

<b>2170608</b>	<b>DATA SHEET</b>	
<b>valid from: 19.09.2019</b>	<b>ETHERLINE® PN Cat.7 Y FLEX A 4x2x 23/7 AWG</b>	

## Application

ETHERLINE® PN CAT.7 Y FLEX A (bandwidth up to 600 MHz), has a performance for the cabling class “F” and a maximum transfer rate (IEEE 802.3) of 10 GBit/s to 100m. The electrical parameter of the cable with a nominal impedance of 100 Ω and excellent shielding properties (pair and total screen) are normatively specified to IEC 61156-5.

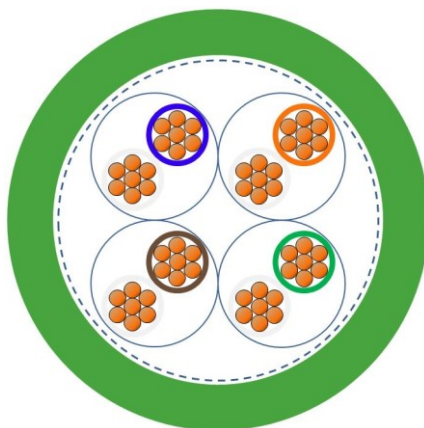
It is provided for industrial secondary and tertiary cable according to EN 50173-3 ISO/IEC 24702.

Other applications are Profinet with 4 Pairs, EtherCAT, EtherNet/IP, Power over Ethernet (IEEE's 802.3af) and Power over Ethernet Plus (802.3at).

The product is flame retardant has a moderate oil resistant and comes in rough industrial environments for use.

It is suitable for fixed installation and serves to wiring of machines, tools , devices , appliances and control cabinets.

## Design




Certification	c(UL)us CMG 75°C acc. to UL 444 and CSA C22.2 No. 214-17; UL AWM Style 21695 (600 V, 80°C) acc. to UL 758
Conductor	7-wire stranded bare copper (23/7 AWG)
Insulation	Foam skin polyethylen acc. to EN 50290-2-25 table 1 outer Ø approx. 1.53 mm
Core identification code	pair 1: white-blue, pair 2: white-orange, pair 3: white-green, pair 4: white-brown
Stranding	2 cores stranded to pair and individually screened with plastic laminated aluminum foil, 4 pairs stranded to bundle
Screen	braid of copper wires coverage approx. 85 %
Outer sheath	PVC PVC (75°C) acc. to UL 444 PVC (80°C) acc. to UL 758 and UL 1581 Colour: green similar RAL 6018 outer Ø: 8.7 mm (± 0.3 mm)

## Electrical properties at 20°C

Loop resistance	max. 144 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	nom. 44 nF/km
Characteristic impedance	nom. 100 Ω acc. to IEC 61156-5 100 ± 5 Ω (@ 100 MHz)
Velocity of propagation	0.75c
Signal transit time	4.7 ns/m
Peak operating voltage	125 V (not for power purposes)
Test voltage	core/core: 2000 V core/screening: 2000 V

Creator: TOST / PDC	Document: DB2170608EN	Page 1 of 2
Released: ALTE / PDC	Version: 02	

<b>2170608</b>	<b>DATA SHEET</b>	
valid from: 19.09.2019	<b>ETHERLINE® PN Cat.7 Y FLEX A 4x2x 23/7 AWG</b>	

### Electrical transmission properties at 20°C

f [MHz]	max. Attenuation [dB/100m]	min. PS NEXT [dB]		min. EL FEXT [dB]		min. Return Loss [dB]
	standard	standard	typical	standard	typical	standard
<b>1*</b>	2.0	75.0	> 95	73.0	94	20.0
<b>4</b>	3.7	75.0	> 95	71.3	94	23.0
<b>10</b>	5.9	75.0	> 95	69.1	92	25.0
<b>16</b>	7.4	75.0	92	67.6	91	25.0
<b>31,25</b>	10.4	75.0	89	64.6	80	23.3
<b>62,5</b>	14.9	72.5	87	57.6	74	20.7
<b>100</b>	19.0	69.4	85	50.4	71	19.0
<b>250</b>	31.0	63.4	80	31.4	54	17.3
<b>500</b>	45.3	58.9	76	13.6	34	17.3
<b>600</b>	50.1	57.7	74	7.6	27	17.3

### Mechanical and thermal properties

Minimum bending radius	moved: 8 x cable Ø fixed installation: 4 x cable Ø
Temperature range	moved: -5° C up to +50° C fixed installation: -30° C up to +80° C c(UL)us CMG: +75°C UL AWM: +80°C
Flammability	flame retardant acc. to IEC 60332-1-2; CSA FT4 acc. to UL 1685
UV resistance	acc. to UL 1581 § 1200 Std.
Oil resistance	oil resistant acc. to IEC 60811-2-1
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Creator: TOST / PDC	Document: DB2170608EN	Page 2 of 2
Released: ALTE / PDC	Version: 02	