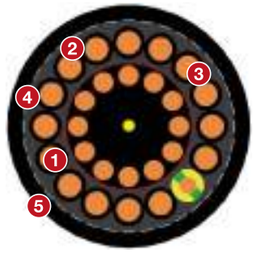
UTVFLEX® - PUR HF

Based on DIN VDE 0250 Part 814

Flexible cable designed for power and signalling mobile connections, under severe mechanical stresses (tensile strength and torsion), for heavy duty conditions, abrasion and crushing. The cable is typically used in cable winding reels for harbour cranes, container cranes, con- veyors, handling machines and mining and tunnelling equipment. The halogen free polyurethane sheath grants more lightness by retaining the mechanical properties and abrasion resistance.



1 PHASE CONDUCTORS
MATERIAL: tinned copper
CONSTRUCTION: class 5 VDE 0295 (IEC 60228)

2 INSULATION
MATERIAL: special compound, according to VDE 0207 Part 20

CORES IDENTIFICATION
According to DIN VDE 0293 Part 308 (HD 308 S2)

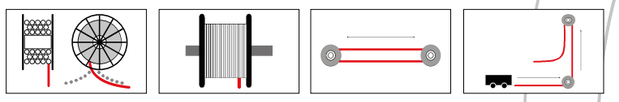
LAYING-UP
≤ 8 times the laying-up cores diameter

3 INNER SHEATH
MATERIAL: halogen free polyurethane

4 ANTITWISTING ELEMENT
MATERIAL: polyester braid between inner and outer sheath

5 OUTER SHEATH
MATERIAL: halogen free polyurethane
COLOUR: standard black, cores white with printed numbers

APPLICATION



ELECTRICAL WORKING DATA

Nominal rated voltage U_0 / U	kV	0,6/1
Test voltage	kV	4
Max AC voltage	kV	0,7/1,2
Max DC voltage	kV	1,8
Current rating	A	According to VDE 0298 Part 4

THERMAL WORKING DATA

Maximum short circuit temperature	°C	250
Maximum working temp. on the conductor	°C	90
Minimum ambient temperature	°C	Mobile condition: –40 Static condition: –50

MECHANICAL WORKING DATA

Bending radius	mm	According to VDE 0298 Part 3
Maximum torsional stress	°/m	±25
Maximum tensile load*	N/mm²	30
Max working speed	m/min	180
Special test		Reeling test

* Referred to the total phase conductors cross section

CHEMICAL WORKING DATA

Oil resistance	According to IEC 60811-404
Ozone resistance	According to IEC 60811-403
Burning behaviour	According to IEC 60332-1-2
Gas emission during combustion	According to IEC 60754-1

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VOLTAGE kV	CORES X CROSS SECTION Nr × mm²	CONDUCTOR Ø mm	MIN OVERALL Ø mm	MAX OVERALL Ø mm	APPROX WEIGHT kg/km	MAX TENSILE LOAD N
0,6/1	4G4	2,4	16,5	16,9	380	480
0,6/1	4G6	2,9	18,0	18,4	490	720
0,6/1	4G10	3,8	21,3	21,7	720	1200
0,6/1	4G16	4,8	23,8	24,2	990	1920
0,6/1	4G25	6,9	30,3	31,1	1610	3000
0,6/1	4G35	7,8	33,3	34,1	2090	4200
0,6/1	4G50	9,3	37,9	38,7	2830	6000
0,6/1	4G70	11,1	42,2	43,0	3720	8400
0,6/1	4G95	12,7	47,1	47,9	4770	11400
0,6/1	4G120	14,5	52,4	53,3	6040	14400
0,6/1	4G150	16,7	58,7	59,6	7520	18000

VOLTAGE kV	CORES X CROSS SECTION Nr × mm²	CONDUCTOR Ø mm	MIN OVERALL Ø mm	MAX OVERALL Ø mm	APPROX WEIGHT kg/km	MAX TENSILE LOAD N
0,6/1	5G4	2,4	17,8	18,2	460	600
0,6/1	5G6	2,9	19,4	19,8	590	900
0,6/1	5G10	3,8	23,1	23,5	870	1500
0,6/1	5G16	4,8	25,8	26,2	1200	2400
0,6/1	5G25	6,9	33,1	33,9	1970	3750
0,6/1	5G35	7,8	36,3	37,1	2560	5250

0,6/1	4G1,5	1,5	11,5	11,9	170	2180
0,6/1	5G1,5	1,5	12,1	12,5	190	2225
0,6/1	7G1,5	1,5	13,9	14,3	260	2315
0,6/1	12G1,5	1,5	17,7	18,1	450	2540
0,6/1	18G1,5	1,5	18,1	18,5	480	2810
0,6/1	24G1,5	1,5	20,7	21,1	630	3080
0,6/1	30G1,5	1,5	22,7	23,1	770	3350
0,6/1	36G1,5	1,5	23,1	23,5	800	3620
0,6/1	42G1,5	1,5	24,6	25,0	910	3890

0,6/1	4G2,5	1,9	12,7	13,1	220	2300
0,6/1	5G2,5	1,9	13,5	13,9	260	2375
0,6/1	7G2,5	1,9	15,6	16,0	360	2525
0,6/1	12G2,5	1,9	20,2	20,6	590	2900
0,6/1	18G2,5	1,9	20,6	21,0	660	3350
0,6/1	24G2,5	1,9	23,8	24,2	910	3800
0,6/1	30G2,5	1,9	26,2	26,6	1120	4250
0,6/1	36G2,5	1,9	26,6	27,0	1170	4700
0,6/1	42G2,5	1,9	29,1	29,5	1390	5150

The diameter and weight shown is approximate, they may have some tolerance (to be confirmed when ordering).
Other cross sections and colors available upon request.

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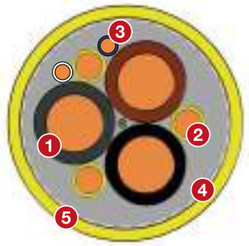
Power supply to mobile equipment with high risk of mechanical damage in mining and tunneling.
Maximum speed 120 m/min.



1 PHASE CONDUCTORS
MATERIAL: Plain copper
CONSTRUCTION: flexible class 5 IEC 60228
INSULATION: XLPE special compound, Brown-Black-Grey

2 EARTH CORES
MATERIAL: Plain copper
CONSTRUCTION: flexible class 5 IEC 60228
INSULATION: XLPE special compound, Yellow/Green

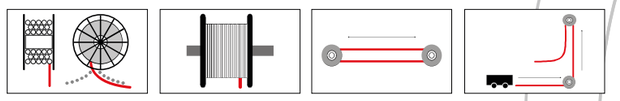
3 CONTROL CORES (IF ANY)
MATERIAL: Tinned copper
CONSTRUCTION: Class. 6 according to IEC 60228
INSULATION: Thin thickness made of special tecnopolymer.
Colour: white with printed number

4 ANTITWISTING ELEMENT
MATERIAL: Synthetic mesh

5 OUTHER SHEAT
MATERIAL: HFFR* thermoplastic polyurethane compound, abrasion, tear, chemical & hydrolysis resistant
COLOUR: Yellow

*Halogen free and flame retardant

APPLICATION



ELECTRICAL WORKING DATA

Nominal rated voltage U_0 / U	kV	0,6/1
Test voltage	kV	3,5
Max AC voltage	kV	1,2
Current rating	A	According to VDE 0298 Part 4

THERMAL WORKING DATA

Maximum short circuit temperature	°C	250
Maximum working temp. on the conductor	°C	90
Minimum ambient temperature	°C	Flex condition: –30 Fixed condiction: –40

MECHANICAL WORKING DATA

Bending radius	mm	According to VDE 0298 Part 3
Maximum tensile load*	N/mm²	30
Max working speed	m/min	180
Special test		Reeling test

* Referred to the total phase conductors cross section

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NUMBER OF CORES AND NOMINAL CROSS SECTION Nr × mm²	MAIN CONDUCTORS COPPER Ø mm	PROTECTIVE EARTH COND. COPPER Ø mm	MIN OVERALL Ø mm	MAX OVERALL Ø mm	NET WEIGHT APPROX kg/km	MAX TENSILE LOAD N
3×25+3G6	6,5	3,0	24,5	26,5	1200	2250
3×35+3G6	7,5	3,0	26,0	28,5	1480	3150
3×50+3G10	9,1	3,9	30,0	32,5	2080	4500
3×70+3G16	10,8	5,1	34,0	37,0	2980	6300
3×95+3G16	12,1	5,1	37,5	40,5	3620	8550
3×120+3G25	14,3	6,5	42,5	45,5	4770	10800
3×150+3G25	16,1	6,5	47,5	50,5	5800	13500
3×185+3G35	17,5	7,5	52,0	55,0	7050	16650
3×240+3G50	19,9	9,1	58,0	61,0	9160	21600

NUMBER OF CORES AND NOMINAL CROSS SECTION Nr × mm²	MAIN CONDUCTORS COPPER Ø mm	PROTECTIVE EARTH COND. COPPER Ø mm	CONTROL CONDUCTORS INSULATED Ø mm	MIN OVERALL Ø mm	MAX OVERALL Ø mm	NET WEIGHT APPROX kg/km	MAX TENSILE LOAD N
3×25+3G6+2×1.5	6,5	3,0	2,6	25,5	28,0	1300	2250
3×35+3G6+2×1.5	7,5	3,0	2,6	26,5	29,0	1560	3150
3×50+3G10+2×1.5	9,1	3,9	2,6	30,0	32,5	2110	4500
3×70+3G16+2×1.5	10,8	5,1	2,6	34,0	37,0	3010	6300
3×95+3G16+2×1.5	12,1	5,1	2,6	37,5	40,5	3650	8550
3×120+3G25+2×1.5	14,3	6,5	2,6	42,5	45,5	4800	10800
3×150+3G25+2×1.5	16,1	6,5	2,6	47,5	50,5	5830	13500
3×185+3G35+2×1.5	17,5	7,5	2,6	52,0	55,0	7080	16650
3×240+3G50+2×1.5	19,9	9,1	2,6	58,0	61,0	9190	21600

The diameter and weight shown is approximate, they may have some tolerance (to be confirmed when ordering).
Other cross sections and colors available upon request.