

INCH-POUND

MIL-DTL-24643C

SUPPLEMENT 1

1 October 2009

DETAIL SPECIFICATION

CABLES, ELECTRIC, LOW SMOKE HALOGEN-FREE, FOR SHIPBOARD USE
GENERAL SPECIFICATION FOR

This supplement forms a part of MIL-DTL-24643C dated 1 October 2009.

TABLE I. Specification sheets, numerical listing.

MIL-DTL-24643/2	-	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSDCOP and LSTCOP
MIL-DTL-24643/3	-	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Types LSSHOF, LSDHOF, LSTHOF, and LSFHOF
MIL-DTL-24643/4	-	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSMCOS
MIL-DTL-24643/5	-	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSMDU
MIL-DTL-24643/7	-	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSMHOF
MIL-DTL-24643/8	-	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSMMOP
MIL-DTL-24643/9	-	Cable, Electrical, -20 °C to +90 °C, Type LSMRI
MIL-DTL-24643/10	-	Cable, Electrical, -20 °C to +90 °C, Type LSPBTMU
MIL-DTL-24643/11	-	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSSSF
MIL-DTL-24643/12	-	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSTTOP
MIL-DTL-24643/13	-	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSTTRS
MIL-DTL-24643/14	-	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSSSGU
MIL-DTL-24643/15	-	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSDSGU
MIL-DTL-24643/16	-	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSTSGU
MIL-DTL-24643/17	-	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSFSGU
MIL-DTL-24643/18	-	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSMSCU (Including Variation LSMSCS)
MIL-DTL-24643/19	-	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LS6SGU
MIL-DTL-24643/20	-	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LS7SGU
MIL-DTL-24643/21	-	Cable, Electrical, -20 °C to +105 °C, Types LSTCJU and LSTCTU
MIL-DTL-24643/22	-	Cable, Electrical, -20 °C to +90 °C, 5000 Volts, Type LS5KVTSUGU
MIL-DTL-24643/23	-	Cable, Electrical, -20 °C to +105 °C, 300 Volts, Type LSTTSU

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TABLE I. Specification sheets, numerical listing - Continued.

MIL-DTL-24643/24	- Cable, Electrical, -20 °C to +150 °C, Types LSTCJX, LSTCKX, LSTCTX, LSTCJXN, LSTCKXN, and LSTCTXN
MIL-DTL-24643/25	- Cable, Electrical, -20 °C to +150 °C, Type LSPI
MIL-DTL-24643/26	- Cable, Electrical, -20 °C to +150 °C, 600 Volts Types LSDPS, LSTPS, LSFPS, LS7PS, LSDPSN, LSTPSN, LSFPSN, and LS7PSN
MIL-DTL-24643/27	- Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LS2AU (Including Variation LS2AUS)
MIL-DTL-24643/28	- Cable, Electrical, -20 °C to +90 °C, Type LS1S50MU (Including Variation LS1S50MUS)
MIL-DTL-24643/29	- Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSMU (Including Variation LSMUS)
MIL-DTL-24643/30	- Cable, Electrical, -20 °C to +90 °C, Type LS1SWU
MIL-DTL-24643/31	- Cable, Electrical, -20 °C to +90 °C, Type LS2SU, (Including Variation LS2SUS)
MIL-DTL-24643/32	- Cable, Electrical, -20 °C to +90 °C, Type LS2SWAU
MIL-DTL-24643/33	- Cable, Electrical, -20 °C to +90 °C, Type LS2SWU
MIL-DTL-24643/34	- Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSMS
MIL-DTL-24643/35	- Cable, Electrical, -20 °C to + 90 °C, Type LS3SU (Including Variation LS3SUS)
MIL-DTL-24643/36	- Cable, Electrical, -20 °C to +90 °C, Type LS3SWU (Including Variation LS3SWUS)
MIL-DTL-24643/37	- Cable, Electrical, -20 °C to +90 °C, Type LS3U
MIL-DTL-24643/38	- Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSECM
MIL-DTL-24643/39	- Cable, Electrical, -20 °C to +90 °C, Type LS1S75MU
MIL-DTL-24643/40	- Cable, Electrical, -20 °C to +90 °C, Type LS1SMU
MIL-DTL-24643/41	- Cable, Electrical, -20 °C to +90 °C, Type LS1SAU
MIL-DTL-24643/42	- Cable, Electrical, -20 °C to +90 °C, Type LS1SU
MIL-DTL-24643/43	- Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LS2SJ, LS3SJ, and LS4SJ
MIL-DTL-24643/44	- Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LS3SF
MIL-DTL-24643/45	- Cable, Electrical, -20 °C to +90 °C, Type LS2U
MIL-DTL-24643/46	- Cable, Electrical, -20 °C to +90 °C, Type LS2WAU
MIL-DTL-24643/47	- Cable, Electrical, -20 °C to +90 °C, Type LS1SMWU
MIL-DTL-24643/48	- Cable, Electrical, -20 °C to +90 °C, 1000 Volts, Type LSDNW
MIL-DTL-24643/49	- Cable, Electrical, -20 °C to +90 °C, 1000 Volts, Type LSTNW

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TABLE I. Specification sheets, numerical listing - Continued.

MIL-DTL-24643/50	-	Cable, Electrical, -20 °C to +90 °C, 1000 Volts, Type LSFNW
MIL-DTL-24643/51	-	Cable, Electrical, -20 °C to +90 °C, 1000 Volts, Type LSMNW
MIL-DTL-24643/52	-	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSTPNW
MIL-DTL-24643/53	-	Cable, Electrical, -20 °C to +90 °C, 3000 Volts, Types LSSRW, LSDRW, and LSTRW
MIL-DTL-24643/54	-	Cable, Electrical, -20 °C to +90 °C, Type LS8NW-6
MIL-DTL-24643/55	-	Cable, Electrical, -20 °C to +90 °C, Type LS4NW
MIL-DTL-24643/56	-	Cable, Electrical, -20 °C to +90 °C, Type LS2SWL
MIL-DTL-24643/57	-	Cable, Electrical, -20 °C to +90 °C, Type LS2UW (Including Variation LS2UWS)
MIL-DTL-24643/58	-	Cable, Electrical, -20 °C to +90 °C, Type LS2CS
MIL-DTL-24643/59	-	Cable, Electrical, Type LSC5FS (Including Variations LSC5FSW, LSC5OS, and LSC5OSW)
MIL-DTL-24643/60	-	Cable, Electrical, Type LSC5 and LSC5W
MIL-DTL-24643/61	-	Cable, Electrical, Type LSC5P, LSC5POS and LSC5POSR
MIL-DTL-24643/62	-	Cable, Electrical, Type LSPB2SD (Including Variations LSPB2SDW, LSPB2SDOS, LSPB2SDOSW)
MIL-DTL-24643/63	-	Cable, Electrical, 1000 Volts, Type LSYSGU
MIL-DTL-24643/64	-	Cable, Electrical, Twisted Shielded Pair(s), -40 °C to 105 °C, 600V, Type LSTPSJ
MIL-DTL-24643/65	-	Cable, Electrical, Type LS3C179DT (Including Variation LS6C179DT)
MIL-DTL-24643/66	-	Cable, Electrical, 1000 Volts, Type LS2OW
MIL-DTL-24643/67	-	Cable, Electrical, 1000 Volts, Type LS3OW
MIL-DTL-24643/68	-	Cable, Electrical, 1000 Volts, Type LS4OW
MIL-DTL-24643/69	-	Cable, Electrical, Type LSC264
MIL-DTL-24643/71	-	Cable, Electrical, -20 °C to + 125 °C, 1000 Volts, Type LSSCF
MIL-DTL-24643/72	-	Cable, Electrical, -20 °C to + 90 °C, 1000 Volts, Type LSFCF
MIL-DTL-24643/73	-	Cable, Electrical, -20 °C to + 90 °C, 1000 Volts, Type LSTCF

The following tables provides a list of the cable types specified in the specification sheets categorized as power and lighting; control; and electronic, communication, and instrumentation. These categories are further subdivided as watertight, non-watertight, flexing and non-flexing.

TABLE II. Power and lighting – watertight (with circuit integrity), non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
26	Cable, Electrical, -20 °C to +150 °C, 600 Volts Types LSDPS, LSTPS, LSFPS, LS7PS, LSDPSN, LSTPSN, LSFPSN, and LS7PSN			LSDPS LSTPS LSFPS LS7PS	2 3 4 7	600 600 600 600
15	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSDSGU	LSDSGU			2	1000
17	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSFSGU	LSFSGU			4	1000
14	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSSSGU	LSSSGU			1	1000
16	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSTSGU	LSTSGU			3	1000
19	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LS6SGU	LS6SGU			6	1000
66	Cable, Electrical, 1000 Volts, Type LS2OW		LS2OW		2	1000
67	Cable, Electrical, 1000 Volts, Type LS3OW		LS3OW		3	1000
68	Cable, Electrical, 1000 Volts, Type LS4OW		LS4OW		4	1000
63	Cable, Electrical, 1000 Volts, Type LSYSGU	LSYSGU			7	1000
20	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LS7SGU	LS7SGU			7	1000

TABLE III. Control – watertight (with circuit integrity), non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
18	Cable, Electrical, -20 °C to +105 °C, 1000 Volts, Type LSMSCU (Including Variation LSMSCS)	LSMSCU	LSMSCS		7-91	1000

TABLE IV. Electronic, communication and instrumentation – watertight (with circuit integrity), non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
24	Cable, Electrical, -20 °C to +150 °C, Types LSTCJX, LSTCKX, LSTCTX, LSTCJXN, LSTCKXN, and LSTCTXN			LSTCKX	1, 3, 7, & 12 pairs	
21	Cable, Electrical, -20 °C to +105 °C, Types LSTCJU and LSTCTU	LSTCTU			1 pair	
24	Cable, Electrical, -20 °C to +150 °C, Types LSTCJX, LSTCKX, LSTCTX, LSTCJXN, LSTCKXN, and LSTCTXN			LSTCTX	3, 7, & 12 pairs	
23	Cable, Electrical, -20 °C to +105 °C, 300 Volts, Type LSTTSU	LSTTSU			1 ½ - 6 pairs	300
59	Cable, Electrical, Type LSC5FS (Including Variations LSC5FSW, LSC5OS, and LSC5OSW)		LSC5FSW LSC5OSW		4 pairs 4 pairs	
60	Cable, Electrical, Type LSC5 and LSC5W		LSC5W		4 pairs	
25	Cable, Electrical, -20 °C to +150 °C, Type LSPI	LSPI			3, 7, & 12 pairs	300

TABLE V. Power, lighting and special purpose – watertight, non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
5	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSMDU	LSMDU			19	600
53	Cable, Electrical, -20 °C to +90 °C, 3000 Volts, Types LSSRW, LSDRW, and LSTRW	LSSRW LSDRW LSTRW			1 2 3	3000 3000 3000

TABLE VI. Electronic, communication and instrumentation – watertight, non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
38	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSECM	LSECM			56	600
10	Cable, Electrical, -20 °C to +90 °C, Type LSPBTMU	LSPBTMU			5, 15, and 30 pairs	
21	Cable, Electrical, -20 °C to +105 °C, Types LSTCJU and LSTCTU	LSTCJU			1 pair	
24	Cable, Electrical, -20 °C to +150 °C, Types LSTCJX, LSTCKX, LSTCTX, LSTCJXN, LSTCKXN, and LSTCTXN			LSTCJX	3, 7, & 12 pairs	
47	Cable, Electrical, -20 °C to +90 °C, Type LS1SMWU	LS1SMWU			70 shielded pairs	
30	Cable, Electrical, -20 °C to +90 °C, Type LS1SWU	LS1SWU			2, 14, 20, and 30 shielded pairs	
32	Cable, Electrical, -20 °C to +90 °C, Type LS2SWAU	LS2SWAU			3-61 shielded pairs	
33	Cable, Electrical, -20 °C to +90 °C, Type LS2SWU	LS2SWU			1-61 shielded pairs	

TABLE VI. Electronic, communication and instrumentation – watertight, non-flexing - Continued.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
46	Cable, Electrical, -20 °C to +90 °C, Type LS2WAU		LS2WAU		40 pairs with overall shield	600
36	Cable, Electrical, -20 °C to +90 °C, Type LS3SWU (Including Variation LS3SWUS)	LS3SWU	LS3SWUS		3-44 shielded triads	
56	Cable, Electrical, -20 °C to +90 °C, Type LS2SWL	LS2SWL			7 shielded pairs	
62	Cable, Electrical, Type LSPB2SD (Including Variations LSPB2SDW, LSPB2SDOS, LSPB2SDOSW)		LSPB2SDW LSPB2SDOSW		1 pair – single shield 1 pair – double shield	
69	Cable, Electrical, Type LSC264		LSC264		4 coaxial	300
57	Cable, Electrical, -20 °C to +90 °C, Type LS2UW (Including Variation LS2UWS)	LS2UW	LS2UWS		42 pairs with overall shield 42 pairs with overall shield	

TABLE VII. Power and lighting – non-watertight, non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
48	Cable, Electrical, -20 °C to +90 °C, 1000 Volts, Type LSDNW	LSDNW				1000
50	Cable, Electrical, -20 °C to +90 °C, 1000 Volts, Type LSFNW	LSFNW				1000
49	Cable, Electrical, -20 °C to +90 °C, 1000 Volts, Type LSTNW	LSTNW				1000
43	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LS2SJ, LS3SJ, and LS4SJ		LS2SJ LS3SJ LS4SJ		2 3 4	600 600 600

TABLE VIII. Control – non-watertight, non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
51	Cable, Electrical, -20 °C to +90 °C, 1000 Volts, Type LSMNW	LSMNW			7-44	1000
34	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSMS	LSMS			37 with overall shield	300
29	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSMU (Including Variation LSMUS)	LSMU	LSMUS		14	300
55	Cable, Electrical, -20 °C to +90 °C, Type LS4NW	LS4NW			4	
54	Cable, Electrical, -20 °C to +90 °C, Type LS8NW-6	LS8NW-6			8	

TABLE IX. Electronic, communication and instrumentation – non-watertight, non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
9	Cable, Electrical, -20 °C to +90 °C, Type LSMRI	LSMRI			Twisted pair & triad	
52	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSTPNW	LSTPNW			1 ½ - 40 pairs	300
41	Cable, Electrical, -20 °C to +90 °C, Type LS1SAU	LS1SAU			44 shielded	
40	Cable, Electrical, -20 °C to +90 °C, Type LS1SMU	LS1SMU			5 shielded	
42	Cable, Electrical, -20 °C to +90 °C, Type LS1SU	LS1SU			36 & 60 shielded	
28	Cable, Electrical, -20 °C to +90 °C, Type LS1S50MU (Including Variation LS1S50MUS)	LS1S50MU	LS1S50MUS		16, 20, 40 & 70 shielded	

TABLE IX. Electronic, communication and instrumentation – non-watertight, non-flexing - Continued.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
39	Cable, Electrical, -20 °C to +90 °C, Type LS1S75MU	LS1S75MU			8 shielded	
27	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LS2AU (Including Variation LS2AUS)	LS2AU	LS2AUS		40 pairs	600
31	Cable, Electrical, -20 °C to +90 °C, Type LS2SU, (Including Variation LS2SUS)	LS2SU	LS2SUS		3-61 pairs	
45	Cable, Electrical, -20 °C to +90 °C, Type LS2U	LS2U			10-60 pairs	
43	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LS2SJ, LS3SJ, and LS4SJ		LS2SJ LS3SJ LS4SJ		2 3 4	600
35	Cable, Electrical, -20 °C to + 90 °C, Type LS3SU (Including Variation LS3SUS)	LS3SU	LS3SUS		3-44 shielded triads	
37	Cable, Electrical, -20 °C to +90 °C, Type LS3U	LS3U			3, 7, & 12 triads	
65	Cable, Electrical, Type LS3C179DT (Including Variation LS6C179DT)		LS3C179DT LS3C179DT		3 coaxial 6 coaxial	
58	Cable, Electrical, -20 °C to +90 °C, Type LS2CS		LS2CS		6, 18, 42, 60, & 77 pairs	
62	Cable, Electrical, Type LSPB2SD (Including Variations LSPB2SDW, LSPB2SDOS, LSPB2SDOSW)		LSPB2SD LSPB2SDOS		1 pair – single shield 1 pair – double shield	
64	Cable, Electrical, Twisted Shielded Pair(s), - 40 °C to 105 °C, 600V, Type LSTPSJ		LSTPSJ		1, 2, or 3 pairs	

TABLE IX. Electronic, communication and instrumentation – non-watertight, non-flexing - Continued.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
59	Cable, Electrical, Type LSC5FS (Including Variations LSC5FSW, LSC5OS, and LSC5OSW)	LSC5FS LSC5OS			4 pairs 4 pairs	
60	Cable, Electrical, Type LSC5 and LSC5W	LSC5			4 pairs	
61	Cable, Electrical, Type LSC5P, LSC5POS and LSC5POSR	LSC5P	LSC5POS LSC5POSR		4 pairs	

TABLE X. Power and lighting – non-watertight, flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
3	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Types LSSHOF, LSDHOF, LSTHOF, and LSFHOF	LSSHOF LSDHOF LSTHOF LSFHOF			1 2 3 4	600 600 600 600
71	Cable, Electrical, -20 °C to + 125 °C, 1000 Volts, Type LSSCF	LSSCF				1000
72	Cable, Electrical, -20 °C to + 90 °C, 1000 Volts, Type LSFCF	LSDCF				1000
73	Cable, Electrical, -20 °C to + 90 °C, 1000 Volts, Type LSTCF	LSTCF				1000
11	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSSSF	LSSSF			1	600

TABLE XI. Control – non-watertight, flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
7	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSMHOF	LSMHOF			7-61	600

TABLE XII. Electronic, communication and instrumentation – non-watertight, flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
2	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSDCOP and LSTCOP	LSDCOP LSTCOP			2 3	300 300
4	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LSMCOS	LSMCOS			Multi, shielded	600
8	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSMMOP	LSMMOP			5	300
12	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSTTOP	LSTTOP			3-15 pairs	300
13	Cable, Electrical, -20 °C to +90 °C, 300 Volts, Type LSTTRS	LSTTRS			2-16 pairs	300
44	Cable, Electrical, -20 °C to +90 °C, 600 Volts, Type LS3SF	LS3SF			7 shielded triads	600

TABLE XIII. Electronic, communication and instrumentation – non-watertight (with circuit integrity), non-flexing.

Slant sheet	Title	Cable type(s)	Unarmored with overall shield	Armored	Number of conductors	Voltage (V)
24	Cable, Electrical, -20 °C to +150 °C, Types LSTCJX, LSTCKX, LSTCTX, LSTCJXN, LSTCKXN, and LSTCTXN			LSTCKXN	1, 3, 7, & 12 pairs	
24	Cable, Electrical, -20 °C to +150 °C, Types LSTCJX, LSTCKX, LSTCTX, LSTCJXN, LSTCKXN, and LSTCTXN			LSTCTXN LSTCJXN	3, 7, & 12 pairs 3, 7, & 12 pairs	

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Custodians:

Army – MI
Navy – SH

Preparing Activity:

Navy – SH

Review Activities:

Army – AR, AV, CR
Navy – CG, EC
DLA – CC

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