

# MGGO/MGSGO 0,6/1 kV

## Power cables for marine according to VG 95218 part 60



### Application

For fixed installation on ships in all locations and on open decks. The definitions for installation in BV 3400 apply. The cables are certified from the Bundesamt für Ausrüstung, Informationstechnik und Nutzung der Bundeswehr (BAAINBw).

### Global data

Type designation	MGGO/MGSGO
Standard	VG 95218 Part 60

### Design features

Conductor	Copper, round stranded, in accordance with VG 95218 part 60
Insulation	Ethylene propylene rubber (EPR)
Core identification	According to VG 95218 part 60
Core arrangement	Transparent foil over the single or laid-up cores
Inner covering	Only for MGSGO types: Halogen free filler compound
Screen	Only for MGSGO types: Plain copper wire braid. Transparent foil over the braid
Outer sheath	Compound from crosslinked elastomer, colour: black

### Electrical parameters

Rated voltage	0.6/1 kV (600/1000V)
Max. permissible operating voltage AC	0.7/1.2 kV
Max. permissible operating voltage DC	0.9/1.8 kV
AC test voltage	3.5 kV
Current Carrying Capacity description	The definitions in BV 3400 apply

### Chemical parameters

Smoke emission	according to VG 95218-2
Acidity of fire gases	according to VG 95218-2
Flame propagation	According to VG 95218-2
Resistance to oil	according to VG 95218-2
Resistance to chemicals	according to VG 95218-2

### Thermal parameters

Max. operating temperature of the conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Laying temperature min.	-15 °C

### Mechanical parameters

Max. tensile load on the conductor	50 N/mm <sup>2</sup>
Bending radii min.	4 x D for all types with flexible conductor (F) 5 x D for all other types

Number of cores x cross section	MLFB Number	Part number	Designation acc. to VG 95218-60 Dash No.	Conductor diameter max. mm	Outer diameter min. mm	Outer diameter max. mm	Bending radius fixed min. mm	Weight (approx.) kg/km	Permissible tensile force max. N	Current carrying capacity (1) A
Type A (1 core)										
1x4	5BG5 400	20173653	001	2.7	7.5	8.5	43	150	200	45
1x6	5BG5 401	20113199	002	3.3	8.4	9.4	47	160	300	65
1x10	5BG5 402	20173654	003	4.2	9.5	10.5	53	220	500	80
1x16	5BG5 403	20155662	004	5.3	10	11.2	56	290	800	120
1x25	5BG5 404	20113198	005	6.6	12	13	65	420	1250	154
1x35	5BG5 405	20026164	006	7.9	13	14	70	540	1750	197
1x50	5BG5 406	20113200	007	9.1	15	16.2	81	680	2500	239
1x70	5BG5 407	20113831	008	11	17	18.2	91	910	3500	307
1x95	5BG5 408	20008525	009	12.9	19.5	20.5	103	1230	4750	367
1x95F	5BG5 456	20026167	016	13	19.6	21	84	1210	4750	367
1x120	5BG5 410	20026165	010	14.5	21	22.4	112	1510	6000	435
1x120F	5BG5 457	20160099	017	14.6	21.8	23	92	1500	6000	435
1x150	5BG5 411	20113197	011	16.2	23	24.5	123	1790	7500	502
1x150F	5BG5 458	20113377	018	16.3	24	25.2	101	1830	7500	502
1x185	5BG5 412	20016059	012	18	25.5	27	135	2200	9250	571
1x185F	5BG5 450	20026166	015	18.1	26.2	27.4	110	2190	9250	571
1x240	5BG5 413	20113832	013	20.6	29	30.5	153	2850	12000	678
1x240F	5BG5 460	20026258	019	20.7	29.5	31	124	2780	12000	678
1x300	5BG5 414		014	23.1	31.5	33	165	3240	15000	785
1x300F	5BG5 461		020	23.2	32.5	34	136	3340	15000	785
Type B (2 core)										
2x1,5	5BG5 463	20136687	034	1.7	11.5	12.7	64	250	150	23
2x2,5	5BG5 464	20135967	035	2.2	12.5	13.5	68	300	250	31
2x4	5BG5 465	20135392	036	2.7	13.4	14.7	74	360	400	40
2x6	5BG5 466	20135393	037	3.3	14.7	16	80	450	600	55
2x10	5BG5 467	20135394	038	4.2	16.2	17.9	90	590	1000	75
2x16	5BG5 468	20154011	039	5.3	19	20.5	103	800	1600	100
2x25	5BG5 470	20154012	040	6.6	22	24	120	1130	2500	130
Type B (3 core)										
3x1,5	5BG5 471	20135395	041	1.7	12	13.2	66	290	225	20
3x2,5	5BG5 472	20153438	042	2.2	13	14.2	71	350	375	28
3x4	5BG5 473	20135396	043	2.7	14	15.2	76	430	600	35
3x6	5BG5 474	20136273	044	3.3	15.5	17	85	540	900	47
3x10	5BG5 475	20136163	045	4.2	17.6	19.1	96	740	1500	65
3x16	5BG5 476	20016239	046	5.3	20	21.6	108	1010	2400	90
3x16F	5BG5 370	20135963	065	5.3	20	21.6	87	970	2400	90
3x25	5BG5 477	20016240	047	6.6	24	25.6	128	1460	3750	120
3x25F	5BG5 371	20135964	066	6.6	24	25.6	103	1410	3750	120
3x35	5BG5 478	20016241	048	7.9	26	28.2	141	1870	5250	137
3x35F	5BG5 372	20160098	067	8	26.6	28.4	114	1820	5250	137
3x50	5BG5 480	20016242	049	9.1	30	32.4	162	2460	7500	167
3x50F	5BG5 373	20135965	068	9.5	31	33.2	133	2500	7500	167
3x70	5BG5 481	20173652	050	11	34.5	36.7	184	3270	10500	214
3x70F	5BG5 495	20016243	063	11.2	36	38.2	153	3460	10500	214
3x95	5BG5 482	20171199	051	12.9	39.7	42.2	211	4650	14250	259
3x95F	5BG5 494	20016244	062	13	41.6	43.8	176	4540	14250	259
3x120	5BG5 483	20171200	052	14.5	43	45.7	229	5340	18000	301

Number of cores x cross section	MLFB Number	Part number	Designation acc. to VG 95218-60 Dash No.	Conductor diameter max. mm	Outer diameter min. mm	Outer diameter max. mm	Bending radius fixed min. mm	Weight (approx.) kg/km	Permissible tensile force max. N	Current carrying capacity (1) A
3x120F	5BG5 374	20016245	069	14.6	44.5	46.5	186	5350	18000	301
Type B (4 core)										
4x4	5BG5 484	20136164	053	2.7	15.2	16.7	84	530	800	30
4x6	5BG5 485	20136165	054	3.3	17	18.5	93	660	1200	40
4x10	5BG5 486	20136166	055	4.2	19.4	20.9	105	890	2000	55
4x16	5BG5 487	20153887	056	5.3	22	23.7	119	1250	3200	75
4x16F	5BG5 375	20141936	070	5.3	22	23.7	95	1210	3200	75
4x25	5BG5 488	20163664	057	6.6	26.4	28	140	1810	5000	101
4x25F	5BG5 376	20136686	071	6.6	26.4	28.2	113	1740	5000	101
4x35	5BG5 490	20153888	058	7.9	29.2	31.2	156	2330	7000	115
4x35F	5BG5 496	20135968	064	8	31	33	132	2410	7000	115
4x50	5BG5 491	20153889	059	9.1	33.5	36	180	3150	10000	140
4x50F	5BG5 377	20135966	072	9.5	34.3	37	148	3190	10000	140
4x70	5BG5 492		060	11	38.2	40.9	205	4350	14000	180
4x70F	5BG5 378	20170211	073	11.2	38.6	42.5	170	4390	14000	180
4x95	5BG5 493		061	12.9	44.2	46.7	234	5500	19000	220
4x95F	5BG5 380	20170212	074	12.9	45.5	48.2	193	5610	19000	220
Type B (33 core)										
33x0,75	5BG5 453	20113834	030	1.2	22.5	24.5	123	920	1237.5	-
Type C (1 core)										
1x25	5BG5 392		005	6.6	10.7	12.4	62	350	1250	154
1x35	5BG5 393		006	7.9	12	13.7	69	465	1750	197
1x50	5BG5 394		007	9.1	13.2	14.9	75	590	2500	239
1x70	5BG5 395		008	11	15.7	17.4	87	785	3500	307
1x95	5BG5 396		009	12.9	18.2	19.9	100	1070	4750	367
1x95F	5BG5 398		011	13	18.3	20	80	1080	4750	367
1x120	5BG5 397		010	14.5	19.8	21.5	108	1190	6000	435
1x120F	5BG5 399		012	14.6	20.1	21.8	88	1225	6000	435
1x150	5BG5 454		001	16.2	21.5	24	120	1600	7500	502
1x150F	5BG5 389		013	16.3	21.6	23	92	1620	7500	502
1x185F	5BG5 455	20026137	002	18.1	24.7	26.2	106	1960	9250	571
1x240F	5BG5 390		003	20.5	27.3	28.9	116	2490	12000	678
1x300F	5BG5 391		004	22.7	30	31.5	126	3010	15000	785
Type D (19 core)										
19x6F	5BG5 452	20141125	001	3.2	29.4	30.8	124	1830	5700	-