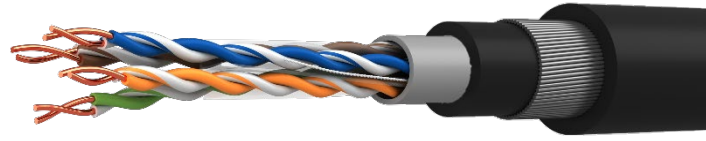


Technical Document  
**WEBNET Cat 6 23awg 4pair U/UTP**  
**Armoured SWA PE Black**



**Part Number:** 120451-PE-BLK-SWA  
**Description:** WEBNET Cat 6 U/UTP 23awg 4pair  
 Armoured PE Black



**Product Construction**

Conductor Material : Bare Copper, Solid  
 Conductor Size : 23(1)awg  
 Insulation Material : High Density Polyethylene (HDPE)  
 Number of Pairs : 4  
 Pair Colours : Blue, Blue/White; Orange, Orange/White, Green, Green/White; Brown, Brown/White  
 Inner Sheath Material : Polyvinyl Chloride (PVC)  
 Inner Sheath Colour : Grey  
 Inner Sheath Material & Colour : Polyethylene (PE), Black  
 Armour : Steel Wire Armour (SWA)  
 Outer Sheath Material & Colour : Polyethylene (PE), Black



**Mechanical Characteristics**

Inner Sheath Diameter : 7.0mm ± 0.3mm  
 Overall Diameter : 11.5mm ± 0.8mm  
 Temperature Range : Fixed -20°C to +70°C Flexing 0°C to +50°C  
 Bend Radius : Fixed 4 x Overall Diameter Flexing 8 x Overall Diameter  
 Weight : 230 kg/km

**Electrical Characteristics**

Max. Conductor Resistance @ 20°C : ≤ 9.5 Ω/km  
 Max. Resistance Unbalanced : < 5%  
 Mutual Capacitance @1KHz : < 60 pF/m  
 Pair to Earth Capacitance Unbalanced : ≤ 330 pF/100m  
 Impedance @ 100 MHz : 100 Ω ± 15  
 Velocity of Propagation : 66 %  
 Delay Skew : < 45 ns / 100m

Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS - NEXT (dB)	ACRF (dB)	PS-ACRF (dB)	Return Loss (dB)
1	≤ 2.0	≥ 74.3	≥ 72.3	≥ 67.8	≥ 64.8	20.0
4	≤ 3.8	≥ 65.3	≥ 63.3	≥ 55.8	≥ 52.8	23.0
10	≤ 6.0	≥ 59.3	≥ 57.3	≥ 47.8	≥ 44.8	25.0
16	≤ 7.6	≥ 56.2	≥ 54.2	≥ 43.7	≥ 40.7	25.0
20	≤ 8.5	≥ 54.8	≥ 52.8	≥ 41.8	≥ 38.8	25.0
31.25	≤ 10.7	≥ 51.9	≥ 49.9	≥ 37.9	≥ 34.9	23.6
62.5	≤ 15.4	≥ 47.4	≥ 45.4	≥ 31.9	≥ 28.9	21.5
100	≤ 19.8	≥ 44.3	≥ 42.3	≥ 27.8	≥ 24.8	20.1
200	≤ 29.0	≥ 39.8	≥ 37.8	≥ 21.8	≥ 18.8	18.0
250	≤ 32.8	≥ 38.3	≥ 36.3	≥ 19.8	≥ 16.8	17.3

Performance @ 20°

**Certifications & Standards**

RoHS 3 Compliant : Yes REACH Compliant : Yes  
 Manufactured in Accordance to : TIA/EIA 568-C.2, IEC 11801 Class E, EN 50288-6-1, ISO/IEC 61156-5, EN 50173-1  
 UKCA CPR Classification : Fca BS EN 50575:2014+A1:2016



Publication Date: 17/04/2023

Revision Number: 2.0

Written by: GB

Authorised by: GB