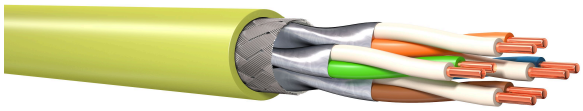
# MegaLine® F6-90 S/F Cca

## KS-02YSCH 4 x 2 x AWG 23/1 PIMF

Category 7 **$S_4$ $P_3$ $A_4$ $C_4$ $E_5$**



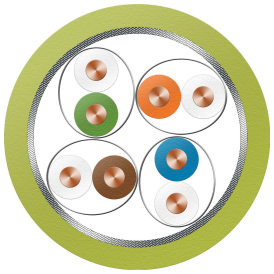


Illustration similar

**Construction**

| | | | |
|---|---|---|---|
| Conductor | bare copper wire, AWG 23/1 | Twisting | 4 pairs |
| Insulation | cellular-PE, core-Ø: nominal value 1.4 mm | Overall screen | tinned copper wire braid |
| Colour code | wh/bl, wh/or, wh/gn, wh/br | Outer sheath | halogen free, flame retardant compound |
| Element | cores to pair | Colour | Lime green |
| Pair shielding | aluminium-bonded polyester tape | | |

Cable marking

KERPEN DATACOM Made in Germany MegaLine F6-90 S/F 4P H Cat.7 4PPoE Cca s1a d1 a1 DoP: CDESK0000035 $BA-Nr.$ $m-sign.$

**Fire Behaviour**

| | |
|---|---|
| Fire class / DoP | Cca -s1a,d1,a1 / CDESK0000035 |
| Fire performance | EN 50575 / EN 50399 |
| 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.) | 0.65 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 7 acc. to EN 50288 and IEC 61156 excellent NEXT, exzellente screen properties (pair- and overall screen), low Skew

Transmission bandwidth (typ.) 1000 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 F Multimedia (Video, Data, Voice) >10 GbE acc. to IEEE 802.3an, 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 strengh)

**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 |

| E | 0 | 1 > 40 dB | 2 > 50 dB | 3 > 60 dB | 4 > 70 dB | 5 > 80 dB |
|---|---|---|---|---|---|---|

EMC (coupling attentuation)

# MegaLine® F6-90 S/F Cca

## KS-02YSCH 4 x 2 x AWG 23/1 PIMF

Category 7 **$S_4$ $P_3$ $A_4$ $C_4$ $E_5$**

**Electrical properties at 20°C**

| | |
|---|---|
| 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.) | 0.79 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 | | PSNEXT dB | | ACR-N dB@100m | | PSACR-N dB@100m | | ACR-F dB@100m | | PSACR-F 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 | 2,0 | 102 | 80 | 99 | 77 | 101 | 78,0 | 98 | 75,0 | 109 | 80 | 106 | 77 | 25,4 | - |
| 10 | 4,8 | 5,7 | 102 | 80 | 99 | 77 | 98 | 74,3 | 95 | 71,3 | 108 | 74 | 105 | 71 | 31,1 | 25,0 |
| 100 | 16,4 | 18,5 | 102 | 72 | 99 | 69 | 86 | 53,5 | 83 | 50,5 | 93 | 54 | 90 | 51 | 33,2 | 20,1 |
| 200 | 24,5 | 26,8 | 102 | 68 | 99 | 65 | 78 | 41,2 | 75 | 38,2 | 85 | 48 | 82 | 45 | 33,2 | 18,0 |
| 250 | 27,8 | 30,2 | 102 | 66 | 99 | 63 | 75 | 35,8 | 72 | 32,8 | 82 | 46 | 79 | 43 | 33,4 | 17,3 |
| 450 | 36,1 | 41,6 | 97 | 63 | 94 | 60 | 61 | 21,4 | 58 | 18,4 | 72 | 41 | 69 | 38 | 31,4 | 17,3 |
| 500 | 38,2 | 44,1 | 97 | 62 | 94 | 59 | 59 | 17,9 | 56 | 14,9 | 68 | 40 | 65 | 37 | 30,5 | 17,3 |
| 600 | 42,9 | 48,9 | 92 | 61 | 89 | 58 | 49 | 12,1 | 46 | 9,1 | 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 | 58,0 | - | 80 | - | 77 | - | 22 | - | 19 | - | 42 | - | 39 | - | 18,0 | - |

* EN 50288-4-1(2014)/IEC 61156-5(2020)

**Standards, certificates and approvals**

| | |
|---|---|
| Conformity | to CPR (EU/305/2011)<br>acc. to LVD (2014/35/EU) |
| Quality seal with production control | GHMT PVP |
| Link Performance | KERPEN MegaLine® systems and further commercial plug-inn connector |

| Part number | Drum packing | Weight | copper weight | Outer Ø approx. | Colour |
|---|---|---|---|---|---|
| LKD7KS7C0100100 | 1000 m | 62 kg/km | 35 kg/km | 7.4 mm | Lime green |