HYDROFIRM(T) S1BB-F 0,6/1KV

Rubber-sheathed cables for drinking water

These rubber-sheathed drinking water cables are suitable for connections of electrical equipment, submerged in water under medium mechanical
stress. Likewise for indoor, outdoor, industrial and agricultural applications, for protected fixed installation in pipes, equipment, as rotor connections to motors or in well systems.
Possible water types: drinking-, cooling-, surface-, rain-, ground- and sea-water, up to a depth of 2,000 meters. (Water resistant acc. AD8)
The outer sheath fulfils the requirements of the "Attestation de Conformité Sanitaire" (ACS) from France and of h Israeli standard SI 5452. In addition, general terms of DIN EN 50565-2 apply.
This wall-thickness- and outer-diameter-optimized 1 kV-concept offers further solutions for exteme tight spaces and seals on pumps.
For water with a special composition (aggressive), the resistance of each cable must be checked for each individual case. Hazardous areas and chlorine contents of more than 0.5 mg/l must be excluded.
Global data

STANDARDS

ACS	General
based on DIN EN 50525-2-21	General
DIN EN 50565-2	Application
DIN EN 50565-1	Application
DIN EN 60228	Conductor
DIN VDE 0293-308	Core identification
DIN EN 50525-1	Core identification
DIN EN 50363-1	Compound
DIN EN 50363-2-1	Compound
DIN EN 50525-2-21	Chemical behaviour

NOTES ON INSTALLATION

Max. water depth [m]	2,000
Outdoor installation	Yes

CABLE DESIGN

Conductor	Bare copper, finely stranded, class 5
Core insulation material	HEPR rubber
Material outer sheath	EPDM rubber

ELECTRICAL AND THERMAL PARAMETERS

Rated voltage U0/U (Um)	0.6/1 (1.2) kV
Test voltage [kV]	3
Ambient temperature fix installation (min) [°C]	-50
Ambient temperature flexible installation (min) [°C]	-50
Conductor operating temp (max) [°C]	90
Max. conductor temperature at short circuit [°C]	250
Max. water temperature [°C]	60

CHEMICAL PARAMETERS

Sea water resistance	Yes

MECHANICAL PARAMETERS

Permanent tensile strength (rule)	15 N/mm²
Bending radius (rule)	3 X OD max. fixed installation 4 X OD max. flexible operation

SUSTAINABILITY COMMITMENT

Our commitment to a low-carbon future remains unwavering as we strive to create sustainable solutions while upholding quality standards. We prioritize sustainability and environmental protection in our daily operations, collaborating with local communities to ensure workplace safety and safeguard the areas we operate in.

Sustainability and environmental responsibility is evident also in our **packaging** solutions across the CEE region. We use fully recyclable drum cover foils to minimize environmental impact. Our packaging for rings is made from 30% recycled materials, supporting a circular economy. Additionally, our boxes are made from recyclable, environment-friendly cardboard, promoting eco-conscious choices. By choosing Prysmian, you are not only selecting high-quality products but also contributing to a greener future.

Check for more details about our sustainability commitment here: Sustainability: report and responsibility.

CABLE PROPERTIES

Basic construction	SAP code	Diameter conductor [mm]	Min. outer diameter [mm]	Max. outer diameter [mm]	Cable weight [kg/km]	Conductor resistance at 20° C [Ohm/km]	Short circuit current conductor (1sec) [kA]
1x1,5	20007599	1.6	5.8	6.6	53	13.3	0.21
1x16	20159153	5	9.1	10.1	212	1.21	2.29
1x25	20007959	6.4	11.4	12.4	328	0.7839	3.58
1x35	20004336	7.5	12.3	13.9	422	0.554	5.01
1x50	20004337	8.8	14.1	15.7	579	0.386	7.15
1x70	20004338	10.6	16.3	18.3	808	0.272	10.01
1x95	20004339	12.2	18.8	20.3	1,026	0.206	13.59
1x120	20004340	14.2	20.9	22.9	1,317	0.161	17.16
1x185	20197815	17.8	26	28.3	1,986	0.106	26.46
1x240	20149227	20.3	28.9	31.2	2,553	0.0801	34.32
2X1	20025585	1.3	8	9	90	19.5	0.14
2X4	20282383	2.4	10.2	11.8	175	4.95	0.57
3x1,5	20014826	1.6	9.1	10.1	125	13.3	0.21
3X2,5	20112501	2	9.6	11.2	162	7.98	0.36
3X4	20014829	2.4	10.6	12.2	216	4.95	0.57
3X16	20197816	5	19.1	21.1	740	1.21	2.29
3X25	20197817	6.3	23.1	25.1	1,094	0.7839	3.58
3X35	20197818	7.5	25.6	28.6	1,459	0.554	5.01
3x50	20114018	8.9	29.9	32.9	2,018	0.386	7.15
3x70	20148842	10.7	35.4	38.4	2,808	0.272	10.01
3X95	20052793	12.3	39	42	3,547	0.206	13.59
3X120	20197813	14.3	44.4	47.4	4,542	0.161	17.16
3X150	20197814	16	49	53	5,400	0.129	21.45
3X185	20197819	17.7	54.2	58.2	6,819	0.106	26.46
3X240	20197820	20.3	61.4	65.4	8,645	0.0801	34.32
4X1,5	20004342	1.6	9.5	11.1	148	13.3	0.21
4X4	20004344	2.4	10.5	12.1	276	4.95	0.57
4X2,5	20004343	2	10.5	12.1	201	7.98	0.36
4X6	20004345	2.9	13.6	15.2	378	3.3	0.86
4X10	20004346	3.9	17.8	19.8	646	1.91	1.43
4X16	20004347	5	20.9	22.9	934	1.21	2.29
4X25	20004348	6.3	25.3	28.3	1,418	0.78	3.58
4X35	20004349	7.5	28.3	31.3	1,877	0.55	5.01

CABLE PROPERTIES

Basic construction	SAP code	Diameter conductor [mm]	Min. outer diameter [mm]	Max. outer diameter [mm]	Cable weight [kg/km]	Conductor resistance at 20° C [Ohm/km]	Short circuit current conductor (1sec) [kA]
4X50	20004350	8.9	33.2	36.2	2,613	0.386	7.15
4X70	20004351	10.7	38.7	41.7	3,638	0.272	10.01
4X95	20004352	12.3	43.7	47.7	4,643	0.206	13.59
4X120	20130848	14.3	48.7	52.7	5,833	0.16	17.16
4X150	20141938	16	54.5	58.5	148	0.129	21.45
4X240	20149226	20.3	68.2	72.2	11,457	0.0801	34.32
8X1,5	20217655	1.6	14.5	16.5	305	13.3	0.21

CURRENT CARRYING CAPACITY

Basic construction	SAP code	Current carrying capacity free in air [A]	Current carrying capacity in water [A]
1X1,5	20007599	33	40
1X16	20159153	142	170
1X25	20007959	188	225
1X70	20004338	358	429
1X95	20004339	431	517
1X120	20004340	504	605
1X185	20197815	660	792
1X240	20149227	783	940
2X1	20025585	19	23
2X4	20182383	43	55
3X1,5	20014826	24	29
3X2,5	20112501	32	38
3X4	20014829	43	52
3X16	20197816	104	125
3X25	20197817	138	165
3X35	20197818	171	205
3X50	20114018	213	255
3X70	20148842	263	316
3X95	20052793	317	380
3X120	20197813	371	445

CURRENT CARRYING CAPACITY

Basic construction	SAP code	Current carrying capacity free in air [A]	Current carrying capacity in water [A]
3X150	20197814	425	510
3X185	20197819	485	582
3X240	20197820	576	691
4X1,5	20004342	24	29
4X2,5	20004343	32	38
4X4	20004344	43	52
4X6	20004345	56	67
4X10	20004346	78	93
4X16	20004347	104	125
4X25	20004348	138	165
4X35	20004349	171	205
4X50	20004350	213	255
4X70	20004351	263	316
4X95	20004352	317	380
4X120	20130848	371	445
4X150	20141938	425	510
4X240	20149226	576	691
8X1,5	20217655		29

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 (cable completely immersed in water).