M(StD)HOEU

Low voltage screened flat cable for festoon application

Application

Flexible power and control cables, in particular for hoisting gears transportation systems, machine tools, at medium mechanical stresses and for severe bending in one plane only; in dry, damp, wet areas and also outdoors; where resistance against oils, fats and chemical influences is required.

Global data

Brand	M(StD)HOEU
Standard	UL Style 4540
Standard	Based on DIN VDE 0250-809

Design features

Conductor	Copper bare, up to 25 mm²: finest wire class 6 according to IEC 60228 / DIN EN 60228; 35 mm² and up: fine wire class 5 according to IEC 60228 / DIN EN 60228; Conductor wrapping: paper tape or PETP-film
Insulation	Rubber, type pf compound 3GI3 according to DIN VDE 0207-20
Core identification	Up to 5 cores: colored in accordance with DIN VDE 0293-308 From 6 cores: black with white numbers
Individual screen	ALU/PETP foil, overlapped. Spinning of tinned copper wires, covering > 85 %. Wrapping with PETP-film
Core arrangement	Cores arranged in parallel; Pair twisting: 2 Cores and 2 fillers twisted with varying direction of lay and short length of lay, wrapping with PETP-film, pairs parallel arranged
Outer sheath	Polychloroprene, type of compound 5GM3 according to DIN VDE 0207-21. Colour: black
Marking	White imprint: M(STD)HÖU-J/-O (number of cores) x (cross-section) (UL File Nr.)(UL-SZ) AWM Style 4540 90°C FT-1 600 V (week/year)

Electrical parameters

Rated voltage	0.6/1 kV (600/1000V)
Max. permissible operating voltage AC	0.7/1.2 kV
Max. permissible operating voltage DC	0.9/1.8 kV
AC Test Voltage	2.5 kV (5 Min.)
Current Carrying Capacity description	Acc. to VDE 0298-4

Thermal parameters

Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Ambient temperature for fixed installation	min -40 °C ; max +80 °C
Ambient temperature in fully flexible operation	min -30 °C ; max +80 °C

Mechanical parameters

Max. tensile load on the conductor	15 N/mm²
Torsional stress	Not allowed
Min. bending radius	Acc. to DIN VDE 0298 part 3
Travel speed	- In festoon system: up to 180m/min (it is recommended to consult the manufacturer for speeds beyond)

Number of cores x cross section	Part number	Conductor diameter max. mm	Min. Height (for flat cable) mm	Max. Height (for flat cable) mm	Min. Width (for flat cable) mm	Max. Width (for flat cable) mm	Bending radius free moving min. mm	Weight (ca.) kg/km	Permissible tensile force max. N	Conductor resistance at 20°C max. Ω/km	Current carrying capacity (1) A	Short Circuit Current (conductor) kA
M(STD)HOEU-J screened power cables, four core												
4x1,5		1.5	7	8	20.1	21.5	24	290	90	13.3	23	0.21
4x2,5		1.9	7.6	8.7	22.7	24.1	35	370	150	7.98	30	0.36
4x4		2.5	8.5	9.5	25.6	27.6	38	500	240	4.95	41	0.57
4x6		3.2	8.9	10.5	28.1	30.1	42	610	360	3.3	53	0.86
4x10		4.1	11.1	12.1	34.7	36.7	61	910	600	1.91	74	1.43
4x16		5.1	12.3	13.7	38.9	41.5	69	1320	960	1.21	99	2.29
4x25		6.4	12.5	15.5	43	47	78	1720	1500	0.78	131	3.58
4x35		7.7	14.6	17	49.8	53.2	85	2330	2100	0.55	162	5.01
4x50		9.6	17.1	19.7	58	61.6	99	3110	3000	0.39	202	7.15
4x70		11.1	22	24	73	77	120	4670	4200	0.27	250	10.01
4x95		13.1	22.7	25.3	76.3	81.9	127	5510	5700	0.21	301	13.59
M(STD)HOEU-J screened control cables												
5x1,5		1.5	7	8	23.8	25.8	24	350	110	13.3	23	0.21
8x1,5		1.5	7	8	36.2	38.6	24	550	180	13.3	23	0.21
12x1,5		1.5	7	8	52.7	57.1	24	810	270	13.3	23	0.21
4x4x1,5		1.5	10	13	36.6	42.6	65	900	360	13.3	23	0.21
6x2,5		1.9	7.6	8.7	31.5	33.5	35	530	220	7.98	30	0.36
12x2,5	20157618	1.9	7.6	8.7	60	64	35	1050	450	7.98	30	0.36
M(STD)HOEU-O individually screened control pairs												
4x(2x1)	20157617	1.3	10.2	11.8	30	33.5	47	590	120	19.5	18	0.14
7x(2x1)		1.3	10.9	12.5	55.3	59	63	1060	210	19.5	18	0.14
12x(2x1)		1.3	13.7	17	65.5	71	85	1500	360	19.5	18	0.14

(1) Nominal current carrying capacity for rubber cables laid on a surface, at 30°C ambient temperature (see also VDE 0298-4, Table 15).
For articles without part number the values shown are approximate, and need to be confirmed in case of order.