THE ENERGY DOCTOR®
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FTP cat.5e + 2x0.75 Copper

Category 5e (cat.5e) cable, also known as Enhanced Category 5, is designed to support full-duplex Fast Ethernet operation and Gigabit Ethernet. The performance requirements have been raised slightly in the new standard. Cat.5e has stricter specifications for Power Sum Equal-Level Far-End Crosstalk (PS-ELFEXT), Near-End Crosstalk (NEXT), Attenuation, and Return Loss (RL) than those for cat.5. Like cat.5, cat.5e is a 100 MHz standard, but it has the capacity to handle bandwidth superior to that of cat.5.
Cat.5 cable is typically used for Ethernet networks running at 100 Mbps.
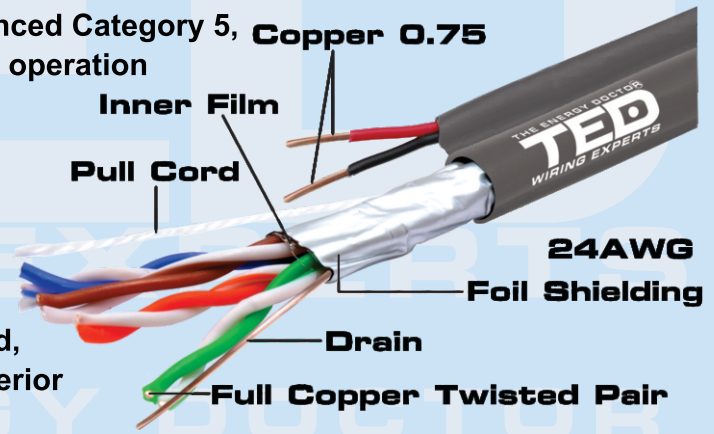
Construction	
Conductor	4 x 2 x 0.5 mm Full Copper 24 AWG & 2 x 0.75mm Full Copper
Insulation	0.8 mm High-density Polyethylene
Diameter Over Insulation	0.88 mm
Nominal Outer Diameter	5.5 mm
Mechanical Characteristics	
Sheath Tensile Strength	20 MPa
Minimum Bending Radius	32 mm
Normal Weight	39 kg/km
Operating Temperature	-20°C +70°C
Instalation Temperature	-5°C +40°C
Product Length	305m or 500m Stranded

Electrical Performance									
Conductor Resistance	98 Ohms/km								
Transmission Frequency (MHz)	4	8	10	16	20	25	31.25	62.5	100
Attenuation (dB/100m)	4.1	5.8	6.5	8.2	9.3	10.4	11.7	17	22
Near End Crosstalk NEXT (dB/100m)	56.3	51.8	50.3	47.2	45.8	44.3	42.9	38.4	35.3
Powersum Near End Crosstalk PS NEXT (dB/100m)	53.3	48.8	47.3	44.2	42.8	41.3	39.9	35.4	32.3
Return Loss (dB/100m)	33	33	33	32	33	34	28	29	24
Equal Level Far End Crosstalk ELFEXT (dB/100m)	51.8	45.7	43.8	39.7	37.8	35.8	33.8	27.9	23.8
Powersum Equal Level Far End Crosstalk (dB/100m)	48.8	42.7	40.8	36.7	34.8	32.8	30.9	24.9	20.8
Characteristic Impedance (Ohms)	100+/-15								
Screw (ns/100m)	45								
Nominal Velocity of Propagation (%)	69								
Propagation Delay, max. 100 MHz (ns/100m)	550								
Coupling Attenuation at 30 MHz	70								