

SIENOPYR FR MGCHX 0,6/1 kV

Power cables for ships and offshore units -50°C



Application

For fixed installation on ships and offshore units in all locations and on open decks. Special measures, e.g. screening are necessary for installation of unarmoured cables in radio stations or above the upper metallic deck. The cables are not suitable for continuous use in water.

Global data

Brand	SIENOPYR FR
Type designation	MGCHX
Standard	IEC 60092-353

Design features

Conductor	Copper, round stranded acc. to IEC 60228 class 2 (class 5 on request)
Insulation	Thermoset compound type HEPR acc. to IEC 60092-360
Core identification	MGCHX: 3-core: brown, black, grey 4-core: blue, brown, black, grey 5 and multicore: white with black numbers MGCHX-J: 3-core: gn-ye, blue, brown 4-core: gn-ye, brown, black, grey 5 and multicore: white with black numbers, one core gn-ye
Inner covering	Halogen free, flame retardant compound
Screen	Plain copper wire braid
Outer sheath	Thermoset compound, type SHF-2, according to IEC 60092-360

Electrical parameters

Rated voltage	0.6/1 kV (600/1000V)
Max. permissible operating voltage AC	1.2 kV
Max. permissible operating voltage DC	1.8 kV
AC test voltage	3.5 kV
Current Carrying Capacity description	The definitions in IEC 60092-201 apply.

Chemical parameters

Smoke emission	according to IEC 61034
Acidity of fire gases	according to IEC 60754-2
Flame propagation	according to IEC 60332-1-2
Flame propagation	according to IEC 60332-3-22

Thermal parameters

Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Ambient temperature for fix installation min.	-50 °C
Laying temperature min.	-20 °C

Mechanical parameters

Max. tensile load on the conductor	50 N/mm ²
Min. bending radius	6 x D

Number of cores x cross section	Art. Des. O/J	Part number	MLFB Number	Outer diameter max. mm	Bending radius fixed min. mm	Weight (ca.) kg/km	Permissible tensile force max. N	Current carrying capacity (1) A
MGCHX 3 cores								
3 x 1.5		20024101	5BG2 531	12.5	75	220	225	16
3 x 2.5		20001753	5BG2 532	13.5	81	270	375	21
3 x 4			5BG2 533	14.5	87	340	600	28
3 x 6			5BG2 534	16.5	99	470	900	36
3 x 10		20001754	5BG2 535	19	114	650	1500	50
3 x 16		20016748	5BG2 536	21	126	900	2400	67
3 x 25		20016749	5BG2 537	25	150	1320	3750	89
3 x 35		20016750	5BG2 538	28	168	1730	5250	110
3 x 50		20016751	5BG2 540	31.5	189	2240	7500	137
3 x 70			5BG2 541	37.5	225	3120	10500	169
3 x 95		20001755	5BG2 542	41.5	249	4150	14250	205
MGCHX-J 3 cores with gn/ye								
3 x 1.5	-J	20001758	5BG2 601	12.5	75	220	225	16
3 x 2.5	-J	20001759	5BG2 602	13.5	81	270	375	21
3 x 4	-J		5BG2 603	14.5	87	340	600	28
3 x 6	-J		5BG2 604	16.5	99	470	900	36
3 x 10	-J		5BG2 605	19	114	650	1500	50
3 x 16	-J		5BG2 606	21	126	900	2400	67
3 x 25	-J		5BG2 607	25	150	1320	3750	89
MGCHX 4 cores								
4 x 1.5			5BG2 551	13.5	81	250	300	16
4 x 2.5			5BG2 552	14	84	310	500	21
4 x 4			5BG2 553	16	96	450	800	28
4 x 6			5BG2 554	18	108	560	1200	36
4 x 10			5BG2 555	20	120	800	2000	50
4 x 16			5BG2 556	23	138	1100	3200	67
4 x 25			5BG2 557	27.5	165	1640	5000	89
MGCHX-J 4 cores with gn/ye								
4 x 1.5	-J	20001760	5BG2 611	13.5	81	250	300	16
4 x 2.5	-J	20026144	5BG2 612	14	84	310	500	21
4 x 4	-J		5BG2 613	16	96	450	800	28
4 x 6	-J	20001761	5BG2 614	18	108	560	1200	36
4 x 10	-J		5BG2 615	20	120	800	2000	50
4 x 16	-J	20001762	5BG2 616	23	138	1100	3200	67
4 x 25	-J	20001763	5BG2 617	27.5	165	1640	5000	89
MGCHX 5 and multicores								
5 x 1.5			5BG2 571	14	84	290	375	14
5 x 2.5			5BG2 572	16	96	440	625	18
7 x 1.5		20001752	5BG2 172	15.4	92.4	380	525	10
12 x 1.5		20001756	5BG2 592	19	114	560	900	9
16 x 1.5		20001757	5BG2 594	21	126	690	1200	8
19 x 1.5		20024102	5BG2 595	22	132	770	1425	8
24 x 1.5			5BG2 596	24.5	147	950	1800	7
MGCHX-J 5 and multicores with gn/ye								

Number of cores x cross section	Art. Des. O/J	Part number	MLFB Number	Outer diameter max. mm	Bending radius fixed min. mm	Weight (ca.) kg/km	Permissible tensile force max. N	Current carrying capacity (1) A
5 x 1.5	-J		5BG2 621	14	84	290	375	14
5 x 2.5	-J		5BG2 622	16	96	440	625	18
7 x 1.5	-J		5BG2 176	15.4	92.4	380	525	10

(1) The values are for continuous load at 45 °C ambient temperature and laying of max. 6 cables in horizontal arrangement, tightly packed, free air circulation around the cable bundle.

At ambient temperatures below -20 °C the cables should be subjected to no further mechanical movement than normal ship's vibrations