

# Type LS Drilmar® LS Control Cable

HF XLPE Insulated, SHF1 Jacketed, Drilling Rig and Marine Cable, 600/1000 V

## Features

Engineered for easiest installation.

Maximum conductor operating temperature:

- 90 °C as per IEC.

Drilmar® HF XLPE Insulation:

- Low Smoke and Halogen Free XLPE meeting IEC 60092-351.
- Rated at 90 °C.

SHF1 Jacket:

- Low Smoke and Halogen Free Polyolefin meeting IEC 60092-359.

Completed cable offers superior flame resistance meeting:

- IEC 60332-1 and IEC 60332-3-22 Category A.
- Low Smoke as per IEC 61034-2.
- Halogen Free as per IEC 60754-1.

## Application

DRILMAR® LS cables are used in control, indicating, communication, electronic, and similar circuits where multiple conductor cables are required.

Typical applications include: Driller's console, fire and gas detection systems, video camera systems, bilge and ballast controls and general alarm systems.

## Standards

IEC 60092-350

General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications.

IEC 60092-351

Insulating materials for shipboard and offshore units, power, control, instrumentation, telecommunication and data cables.

IEC 60092-353

Power cables for rated voltages 1 kV and 3 kV.

IEC 60092-359

Sheathing materials for shipboard power and telecommunication cables.

IEC 60092-352

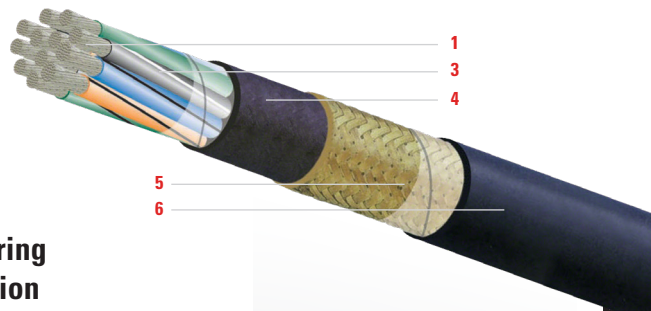
Electrical installations in ships - Part 352: Choice and installation of electrical cables.

IEEE 45 - 2002

Recommended Practice for Electrical Installations on Shipboard Cable, as noted in Clause 23.3 for products manufactured per IEC 60092-350 series.

## Approvals

- Intertek, as Type HF XLPE / SHF1.
- ABS, American Bureau of Shipping.
- LRS, Lloyd's Register of Shipping.
- DNV, Det Norske Veritas



## Engineering Information

**1. Conductor:** Soft annealed flexible Tin Coated Copper, Class 5 as per IEC 60228.

**Sizes:** 1 mm<sup>2</sup> up to 6 mm<sup>2</sup>.

**2. Separator Tape:** Suitable tape as required. (**Not** shown.)

**3. Insulation:** Low Smoke Halogen Free flame retardant Crosslinked Polyethylene (HF XLPE.).

### Core Identification:

2 Core: Brown-Blue.

3 Core: Brown-Black-Grey.  
Brown-Blue-Green/  
Yellow.

4 Core: Brown-Black-Grey-  
Blue.  
Brown-Black-Grey-  
Green/Yellow.

5 Core: Solid color with printed  
(and above) numbers.

*Optional - Color coding per IEEE 1580 Table 22 (E1) or Table 23 (E2) upon request.*

**Assembly:** Conductors cabled round with moisture and flame retardant fillers, as required and binder tape.

**4. Jacket:** Black Low Smoke Halogen Free flame retardant thermoplastic Polyolefin (SHF1).

### 5. Armor (optional):

*Optional - Tinned Copper Braid.*

**6. Jacket (overall):** Black Low Smoke Halogen Free flame retardant thermoplastic Polyolefin (SHF1).

*On request: Grey Jacket is available.*

Technical Data

## Type LS Control Cable, 1.0 mm<sup>2</sup>, 600/1000 V

Conductor	Unarmored					Armored					Armored and Sheathed					
	Conductor Size mm <sup>2</sup>	Part Number	Nominal OD		Net Weight		Tinned Copper					Tinned Copper				
			in	mm	lb/kft	kg/km	Part Number	Nominal OD		Net Weight		Part Number	Nominal OD		Net Weight	
								in	mm	lb/kft	kg/km		in	mm	lb/kft	kg/km
2	DC1LSSH-F-2	0.30	7.7	59	88	DC1LSSH-F-T2	0.38	9.6	99	147	DC1LSSH-F-TS2	0.42	10.7	113	168	
3	DC1LSSH-F-3	0.33	8.4	72	107	DC1LSSH-F-T3	0.40	10.0	114	170	DC1LSSH-F-TS3	0.44	11.1	129	192	
4	DC1LSSH-F-4	0.36	9.1	86	128	DC1LSSH-F-T4	0.42	10.8	133	197	DC1LSSH-F-TS4	0.48	12.2	157	234	
5	DC1LSSH-F-5	0.39	9.9	102	152	DC1LSSH-F-T5	0.47	12.0	183	272	DC1LSSH-F-TS5	0.53	13.5	209	311	
6	DC1LSSH-F-6	0.42	10.7	123	183	DC1LSSH-F-T6	0.51	12.9	208	309	DC1LSSH-F-TS6	0.56	14.3	236	351	
7	DC1LSSH-F-7	0.42	10.7	127	188	DC1LSSH-F-T7	0.51	12.9	211	315	DC1LSSH-F-TS7	0.56	14.3	240	357	
8	DC1LSSH-F-8	0.50	12.6	179	266	DC1LSSH-F-T8	0.57	14.6	262	390	DC1LSSH-F-TS8	0.65	16.5	306	456	
9	DC1LSSH-F-9	0.55	14.0	193	287	DC1LSSH-F-T9	0.62	15.6	275	409	DC1LSSH-F-TS9	0.70	17.8	331	492	
10	DC1LSSH-F-10	0.55	14.0	197	293	DC1LSSH-F-T10	0.62	15.6	279	415	DC1LSSH-F-TS10	0.70	17.8	335	498	
12	DC1LSSH-F-12	0.57	14.4	219	326	DC1LSSH-F-T12	0.63	16.1	307	456	DC1LSSH-F-TS12	0.72	18.2	364	542	
14	DC1LSSH-F-14	0.60	15.1	245	365	DC1LSSH-F-T14	0.66	16.8	338	503	DC1LSSH-F-TS14	0.75	18.9	398	592	
16	DC1LSSH-F-16	0.63	15.9	275	410	DC1LSSH-F-T16	0.69	17.6	373	556	DC1LSSH-F-TS16	0.78	19.7	436	649	
18	DC1LSSH-F-18	0.67	17.0	323	481	DC1LSSH-F-T18	0.73	18.4	410	609	DC1LSSH-F-TS18	0.83	21.0	490	729	
19	DC1LSSH-F-19	0.67	17.0	327	487	DC1LSSH-F-T19	0.73	18.4	413	615	DC1LSSH-F-TS19	0.83	21.0	494	735	
20	DC1LSSH-F-20	0.70	17.8	359	535	DC1LSSH-F-T20	0.76	19.3	447	665	DC1LSSH-F-TS20	0.86	21.8	531	790	
22	DC1LSSH-F-22	0.74	18.9	409	608	DC1LSSH-F-T22	0.79	20.2	486	724	DC1LSSH-F-TS22	0.89	22.7	574	854	
24	DC1LSSH-F-24	0.78	19.8	440	655	DC1LSSH-F-T24	0.84	21.3	535	797	DC1LSSH-F-TS24	0.94	23.8	627	933	
30	DC1LSSH-F-24	0.83	21.1	502	746	DC1LSSH-F-T30	0.89	22.6	594	884	DC1LSSH-F-TS30	1.00	25.3	700	1041	
37	DC1LSSH-F-24	0.90	22.9	609	907	DC1LSSH-F-T37	0.96	24.4	699	1041	DC1LSSH-F-TS37	1.07	27.1	813	1210	

## Type LS Control Cable, 1.5 mm<sup>2</sup>, 600/1000 V

Conductor	Unarmored					Armored					Armored and Sheathed					
	Conductor Size mm <sup>2</sup>	Part Number	Nominal OD		Net Weight		Tinned Copper					Tinned Copper				
			in	mm	lb/kft	kg/km	Part Number	Nominal OD		Net Weight		Part Number	Nominal OD		Net Weight	
								in	mm	lb/kft	kg/km		in	mm	lb/kft	kg/km
2	DC1.5LSSH-F-2	0.33	8.5	74	110	DC1.5LSSH-F-T2	0.40	10.2	120	178	DC1.5LSSH-F-TS2	0.45	11.4	139	207	
3	DC1.5LSSH-F-3	0.35	9.0	88	131	DC1.5LSSH-F-T3	0.42	10.6	132	196	DC1.5LSSH-F-TS3	0.48	12.1	156	232	
4	DC1.5LSSH-F-4	0.38	9.8	106	157	DC1.5LSSH-F-T4	0.47	11.9	182	270	DC1.5LSSH-F-TS4	0.51	12.9	180	268	
5	DC1.5LSSH-F-5	0.42	10.6	127	189	DC1.5LSSH-F-T5	0.50	12.8	212	315	DC1.5LSSH-F-TS5	0.56	14.2	240	357	
6	DC1.5LSSH-F-6	0.46	11.8	156	232	DC1.5LSSH-F-T6	0.54	13.7	241	359	DC1.5LSSH-F-TS6	0.61	15.4	278	414	
7	DC1.5LSSH-F-7	0.46	11.8	162	242	DC1.5LSSH-F-T7	0.54	13.7	248	369	DC1.5LSSH-F-TS7	0.61	15.4	284	423	
8	DC1.5LSSH-F-8	0.54	13.7	221	329	DC1.5LSSH-F-T8	0.61	15.6	307	457	DC1.5LSSH-F-TS8	0.70	17.7	363	540	
9	DC1.5LSSH-F-9	0.59	15.1	238	355	DC1.5LSSH-F-T9	0.66	16.8	323	481	DC1.5LSSH-F-TS9	0.74	18.9	383	570	
10	DC1.5LSSH-F-10	0.59	15.1	245	365	DC1.5LSSH-F-T10	0.66	16.8	330	491	DC1.5LSSH-F-TS10	0.74	18.9	390	580	
12	DC1.5LSSH-F-12	0.61	15.6	275	409	DC1.5LSSH-F-T12	0.68	17.2	366	544	DC1.5LSSH-F-TS12	0.76	19.4	427	636	
14	DC1.5LSSH-F-14	0.65	16.6	314	467	DC1.5LSSH-F-T14	0.71	18.0	405	603	DC1.5LSSH-F-TS14	0.81	20.6	484	720	
16	DC1.5LSSH-F-16	0.69	17.4	354	527	DC1.5LSSH-F-T16	0.75	18.9	450	670	DC1.5LSSH-F-TS16	0.85	21.5	533	793	
18	DC1.5LSSH-F-18	0.72	18.4	407	606	DC1.5LSSH-F-T18	0.78	19.8	496	737	DC1.5LSSH-F-TS18	0.88	22.4	582	866	
19	DC1.5LSSH-F-19	0.72	18.4	414	615	DC1.5LSSH-F-T19	0.78	19.8	502	747	DC1.5LSSH-F-TS19	0.88	22.4	588	875	
20	DC1.5LSSH-F-20	0.77	19.5	459	683	DC1.5LSSH-F-T20	0.83	21.0	550	818	DC1.5LSSH-F-TS20	0.93	23.5	641	953	
22	DC1.5LSSH-F-22	0.81	20.5	514	765	DC1.5LSSH-F-T22	0.86	21.9	600	893	DC1.5LSSH-F-TS22	0.97	24.7	703	1046	
24	DC1.5LSSH-F-24	0.85	21.6	561	835	DC1.5LSSH-F-T24	0.90	22.9	652	970	DC1.5LSSH-F-TS24	1.01	25.7	759	1129	
30	DC1.5LSSH-F-24	0.91	23.1	642	956	DC1.5LSSH-F-T30	0.97	24.5	736	1095	DC1.5LSSH-F-TS30	1.07	27.3	850	1266	
37	DC1.5LSSH-F-24	0.99	25.1	784	1167	DC1.5LSSH-F-T37	1.05	26.5	874	1300	DC1.5LSSH-F-TS37	1.16	29.5	1009	1502	

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.

**Ampacities:** Refer to beginning of section.

Technical Data *continued*

## Type LS Control Cable, 2.5 mm<sup>2</sup>, 600/1000 V

Conductor	Unarmored					Armored					Armored and Sheathed					
	Conductor Size mm <sup>2</sup>	Part Number	Nominal OD		Net Weight		Tinned Copper					Tinned Copper				
			in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km
2	DC2.5LSSH-F-2	0.37	9.4	98	146	DC2.5LSSH-F-T2	0.45	11.5	173	257	DC2.5LSSH-F-TS2	0.49	12.5	171	255	
3	DC2.5LSSH-F-3	0.39	10.0	119	178	DC2.5LSSH-F-T3	0.48	12.1	192	286	DC2.5LSSH-F-TS3	0.53	13.6	219	326	
4	DC2.5LSSH-F-4	0.43	10.9	145	216	DC2.5LSSH-F-T4	0.51	13.0	226	336	DC2.5LSSH-F-TS4	0.57	14.5	255	379	
5	DC2.5LSSH-F-5	0.48	12.1	179	266	DC2.5LSSH-F-T5	0.55	14.0	266	396	DC2.5LSSH-F-TS5	0.62	15.7	303	451	
6	DC2.5LSSH-F-6	0.52	13.1	216	321	DC2.5LSSH-F-T6	0.59	15.1	307	457	DC2.5LSSH-F-TS6	0.67	16.9	353	525	
7	DC2.5LSSH-F-7	0.52	13.1	227	337	DC2.5LSSH-F-T7	0.59	15.1	318	474	DC2.5LSSH-F-TS7	0.67	16.9	364	542	
8	DC2.5LSSH-F-8	0.61	15.6	312	464	DC2.5LSSH-F-T8	0.68	17.2	396	589	DC2.5LSSH-F-TS8	0.76	19.4	457	680	
9	DC2.5LSSH-F-9	0.67	17.1	335	499	DC2.5LSSH-F-T9	0.73	18.6	418	622	DC2.5LSSH-F-TS9	0.83	21.1	499	742	
10	DC2.5LSSH-F-10	0.67	17.1	347	516	DC2.5LSSH-F-T10	0.73	18.6	429	639	DC2.5LSSH-F-TS10	0.83	21.1	510	759	
12	DC2.5LSSH-F-12	0.70	17.7	391	583	DC2.5LSSH-F-T12	0.75	19.2	482	717	DC2.5LSSH-F-TS12	0.85	21.7	565	841	
14	DC2.5LSSH-F-14	0.73	18.6	442	658	DC2.5LSSH-F-T14	0.79	20.1	538	801	DC2.5LSSH-F-TS14	0.89	22.6	625	931	
16	DC2.5LSSH-F-16	0.78	19.8	505	752	DC2.5LSSH-F-T16	0.84	21.3	609	907	DC2.5LSSH-F-TS16	0.94	23.8	701	1043	
18	DC2.5LSSH-F-18	0.82	20.9	582	866	DC2.5LSSH-F-T18	0.88	22.3	674	1003	DC2.5LSSH-F-TS18	0.99	25.1	779	1159	
19	DC2.5LSSH-F-19	0.82	20.9	593	883	DC2.5LSSH-F-T19	0.88	22.3	685	1019	DC2.5LSSH-F-TS19	0.99	25.1	790	1175	
20	DC2.5LSSH-F-20	0.87	22.1	653	972	DC2.5LSSH-F-T20	0.93	23.5	746	1111	DC2.5LSSH-F-TS20	1.04	26.3	856	1274	
22	DC2.5LSSH-F-22	0.91	23.2	731	1088	DC2.5LSSH-F-T22	0.97	24.7	816	1214	DC2.5LSSH-F-TS22	1.08	27.4	931	1385	
24	DC2.5LSSH-F-24	0.97	24.5	799	1188	DC2.5LSSH-F-T24	1.02	25.8	888	1322	DC2.5LSSH-F-TS24	1.13	28.8	1020	1518	
30	DC2.5LSSH-F-24	1.03	26.2	923	1374	DC2.5LSSH-F-T30	1.09	27.7	1016	1512	DC2.5LSSH-F-TS30	1.21	30.7	1157	1722	
37	DC2.5LSSH-F-24	1.12	28.5	1130	1682	DC2.5LSSH-F-T37	1.18	30.0	1216	1810	DC2.5LSSH-F-TS37	1.31	33.2	1379	2053	

## Type LS Control Cable, 4.0 mm<sup>2</sup>, 600/1000 V

Conductor	Unarmored					Armored					Armored and Sheathed					
	Conductor Size mm <sup>2</sup>	Part Number	Nominal OD		Net Weight		Tinned Copper					Tinned Copper				
			in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km
2	DC4LSSH-F-2	0.41	10.5	131	195	DC4LSSH-F-T2	0.50	12.6	211	313	DC4LSSH-F-TS2	0.55	14.1	239	355	
3	DC4LSSH-F-3	0.45	11.3	166	247	DC4LSSH-F-T3	0.52	13.2	249	371	DC4LSSH-F-TS3	0.59	14.9	285	423	
4	DC4LSSH-F-4	0.49	12.3	203	302	DC4LSSH-F-T4	0.56	14.3	285	424	DC4LSSH-F-TS4	0.64	16.2	328	489	
5	DC4LSSH-F-5	0.53	13.5	246	366	DC4LSSH-F-T5	0.61	15.4	340	505	DC4LSSH-F-TS5	0.68	17.3	387	575	
6	DC4LSSH-F-6	0.59	15.0	303	451	DC4LSSH-F-T6	0.66	16.7	395	588	DC4LSSH-F-TS6	0.74	18.8	455	677	
7	DC4LSSH-F-7	0.59	15.0	322	479	DC4LSSH-F-T7	0.66	16.7	414	616	DC4LSSH-F-TS7	0.74	18.8	473	704	
8	DC4LSSH-F-8	0.70	17.7	436	648	DC4LSSH-F-T8	0.76	19.2	516	768	DC4LSSH-F-TS8	0.86	21.7	599	892	
9	DC4LSSH-F-9	0.77	19.5	468	696	DC4LSSH-F-T9	0.82	20.9	553	824	DC4LSSH-F-TS9	0.92	23.5	644	958	
10	DC4LSSH-F-10	0.77	19.5	487	725	DC4LSSH-F-T10	0.82	20.9	572	852	DC4LSSH-F-TS10	0.92	23.5	663	987	
12	DC4LSSH-F-12	0.79	20.1	553	823	DC4LSSH-F-T12	0.85	21.6	648	964	DC4LSSH-F-TS12	0.95	24.1	741	1103	
14	DC4LSSH-F-14	0.83	21.1	626	931	DC4LSSH-F-T14	0.89	22.6	729	1084	DC4LSSH-F-TS14	1.00	25.3	834	1242	
16	DC4LSSH-F-16	0.88	22.5	714	1063	DC4LSSH-F-T16	0.94	23.9	824	1227	DC4LSSH-F-TS16	1.05	26.7	936	1393	
18	DC4LSSH-F-18	0.93	23.7	822	1223	DC4LSSH-F-T18	0.99	25.1	915	1361	DC4LSSH-F-TS18	1.10	27.9	1032	1536	
19	DC4LSSH-F-19	0.93	23.7	840	1251	DC4LSSH-F-T19	0.99	25.1	933	1389	DC4LSSH-F-TS19	1.10	27.9	1050	1563	
20	DC4LSSH-F-20	0.99	25.1	924	1376	DC4LSSH-F-T20	1.05	26.6	1018	1515	DC4LSSH-F-TS20	1.16	29.6	1154	1717	
22	DC4LSSH-F-22	1.04	26.4	1033	1538	DC4LSSH-F-T22	1.10	27.9	1115	1659	DC4LSSH-F-TS22	1.22	30.9	1257	1871	
24	DC4LSSH-F-24	1.10	27.9	1129	1680	DC4LSSH-F-T24	1.16	29.4	1228	1828	DC4LSSH-F-TS24	1.28	32.4	1378	2050	
30	DC4LSSH-F-24	1.18	30.1	1325	1973	DC4LSSH-F-T30	1.26	31.9	1469	2187	DC4LSSH-F-TS30	1.38	35.1	1643	2445	
37	DC4LSSH-F-24	1.28	32.5	1609	2395	DC4LSSH-F-T37	1.35	34.3	1742	2593	DC4LSSH-F-TS37	1.48	37.7	1941	2888	

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.

**Ampacities:** Refer to beginning of section.

Technical Data

# Type LS Control Cable, 6.0 mm<sup>2</sup>, 600/1000 V

Conductor Size mm <sup>2</sup>	Unarmored					Armored					Armored and Sheathed				
	Part Number	Nominal OD		Net Weight		Tinned Copper					Tinned Copper				
		in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km
2	DC6LSSHF-2	0.55	14.1	261	388	DC6LSSHF-T2	0.55	14.1	261	388	DC6LSSHF-TS2	0.62	15.7	298	444
3	DC6LSSHF-3	0.58	14.8	314	467	DC6LSSHF-T3	0.58	14.8	314	467	DC6LSSHF-TS3	0.66	16.7	359	534
4	DC6LSSHF-4	0.63	16.1	379	564	DC6LSSHF-T4	0.63	16.1	379	564	DC6LSSHF-TS4	0.72	18.2	436	649
5	DC6LSSHF-5	0.69	17.4	435	647	DC6LSSHF-T5	0.69	17.4	435	647	DC6LSSHF-TS5	0.77	19.6	497	740
6	DC6LSSHF-6	0.74	18.9	510	759	DC6LSSHF-T6	0.74	18.9	510	759	DC6LSSHF-TS6	0.84	21.4	593	882
7	DC6LSSHF-7	0.74	18.9	536	798	DC6LSSHF-T7	0.74	18.9	536	798	DC6LSSHF-TS7	0.84	21.4	619	921
8	DC6LSSHF-8	0.87	22.0	680	1012	DC6LSSHF-T8	0.87	22.0	680	1012	DC6LSSHF-TS8	0.98	24.8	784	1166
9	DC6LSSHF-9	0.95	24.0	727	1081	DC6LSSHF-T9	0.95	24.0	727	1081	DC6LSSHF-TS9	1.05	26.8	839	1248
10	DC6LSSHF-10	0.95	24.0	753	1121	DC6LSSHF-T10	0.95	24.0	753	1121	DC6LSSHF-TS10	1.05	26.8	866	1288
12	DC6LSSHF-12	0.98	24.8	858	1277	DC6LSSHF-T12	0.98	24.8	858	1277	DC6LSSHF-TS12	1.08	27.5	974	1449
14	DC6LSSHF-14	1.03	26.2	979	1457	DC6LSSHF-T14	1.03	26.2	979	1457	DC6LSSHF-TS14	1.15	29.2	1113	1656
16	DC6LSSHF-16	1.09	27.6	1102	1639	DC6LSSHF-T16	1.09	27.6	1102	1639	DC6LSSHF-TS16	1.20	30.6	1242	1849
18	DC6LSSHF-18	1.15	29.3	1240	1845	DC6LSSHF-T18	1.15	29.3	1240	1845	DC6LSSHF-TS18	1.27	32.3	1389	2066
19	DC6LSSHF-19	1.15	29.3	1266	1884	DC6LSSHF-T19	1.15	29.3	1266	1884	DC6LSSHF-TS19	1.27	32.3	1415	2105
20	DC6LSSHF-20	1.21	30.7	1367	2035	DC6LSSHF-T20	1.21	30.7	1367	2035	DC6LSSHF-TS20	1.34	33.9	1535	2284
22	DC6LSSHF-22	1.29	32.8	1568	2333	DC6LSSHF-T22	1.29	32.8	1568	2333	DC6LSSHF-TS22	1.42	36.0	1746	2598
24	DC6LSSHF-24	1.35	34.4	1711	2546	DC6LSSHF-T24	1.35	34.4	1711	2546	DC6LSSHF-TS24	1.49	37.8	1910	2842
30	DC6LSSHF-24	1.45	36.8	1970	2932	DC6LSSHF-T30	1.45	36.8	1970	2932	DC6LSSHF-TS30	1.58	40.2	2183	3248
37	DC6LSSHF-24	1.58	40.1	2376	3537	DC6LSSHF-T37	1.58	40.1	2376	3537	DC6LSSHF-TS37	1.72	43.6	2618	3895

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.

**Ampacities:** Refer to beginning of section.