

# MegaLine® E2-45 U/F

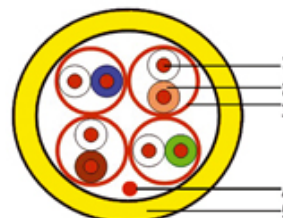
## S<sub>2</sub>P<sub>1</sub>A<sub>2</sub>C<sub>4</sub>E<sub>2</sub>



**Type:**  
KS-02YSH 4x2xAWG 23/1 PIMF

**Category:** 6

**Construction:**  
**1 Conductor:** bare copper wire, AWG 23/1  
**2 Insulation:** cellular-PE, core-Ø: nominal value 1.4 mm  
 Twisting element: pair  
**3 Individual screen:** aluminium-bonded polyester tape  
 Twisting: 4 pairs  
**4 Bound:** plastic foil (optional) with underlayered tinned copper drain wire AWG 24/1 halogen free, flame retardant compound  
**5 Outer sheath:**



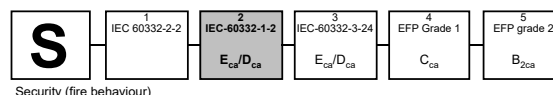
colour code: wh/bl, wh/or, wh/gn, wh/br  
 Colour outer sheath: yellow, RAL-1021

printing outer sheath:  
 KERPEN MegaLine E2-45 U/F 4P H SPACE Code 21242 Dca s2 d2 a1 \$Production lot code\$ \$Meter marking\$

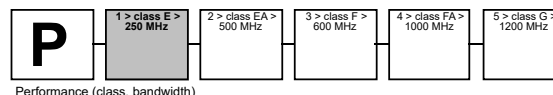
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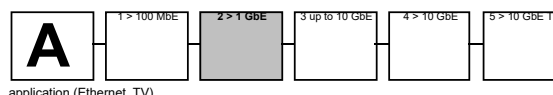
**fire behaviour:**  
 flame resistance: acc. to IEC 60332-1-2  
 halogen free: acc. to IEC 60754-1/2  
 smoke density: acc. to IEC 61034-1/2  
 Acidity: according EN 60754-2  
 fire load (MJ/m): 0.60 (approx.)  
 Class: D<sub>ca</sub> s2 d2 a1 according EN 50575 / EN 50399



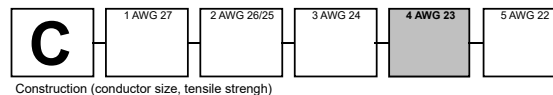
**performance:**  
 better than category 6 acc. to EN 50288 and IEC 61156 excellent NEXT, low Skew  
 bandwidth (typical): 450 MHz



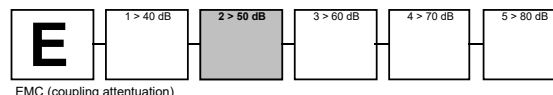
**applications:**  
 Installation cable for generic cabling systems acc. to ISO/IEC 11801 and EN 50173 (3rd edition). Ideal for all applications of class D up to E up to 1 GbE acc. to IEEE 802.3 ab, Cable sharing, VoIP, PoE/PoE+



**mechanical characteristics:**  
 bending radius:  
 during laying: 8 x outer diameter (min.)  
 acc. to Installation: 4 x outer diameter (min.)  
 tensile loading (N): 110 (max.)  
 crush resistance (N/100mm): 1000  
 impact strength (quantity of impacts): 10



**electromagnetic behaviour:**  
 transfer impedance at 10 MHz (mOhm/m): 80 (nominal value)  
 screen attenuation up to 1000 MHz (dB): 50 (nominal value)  
 coupling attenuation up to 1000 MHz (dB): 60 (nominal value)  
 Segregation class according EN 50174-2:: b

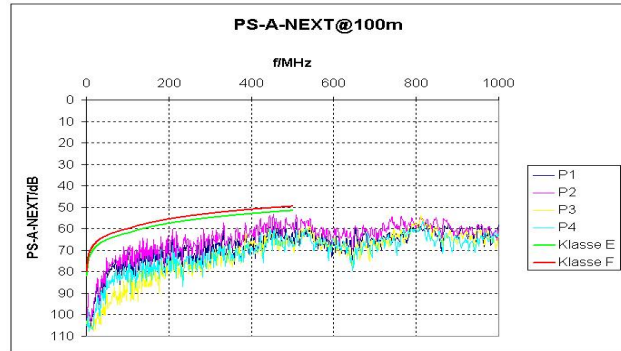


**Type:**  
 KS-02YSH 4x2xAWG 23/1 PIMF



**Electrical characteristics at 20°C:**

conductor resistance (Ohm/km):	82 (max.)
insulation resistance (GOhm x km):	5 (min.)
mutual capacitance (pF/m):	42 (approx.)
capacitance unbalance (e) (pF/km):	1100 (approx.)
velocity of propagation (c):	0.80 (approx.)
phase delay (ns/100m):	420 (approx.)
delay skew at 100 MHz (ns/100m):	7 (approx.)
characteristic impedance at 100 MHz (Ohm):	100±5
test voltage Ueff (V):	1000
operating voltage (V):	125 (max.)



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.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	66	92	64	93	64	90	62	88	66	85	64	25,4	-
4	3,2	3,8	95	65	92	63	92	61	89	59	89	58	86	55	28,6	23
10	5,2	6	90	59	87	57	85	53	82	51	92	50	89	47	33,5	25
16	7	7,6	90	56	87	54	83	49	80	47	98	46	95	43	35,6	25
31,25	9,9	10,7	85	52	82	50	75	41	72	39	98	40	95	37	37	23,6
62,5	13,5	15,5	80	47	77	45	66	32	63	30	95	34	92	31	35,9	21,5
100	17,9	19,9	75	44	72	42	57	24	54	22	88	30	85	27	34,3	20,1
155	22,5	25,3	72	41	69	39	49	16	46	14	81	26	78	23	32,2	18,8
200	26,9	29,1	68	40	65	38	41	11	38	9	75	24	72	21	31,3	18
250	30,4	33	66	38	63	36	36	5	33	3	72	22	69	19	29,2	17,3
300	33,1	-	65	-	62	-	32	-	29	-	69	-	66	-	28	-
450	39,3	-	63	-	60	-	24	-	21	-	64	-	61	-	27	-

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

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**Chemical characteristics:**

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

**Thermal characteristics:**

Temperature range for fixed installation: -20°C up to +60°C  
 Temperature range for mobile operation: 0°C up to +50°C

**certificate and approbation:**

Link Performance:  
 test certificate:  
 conform to LVD (2014/35/EU)  
 Conform to CPR (EU/305/2011)

KERPEN MegaLine® systems and further commercial plug-in connector acc. to DIN 55350-18-4.2.1 bzw. EN 10204



Article Number:	Presentation (m)	Size:	Outer diameter (mm):	weight (kg/km):	copper sales factor (kg/km):	colour of outer sheath:
LKD7KS600050000	<b>general</b>	4P	7.4 (approx.)	55 (approx.)	23,5	yellow, RAL-1021
LKD7KS600050025	250					
LKD7KS600050050	500					
LKD7KS600050100	1000					