37-102

Single Conductor Power Cable Gexol® Insulated

Extremely Flexible • 2kV • Rated 110°C

AmerCable INCORPORATED

Oil & Gas Cables

Conductor

Soft annealed flexible stranded tinned copper per IEEE 1580 Table 11.

Armor (Optional)

Basket weave wire armor per IEEE 1580 and UL 1309/CSA 245. Bronze standard. Aluminum or tinned copper available by request.

Insulation/Jacket

GEXOL® cross-linked flame retardant polyolefin, meeting the requirements for Type P of IEEE 1580 and Type X110 of UL 1309/CSA 245. 2000V/IEC 1000V.

Sheath (Optional)

A black, arctic grade, flame retardant, oil, abrasion, chemical and sunlight resistant thermosetting compound meeting UL 1309/CSA 245 and IEEE 1580.

Application

Designed and constructed for the demanding environments of offshore drilling and petroleum facilities located throughout the world.

Features

- High strand count conductors make this product much more flexible, easier to install and more resistant to vibration than Type MC, IEC spec or commercial cables.
- Gexol's lower dielectric constant and higher insulation resistance reduces electrical losses.
- Gexol's excellent resistance to moisture produces stable electrical properties throughout the life of the cable.
- In a fire condition, Gexol's nonchlorinated flame retardant system produces less toxic and less corrosive gases.
- Dual certified IEEE 1580 Type P and UL 1309/CSA 245 Type X110.
- Highest ampacity ratings: ABS 100˚C, DNV 95˚C, LRS 95˚C, Transport Canada 95˚C.
- Severe cold durability: exceeds CSA cold bend/cold impact (-40˚C/-35˚C).
- Flame retardant: IEC 332-3 Category A and IEEE 1202.
- Suitable for use in Class 1 Division 1, and Zone 1 environments (armored and sheathed).
- Optional braid armor of bronze, aluminum or tinned copper.

Ratings & Approvals

- 110˚C Temperature Rating
- American Bureau of Shipping (ABS) 99-BT5905-X
- Transport Canada 8700-20-2
- Det Norske Veritas (DNV) E-6669, E-6388, E-6390, E-6391
- Lloyd's Register of Shipping (LRS) 91/60333 (E6)
- NVE 95/1696, FAL
- UL Listed as Marine Shipboard Cable (E111461)
- United States Coast Guard November 2, 1987 / 9304

Other certifications pending

Hawke Gland Types	Unarmored	Armored & Sheathed
Industrial & Safe Area (IP68)	121	153-X
Increased Safety "EExe"	501/421	501/453/U
Explosion Proof	710 Class 1 Div. 2 Class 1, Zone 2	753 Class 1 Div. 1 Class 1, Zone 1 & 2
Flameproof "EExd"	501/421 Zone 1 & 2	501/453/U (2 liter or < enclosures) ICG 653/U (2 liter or > enclosures) Zone 1 & 2

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Flexible Power Cable – Single Conductor

			Unarmored				Armored (B)		Armored and Sheath (BS)									
Size AWG/ kcmil	mm2	Part No. 37-102	Nominal Diameter (inches)	Weight (lbs/MFt.)	Inductive Reactance (Ohms/1000 ft.)	Voltage Drop at 110°C (Volts/Amp/1000 ft.)	Nominal Diameter (inches)	Weight (lbs/MFt.)	Nominal Diameter (inches)	Weight (lbs/MFt.)	Inductive Reactance (Ohms/1000 ft.)	Voltage Drop at 110°C (Volts/Amp/1000 ft.)	DC Resistance at 25°C (Ohms/1000 ft.)	AC Resistance at 110°C, 60 Hz (Ohms/1000 ft.)	Ampacity			
															Free Air 110°C	110°C	100°C	95°C
18	1.0	-101	0.143	16	0.046	13.560	0.193	29	0.324	38	0.065	13.580	7.210	9.763	30	17	16	20
16	1.3	-102	0.153	18	0.044	8.516	0.203	32	0.334	42	0.062	8.535	4.520	6.121	35	25	23	23
14	2.1	-105	0.168	25	0.041	5.383	0.218	45	0.349	60	0.057	5.401	2.850	3.859	41	40	37	32
12	3.3	-106	0.187	32	0.038	3.394	0.237	58	0.368	80	0.053	3.410	1.790	2.424	64	48	45	38
10	5.2	-108	0.207	51	0.036	2.155	0.257	93	0.388	127	0.050	2.170	1.130	1.530	85	62	58	51
8	7.6	-109	0.255	71	0.036	1.338	0.305	116	0.436	159	0.048	1.351	0.694	0.940	112	77	72	68
6	12.5	-110	0.295	108	0.034	0.852	0.345	155	0.476	204	0.045	0.864	0.436	0.590	148	103	96	91
4	21	-112	0.377	173	0.030	0.583	0.427	230	0.558	296	0.039	0.593	0.286	0.399	196	137	128	121
2	34	-114	0.443	242	0.029	0.368	0.493	303	0.624	365	0.037	0.376	0.175	0.244	259	181	169	162
1	43	-115	0.484	335	0.029	0.301	0.534	406	0.665	468	0.036	0.307	0.140	0.195	298	208	194	187
1/0	54	-116	0.548	420	0.029	0.246	0.598	494	0.729	571	0.035	0.253	0.111	0.156	344	243	227	217
2/0	70	-117	0.615	494	0.028	0.202	0.665	579	0.796	662	0.034	0.208	0.089	0.125	396	281	262	250
3/0	86	-118	0.663	734	0.028	0.167	0.713	776	0.886	900	0.034	0.174	0.070	0.100	457	321	300	289
4/0	109	-119	0.810	820	0.027	0.139	0.860	889	1.038	1036	0.033	0.145	0.056	0.080	528	376	351	335
262	132	-120	0.888	945	0.029	0.122	0.938	1147	1.111	1295	0.034	0.127	0.046	0.067	599	436	407	382
313	159	-121	0.954	1113	0.028	0.107	1.004	1332	1.177	1491	0.033	0.112	0.038	0.056	604	487	455	427
373	189	-122	1.018	1419	0.028	0.094	1.068	1576	1.241	1741	0.032	0.099	0.032	0.047	674	553	516	476
444	227	-123	1.094	1578	0.027	0.085	1.144	1816	1.317	1992	0.031	0.089	0.027	0.041	750	630	588	531
535	273	-124	1.212	1976	0.028	0.077	1.262	2246	1.435	2425	0.031	0.081	0.022	0.035	839	709	662	597
646	326	-126	1.300	2348	0.027	0.069	1.350	2559	1.523	2757	0.031	0.073	0.019	0.030	937	783	731	671
777	394	-127	1.395	2795	0.027	0.064	1.445	3013	1.618	3205	0.030	0.067	0.015	0.026	1048	881	822	753
1111	562	-129	1.668	3982	0.026	0.052	1.718	4129	1.954	4484	0.030	0.056	0.011	0.018	1303	1098	1025	937

Cable diameters shown as nominal are subject to a ±5% manufacturing tolerance

See page 2 for Stranding Profile

Ordering Gexol Oil & Gas Cables
Example:
- Single conductor power cable
- 2kV 100%
- 535 kcmil
- bronze armored & sheathed

37–102 – 124 BS

- 37–102: AmerCable Gexol Oil & Gas Prefix
- 124: Specific Cable Number (from charts)
- BS: Armor Requirement — BS – armored & sheathed; Blank – no armor

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