

MegaLine[®] E5-70 F/F B2ca

KS-02YS(ST)H 4 x 2 x AWG 23/1 PIMF

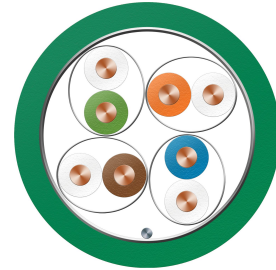
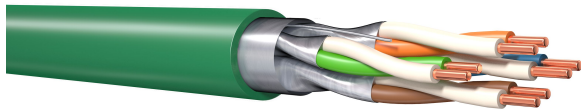
 Category 6_A **S₅ P₂ A₃ C₄ E₃**


Illustration similar

Construction

Conductor	bare copper wire, AWG 23/1
Insulation	cellular-PE, core-Ø: nominal value 1.4 mm
Colour code	wh/bl, wh/or, wh/gn, wh/br
Element	cores to pair
Pair shielding	aluminium-bonded polyester tape

Twisting	4 pairs to cable core with tinned copper wire AWG 24/1
Overall screen	aluminium-bonded polyester tape, metal side inside, with underlayered tinned copper drain wire
Outer sheath	halogen free, flame retardant compound
Colour	Yellow green

Cable marking

KERPEN DATACOM Made in Germany MegaLine E5-70 F/F 4P H Cat.6A 4PPoE B2ca s1a d1 a1 DoP: CDESK0000041 \$BA-Nr.\$ \$m-sign. \$

Fire Behaviour

Fire class / DoP	B2ca -s1a,d0,a1 / CDESK0000041
Flame retardancy	acc. to IEC 60332-3-24
Halogen-free	IEC 60754-1/2
Acidity	IEC 60754-2
Smoke density	IEC 61034-1/2
Fire load (approx.)	0.6 MJ/m

S	0	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 6A acc. to EN 50288 and IEC 61156
 excellent NEXT, well screen properties (pair- and overall screen), low Skew
 Transmission bandwidth (typ.) 700 MHz

P	0	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). Ideal for all applications of class D up to EA up to 10 GbE acc. to IEEE 802.3 an, Cable sharing, VoIP, PoE/PoE+/4PPoE.

A	0	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
Tensile loading (max.)	110 N
Crush resistance (long term)	1000 N/100mm
Impact strength (quantity of impacts)	10

C	0	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.)	50 mΩ/m
Screen attenuation (nom.)	60 dB
Coupling attenuation (nom.)	70 dB
Segregation class according EN 50174-2	c

E	0	1 > 40 dB	2 > 50 dB	3 > 60 dB	4 > 70 dB	5 > 80 dB
EMC (coupling attenuation)						

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Electrical properties at 20°C

DC resistance (max.)	82 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	417 ns/100m
Skew @ 100 MHz (approx.)	7 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		PSNEXT dB		ACR-N dB@100m		PSACR-N dB@100m		ACR-F dB@100m		PSACR-F dB@100m		RL dB	
	typ.	Cat.6 _A max.*	typ.	Cat.6 _A min.*	typ.	Cat.6 _A min.*	typ.	Cat.6 _A min.*	typ.	Cat.6 _A min.*	typ.	Cat.6 _A min.*	typ.	Cat.6 _A min.*	typ.	Cat.6 _A min.*
1	1,9	2,1	95	75,3	92	72,3	93	73,2	90	70,2	91	68,0	88	65,0	25,1	-
10	5,2	5,9	90	60,3	87	57,3	85	54,4	82	51,4	96	48,0	93	45,0	35,2	25,0
100	17,7	19,1	75	45,3	72	42,3	57	26,2	54	23,2	90	28,0	87	25,0	37,2	20,1
200	26,4	27,6	68	40,8	65	37,8	42	13,2	39	10,2	78	22,0	75	19,0	31,1	18,0
250	29,9	31,1	66	39,3	63	36,3	36	8,2	33	5,2	75	20,0	72	17,0	29,5	17,3
300	31,9	34,3	65	38,1	62	35,1	33	3,8	30	0,8	72	18,5	69	15,5	28,3	17,3
450	38,9	42,7	63	35,5	60	32,5	24	-7,2	21	-10,2	69	14,9	66	11,9	26,7	17,3
500	41,2	45,3	61	34,8	58	31,8	20	-10,5	17	-13,5	66	14,0	63	11,0	26,3	17,3
600	46,2	-	57	-	54	-	11	-	8	-	60	-	57	-	25,8	-
700	51,4	-	54	-	51	-	3	-	0	-	56	-	53	-	-	-

* EN 50288-10-1 (2013)/IEC 61156-5(2020)

Standards, certificates and approvals

Conformity

 to CPR (EU/305/2011)
 acc. to LVD (2014/35/EU)

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
LKD7KS6B0220000	52 kg/km	23 kg/km	7 mm	Yellow green