

X67 POWERLINK/Ethernet cables

1 General

Short description, order number		
Length	Attachment cables - RJ45 to M12	Connection cables - M12 to M12
1 m	X67CA0E41.0010	X67CA0E61.0010
2 m	X67CA0E41.0020	X67CA0E61.0020
3 m	X67CA0E41.0030	
5 m	X67CA0E41.0050	X67CA0E61.0050
10 m		X67CA0E61.0100
15 m	X67CA0E41.0150	X67CA0E61.0150
20 m		X67CA0E61.0200
50 m	X67CA0E41.0500	
		
Length		Tolerances for cable lengths
0 to <10 m		+10 cm
10 m to <50 m		+2% of the length

2 Technical data

Order number	X67CA0E41.xxxx	X67CA0E61.xxxx
Short description		
Accessories	POWERLINK/Ethernet connection cable, RJ45 to M12, 4-pin, straight	POWERLINK/Ethernet connection cable, M12, 4-pin, straight
General information		
Note	PWIS- and halogen-free ¹⁾	
Durability	Flame-retardant, RoHS-compliant Acid, alkali and oil resistant Salt water resistant UV and ozone resistant ²⁾	
Type	Connection cables	
Cable cross section		
AWG	4x 22 AWG	
mm²	4x 0.34 mm²	
Cable construction		
Cable shield	Overlapping aluminum-clad foil, tinned copper braiding, 85% coverage	
Outer jacket		
Material	Polyurethane (PUR)	
Color	Green	
Wires		
Wire insulation	FRNC (Flame-Retardant Non-Corrosive)	
Wire colors	White, yellow, blue, orange	
Type	Tinned copper stranded wire Fine stranded wire (7x 0.25 mm / 7x 30 AWG)	
Stranding	Complete stranding 4 wires to the star quad	
Electrical properties		
Operating voltage	Max. 60 V for PoE	
Test voltage		
Wire - Wire	2000 V	
Wire - Shield	2000 V	
Conductor resistance	≤120 Ω/km at 20°C	
Transfer properties	Category 5 / Class D up to 100 MHz per ISO/IEC 11801 (EN 50173-1), ISO/IEC 24702 (EN 50173-3)	
Transfer rate	10/100 Mbit/s	
Insulation resistance	≥500 MΩ/km at 20°C	
Operating conditions		
Degree of protection per EN 60529		
Cables	IP67	
Male M12 connector	IP67, only when screwed in	
RJ45 connector	IP20, only when properly connected	
Ambient conditions		
Temperature		
Transport	-50 to 75°C ³⁾	
Fixed installation	-40 to 75°C ⁴⁾	
Flexible installation	-30 to 70°C ⁵⁾	
Mechanical properties		
Dimensions		
Diameter	6.5 mm ±0.2 mm	
Bend radius		
Fixed installation	≥4x outer diameter ⁶⁾	
Flexible installation	≥8x outer diameter ⁷⁾	
Drag chain data ⁸⁾		
Acceleration	3 m/s²	
Flex cycles	Min. 3 million	
Velocity	3 m/s	
Bend radius	200 mm	
Weight	0.064 kg/m	

Table 1: X67CA0E41.xxxx, X67CA0E61.xxxx - Technical data

- 1) Up to version <D0: Halogen-free
- 2) Up to version <D0: Flame-retardant per IEC 60332-1-2; RoHS 2011/65/EU
- 3) Up to version <D0: -50 to 70°C
- 4) Up to version <D0: -40 to 70°C
- 5) Up to version <D0: -20 to 60°C
- 6) Up to version <D0: ≥3x outer diameter
- 7) Up to version <D0: ≥7x outer diameter
- 8) Up to version <D0: Cables cannot be used in cable drag chains.

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Dimensions				
Up to version <D0				
Version D0 and later				
Pinout				
Male RJ45 connector	Pin	Name	Diagram	M12 connector
	1 - 1	TXD		
	2 - 3	TXD\		
	3 - 2	RXD		
	6 - 4	RXD\		

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Dimensions				
Up to version <D0				
Version D0 and later				
Pinout				
Connector	Pin	Name	Diagram	Connector
	1 - 2	TXD		
	2 - 1	RXD		
	3 - 4	TXD\		
	4 - 3	RXD\		