

## Benefits

- Ozone resistance
- High impact strength
- Enhanced abrasion resistance
- Resistance to oil, grease and chemicals
- High insulation resistance
- Used in open and underground mines
- Extremly torsion resistant

Cable structure

- Stranded tinned copper conductor, fine wire
- Strand structure to VDE 0295 class 5 / IEC 60228 class 5
- Inner semi-conducting layer over power conductors and earth conductors
- Phase cores are insulated with 3GI3 compound (Ethylene-Propylene Rubber/EPR) to DIN VDE 0207 part 20. Earth cores are not insulated
- Outer semi-conducting layer over phase core insulations
- All cores are laid up in contact with each other and interstitial ground cores
- Special elastomeric compound GM1b bedding, to DIN VDE 0207 part 21
- Open textile braid for reinforcement
- Heavy-duty elastomer outer sheath 5GM5 (Chloroprene/CR : Neoprene), to DIN VDE 0207 part 21, oil-resistant
- Sheath red color with type marking

Application

Suitable for use as trailing cable for forced guidance around reversing rolls or on cable caterpillars of hoisting gear or conveyor systems with exposure to high mechanical strain. Used in dry, damp and wet environments and for outdoor installation.

Electrical and technical specifications

- Cable construction : VDE 0250-813
- General specification : VDE 0250-1
- Operations manual : VDE 0298-3
- Test voltage : VDE 0472 501, 503, 508
- Insulation tests : VDE 0472-401, 402, 602, 303, 615
- Fire test : VDE 0472-803, 804
- Conductor short circuit temp. : Max. $250^{\circ} \mathrm{C}$
- Operating temperature:

Fixed : -40 to $80^{\circ} \mathrm{C}$
Flexible : -25 to $80^{\circ} \mathrm{C}$

- Minimum bending radius : VDE 0298, part 3
- Power rating : VDE 0298-4
- Flame retardant : IEC 60332-1-2
- Oil resistance : IEC 60811-2-1
- Cold resistance / Tear resistance / Ex-proof / UV resistance
- Normal voltage Uo/U : $3.6 / 6 \mathrm{kV}, 6 / 10 \mathrm{kV}, ~ 8.7 / 15 \mathrm{kV}, 12 / 20 \mathrm{kV}, 18 / 30 \mathrm{kV}$
- AC test voltage $\quad 11 \mathrm{kV} \quad 17 \mathrm{kV} \quad 24 \mathrm{kV} \quad 29 \mathrm{kV} \quad 43 \mathrm{kV}$
- Operating voltage $\mathrm{AC}: 4.2 / 7.2 \mathrm{kV}, 6.9 / 12 \mathrm{kV}, 10.4 / 18 \mathrm{kV}, 13.9 / 24 \mathrm{kV}, 20.8 / 36 \mathrm{kV}$
- Travel speed : max $30 \mathrm{~m} / \mathrm{min}$

| Part NO. | Core x Conductor size ( $\mathrm{mm}^{2}$ ) | NO of strands* $x$ Max strand Dia.(mm) | Outer <br> Dai.* (mm) | Tensile force max. (N) | Weight* <br> (kg/km) | Conductor Resistance @ $20^{\circ} \mathrm{C}$ ( $\mathrm{Ohm} / \mathrm{km}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3.6/6 kV (Vmax 7.2kV) |  |  |  |  |  |  |
| 798067250611 | $3 \times 25+3 \times 25 / 3 E$ | $200 \times 0.40 / 67 \times 0.40$ | 41.8-45.0 | 1500 | 2530 | 0.780 |
| 798067350611 | $3 \times 35+3 \times 25 / 3 \mathrm{E}$ | $280 \times 0.40 / 67 \times 0.40$ | 44.2-48.9 | 2100 | 2900 | 0.554 |
| 798067500611 | $3 \times 50+3 \times 25 / 3 \mathrm{E}$ | $400 \times 0.40 / 67 \times 0.40$ | 48.5-51.4 | 3000 | 3600 | 0.386 |
| 798067700611 | $3 \times 70+3 \times 35 / 3 \mathrm{E}$ | $356 \times 0.50 / 94 \times 0.40$ | 52.6-55.6 | 4200 | 4400 | 0.272 |
| 798067950611 | $3 \times 95+3 \times 50 / 3 E$ | $485 \times 0.50 / 133 \times 0.40$ | 55.7-58.8 | 5700 | 5630 | 0.206 |
| 798069120611 | $3 \times 120+3 \times 70 / 3 \mathrm{E}$ | $614 \times 0.50 / 119 \times 0.50$ | 59.6-65.9 | 7200 | 6200 | 0.161 |
| 798069150611 | 3X150+3X70/3E | $765 \times 0.50 / 119 \times 0.50$ | 65.3-70.1 | 9000 | 7780 | 0.129 |
| 6/10 kV (Vmax 12kV) |  |  |  |  |  |  |
| 798077250611 | $3 \times 25+3 \times 25 / 3 \mathrm{E}$ | $200 \times 0.40 / 67 \times 0.40$ | 43.6-48.1 | 1500 | 2600 | 0.780 |
| 798077350611 | $3 \times 35+3 \times 25 / 3 \mathrm{E}$ | $280 \times 0.40 / 67 \times 0.40$ | 45.6-50.4 | 2100 | 2980 | 0.554 |
| 798077500611 | $3 \times 50+3 \times 25 / 3 E$ | $400 \times 0.40 / 67 \times 0.40$ | 48.3-51.4 | 3000 | 3720 | 0.386 |
| 798077700611 | $3 \times 70+3 \times 35 / 3 \mathrm{E}$ | $356 \times 0.50 / 94 \times 0.40$ | 53.4-59.1 | 4200 | 4510 | 0.272 |
| 798077950611 | $3 \times 95+3 \times 50 / 3 E$ | $485 \times 0.50 / 133 \times 0.40$ | 57.1-63.2 | 5700 | 5720 | 0.206 |
| 798079120611 | $3 \times 120+3 \times 70 / 3 E$ | $614 \times 0.50 / 119 \times 0.50$ | 63.1-69.7 | 7200 | 6300 | 0.161 |
| 798079150611 | $3 \times 150+3 \times 70 / 3 E$ | $765 \times 0.50 / 119 \times 0.50$ | 69.5-74.3 | 9000 | 7780 | 0.129 |

* คือค่าโดยประมาณ
* It is approximate value
- ความยาวมาตราฐาน คือ 100 ม., 500 ม. และ 1,000 ม. ขึ้นอยู่กับขนาคเส้นผ่านศูนย์กลางของสาย่ไฟ
- Standard length is $100 \mathrm{~m}, 500 \mathrm{~m}$ and $1,000 \mathrm{~m}$ depend on $O D$ of cable
(N)TSCGEWÖU : Trailing mining cable

3GI3 rubber insulation, GM1b and 5GM5 rubber sheath with textile braid reinforcement

| Part NO. | Core $\times$ Conductor size ( $\mathrm{mm}^{2}$ ) | NO of strands* $x$ Max strand Dia.(mm) | Outer Dai. * (mm) | Tensile force max. (N) | Weight* <br> (kg/km) | Conductor Resistance <br> @ $20^{\circ} \mathrm{C}$ ( $\mathrm{Ohm} / \mathrm{km}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $8.7 / 15 \mathrm{kV}$ (Vmax 18kV) |  |  |  |  |  |  |
| 798087250611 | $3 \times 25+3 \times 25 / 3 \mathrm{E}$ | $200 \times 0.40 / 67 \times 0.40$ | 41.8-45.0 | 1500 | 2750 | 0.780 |
| 798087350611 | $3 \times 35+3 \times 25 / 3 E$ | $280 \times 0.40 / 67 \times 0.40$ | 44.2-48.9 | 2100 | 3210 | 0.554 |
| 798087500611 | $3 \times 50+3 \times 25 / 3 \mathrm{E}$ | $400 \times 0.40 / 67 \times 0.40$ | 48.5-51.4 | 3000 | 3950 | 0.386 |
| 798087700611 | $3 \times 70+3 \times 35 / 3 \mathrm{E}$ | $356 \times 0.50 / 94 \times 0.40$ | 52.6-55.6 | 4200 | 5000 | 0.272 |
| 798087950611 | $3 \times 95+3 \times 50 / 3 E$ | $485 \times 0.50 / 133 \times 0.40$ | 55.7-58.8 | 5700 | 6150 | 0.206 |
| 798089120611 | $3 \times 120+3 \times 70 / 3 E$ | $614 \times 0.50 / 119 \times 0.50$ | 59.6-65.9 | 7200 | 7700 | 0.161 |
| 798089150611 | 3X150+3X70/3E | $765 \times 0.50 / 119 \times 0.50$ | 65.3-70.1 | 9000 | 9000 | 0.129 |
| 12/20 kV (Vmax 24kV) |  |  |  |  |  |  |
| 798097250611 | $3 \times 25+3 \times 25 / 3 \mathrm{E}$ | $200 \times 0.40 / 67 \times 0.40$ | 43.6-48.1 | 1500 | 3040 | 0.780 |
| 798097350611 | $3 \times 35+3 \times 25 / 3 \mathrm{E}$ | $280 \times 0.40 / 67 \times 0.40$ | 45.6-50.4 | 2100 | 3510 | 0.554 |
| 798097500611 | $3 \times 50+3 \times 25 / 3 \mathrm{E}$ | 400x0.40/67x0.40 | 48.3-51.4 | 3000 | 4410 | 0.386 |
| 798097700611 | $3 \times 70+3 \times 35 / 3 E$ | $356 \times 0.50 / 94 \times 0.40$ | 53.4-59.1 | 4200 | 5420 | 0.272 |
| 798097950611 | $3 \times 95+3 \times 50 / 3 E$ | $485 \times 0.50 / 133 \times 0.40$ | 57.1-63.2 | 5700 | 6750 | 0.206 |
| 798099120611 | $3 \mathrm{X} 120+3 \times 70 / 3 E$ | $614 \times 0.50 / 119 \times 0.50$ | 63.1-69.7 | 7200 | 8050 | 0.161 |
| 798099150611 | $3 \times 150+3 \times 70 / 3 E$ | $765 \times 0.50 / 119 \times 0.50$ | 69.5-74.3 | 9000 | 9200 | 0.129 |

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- Standard length is $100 \mathrm{~m}, 500 \mathrm{~m}$ and $1,000 \mathrm{~m}$ depend on OD of cable

