

MegaLine® F6-90 S/F Fca

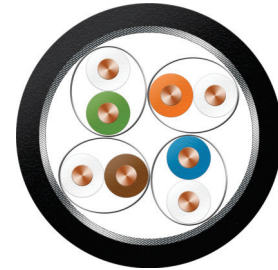
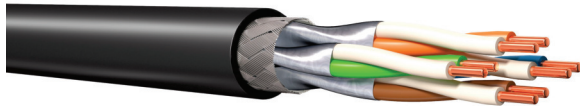
 Category 7 **S₀ P₃ A₄ C₄ E₅**


Illustration similar

Construction

Conductor	bare copper wire, AWG 23/1	Pair shielding	aluminium-bonded polyester tape
Insulation	cellular-PE, core-Ø: nominal value 1.4 mm	Twisting	4 pairs
Colour code	wh/bl, wh/or, wh/gn, wh/br	Outer sheath	Polyethylene, UV resistant
Element	cores to pair	Colour	Jet black

Fire Behaviour

Fire class / DoP	Fca /
Halogen-free	IEC 60754-1/2
Smoke density	IEC 61034-2

S	1 IEC 60332-2-2	2 IEC 60332-1-2	3 IEC 60332-3-24	4 EFP Grade 1	5 EFP Grade 2
----------	-----------------------	-----------------------	------------------------	---------------------	---------------------

Security (fire behaviour)

Performance

better than Category 7 acc. to EN 50288 and IEC 61156
 excellent NEXT, excellent screen properties (pair- and overall
 screen), low Skew
 Transmission bandwidth (typ.) 900 MHz

P	1 >class E >250MHz	2 >class E >500MHz	3 >class F >600MHz	4 >class F >1000MHz	5 >class G >1200MHz
----------	--------------------------	--------------------------	--------------------------	---------------------------	---------------------------

Performance (class, bandwidth)

Applications

Installation cable for generic cabling systems acc. to ISO/IEC 11801 and EN 50173 (3rd edition) and also acc. to ISO/IEC 24702 and EN 50173-3. Ideal for all applications of class D up to F Multimedia (Video, Data, Voice) >10 GbE acc. to IEEE 802.3 an, Cable sharing, VoIP, PoE/PoE+/4PPoE. For outdoor application and direct burial.

A	1 >100 MbE	2 > 1GbE	3 bis 10 GbE	4 >10 GbE	5 >10 GbE / TV
----------	---------------	-------------	-----------------	--------------	-------------------

Application (Ethernet, TV)

Mechanical characteristics (cable)

Bending radius (static) (min.)	4x outer-Ø
Bending radius (dynamic) (min.)	8x outer-Ø
Max. strain relief	110 N
Crush resistance (long term)	2000 N/100mm
Impact strength (quantity of impacts)	20

C	1 AWG 27	2 AWG 26/25	3 AWG 24	4 AWG 23	5 AWG 22
----------	-------------	----------------	-------------	-------------	-------------

Construction (conductor size, tensile strength)

Electromagnetic behaviour

Coupling resistance @ 10 MHz (nom.)	5 mΩ/m
Screen attenuation (nom.)	70 dB
Coupling attenuation (nom.)	85 dB
Segregation class according to EN 50174-2	d

E	1 > 40 dB	2 > 50 dB	3 > 60 dB	4 > 70 dB	5 > 80 dB
----------	--------------	--------------	--------------	--------------	--------------

EMC (coupling attenuation)

Electrical properties at 20°C

DC resistance (max.)	75 Ω/km
Insulation resistance (min.)	5 GΩ x km
Operating capacity (approx.)	42 pF/m
Capacitive coupling (e) (approx.)	1100 pF/km
Signal velocity (approx.)	0.79 x c
Phase delay	420 ns/100m
Skew @ 100 MHz (approx.)	5 ns/100m
Characteristic impedance @ 100 MHz	100 +/- 5 Ω
Test voltage	1000 V
Operating voltage (max.)	125 V

Thermal characteristics (cable)

Temperature (transport / storage)	-20 °C up to +60 °C
Temperature during installation	-10 °C up to +50 °C
Temperature after installation	-25 °C up to +70 °C

Chemical characteristics

Free of hazardous substances acc. to RoHS 2011/65/EU

MegaLine® F6-90 S/F Fca

 Category 7 **S₀ P₃ A₄ C₄ E₅**

Frequenz MHz	Attenuation dB/100m		NEXT dB		PSNEXT dB		ACR-N dB@100m		PSACR-N dB@100m		ACR-F dB@100m		PSACR-F dB@100m		RL dB	
	typ.	Cat.7 max.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*	typ.	Cat.7 min.*
1	1,9	2,0	102	80	99	77	101	78,0	98	75,0	109	80	106	77	25,4	-
10	4,8	5,7	102	80	99	77	98	74,3	95	71,3	108	74	105	71	31,1	25,0
100	16,4	18,5	102	72	99	69	86	53,5	83	50,5	93	54	90	51	33,2	20,1
200	24,5	26,8	102	68	99	65	78	41,2	75	38,2	85	48	82	45	33,2	18,0
250	27,8	30,2	102	66	99	63	75	35,8	72	32,8	82	46	79	43	33,4	17,3
450	36,1	41,6	97	63	94	60	61	21,4	58	18,4	72	41	69	38	31,4	17,3
500	38,2	44,1	97	62	94	59	59	17,9	56	14,9	68	40	65	37	30,5	17,3
600	42,9	48,9	92	61	89	58	49	12,1	46	9,1	62	38	59	35	27,6	17,3
700	47,7	-	92	-	89	-	44	-	41	-	59	-	56	-	26,2	-
800	50,8	-	90	-	87	-	39	-	36	-	56	-	53	-	23,9	-
900	55,1	-	85	-	82	-	30	-	27	-	52	-	49	-	21,7	-
1000	58,0	-	80	-	77	-	22	-	19	-	42	-	39	-	18,0	-

* EN 50288-4-1(2014) / IEC 61156-5(2020)

Standards, certificates and approvals

Conformity

to CPR (EU/305/2011)

acc. to LVD (2014/35/EU)

Quality seal with production control

GHMT PVP

Link Performance

KERPEN MegaLine® systems and further commercial plug-in connector

Inspection certificate

acc. to DIN 55350-18-4.2.1 bzw. EN 10204

Part number	Weight	copper weight	Outer Ø approx.	Colour
LKD7KS701690010	64 kg/km	35 kg/km	8.6 mm	Jet black