV	25,000 V	7	35 – 185 mm²
18/30 kV	36 kV	43 kV	30,000 V	5	50 – 150 mm²
20/35 kV	42 kV	50 kV	35,000 V	4	50 – 120 mm²
			TOTAL CONFIGURATIONS	**48**	**—**

APPLICATIONS & ADVANTAGES

Typical Applications

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

Design Advantages

- Full 6–35 kV voltage class coverage
- Bare copper wire screen per phase
- Galvanised steel braiding for protection
- Flame retardant to EN/IEC 60332-1-2
- Ozone & UV resistant PVC sheathing

Why AnHui Feichun

- 48 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)3GHSSYCY) **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

WhatsApp: +86 13855123218
feichuncables.com | reelingcable.com