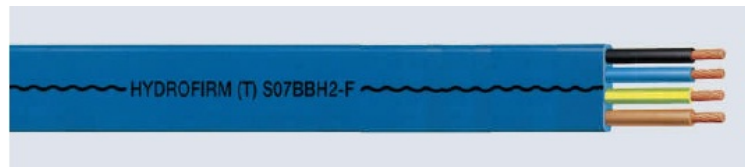


## HYDROFIRM(T) S07BBH2-F



### Application

HYDROFIRM(T) rubber-sheathed cables S07BBH2-F are intended for connection of electrical equipment in water and for medium mechanical stresses, e.g. submersible pumps, lowering of water level and booster plants.

These cables are also suitable for use in drinking water, cooling water, surface water, rainwater. They further can be used in groundwater and seawater (salt water) up to 2000 m water depth. The outer sheath fulfills the requirements of health according to the "Elastomerleitlinien (ELL)" of the German "Umwelt Bundesamt" and the Attestation de Conformité Sanitaire (ACS) according to the French law. When corrosive water is involved, or water of some other special compositions must be investigated in each individual case. They may not be used in water containing more than 0,5 mg/l of chlorine.

These cables can be used indoors, outdoors, in industrial and agricultural plant, but not in explosion-hazard areas.

For protected, fixed installation within equipment, pipes or wells, as well as for rotor connections, these cables may be operated with an AC voltage to 1000 V or a DC voltage to 750 V with respect to earth. The permissible AC voltage for motor tests is 3 kV for a maximum duration of 3 minutes. In other respects the specifications of DIN EN 50565-2 apply.

### Global data

Brand	HYDROFIRM(T)
Type designation	S07BBH2-F
Model	Flat
Standard	DIN EN 50525-2-21

### Notes on installation

Maximum Submersing Depth	2000 Meter
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### Design features

Conductor	Plain copper, finely stranded class 5 in accordance with DIN EN 60228 / IEC 60228
Insulation	Ozone, water and weather resistant insulation compound, base EPR (Ethylene-Propylene Rubber)
Core identification	up to 5 cores: colored in accordance with DIN VDE 0293-308 more than 5 cores: DIN EN 50525-1 Annex D
Outer sheath	EPR special compound type EM6 according to DIN EN 50363-2-1; water resistant; Compound 3G357
Outer sheath colour	Blue

### Electrical parameters

Rated voltage	450/750 V
Max. permissible operating voltage AC	0.476/0.825 kV
Max. permissible operating voltage DC	0.619/1.238 kV
AC test voltage - main cores	2.5 kV (15 Min.)

### Chemical parameters

Water resistance	DIN EN 50525-2-21
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### Thermal parameters

Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Max. permissible water temperature	60 °C (At higher water temperatures, a shortened cable service life is to be expected)
Ambient temperature for fix installation min.	-50 °C
Ambient temp. in fully flex. operation min.	-50 °C

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 fixed min. mm	Bending radius free moving min. mm	Weight (approx.) kg/km	Conductor resistance at 20°C max. Ω/km	Current carrying capacity in water A	Short Circuit Current (conductor) max. (1s) kA
3x1,5	20055073	1.5	6	7.5	12.5	14	23	23	120	13.3	29	0.21
3x2,5	20003747	1.9	7	8.5	14.5	16.5	26	34	185	7.98	38	0.36
3x4	20003748	2.5	8	9.5	17	19	29	38	260	4.95	52	0.57
3x6	20007918	3	9	10.5	19	21.5	32	42	333	3.3	67	0.86
3x10	20003750	3.9	12.5	14.5	25	28	58	73	581	1.91	93	1.43
3x16	20003751	5.4	14.5	17	31	34	68	85	863	1.21	125	2.29
3x25	20003752	6.4	17	19	36.5	40	76	95	1300	0.7839	165	3.56
3x35	20003753	7.7	19	21.5	42	45.5	86	108	1643	0.554	205	5
3x50	20003754	9.2	22	24	48.5	53	96	120	2245	0.386	255	7.15
3x70	20003755	11	24	26.5	54.5	59	106	133	2990	0.272	316	10
3x95	20041041	12.5	25.4	27.9	57	61.5	112	140	3740	0.206	380	13.59
3x120	20003756	14.2	27.6	30.1	62.4	66.9	120	151	4530	0.161	445	17.16
3x240		20.3	38.3	40.3	87	92	161	202	8904	0.0801	691	34.32
4G1,5	20003758	1.5	6	7.5	16	18.5	23	23	167	13.3	29	0.21
4G2,5	20003759	1.9	7	8.5	19	21.5	26	34	240	7.98	38	0.36
4G4	20003760	2.5	8	9.5	22.5	25.5	29	38	337	4.95	52	0.57
4G6	20003761	3	9.5	10.5	25.5	29	32	42	448	3.3	67	0.86
4G10	20003762	3.9	12.5	14.5	33	36.5	58	73	791	1.91	93	1.43
4G16	20003763	5.4	14.5	17	41	44.5	68	85	1162	1.21	125	2.29
4G25	20003764	6.4	17.5	20	49	53.5	80	100	1698	0.7839	165	3.56
4G35	20003765	7.7	19.5	22	56.5	60.5	88	110	2293	0.554	205	5
4G50	20003766	9.2	22.5	25	66.5	69.5	100	125	3054	0.386	255	7.15
4G70	20003767	11	25	28	73	77.5	112	140	4200	0.272	316	10
4G95	20008720	12.5	27.5	29.5	78	82	118	148	5260	0.206	380	13.59
4G150	20048350	16.5	32	35	96	100	140	175	8550	0.129	510	21.45
4G120	20154803	14.2	30	32	88	92	120	151	6368	0.161	445	17.16

(2) Current carrying capacity free in air: The values are valid for permanent operation with DC or AC with 50 up to 60 Hz at 30 °C ambient temperature, two or three cores loaded (see also DIN VDE 298-4).  
 Current carrying capacity in water: The values are valid for permanent operation with DC or AC with 50 up to 60 Hz at 30 °C ambient water temperature, two or three cores loaded, multi-core cables all cores loaded (cable complete immersed in water).