



HYDROFIRM(T)
SGFLT
450/750 V
Drinking water

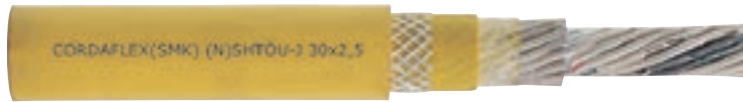
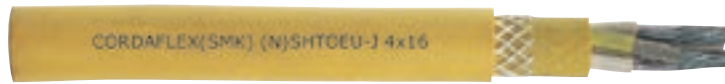


Technical Data

	Trademark	HYDROFIRM(T)
	Type designation	SGFLT
	Standard	According to Prysmian product specification
	Application	<p>For making connections to electrical equipment used in water and subjected to medium mechanical stress.</p> <p>The cables can also be used in drinking water, industrial water, cooling water, surface water, rainwater, ground water and sea water (salt water).</p> <p>The outer sheath fulfil the requirements of health according to the German "KTW-Empfehlungen", the requirements of the growth of microorganisms according to the German "DVGW-Arbeitsblatt W270" and the "Attestation de Conformité Sanitaire" (ACS) according to French law and is approved according to WRAS (UK).</p> <p>The relevant certificates are available.</p> <p>When corrosive water is involved, or water of some other special compositions must be investigated in each individual case.</p> <p>These cables can be used indoors, outdoors, in industrial and agricultural plant, but not in explosion-hazard areas.</p> <p>In other respects DIN VDE 0298-300 (HD 516) applies.</p>
Electrical parameters	Rated voltage	U ₀ /U = 450/750 V
	Maximum permissible operation voltage of plant and power systems	<p>- Single-phase and three-phase AC operation</p> <p>Line-Earth/ Line-Line 476/825 V</p> <p>- DC operation</p> <p>Line-Earth/ Line-Line 619/1238 V</p>
	AC test voltage	2.5 kV (test duration 15 min.)
	Current-carrying capacity	The values are valid for a multicore cable or three single-core cables in trefoil in permanent operation with DC or AC with 50 up to 60 Hz at 30°C ambient temperature, touching surface, three cores loaded.
Thermal parameters	Maximum permissible operating temperature of the conductor	90°C
	Maximum permissible short-circuit temperature at conductor	250°C (max. 5 s)
	Minimum permissible temperatures	when in motion - 50°C when stationary - 50°C
	Maximum permissible water temperature	60°C (At higher water temperatures, a shortened cable service life is to be expected.)
Mechanical parameters	Tensile load	Up to 15 N/mm ²
	Minimum bending radii	See Selection table

Technical Data

Special parameters	Water resistance	Test according to DIN VDE 0282-16 (HD 22.16)
	Requirements of health (test according to the German regulations)	KTW-Empfehlungen
	Growth of microorganisms	Test according to the German DVGW-Arbeitsblatt W270
	Acceptance in France	Test according to the "Attestation de Conformité Sanitaire" ACS



Design features

Conductor	Copper, finely stranded, Class 5 according to DIN VDE 0295 / HD 383 / IEC 60228
Insulation	Ozone, weather and water-resistant insulation compound, base EPR
Core identification	Colour of cores according to DIN VDE 0293-308:2003
Sheath	Special compound, base EPR, colour blue
Marking	HYDROFIRM (T) SGFLT-J 4G25 KTW DVGW W270 ACS

Selection and ordering data

Number of cores and nominal cross-section mm ²	Order No.	Conductor diameter	Overall diameter of cable	Overall diameter of cable	Minimum bending radii (fixed installation)	Minimum bending radii (free movement)	Approx. net weight for 1000 m kg/km	Tensile load	Current-carrying capacity A	Short-circuit current (1 s) kA
		(guidance value) mm	Min. value mm	Max. value mm	mm	mm		Max. value N		

HYDROFIRM(T) SGFLT-O 3x ... without protective-earth conductor

3 x 1,5	5DH1 455-7	1,5	5,2 x 11,0	6,2 x 13,0	18	23	114	68	23	0,21
3 x 2,5	5DH1 456-7	1,9	6,1 x 13,2	7,6 x 15,5	22	34	170	113	30	0,36
3 x 4	5DH1 457-7	2,5	7,0 x 15,5	9,0 x 19,0	27	38	240	180	41	0,57
3 x 6	5DH1 458-7	3,0	7,6 x 17,4	9,8 x 21,0	29	42	320	270	53	0,86
3 x 10	5DH1 460-7	3,9	9,3 x 21,5	11,5 x 25,0	34	73	502	450	74	1,43
3 x 16	5DH1 461-7	5,4	11,2 x 26,7	13,5 x 31,0	54	85	774	720	99	2,29
3 x 25	5DH1 462-7	6,4	13,0 x 31,6	15,5 x 35,5	62	95	1068	1125	131	3,56
3 x 35	5DH1 463-7	7,7	14,6 x 35,5	17,5 x 40,5	70	108	1452	1575	162	5,00
3 x 50	5DH1 464-7	9,2	17,0 x 42,1	20,0 x 47,0	80	120	1981	2250	202	7,15
3 x 70	5DH1 465-7	11,0	19,3 x 48,4	22,0 x 52,0	88	133	2682	3150	250	10,00

HYDROFIRM(T) SGFLT-J 4x ... with protective-earth conductor

4 x 1,5	5DH1 466-7	1,5	5,2 x 14,5	6,2 x 17,2	18	23	157	90	23	0,21
4 x 2,5	5DH1 467-7	1,9	6,1 x 17,5	7,6 x 20,0	22	34	224	150	30	0,36
4 x 4	5DH1 468-7	2,5	7,0 x 21,0	9,0 x 23,5	27	38	317	240	41	0,57
4 x 6	5DH1 470-7	3,0	7,6 x 23,5	9,8 x 26,5	29	42	419	360	53	0,86
4 x 10	5DH1 471-7	3,9	9,3 x 29,0	11,5 x 32,5	34	73	672	600	74	1,43
4 x 16	5DH1 472-7	5,4	11,2 x 35,0	13,5 x 39,0	54	85	1007	960	99	2,29
4 x 25	5DH1 473-7	6,4	13,0 x 41,5	15,5 x 46,0	62	100	1409	1500	131	3,56
4 x 35	5DH1 474-7	7,7	14,6 x 48,5	17,5 x 53,5	70	110	1918	2100	162	5,00
4 x 50	5DH1 475-7	9,2	17,0 x 55,5	20,0 x 61,0	80	125	2571	3000	202	7,15
4 x 70	5DH1 476-7	11,0	19,3 x 62,0	22,0 x 68,7	88	140	3543	4200	250	10,00

Technical data, dimension and weights are subject to change.
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