

**DRAFT OZOFLEX (FC+) DRAFT**  
**S07RC4N8-F**



**Application**

For making connections to electrical equipment used in a waste-water environment and subject to medium mechanical stress. Especially for frequency converter controlled AC drives and if considerable demands in respect of electromagnetic compatibility (EMC) according to the EMC directive imposes. For an effective shielding both ends of cable must have a good shield contact to ground. For connection with 1-level frequency converter, rated output voltage max. 690 V.

Due to the various (and frequently changing) substances in the contaminated water, the cables may be used only in easily accessible areas that can be inspected (installation depth of approximately 10 m, as customarily encountered in sewage water tanks). These cables are also suitable for use in process water, cooling water, mine surface water, rainwater and combined waste water. Under certain circumstances they can be suitable for groundwater and seawater; it is possible to impose less stringent specifications in terms of accessibility and inspection. In such cases the cables can be used at depths up to 500 m.

If the water concerned is aggressive or composed of special substances, the cable's resistance properties should be examined. These cables can be used indoors, outdoors, in explosion-hazard areas, in fire-hazard locations, on construction sites, in open-cast mining and in quarries, in industry and in agriculture. They can also be permanently installed, e.g. on plaster, on excavators or on hoisting gear. In other respects the specifications of DIN VDE 0298-300 apply.

**Global data**

Brand	OZOFLEX(FC+)
Type designation	S07RC4N8-F
Standard	Based on EN 50525-2-21 UL File E 42183

**Notes on installation**

Maximum Submersing Depth	500 Meter
--------------------------	-----------

**Design features**

Conductor	Copper, finely stranded, class 5 in accordance with DIN VDE 0295 / IEC 60228; tinned up to and including 6 mm <sup>2</sup>
Insulation	Vulcanized rubber compound, basis EPR, compound EI7 in accordance with DIN EN 50363
Core identification	up to 5 cores: colored in accordance with HD 308 (DIN VDE 0293-308) from 6 cores: in accordance with DIN EN 50334
Inner sheath	Vulcanized rubber compound, basis EPR, compound EM6 in accordance with DIN EN 50363 Colour of sheath: light
Screen over inner sheath	Braid of tinned copper wires
Outer sheath	Vulcanized rubber compound, basis CPE, compound EM7 in accordance with DIN EN 50363

**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**

Flame propagation	DIN EN 60332-1-2
Resistance to oil	DIN EN 60811-404
Water resistance	DIN EN 50525-2-21

**Thermal parameters**

Max. operating temperature of the conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Max. permissible water temperature	40°C
Ambient temperature for fixed installation min.	-40 °C
Ambient temp. in fully flex. operation min.	-25 °C

**Mechanical parameters**

Bending radii min.	4x ODmax. for fixed installation 6x ODmax. for flex. installation
--------------------	--

Number of cores x cross section	Part number	Conductor diameter max. mm	Outer diameter min. mm	Outer diameter max. mm	Weight (approx.) kg/km	Permissible tensile force max. N	Conductor resistance at 20°C max. Ω/km	Current carrying capacity in water A	Short Circuit Current (conductor) kA
3G1,5	20024189	1.5			260	68	13.7	29	0.21
3G2,5	20024190	1.9				113	8.21	38	0.36
4G1,5	20004268	1.5	12.8	14.4	266	90	13.7	29	0.21
4G2,5	20004269	1.9	15.2	17.2	388	150	8.21	38	0.36
4G4	20004270	2.4	17	19	516	240	5.09	52	0.57
4G6	20004271	2.9	18.9	20.9	630	360	3.39	67	0.86
4G10	20008603	3.9	23.1	25.1	972	600	1.91	93	1.43
4G16	20004272	5.7	26.6	29.6	1447	960	1.21	125	2.29
4G25	20153416	6.8	31.8	34.8	2015	1500	0.7839	165	3.58
4G35	20004274	8	35.3	38.3	2539	2100	0.554	205	5.01
4G50	20004275	9.4	40.5	43.5	3458	3000	0.386	255	7.15
4G70	20057126	11.1	45.2	48.2	4586	4200	0.272	316	10.01
4G95		12.1	50	54	5350	5700	0.206	380	13.59
4G120	20025949	14.1			6781	7200	0.162		17.16
7G1,5	20004276	1.5	15.9	17.9	401	158	13.7	29	0.21
7G2,5		1.9	18.8	20.8	580	263	8.21	38	0.36
7x2,5	20025238	1.9	18.8	20.8	580	263	8.21	38	0.36
7G6	20152591	2.9				630	3.39	67	0.86
8G1,5	20004278	1.5	17.2	19.2	475	180	13.7	29	0.21
10G2,5	20004280	1.9	24	26	854	375	8.21	38	0.36
12G1,5	20004279	1.5	19.4	21.4	596	270	13.7	29	0.21
12G2,5	20004277	1.9	22.4	24.4	809	450	8.21	38	0.36
4G2,5 + 4x1,5		1.9	19.5	21.5	620	150	8.21	38	0.36
4G4 + 4x1,5		2.4	22	24	845	240	5.09	52	0.57
4G6 + 4x1,5	20004261	2.9	24	26	995	360	3.39	67	0.86
4G10+4x1,5ST	20004262	3.9				600	1.91	93	1.43
4G16+4x1,5ST	20004263	5.7			1413	960	1.21	125	2.29
4G25+4x1,5ST	20040321	6.8				1500	0.7839	165	3.58
4G25+4x2,5ST	20004265	6.8				1500	0.7839	165	3.58
4G35+4x2,5ST	20004264	8				2100	0.554	205	5.01
4G50+4x2,5ST	20004267	9.4				3000	0.386	255	7.15
4G70+4x2,5ST	20004266	11.1				4200	0.272	316	10.01
4G95+4x2,5ST	20024628	12.1				5700	0.206	380	13.59
4G120+4x2,5ST	20269303	14.1			6995	7200	0.162		17.16
4G185 + 4x2,5	20227753	17.8	65.4	68.4	9750	11100	0.106	364	29.42
3x70+3G35/3	20006922	11.1			3880	3150	0.272	316	10.01

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).