

# HELUPOWER® 1000 HY-CARBO SWA EMC

Shielded & Steel Wire Armoured, Hydrocarbon resistant Power & Control cable 0.6/1 kV in acc. to IEC 60502



## Technical data

- LSLH Power & Control cable acc. to IEC 60502
- **Temperature range**  
flexing -5°C to +50°C  
fixed installation -20°C to +90°C  
short circuit temperature max. 250°C
- **Nominal voltage**  
U<sub>0</sub>/U 0,6/1 kV
- **Test voltage**  
3500 V AC for 5 min.  
8400 V DC for 5 min.
- **Minimum bending radius**  
fixed 12 x cable Ø
- **Insulation resistance**  
> 100 MΩxkm

## Cable structure

- Bare copper conductor, multiple wired acc. to DIN VDE 0295 cl. 2 / IEC 60228 cl. 2
- Core insulation: XLPE acc. to IEC 60502-1, BS 50290-2-29 and EN 50363-0
- Core identification acc. to HD 308 S2
- Inner covering: PVC
- Screen: bare copper overlapping tape (coverage 150 %)
- Inner sheath: PVC
- Armour: galvanized steel wire armour with galvanized steel conterspiral tape (if necessary)  
acc. to IEC 60502-1 TAB. 9
- Outer sheath: hydrocarbon resistant PVC
- Outer sheath colour: black

## Properties

- Hydrocarbon resistant
- Oil resistant
- Flame retardant
- Low Smoke Low Halogen (LSLH)
- Suitable for direct burial
- UV resistant

## Tests

- Flame retardant acc. to DIN VDE 482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- Flame test on bunched wires acc. to DIN VDE 0482-332-3-24 / DIN EN 60332-3-24 / IEC 60332-3-24 (Cat. C, 20 min.)
- Flame test on bunched wires acc. to DIN VDE 0482-332-3-22 / DIN EN 60332-3-22 / IEC 60332-3-22 (Cat. A, 40 min.)
- Low amount of halogen acid gas acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- UV and sunlight resistant acc. to UL 1581 sect. 1200

## Note

- Denomination RVFV or BS 5467
- Galvanized steel tape armouring (GSTA) upon request
- Other core identification upon request

## Application

The HELUPOWER® 1000 HY-CARBO SWA EMC is a shielded & armoured power and control cable with a reduced flame propagation and reduced emission of toxic/corrosive gases and opaque fumes in case of fire. The HELUPOWER® 1000 HY-CARBO SWA EMC is suitable for use in civil/industrial environment, in fixed lay also directly buried in ground without protection. The armour provides a good mechanical protection also in heavy applications. C€ = Product complies to the Low-Voltage Directive 2014/35/EU.

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Conductor resistance at 20°C	Current rating (A) in air at 30°C	Current rating (A) directly buried at 20°C, $\rho = 1,5$ K*m/W	Diameter under armour approx. mm	Outer Ø app. mm	Copper weight kg / km	Weight app. kg / km
17002250	2 x 1,5	12,100	26,0	26,0	10,8	16,2	56,0	531
17002251	2 x 2,5	7,410	36,0	35,0	11,6	17,7	76,0	693
17002252	2 x 4	4,610	49,0	45,0	12,8	19,5	107,0	819
17002253	2 x 6	3,100	63,0	56,0	13,8	20,5	145,0	915
17002254	2 x 10	1,830	86,0	76,0	15,8	22,5	223,0	1123
17002255	2 x 16	1,150	115,0	99,0	17,8	25,2	334,0	1522
17002256	2 x 25	0,727	149,0	128,0	21,2	28,6	509,0	1962
17002257	2 x 35	0,524	185,0	156,0	23,4	30,8	687,0	2334
17002258	2 x 50	0,387	225,0	193,0	26,4	34,4	914,0	2858

Continuation ▶

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Part no.	No.cores x cross-sec. mm <sup>2</sup>	Conductor resistance at 20°C	Current rating (A) in air at 30°C	Current rating (A) directly buried at 20°C, $\rho = 1,5$ K+m/W	Diameter under armour approx. mm	Outer Ø app. mm	Copper weight kg / km	Weight app. kg / km
17002259	2 x 70	0,268	0,0	0,0	30,4	39,4	1297,0	3909
17002300	3 x 1,5	12,100	23,0	22,0	11,3	16,7	72,0	568
17002301	3 x 2,5	7,410	32,0	29,0	12,1	18,2	100,0	735
17002302	3 x 4	4,610	42,0	37,0	13,4	20,1	144,0	878
17002303	3 x 6	3,100	54,0	47,0	14,5	21,2	200,0	1002
17002304	3 x 10	1,830	75,0	63,0	16,7	23,4	314,0	1260
17002305	3 x 16	1,150	100,0	83,0	18,8	26,2	477,0	1709
17002306	3 x 25	0,727	127,0	107,0	22,5	29,9	733,0	2249
17002307	3 x 35	0,524	158,0	131,0	24,9	32,5	998,0	2722
17002308	3 x 50	0,387	192,0	162,0	28,1	36,9	1333,0	3602
17002309	3 x 70	0,268	246,0	200,0	32,8	42,0	1902,0	4678
17002310	3 x 95	0,193	298,0	237,0	37,0	46,4	2611,0	5854
17002311	3 x 120	0,153	346,0	274,0	40,8	51,6	3256,0	7416
17002312	3 x 150	0,124	399,0	313,0	46,0	57,0	4032,0	8923
17002313	3 x 185	0,099	456,0	352,0	50,7	61,9	5013,0	10579
17002314	3 x 240	0,075	538,0	414,0	57,6	69,2	6585,0	13283
17002315	3 x 300	0,060	621,0	0,0	63,4	75,4	8194,0	15859
17002316	3 x 400	0,047	0,0	0,0	70,7	84,8	10457,0	20468
17002280	4 x 1,5	12,100	23,0	22,0	12,1	18,2	88,0	723
17002281	4 x 2,5	7,410	32,0	29,0	13,0	19,7	125,0	831
17002282	4 x 4	4,610	42,0	37,0	14,5	21,2	182,0	982
17002283	4 x 6	3,080	54,0	47,0	15,7	22,4	256,0	1127
17002284	4 x 10	1,830	75,0	63,0	18,1	25,5	407,0	1571
17002285	4 x 16	1,150	100,0	83,0	20,5	27,9	622,0	1960
17002286	4 x 25	0,727	127,0	107,0	24,6	32,2	961,0	2631
17002287	4 x 35	0,524	158,0	131,0	27,3	35,3	1311,0	3217
17002288	4 x 50	0,387	192,0	162,0	30,9	39,9	1757,0	4255
17002289	4 x 70	0,268	246,0	200,0	36,2	45,6	2512,0	5617
17002290	4 x 95	0,193	298,0	237,0	41,0	51,6	3453,0	7514
17002291	4 x 120	0,153	346,0	274,0	45,7	56,7	4311,0	9040
17002292	4 x 150	0,124	399,0	313,0	51,0	62,4	5340,0	10865
17002293	4 x 185	0,099	456,0	352,0	56,3	67,9	6645,0	12908
17002294	4 x 240	0,075	538,0	414,0	63,9	76,1	8736,0	16296
17002295	4 x 300	0,060	621,0	0,0	70,4	84,3	10876,0	20517
17002296	4 x 400	0,047	0,0	0,0	78,9	93,0	13889,0	25113
17002260	5 x 1,5	12,100	23,0	22,0	12,9	19,6	104,0	809
17002261	5 x 2,5	7,410	32,0	29,0	14,0	20,7	150,0	922
17002262	5 x 4	4,610	42,0	37,0	15,6	22,3	221,0	1090
17002263	5 x 6	3,080	54,0	47,0	17,0	24,4	313,0	1404
17002264	5 x 10	1,830	75,0	63,0	19,7	27,1	500,0	1778
17002265	5 x 16	1,150	100,0	86,0	22,4	29,8	768,0	2252
17002266	5 x 25	0,727	127,0	107,0	26,9	34,9	1189,0	3058
17002267	5 x 35	0,524	158,0	131,0	29,9	38,9	1626,0	4038
17002268	5 x 50	0,387	192,0	162,0	34,4	43,6	2182,0	5069
17002269	5 x 70	0,268	0,0	0,0	40,0	50,6	3122,0	7074
17002270	5 x 95	0,193	0,0	0,0	45,7	56,7	4297,0	9002
17002271	5 x 120	0,153	0,0	0,0	50,3	61,5	5367,0	10690
17002272	5 x 150	0,124	0,0	0,0	56,2	67,8	6650,0	12858
17002273	7 x 1,5	12,100	13,0	16,0	13,8	20,5	134,0	872
17002274	10 x 1,5	12,100	13,0	16,0	16,8	23,5	185,0	1088
17002275	12 x 1,5	12,100	11,0	13,0	17,3	24,7	213,0	1296
17002276	16 x 1,5	12,100	11,0	13,0	18,9	26,3	272,0	1467
17002277	19 x 1,5	12,100	9,0	12,0	19,8	27,2	315,0	1572
17002278	20 x 1,5	12,100	9,0	12,0	20,7	28,1	332,0	1630
17002279	24 x 1,5	12,100	9,0	12,0	22,8	30,2	392,0	1826
17002297	27 x 1,5	12,100	0,0	0,0	23,3	30,9	434,0	1925
17002298	37 x 1,5	12,100	0,0	0,0	25,8	33,4	576,0	2257
17002317	7 x 2,5	7,410	18,0	21,0	15,0	21,7	197,0	1000
17002318	10 x 2,5	7,410	18,0	21,0	18,4	25,8	274,0	1416
17002319	12 x 2,5	7,410	14,0	18,0	18,9	26,3	319,0	1500
17002320	16 x 2,5	7,410	14,0	18,0	20,8	28,2	413,0	1719
17002321	19 x 2,5	7,410	12,0	14,0	21,8	29,2	481,0	1852
17002322	24 x 2,5	7,410	12,0	14,0	25,2	32,8	602,0	2212
17002323	27 x 2,5	7,410	0,0	0,0	25,7	33,3	669,0	2323
17002299	37 x 2,5	7,410	0,0	0,0	28,6	37,6	895,0	3082

Dimensions and specifications may be changed without prior notice.