

MegaLine[®] E2-45 U/F Dca KS-02YSH 4 x 2 x AWG 23/1 PIMF

Category 6 S₂ P₁ A₂ C₄ E₂

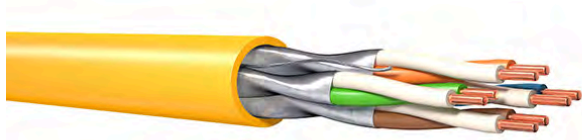


Illustration similar

Construction

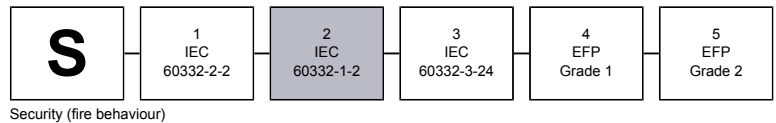
| | | | |
|----------------|---|----------------|---|
| Conductor | bare copper wire, AWG 23/1 | Twisting | 4 pairs to cable core with tinned copper wire |
| Insulation | cellular-PE, core-Ø: nominal value 1.4 mm | | AWG 24/1 |
| Colour code | WH/BU, WH/OG, WH/GN, WH/BN | Overall screen | unscreened |
| 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.\$

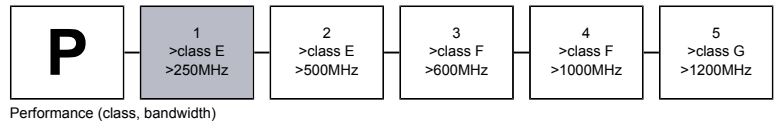
Fire Behaviour

| | |
|---------------------|------------------------------|
| 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 |



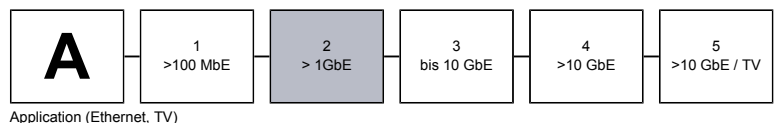
Performance

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



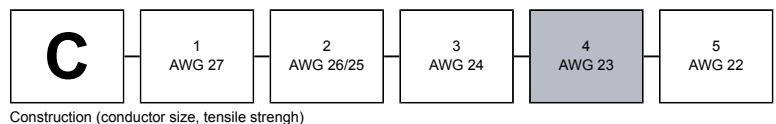
Applications

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.



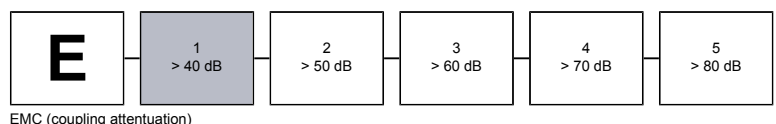
Mechanical characteristics (cable)

| | |
|---------------------------------------|--------------|
| 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 [®] 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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