OZOFLEX H07RN-F | OZOFLEX(PLUS) | H07RN8-F | S07HXHX | S07RN8H2-F | OZOFLEX(FC+)

OZOFLEX PLUS and High-Flexibility Cables — Complete Series

A comprehensive English engineering guide covering heavy-duty high-flexibility H07RN-F cables, round and flat wastewater constructions, halogen-free variants and overall-screened FC+ cables for converter-fed pumps.

70 H07RN-F rows | 69 H07RN8-F rows | 9 flat rows | 12 FC+ rows | 160 records | 5 engineering diagrams

Voltage family	Maximum PLUS depth	Water temperature	Conductor tensile load
450/750 V	**2,000 m**	**40°C**	**15 N/mm²**
	H07RN8-F current overview		PLUS and FC+ wastewater families

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1. Scope and source hierarchy

Classic high flexibility
A 70-row legacy engineering matrix for OZOFLEX H07RN-F, with material codes, current ratings and bending radii.

Round wastewater PLUS
A complete 69-row H07RN8-F engineering matrix with Part/MLFB, dimensions, tensile force and air/water current ratings.

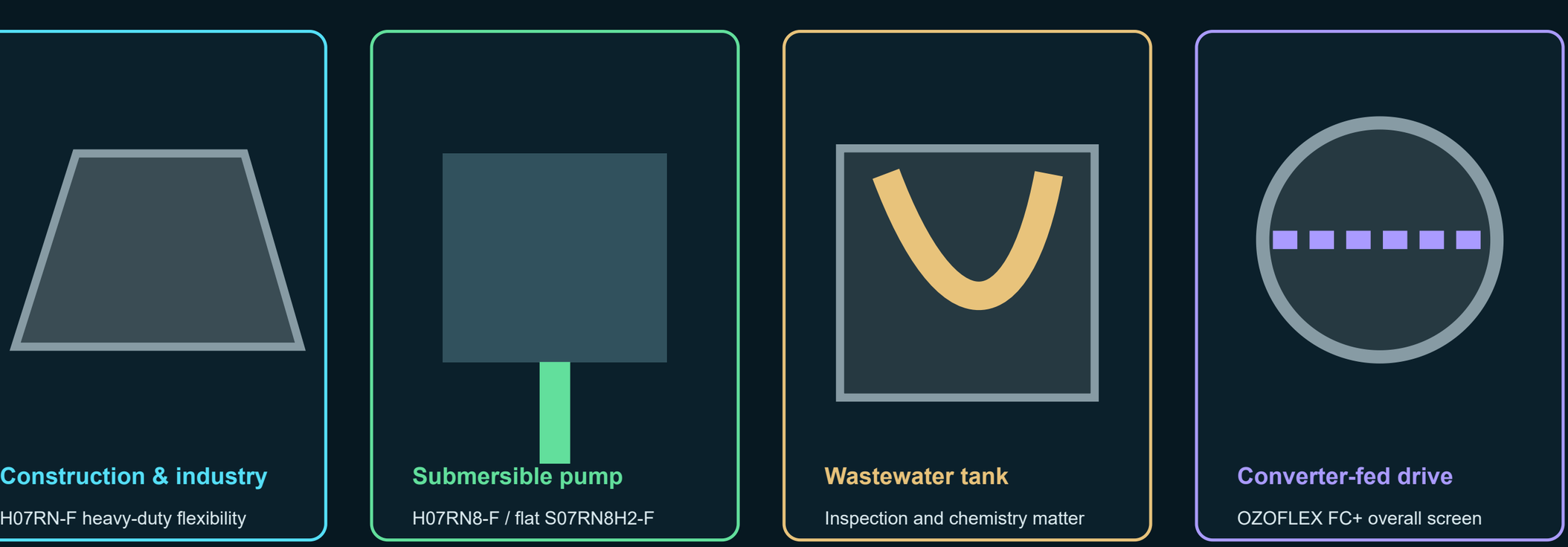
Flat wastewater PLUS
Nine published S07RN8H2-F dimensions and weights.

Screened FC+
Twelve published S07RC4N8-F dimensions, mass and bending-radius records.

Commercial status: legacy material codes and Part numbers are search and traceability references. Current availability and orderability must be confirmed.

2. Application architecture

OZOFLEX application architecture



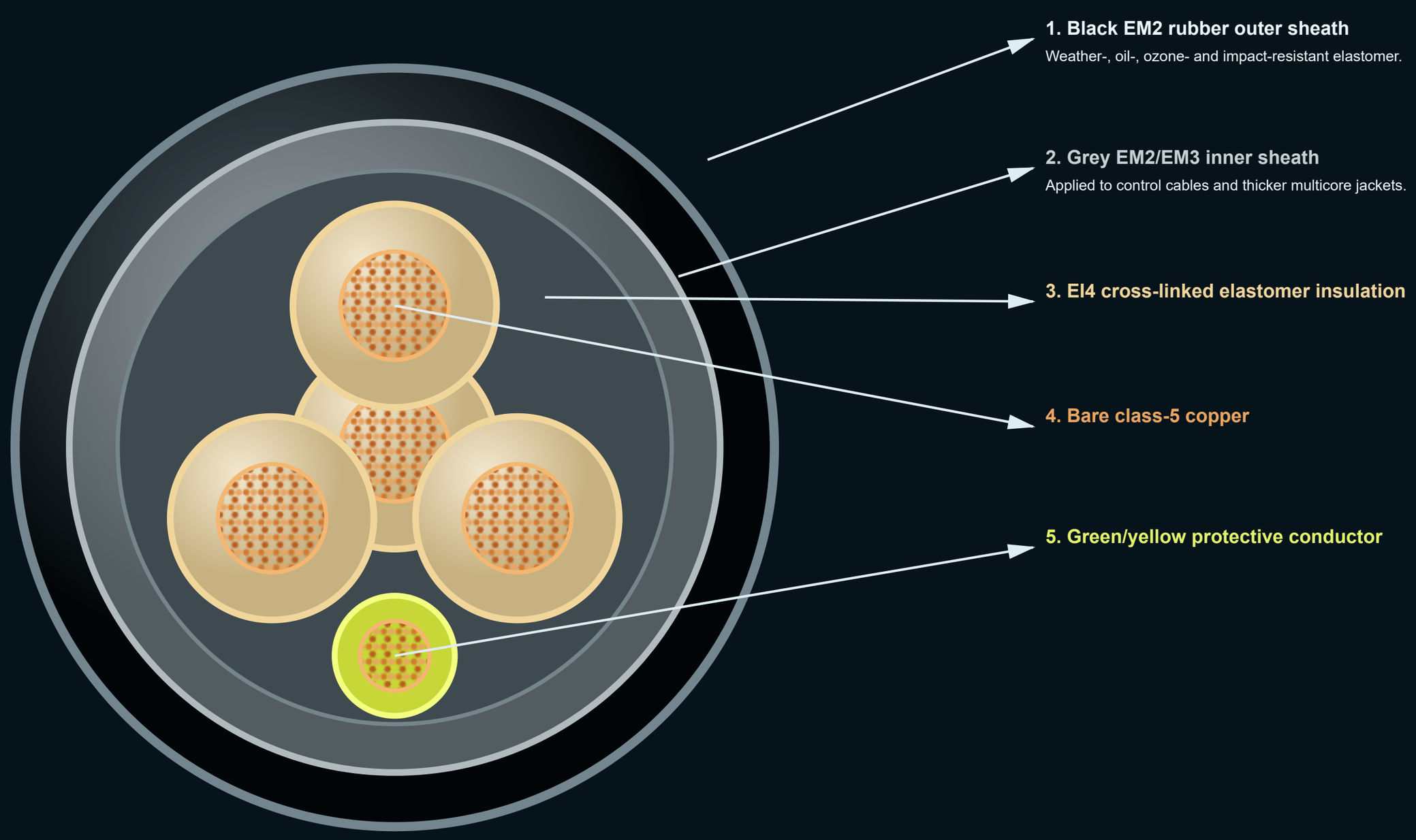
3. Family map

Brand	Designation	Shape/screen	Primary duty	Current depth position	Water/thermal point	Matrix s
OZOFLEX	H07RN-F	Round, unscreened	Heavy-duty flexible industrial cable	No product-level permanent wastewater depth	Regional documents differ	Legacy 70-row engineering ma
OZOFLEX(PLUS)	H07RN8-F	Round, unscreened	Wastewater and submersible pump duty	2,000 m	40°C water	50-row enginee
OZOFLEX(PLUS)	S07HXHX	Round, halogen-free	Low-smoke/zero-halogen wastewater duty	500 m in 2025 overview; 2,000 m in older detailed catalogue	40°C water	No complete pu
OZOFLEX(PLUS)	S07RN8H2-F	Flat, unscreened	Flat submersible pump lead	500 m in 2025 overview; 2,000 m in older detailed catalogue	40°C water	9-row matrix
OZOFLEX(FC+)	S07RC4N8-F	Round, overall screen	VFD-fed wastewater pumps and EMC	500 m	40°C water	12-row matrix
OZOFLEX(FC+)	S07HXCHX-F	Round, screened, halogen-free	VFD wastewater duty with low-smoke/zero-halogen requirements	500 m	40°C water	No complete pu

4. OZOFLEX H07RN-F detailed construction

OZOFLEX H07RN-F — heavy-duty high-flexibility rubber cable

Representative multicore construction; single-core and thin-jacket variants may omit the common inner sheath.



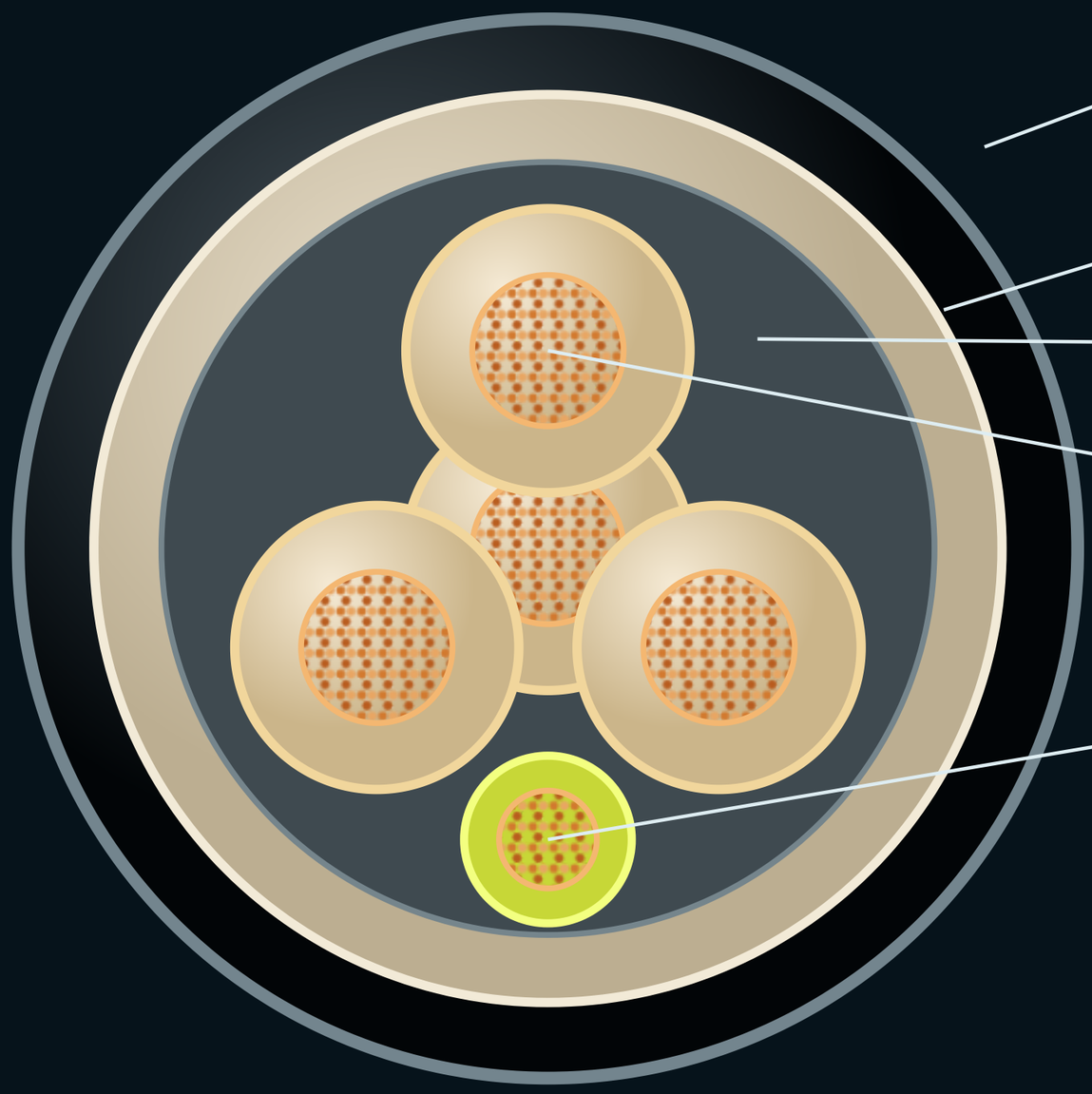
Document-generation caution

A 2018 German brochure gives 90°C/250°C, while a separate Nordic product sheet gives 60°C/200°C. Use the exact regional and contractual datasheet.

5. OZOFLEX(PLUS) H07RN8-F detailed construction

OZOFLEX(PLUS) H07RN8-F — round wastewater cable

Current-catalogue layer description; the 2016 engineering matrix used a CPE/EM7 outer-sheath description.



1. Black waterproof elastomer outer sheath

Current catalogue: EPDM; 2016 matrix description: CPE EM7.

2. Water-resistant EPDM inner sheath

Applied where required; reduces formation of water bubbles.

3. EPR insulation

4. Fine-stranded class-5 copper

Tinned up to and including 6 mm² in the catalogue description.

5. Protective conductor where specified

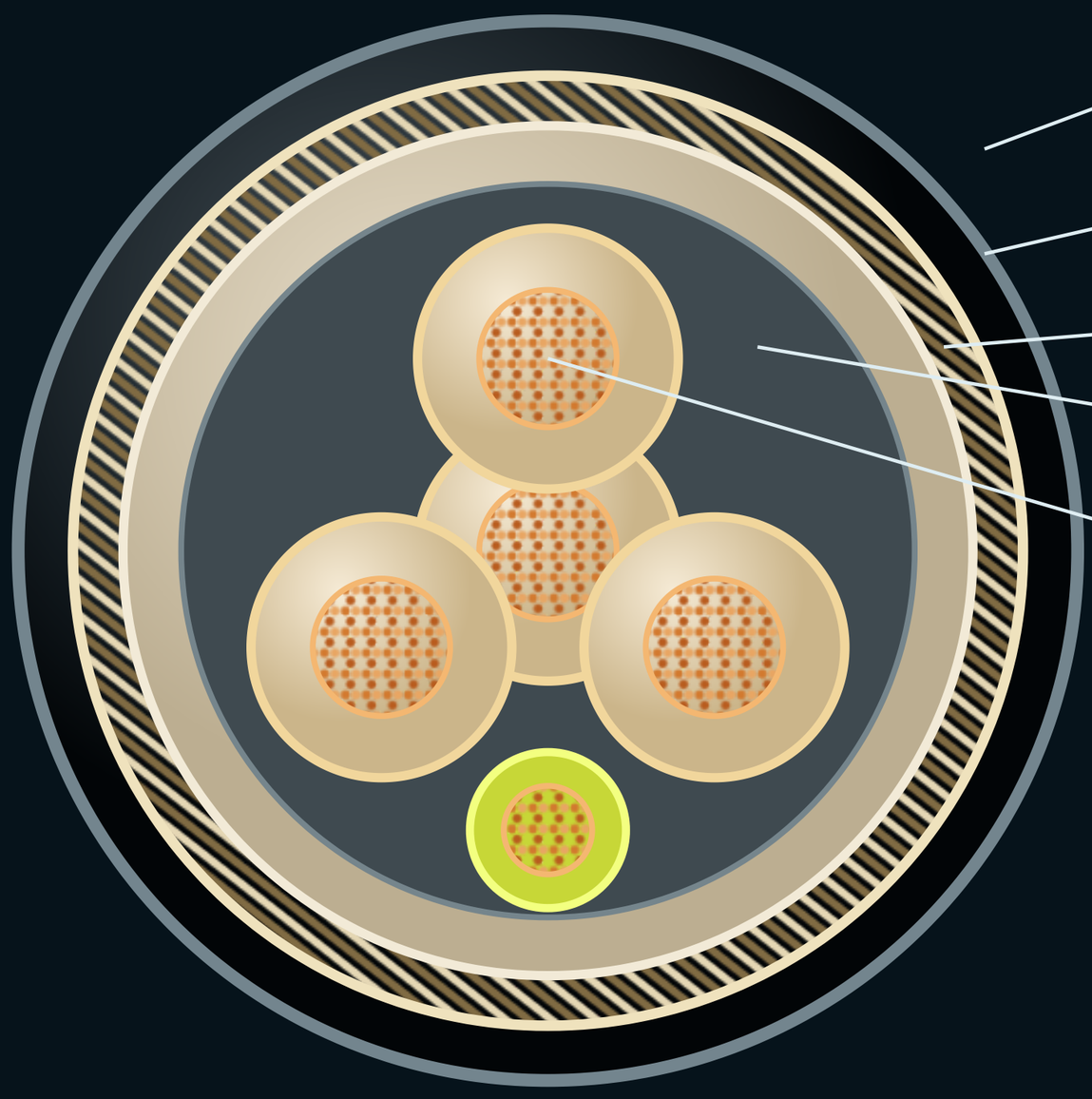
Water-duty boundary

H07RN8-F remains listed at 2,000 m in the 2025 overview; aggressive or unusual water chemistry still requires individual compatibility review.

6. OZOFLEX(FC+) detailed screened construction

OZOFLEX(FC+) S07RC4N8-F — screened wastewater VFD cable

Overall-screened construction for converter-fed AC drives; both ends require low-impedance screen bonding.



1. Black CPE outer sheath

2. Tinned-copper overall braid

The shield must be bonded at both ends for effective EMC.

3. Water-resistant EPDM inner sheath

4. EPR core insulation

5. Fine-stranded class-5 copper

Mechanical and water limits

500 m maximum submersion · 15 N/mm² conductor load · 4D fixed radius · 6D flexible radius · 40°C maximum water temperature.

Screen fault path: the overall braid is not only an EMC component. Its bonding, fault-current capability and termination geometry form part of the electrical protection design.

7. Electrical, mechanical and water framework

PLUS/FC+ voltage
Rated 0.45/0.75 kV; maximum AC 0.476/0.825 kV; maximum DC 0.619/1.238 kV.

PLUS/FC+ test
2.5 kV AC for 15 minutes; motor test 3 kV for no more than three minutes where specified.

PLUS thermal
90°C conductor, 250°C short circuit and 40°C maximum water temperature.

PLUS bending
3D fixed and 4D flexible for unscreened wastewater designs.

FC+ bending
4D fixed and 6D flexible.

Water chemistry
Process, cooling, mine-surface, rain, combined wastewater, groundwater and seawater are referenced, subject to composition review.

8. OZOFLEX H07RN-F legacy engineering matrix — 70 rows

This matrix is retained as a technical engineering reference. Current regional commercial sheets may publish a smaller product list and different thermal limits.

▼ OZOFLEX H07RN-F · Single-core without PE · 15 rows

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
1x2.5	5DH2 1055	1.9	6.5	74	32	26	20	20	3,08D	3,08D
1x4	5DH2 1065	2.5	7.5	101	42	34	23	23	3,07D	3,07D
1x6	5DH2 1075	3.2	8.3	129	54	44	25	33	3,01D	3,98D
1x10	5DH2 1105	4.1	10	202	73	61	30	40	3D	4D
1x16	5DH2 1125	5.6	12	279	98	82	36	48	3D	4D
1x25	5DH2 1135	6.8	13.5	407	129	108	54	68	4D	5,04D
1x35	5DH2 1145	8.1	15.5	540	158	135	62	78	4D	5,03D
1x50	5DH2 1155	9.6	18	740	198	168	72	90	4D	5D
1x70	5DH2 1165	11.2	19.5	980	245	208	78	98	4D	5,03D
1x95	5DH2 1175	13.2	22.5	1260	292	250	90	113	4D	5,02D
1x120	5DH2 1185	14.9	24.5	1560	344	292	98	123	4D	5,02D
1x150	5DH2 1205	16.6	27	1920	391	335	108	135	4D	5D
1x185	5DH2 1215	18	29.5	2300	448	382	118	148	4D	5,02D
1x240	5DH2 1225	21.2	33	2960	528	453	132	165	4D	5D
1x300	5DH2 1235	23.6	36	3610	608	523	144	180	4D	5D

▼ OZOFLEX H07RN-F · Two-core without PE · 4 rows

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
2x1	5DH2 2035	1.2	8.3	102	16	15	25	33	3,01D	3,98D
2x1.5	5DH2 2045	1.5	9.2	128	19	18	28	37	3,04D	4,02D
2x2.5	5DH2 2055	1.9	11	190	27	26	33	44	3D	4D
2x4	5DH2 2065	2.5	12.5	263	36	34	50	63	4D	5,04D

▼ OZOFLEX H07RN-F · Three-core without PE · 13 rows

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
3x1.5	5DH2 8554	1.5	10	154	19	18	30	40	3D	4D
3x2.5	5DH2 8564	1.9	11.5	229	27	26	35	46	3,04D	4D
3x4	5DH2 8574	2.5	13.5	319	36	34	54	68	4D	5,04D
3x6	5DH2 8584	3.2	15.5	422	46	44	62	78	4D	5,03D
3x10	5DH2 8604	4.1	21	770	64	61	84	105	4D	5D
3x16	5DH2 8314	5.6	24.5	1060	86	82	98	123	4D	5,02D

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
3x25	5DH2 8324	6.8	28.5	1500	113	108	114	143	4D	5,02D
3x35	5DH2 8054	8.1	32	1970	142	135	128	160	4D	5D
3x50	5DH2 8064	9.6	37	2700	177	168	148	185	4D	5D
3x70	5DH2 8614	11.2	41	3520	217	207	164	205	4D	5D
3x95	5DH2 7734	13.2	47	4570	263	250	188	235	4D	5D
3x120	5DH2 7744	14.9	51.5	5620	307	292	206	258	4D	5,01D
3x185	5DH2 8854	18	61.5	8240	402	382	246	308	4D	5,01D

▼ OZOFLEX H07RN-F · Four-core without PE · 4 rows

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
4x10	5DH2 8254	4.1	22.5	930	64	61	90	113	4D	5,02D
4x16	5DH2 8264	5.6	27	1300	86	82	108	135	4D	5D
4x25	5DH2 8374	6.8	31.5	1880	113	108	126	158	4D	5,02D
4x35	5DH2 8384	8.1	35.5	2450	142	135	142	178	4D	5,01D

▼ OZOFLEX H07RN-F · Three-core with PE · 7 rows

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
3G1	5DH2 3035	1.2	8.9	122	16	15	27	36	3,03D	4,04D
3G1.5	5DH2 3045	1.5	10	154	19	18	30	40	3D	4D
3G2.5	5DH2 3055	1.9	11.5	229	27	26	35	46	3,04D	4D
3G4	5DH2 3065	2.5	13.5	319	36	34	54	68	4D	5,04D
3G6	5DH2 3075	3.2	15.5	420	46	44	62	78	4D	5,03D
3G10	5DH2 3105	4.1	21	770	64	61	84	105	4D	5D
3G16	5DH2 3125	5.6	24.5	1060	86	82	98	123	4D	5,02D

▼ OZOFLEX H07RN-F · Four-core with PE · 13 rows

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
4G1	5DH2 4035	1.2	9.8	148	16	15	29	39	2,96D	3,98D
4G1.5	5DH2 4045	1.5	11	192	19	18	33	44	3D	4D
4G2.5	5DH2 4055	1.9	13	279	27	26	52	65	4D	5D
4G4	5DH2 4065	2.5	15	388	36	34	60	75	4D	5D
4G6	5DH2 4075	3.2	17	520	46	44	68	85	4D	5D
4G10	5DH2 4105	4.1	22.5	930	64	61	90	113	4D	5,02D
4G16	5DH2 4125	5.6	27	1300	86	82	108	135	4D	5D
4G25	5DH2 4135	6.8	31.5	1880	113	108	126	158	4D	5,02D
4G35	5DH2 4145	8.1	35.5	2450	142	135	142	178	4D	5,01D
4G50	5DH2 4155	9.6	41	3380	177	168	164	205	4D	5D
4G70	5DH2 4165	11.2	45.5	4450	217	207	182	228	4D	5,01D
4G95	5DH2 4175	13.2	52.5	5830	263	250	210	263	4D	5,01D
4G120	5DH2 4185	14.9	57	7100	307	292	228	285	4D	5D

▼ OZOFLEX H07RN-F · Five-core with PE · 8 rows

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
5G1	5DH2 5035	1.2	11	186	16	15	33	44	3D	4D
5G1.5	5DH2 5045	1.5	12	233	19	18	36	48	3D	4D
5G2.5	5DH2 5055	1.9	14	335	27	26	56	70	4D	5D
5G4	5DH2 5065	2.5	16.5	477	36	34	66	83	4D	5,03D

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
5G6	5DH2 5075	3.2	19	640	46	44	76	95	4D	5D
5G10	5DH2 5105	4.1	25	1130	64	61	100	125	4D	5D
5G16	5DH2 5125	5.6	29.5	1600	86	82	118	148	4D	5,02D
5G25	5DH2 5135	6.8	35	2310	113	108	140	175	4D	5D

▼ OZOFLEX H07RN-F · Multicore control · 6 rows

Construction	Legacy material code	Conductor Ø	OD	kg/km	A in air	A on surface	R fixed	R moving	Rfixed/D	Rm
7G1.5	5DH2 5805	1.5	15.5	370	19	18	62	78	4D	5,03D
7G2.5	5DH2 5905	1.9	18.5	530	27	26	74	93	4D	5,03D
8G2.5	5DH2 5915	1.9	19.5	590	27	26	78	98	4D	5,03D
12G2.5	5DH2 5935	1.9	22	770	27	26	88	110	4D	5D
18G2.5	5DH2 5955	1.9	26.5	1090	27	26	106	133	4D	5,02D
24G2.5	5DH2 5965	1.9	30.5	1430	27	26	122	153	4D	5,02D

9. OZOFLEX(PLUS) H07RN8-F full engineering matrix — 69 rows

▼ OZOFLEX(PLUS) H07RN8-F · Single-core · 16 rows

Construction	Part	MLFB	Dmin	Dmax	R fixed	R moving	kg/km	Fmax N	A air	A water	
1x1.5	20008093	5DH1001	5.6	6.4	19	19	49	23	33	40	0
1x2.5	*not published*	5DH1002	6.3	7	21	21	50	38	43	52	0
1x4	20003613	5DH1003	7.3	8.1	24	32	92	60	59	70	0
1x6	20148843	5DH1004	7.9	8.7	26	35	115	90	76	91	0
1x10	20148844	5DH1005	9.8	11	33	44	186	150	106	127	1
1x16	20148845	5DH1006	10.6	11.8	35	47	257	240	142	170	2
1x25	20064587	5DH1007	12.9	14.1	56	71	371	375	188	225	3
1x35	20003614	5DH1008	14.3	15.5	62	78	476	525	232	278	5
1x50	20003615	5DH1010	16.5	18	72	90	667	750	289	347	7
1x70	20003616	5DH1011	18.6	20.1	80	101	879	1050	358	429	1
1x95	20003617	5DH1012	21.9	23.4	94	117	1180	1425	431	517	1
1x120	20003618	5DH1013	23.4	24.9	100	125	1423	1800	504	605	1
1x150	20003688	5DH1260	26.3	28.5	114	143	1804	2250	578	694	2
1x185	20003683	5DH1252	28.5	30.7	123	154	2175	2775	660	792	2
1x240	20003687	5DH1258	31.8	34	136	170	2804	3600	783	940	3
1x300	20003684	5DH1253	35.1	37.3	149	187	3407	4500	906	1087	4

▼ OZOFLEX(PLUS) H07RN8-F · Two-core · 5 rows

Construction	Part	MLFB	Dmin	Dmax	R fixed	R moving	kg/km	Fmax N	A air	A water	
2x1	20156716	5DH1238	7.7	8.7	26	35	94	30	19	23	0
2x1.5	20041045	5DH1074	8.6	9.6	29	38	116	45	24	29	0
2x2.5	20163164	5DH1075	10	11.6	35	46	169	75	32	38	0
2x4	20163165	5DH1076	11.9	13.5	54	68	239	120	43	52	0
2x6	20163811	5DH1077	13.5	15.1	60	76	314	180	56	67	0

▼ OZOFLEX(PLUS) H07RN8-F · Three-core and 3G · 18 rows

Construction	Part	MLFB	Dmin	Dmax	R fixed	R moving	kg/km	Fmax N	A air	A water	
3G1	20003620	5DH1014	8.2	9.2	28	37	107	45	19	23	0
3G1.5	20003621	5DH1015	9.4	10.4	31	42	142	68	24	29	0

Construction	Part	MLFB	Dmin	Dmax	R fixed	R moving	kg/km	Fmax N	A air	A water	
3G2.5	20007343	5DH1016	10.9	12.5	50	63	207	113	32	38	0
3G4	*not published*	5DH1017	12.8	14.4	58	72	289	180	43	52	0
3G6	*not published*	5DH1018	14.4	16.4	66	82	384	270	56	67	0
3G10	20172908	5DH1020	19.9	21.9	88	110	712	450	78	93	1
3x1.5	*not published*	5DH1045	9.4	10.4	31	42	142	68	24	29	0
3x2.5	*not published*	5DH1046	10.9	12.5	50	63	207	113	32	38	0
3x4	*not published*	5DH1047	12.8	14.4	58	72	289	180	43	52	0
3x6	*not published*	5DH1048	14.4	16.4	66	82	384	270	56	67	0
3x10	20113319	5DH1050	19.9	21.9	88	110	690	450	78	93	1
3x16	20113320	5DH1051	23.5	25.5	102	128	994	720	104	125	2
3x25	20114481	5DH1052	26.8	29.8	119	149	1373	1125	138	165	3
3x35	20016655	5DH1053	30.3	33.3	133	167	1840	1575	171	205	5
3x50	20003634	5DH1054	34.4	37.4	150	187	2412	2250	213	255	7
3x70	20003635	5DH1055	39.1	42.1	168	211	3322	3150	263	316	1
3x95	20151270	5DH1056	44.7	47.7	191	239	4150	4275	317	380	1
3x120	20041913	5DH1057	47	51	204	255	5200	5400	371	445	1

▼ OZOFLEX(PLUS) H07RN8-F · Four-core with PE · 13 rows

Construction	Part	MLFB	Dmin	Dmax	R fixed	R moving	kg/km	Fmax N	A air	A water	
4G1	20003681	5DH1245	9.3	10.3	31	41	139	60	19	23	0
4G1.5	20003622	5DH1021	10.2	11.8	35	47	177	90	24	29	0
4G2.5	20003623	5DH1022	12	13.6	54	68	251	150	32	38	0
4G4	20003624	5DH1023	13.8	15.4	62	77	344	240	43	52	0
4G6	20003625	5DH1024	16.1	18.1	72	91	481	360	56	67	0
4G10	20003626	5DH1025	21.2	23.2	93	116	841	600	78	93	1
4G16	20003627	5DH1026	25.3	28.3	113	142	1256	960	104	125	2
4G25	20003628	5DH1027	29.9	32.9	132	165	1812	1500	138	165	3
4G35	20003629	5DH1028	33.7	36.7	147	184	2312	2100	171	205	5
4G50	20003630	5DH1030	38.6	41.6	166	208	3011	3000	213	255	7
4G70	20003631	5DH1031	43.7	46.7	187	234	4230	4200	263	316	1
4G95	20003632	5DH1032	50.3	54.3	217	272	5536	5700	317	380	1
4G120	20003633	5DH1033	54.6	58.6	234	293	6724	7200	371	445	1

▼ OZOFLEX(PLUS) H07RN8-F · Five- and multicore control · 17 rows

Construction	Part	MLFB	Dmin	Dmax	R fixed	R moving	kg/km	Fmax N	A air	A water	
5G1	20172298	5DH1247	10.1	11.7	35	47	168	75	19	23	0
5G1.5	20003682	5DH1246	11.1	12.7	51	64	210	113	24	29	0
5G2.5	20007386	5DH1250	13.3	14.9	60	75	303	188	32	38	0
5G4	20156864	5DH1061	15.6	17.6	70	88	437	300	43	52	0
5G6	20065655	5DH1062	16.6	18.6	74	93	550	450	56	67	0
5G10	*not published*	5DH1063	23.6	26.6	106	133	1036	750	78	93	1
5G16	20182416	5DH1064	28.3	31.3	125	157	1524	1200	104	125	2
6G1.5	20003671	5DH1224	13.6	15.2	61	76	297	135	24	29	0
7G1.5	20003678	5DH1082	15.2	17.2	69	86	362	158	24	29	0
8G1.5	20188803	5DH1083	17.5	19.5	78	98	452	180	24	29	0
10G1.5	20003680	5DH1084	18	20	80	100	477	225	24	29	0
11G1.5	*not published*	5DH1255	18.1	20.1	80	101	490	248	24	29	0
12G1.5	20003668	5DH1221	17.2	19.2	77	96	480	270	24	29	0

Construction	Part	MLFB	Dmin	Dmax	R fixed	R moving	kg/km	Fmax N	A air	A water	
7G2.5	20003672	5DH1227	17.5	19.5	78	98	500	263	32	38	0
8G2.5	20014373	5DH1228	18.7	20.7	83	104	563	300	32	38	0
10G2.5	20003675	5DH1234	21	22.8	91	114	647	375	32	38	0
12G2.5	20003669	5DH1222	21.1	23.1	92	116	708	450	32	38	0

10. OZOFLEX(PLUS) S07RN8H2-F flat matrix — 9 rows

Construction	Part	Hmin	Hmax	Wmin	Wmax	kg/l
3x16	20008310	14.5	17	30.5	34	960
3x50	20008311	21.5	24	48	52	2470
3x25 + 1G25	20221798	17.5	19.5	48.6	51.6	1890
3x35 + 1G25	20173554	19.5	22	55	60	2425
3x50 + 1G25	20171193	22.5	24.5	64	68.5	3300
3x70 + 1G35	20167805	24	26	70	74	4150
3x95 + 1G50	20173553	27.5	29.5	78	82	5430
3x120 + 1G70	20167804	29.8	32.3	85	90	6570
3x185 + 1G95	20162336	36	39	102	107	9725

11. OZOFLEX(FC+) S07RC4N8-F screened matrix — 12 rows

Construction	Part	Dmin	Dmax	kg/km	4D fixed	6D flexible
4G1.5	20004268	12.8	14.4	266	57.6	86.4
4G2.5	20004269	15.2	17.2	388	68.8	103.2
4G4	20004270	17	19	516	76	114
4G6	20004271	18.9	20.9	630	83.6	125.4
4G10	20008603	23.1	25.1	972	100.4	150.6
4G16	20004272	26.6	29.6	1447	118.4	177.6
4G25	20153416	31.8	34.8	2015	139.2	208.8
4G35	20004274	35.3	38.3	2539	153.2	229.8
4G50	20004275	40.5	43.5	3458	174	261
4G70	20057126	45.2	48.2	4586	192.8	289.2
4G95	20172910	50	54	5350	216	324
4G120	20025949	57	60.5	6780	242	363

12. Document-generation conflicts

Product	Field	Published positions	Engineering treatment
OZOFLEX H07RN-F	Conductor temperature	2018 German brochure: 90°C; Nordic sheet: 60°C	Treat as regional/product-generation difference; exact order sh controls.
OZOFLEX H07RN-F	Short-circuit temperature	2018 German brochure: 250°C; Nordic sheet: 200°C	Do not mix the higher value with the Nordic commercial list.
S07HXHX	Maximum submersion	Older detailed catalogue: 2,000 m; 2025 overview: 500 m	Use 500 m for current preliminary selection unless a current de sheet confirms otherwise.
S07RN8H2-F	Maximum submersion	Older detailed catalogue: 2,000 m; 2025 overview: 500 m	Use 500 m for current preliminary selection unless confirmed i
H07RN8-F	Outer-sheath description	2016 matrix: CPE EM7; later catalogue page: EPDM	Keep the generation distinction; request compound confirmatic chemical compatibility.
H07RN8-F	Typical sewage-tank access	Older engineering note: approximately 10 m in accessible tanks; product maximum: up to 2,000 m for suitable water types	Accessibility and chemical inspection remain separate from ma hydrostatic depth.

Do not select by the largest published value: water depth, sheath compound and thermal limits must come from one confirmed current product sheet for the exact construction.

13. Classic H07RN-F versus H07RN8-F dimensional comparison

Construction	OD classic	OD wastewater	ΔDmax	kg/km classic	kg/km wastewater	Δ
12G2.5	22	21.1–23.1	1.1	770	708	-62
1x10	10	9.8–11	1	202	186	-16
1x120	24.5	23.4–24.9	0.4	1560	1423	-137
1x150	27	26.3–28.5	1.5	1920	1804	-116
1x16	12	10.6–11.8	-0.2	279	257	-22
1x185	29.5	28.5–30.7	1.2	2300	2175	-125
1x2.5	6.5	6.3–7	0.5	74	50	-24
1x240	33	31.8–34	1	2960	2804	-156
1x25	13.5	12.9–14.1	0.6	407	371	-36
1x300	36	35.1–37.3	1.3	3610	3407	-203
1x35	15.5	14.3–15.5	0	540	476	-64
1x4	7.5	7.3–8.1	0.6	101	92	-9
1x50	18	16.5–18	0	740	667	-73
1x6	8.3	7.9–8.7	0.4	129	115	-14
1x70	19.5	18.6–20.1	0.6	980	879	-101
1x95	22.5	21.9–23.4	0.9	1260	1180	-80
2x1	8.3	7.7–8.7	0.4	102	94	-8
2x1.5	9.2	8.6–9.6	0.4	128	116	-12
2x2.5	11	10–11.6	0.6	190	169	-21
2x4	12.5	11.9–13.5	1	263	239	-24
3G1	8.9	8.2–9.2	0.3	122	107	-15
3G1.5	10	9.4–10.4	0.4	154	142	-12
3G10	21	19.9–21.9	0.9	770	712	-58
3G2.5	11.5	10.9–12.5	1	229	207	-22
3G4	13.5	12.8–14.4	0.9	319	289	-30
3G6	15.5	14.4–16.4	0.9	420	384	-36
3x1.5	10	9.4–10.4	0.4	154	142	-12
3x10	21	19.9–21.9	0.9	770	690	-80
3x120	51.5	47–51	-0.5	5620	5200	-420
3x16	24.5	23.5–25.5	1	1060	994	-66
3x2.5	11.5	10.9–12.5	1	229	207	-22
3x25	28.5	26.8–29.8	1.3	1500	1373	-127
3x35	32	30.3–33.3	1.3	1970	1840	-130
3x4	13.5	12.8–14.4	0.9	319	289	-30
3x50	37	34.4–37.4	0.4	2700	2412	-288
3x6	15.5	14.4–16.4	0.9	422	384	-38
3x70	41	39.1–42.1	1.1	3520	3322	-198
3x95	47	44.7–47.7	0.7	4570	4150	-420
4G1	9.8	9.3–10.3	0.5	148	139	-9
4G1.5	11	10.2–11.8	0.8	192	177	-15
4G10	22.5	21.2–23.2	0.7	930	841	-89
4G120	57	54.6–58.6	1.6	7100	6724	-376
4G16	27	25.3–28.3	1.3	1300	1256	-44
4G2.5	13	12–13.6	0.6	279	251	-28
4G25	31.5	29.9–32.9	1.4	1880	1812	-68
4G35	35.5	33.7–36.7	1.2	2450	2312	-138
4G4	15	13.8–15.4	0.4	388	344	-44

Construction	OD classic	OD wastewater	ΔDmax	kg/km classic	kg/km wastewater	Δ
4G50	41	38.6–41.6	0.6	3380	3011	-369
4G6	17	16.1–18.1	1.1	520	481	-39
4G70	45.5	43.7–46.7	1.2	4450	4230	-220
4G95	52.5	50.3–54.3	1.8	5830	5536	-294
5G1	11	10.1–11.7	0.7	186	168	-18
5G1.5	12	11.1–12.7	0.7	233	210	-23
5G10	25	23.6–26.6	1.6	1130	1036	-94
5G16	29.5	28.3–31.3	1.8	1600	1524	-76
5G2.5	14	13.3–14.9	0.9	335	303	-32
5G4	16.5	15.6–17.6	1.1	477	437	-40
5G6	19	16.6–18.6	-0.4	640	550	-90
7G1.5	15.5	15.2–17.2	1.7	370	362	-8
7G2.5	18.5	17.5–19.5	1	530	500	-30
8G2.5	19.5	18.7–20.7	1.2	590	563	-27

> The wastewater construction is not simply a thicker H07RN-F. Different sheath systems, water resistance and source generations can produce equal, larger or smaller published dimensions.

14. Representative engineering calculations

Three-phase comparison at 750 V:

$S = \sqrt{3} \times 0.75\ kV \times I$

$P = S \times 0.9$

Weight of 100 m:

$W = mass \times 0.1 \times g$

Minimum free loop:

approximately 2 × published moving bending radius

Hydrostatic pressure:

$p = \rho g h$

500 m fresh water ≈ 4.91 MPa

2,000 m fresh water ≈ 19.62 MPa

These values exclude dynamic pressure, density variation, chemical action and accessory limitations.

Family	Construction	Current used	kVA	kW @0.9	Weight 100m	Loop diameter	OD/Dmax	Hydro refe
Classic H07RN-F	4G35	142	184.5	166	2.4 kN	356 mm	35.5	4.91 MPa @500m
Classic H07RN-F	12G2.5	27	35.1	31.6	0.76 kN	220 mm	22	4.91 MPa @500m
PLUS H07RN8-F	4G35	205	266.3	239.7	2.27 kN	368 mm	36.7	4.91 MPa @500m
PLUS H07RN8-F	3x95	380	493.6	444.3	4.07 kN	478 mm	47.7	4.91 MPa @500m
FC+ screened	4G35	205	266.3	239.7	2.49 kN	459.6 mm	38.3	4.91 MPa @500m

15. Source and inference audit

Item	Field	Status	Treatment
Classic H07RN-F	Material codes	Legacy technical codes	Retained as legacy; not represented as current Part numbers.
H07RN8-F	Missing Part numbers	Several official rows publish only MLFB	Part field remains blank; MLFB is retained.
Flat and FC+ matrices	Electrical current and Isc	Not included in the published dimensional tables used here	Not inferred as source values.
FC+ representative calculation	Current	Borrowed from an equal H07RN8-F construction	Shown only as a comparison assumption, not a confirmed FC+ ampa
S07HXHX and S07HXCHX-F	Full dimensions	No complete public matrix found	Family limits are included, but no synthetic table is generated.
Water chemistry	Chemical resistance	Must be checked for aggressive or unusual composition	No universal chemical-compatibility claim is made.

16. Engineering selection workflow

Engineering selection workflow

1. Environment
dry / wet / contaminated

2. Geometry
round / flat / multicore

3. EMC & fire
screen / halogen-free

4. Water system
depth / chemistry / joints

- Use H07RN-F for heavy-duty flexible industrial service, not as an automatic substitute for H07RN8-F.
- Use PLUS wastewater variants for permanent immersion; select round, flat or halogen-free construction.
- Use FC+ for converter-fed motors and bond the overall screen at both ends with low impedance.
- Resolve document-generation conflicts before specifying water depth, sheath compound or conductor temperature.
- Qualify the complete system: cable, gland, connector, repair joint, water temperature and chemical composition.

17. Installation and acceptance checklist

- Confirm exact product: H07RN-F, H07RN8-F, S07HXHX, S07RN8H2-F, S07RC4N8-F or S07HXCHX-F.
- Confirm round or flat shape, halogen-free requirement and converter/EMC requirement.
- Use a current detailed sheet for maximum depth, conductor temperature and sheath compound.
- Qualify the cable, gland, connector, repair joint and pump entry as a complete water-pressure system.
- Review water chemistry for aggressive or unusual substances.
- For FC+, bond the screen at both ends with a low-impedance, circumferential termination.
- Verify conductor resistance, PE continuity, screen continuity and agreed insulation/withstand testing.
- Record a baseline visual condition and check for sheath swelling, blistering, cracking or chemical attack during inspection.

18. Failure mode and effects analysis

Wrong family: ordinary H07RN-F is treated as a permanent wastewater cable.

Depth conflict: an older 2,000 m statement is used for a product shown at 500 m in the current overview.

Chemical incompatibility: depth compliance is assumed to prove resistance to every wastewater composition.

Accessory leakage: the cable rating is accepted without pressure-qualifying the gland or joint.

FC+ bonding failure: pigtail screen termination creates high impedance and poor EMC.

Thermal mixing: 90°C/250°C values from one H07RN-F document are applied to a 60°C/200°C regional product.

19. Source map and scope

Document	Role	Scope
Prysmian Submersible Pump Cable Catalogue	Current family structure and detailed wastewater product pages	H07RN8-F, S07HXHX, S07RN8H2-F, S07RC4N8-F and S07HXCHX-F.
Prysmian Submersible Water Cables Overview, 2025	Current overview limits	Depth, shape, screen and maximum cross-section mapping.
Prysmian Industry Cables General Catalogue, 2016	Full H07RN8-F engineering matrix	69 rows with dimensions, tensile force, air/water current and short-circuit
OZOFLEX H07RN-F product brochures and regional sheet	High-flexibility construction and thermal comparison	Heavy-duty applications, EI4/EM2 construction and regional document d

This guide supports preliminary engineering and technical comparison. Current certificates, Part numbers, compounds, depth ratings and operating limits must be confirmed for the exact production batch.

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