



CABLE STRUCTURE

Conductor	Electrolytic annealed, class 5 stranded tinned copper wires (plain conductor on request)
Separator	A suitable tape may be applied over the conductor
Insulation	Special HEPR based elastomer compound (min. 3GI3 quality)
Core Identification	Light colored insulation with numbers printed in black for power and control cables, earth conductor green-yellow colored
Optical Fiber	Fibre core diameter of fiber 9 µm, 62.5 µm or 50 µm; Diameter over cladding 125 µm; Diameter over coating 250 µm; Designs up to 24 fibers available.
Fiber Coding	Color coding of the fibers and buffering tube for identification of the fiber type
Fiber Covering	Hollow core with filling compound, basic material ETFE
Arrangement of Fiber Cores	Six cores in one layer and specially laidup around the central support element
Lay Up	Three main conductors laid-up with two earth cores and fiber optic element in the outer interstice
Inner Sheath	Special type of elastomer compound (better than GM1b)
Sheath	
Reinforcement	Antitorsion textile braided embeded sheath
Outer Sheath	Special rubber based heavy duty compound. Oil and chemical resistant, 5GM3/5GM5 abrasion and notch resistant
Color	Black or Yellow

STANDARDS & MAIN CHARACTERISTICS

Construction	Based on DIN VDE 0250-814
General Requirements	DIN VDE 0250-1
Guide to Use	DIN VDE 0298-3
Electrical Tests	DIN VDE 0472-501, 502, 503, 508
Non-Electrical Tests	DIN VDE 0472-401, 402, 602, 303, 615
Under Fire Conditions Tests	DIN VDE 0472-803, 804
Flame Retardant	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1
Oil Resistant	HD/EN/IEC 60811-2-1, DIN VDE 0473-811-2-1



Ozone Resistant



Cold Resistant



Tear Resistant



Mechanical Stresses Resistance



Uv Resistant



Ex-Proof

OPERATING CHARACTERISTICS

Rated Voltage	0,6 / 1 kV
Max. Operating AC Voltage	0,7 / 1.2 kV
Max. Operating DC Voltage	0,9 / 1.8 kV
AC Test Voltage	3,5 kV
Conductor Operating Temperature	Max. 90°C
Conductor Short-Circuit Temperature	Max. 250°C
Working Temperature	
Fixed	-40°C ... +80°C
Mobile	-25°C ... +80°C
Min Bending Radius	VDE 0298-3 Tab. 3
Current Carrying Capacities	VDE 0298-4
Travel Speed	
In festoon systems	up to 180 m / min horizontal up to 120 m / min gantry
In reeling applications	horizontal reeling operation
Max. tensile load of cable	20 N / mm ²

Application

As reeling cable for power supply with integrated fiber optics, and for winding operation with tensile stress and/or torsional stress and for connection and control cable in lifting devices, hoisting plants and transporting machines for heavy mechanical load, and as drum and drag cable in dry, damp or wet rooms and in wet industrial conditions. The main application is reeling operation on ERTG's (Electrified Rubber Tyred Gantry cranes).

Cross Section (mm ²)	Overall Diameter Min. - Max. (mm)	Approximate Weight (kg / km)
3 x 35 + 2 x 16 / 2 + FO	35,7 - 38,7	2400
3 x 50 + 2 x 25 / 2 + FO	37,1 - 46,8	3200
3 x 70 + 2 x 35 / 2 + FO	42,5 - 53,5	4120
3 x 95 + 2 x 50 / 2 + FO	48,2 - 60,6	4990
3 x 120 + 2 x 70 / 2 + FO	51,6 - 64,9	6370
3 x 150 + 2 x 70 / 2 + FO	56,2 - 70,7	7480
3 x 185 + 2 x 95 / 2 + FO	63,3 - 79,4	9020
3 x 240 + 2 x 120 / 2 + FO	69,7 - 87,7	12320

(*) Design with 6,12,18 or 24 fibers are available.