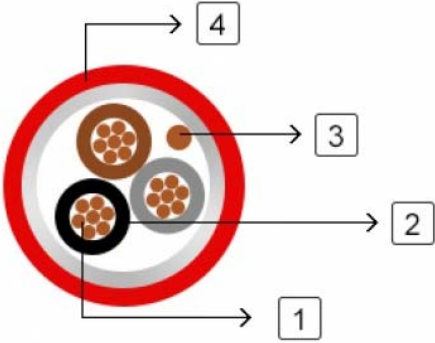


300/500V Braid-Screened Flexible
Equipment Cables (Multipair)



LI HCH FE180 (PH30) (CU/SR/OS/LSZH 300/500V Class 5)

Application:	The cables are designed for indoor instrumentation and control cabling, electrically noisy environments and fire alarm systems in office buildings.
STANDARDS:	Basic design to VDE 0812/EN 50290-2-27

FIRE PERFORMANCE

Circuit Integrity	IEC 60331-21; BS 6387 CWZ; DIN VDE 0472-814(FE180); BS 8434-1 (30mins); BS 5839-1 Clause 26 2d; CEI 20-36/2-1; SS229-1; NBN C 30-004 (cat. F3); NF C32-070-2.3(CR1)
Circuit Integrity with mechanical shock	EN 50200(PH30); CEI 20-36/4-0
Circuit Integrity with mechanical shock & water spray	EN 50200 annex E
System circuit integrity	DIN 4102-12, E30 depending on lay system
Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4
Halogen Free	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
No Toxic gases	NES 02-713; NF C 20-454

Note: Asterisk * denotes superseded standard.

VOLTAGE RATING

300/500 V

CABLE CONSTRUCTION

Conductor: Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2.

Insulation: Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1.

Cabling: The insulated cores are cabled in concentric layers with suitable non-hygroscopic fillers.

Fire Barrier: Polyester tape + fiber glass tape

Overall screen: Aluminum/polyester tape with tinned copper braid (min. 85% Coverage)

Outer Sheath: Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered.)

COLOUR CODE

Insulation Colour: Per VDE 0812

Sheath Colour: Orange (other colours on request)

TYPE CODE

LI Equipment cable with fine stranded conductor

H Halogen free ceramic polymer compound

C Copper Wire Braid

FE180 Insulation integrity (950°C 180 minutes)

PH 90 Fire Test for 90 mins at 830°C

Physical AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +90°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 7.5 x Overall Diameter

Electrical PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	≥300 MΩ x km (at 20°C);

Short circuit temperature350°C

CONSTRUCTION PARAMETERS

Cable Code	No. of Core X Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm2	mm	mm	mm	kg/km
2 cores					
LI-HCH FE180 (PH30)	2x0.75	0.6	0.8	6.3	55
LI-HCH FE180 (PH30)	2x1.0	0.6	0.9	6.9	62
LI-HCH FE180 (PH30)	2x1.5	0.7	0.9	7.3	79
3 cores					
LI-HCH FE180 (PH30)	3x0.75	0.6	0.8	6.6	67
LI-HCH FE180 (PH30)	3x1.0	0.6	0.9	7.2	77
LI-HCH FE180 (PH30)	3x1.5	0.7	0.9	7.6	101
4 cores					
LI-HCH FE180 (PH30)	4x0.75	0.6	0.9	7.2	85
LI-HCH FE180 (PH30)	4x1.0	0.6	1.0	7.7	98
LI-HCH FE180 (PH30)	4x1.5	0.7	1.0	8.2	112
5 cores					
LI-HCH FE180 (PH30)	5x0.75	0.6	0.9	7.9	105
LI-HCH FE180 (PH30)	5x1.0	0.6	1.0	7.9	117
LI-HCH FE180 (PH30)	5x1.5	0.7	1.0	9.0	127
6 cores					
LI-HCH FE180 (PH30)	6x0.75	0.6	0.9	8.6	121
LI-HCH FE180 (PH30)	6x1.0	0.6	1.0	9.1	138
LI-HCH FE180 (PH30)	6x1.5	0.7	1.0	10.0	161
7 cores					
LI-HCH FE180 (PH30)	7x0.75	0.6	0.9	8.6	131
LI-HCH FE180 (PH30)	7x1.0	0.6	1.0	9.1	152
LI-HCH FE180 (PH30)	7x1.5	0.7	1.1	10.0	193

Note : Other conductor sizes & core configurations are available upon request.