

# MegaLine<sup>®</sup> E2-45 U/F Dca KS-02YSH 4 x 2 x AWG 23/1 PIMF

Category 6 S<sub>2</sub> P<sub>1</sub> A<sub>2</sub> C<sub>4</sub> E<sub>2</sub>

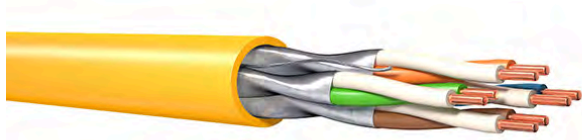


Illustration similar

### Construction

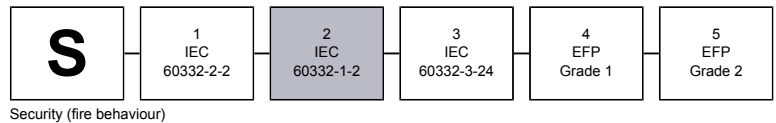
Conductor	bare copper wire, AWG 23/1	Twisting	4 pairs to cable core with tinned copper wire
Insulation	cellular-PE, core-Ø: nominal value 1.4 mm		AWG 24/1
Colour code	WH/BU, WH/OG, WH/GN, WH/BN	Overall screen	unscreened
Element	cores to pair	Outer sheath	Halogen free flame retardant compound (LSOH)
Pair shielding	aluminium-bonded polyester tape	Colour	Colza yellow

### Cable marking

KERPEN DATACOM Made in Germany MegaLine E2-45 U/F 4P H Cat.6 4PPoE Dca s2 d2 a1 DoP: CDESK0000001 \$BA-Nr.\$ \$m-sign.\$

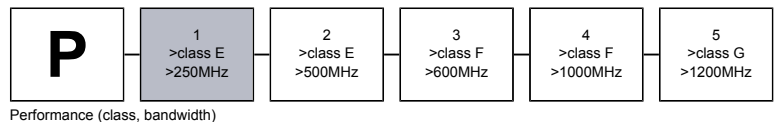
### Fire Behaviour

Fire class / DoP	Dca -s2,d2,a1 / CDESK0000001
Fire performance	EN 50575 / EN 50399
Flame retardancy	acc. to IEC 60332-1-2
Halogen-free	IEC 60754-1/2
Acidity	IEC 60754-2
Smoke density	IEC 61034-2
Fire load (approx.)	0.6 MJ/m



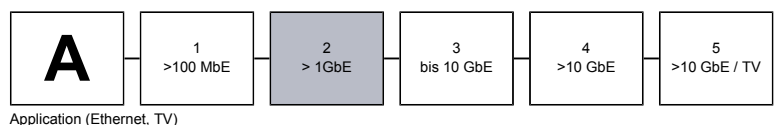
### Performance

better than category 6 acc. to EN 50288 and IEC 61156  
excellent NEXT, low Skew  
Bandwidth (max.) 450 MHz



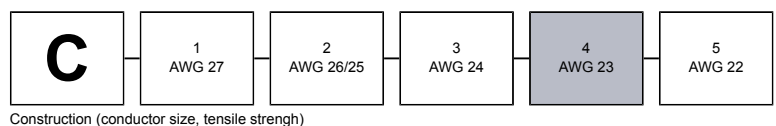
### Applications

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 E up to 1 GbE acc. to IEEE 802.3 ab, Cable sharing, VoIP, PoE/PoE+/4PPoE.



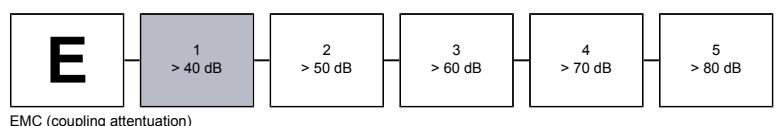
### Mechanical characteristics (cable)

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



### Electromagnetic behaviour

Coupling resistance @ 10 MHz (nom.)	80 mΩ/m
Screen attenuation (nom.)	50 dB
Coupling attenuation (nom.)	60 dB
Segregation class according to EN 50174-2	b



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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	420 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 during installation	0 °C up to +50 °C
Temperature after installation	-20 °C up to +60 °C

## Chemical characteristics

Conform to RoHS and REACH

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 max.*	typ.	Cat.6 min.*	typ.	Cat.6 min.*	typ.	Cat.6 min.*	typ.	Cat.6 min.*	typ.	Cat.6 min.*	typ.	Cat.6 min.*	typ.	Cat.6 min.*
1	1,9	2,1	95	75	92	72	93	72,9	90	69,9	88	66	85	63	25,4	-
10	5,2	6,0	90	60	87	57	85	54,0	82	51	92	50	89	47	33,5	25,0
16	7,0	7,6	90	57	87	54	83	49,3	80	46,3	98	46	95	43	35,6	25,0
31,25	9,9	10,7	85	53	82	50	75	41,9	72	38,9	98	40	95	37	37,0	23,6
62,5	13,5	15,5	80	48	77	45	66	32,6	63	29,6	95	34	92	31	35,9	21,5
100	17,9	19,9	75	45	72	42	57	25,1	54	22,1	88	30	85	27	34,3	20,1
155	22,5	25,3	72	42	69	39	49	16,8	46	13,8	81	26	78	23	32,2	18,8
200	26,9	29,1	68	41	65	38	41	11,4	38	8,4	75	24	72	21	31,3	18,0
250	30,4	33,0	66	39	63	36	36	6,0	33	3	72	22	69	19	29,2	17,3
300	33,1	-	65	-	62	-	32	-	29	-	69	-	66	-	28,0	-
450	39,3	-	63	-	60	-	24	-	21	-	64	-	61	-	27,0	-

\* EN 50288-5-1(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 DATACOM MegaLine <sup>®</sup> 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
LKD7KS600050000	45 kg/km	23.5 kg/km	6.7 mm	Colza yellow

## Packaging

1000 m cable drum  
500 m cable drum  
250 m carton

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