

MegaLine[®] F6-90 S/F

KS-02YSCHV 4x2x0.58 mm/ AWG 23/1 PIMF

Category 7



Illustration similar

Construction

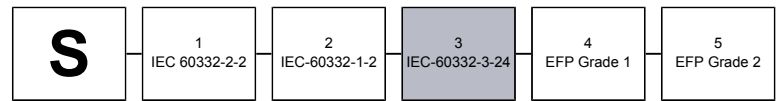
Conductor:	bare copper wire, AWG 23/1	Overall screen:	tinned copper wire braid
Insulation:	cellular-PE, core-Ø: nominal value 1.4 mm	Outer sheath:	halogenfree, flameretardant compound (SHF1 acc. to IEC 60092-359), thickness outer sheath 0.9mm
Colour code:	wh/bl, wh/or, wh/gn, wh/br	Colour	Colza yellow
Element:	cores to pair		
Pair shielding:	aluminium-bonded polyester tape		
Twisting:	4 pairs		

Cable marking:

KERPEN DATACOM GmbH Made in Germany MegaLine Sea F6-90 S/F 4P H \$BA-Nr.\$ \$m-sign.\$

Fire Behaviour

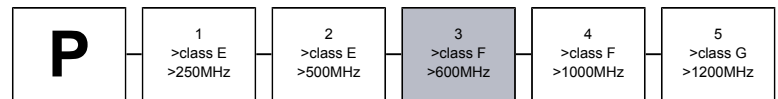
Fire class / DoP	/
Flame retardancy	acc. to IEC 60332-3-22 / EN 50266-2-2
Halogen free	IEC 60754-1/2
Acidity	IEC 60754-2
Smoke density	IEC 61034-1/2
Fire load (approx.)	0.68 MJ/m



Security (fire behaviour)

Performance

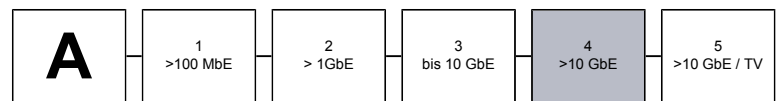
better than Category 7 acc. to EN 50288 and IEC 61156
 excellent NEXT, exzellente screen properties (pair- and overall screen), low Skew
 Transmission bandwidth (typ.) 1000 MHz



Performance (class, bandwidth)

Applications

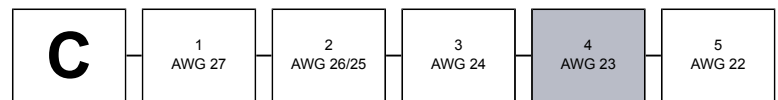
Installation cable for generic cabling systems acc. to ISO/IEC 11801 and EN 50173 (2nd edition) and also acc. to ISO/IEC 24702 and EN 50173-3. Ideal for all applications of class D up to F Multimedia (Video, Data, Voice) >10 GbE acc. to IEEE 802.3 an, Cable sharing, VoIP, PoE/PoE+. For application in rough environment because of particular strong H-sheath.



Application (Ethernet, TV)

Mechanical characteristics (cable)

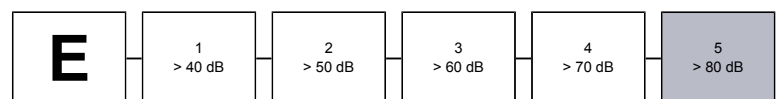
Bending radius (static) (min.)	4x outer-Ø
Bending radius (dynamic) (min.)	8x outer-Ø
Tensile loading (max.)	110 N
Crush resistance (long term)	1000 N/100mm
Impact strength (quantity of impacts)	10



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 EN 50174-2	d



EMC (coupling attenuation)

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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.)	0.8 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	0 °C up to +50 °C
Temperature after installation	-20 °C up to +60 °C

Chemical characteristics

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

Frequenz MHz	Attenuation dB/100m		NEXT dB		PS-NEXT dB		ACR dB@100m		PS-ACR dB@100m		EL-FEXT dB@100m		PS-ELFEXT 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	102	80	99	77	101	78	98	75	109	80	106	77	25,4	23
10	4,8	5,7	102	80	99	77	98	74	95	71	108	74	105	71	31,1	25
100	16,4	18,5	102	72	99	69	86	54	83	51	93	54	90	51	33,2	20,1
200	24,5	26,8	102	68	99	65	78	41	75	38	85	48	82	45	33,2	18
250	27,8	30,2	102	66	99	63	75	36	72	33	82	46	79	43	33,4	17,3
450	36,1	41,6	97	63	94	60	61	21	58	18	72	41	69	38	31,4	17,3
500	38,2	44,1	97	62	94	59	59	18	56	15	68	40	65	37	30,5	17,3
600	42,9	48,9	92	61	89	58	49	12	46	9	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	-	80	-	77	-	22	-	19	-	42	-	39	-	18	-

* EN 50288-4-1(2014)/IEC 61156-5(2009)

Standards, certificates and approvals

Quality seal with production control:	DNV_GL (Germanischer Lloyd)
Link Performance:	KERPEN MegaLine [®] systems and further commercial plug-in connector
Inspection certificate:	acc. to DIN 55350-18-4.2.1 bzw. EN 10204
Conform to CPR (EU/305/2011)	\$CE_Logo\$
Compliant with LVD (2014/35/EU)	\$CE_Logo\$

Part number	Weight	copper weight:	Weight	Outer Ø approx.	Colour
LKD7KS702740000	63 kg/km	35 kg/km	63 kg/km	7.8 mm	Colza yellow