



RamCAT6A - solid AWG 23/1 - SF/UTP - PUR

- 4 x 2 x 0.57 mm (AWG 23/1) low loss solid conductors
- compression resistant construction due to a PE cross
- stabilizing inner jacket
- SF/UTP (double overall shielding)
- robust PUR jacket
- 10GBase-T links (Channel E_A) up to 100 m

PUR

The RamCAT6A cable RC6A-SB1X for data transmission in mobile operation is designed for a frequency of 500 MHz and is therefore suitable for data transmission rates of up to 10 Gbit/s on up to 100 m link length. It is preferably used for data transmission of the Ethernet applications 1000Base-T and 10GBase-T on cable drums. The robust data cable with a characteristic impedance of 100 Ohm has four stranded pairs with AWG 23/1 solid conductors and is therefore the ‚big brother‘ of our topseller and ‚universal cable‘ RC5-SB1X. The matched lay lengths of the individual pairs and the ingenious overall stranding using a PE stranding element ensure extremely low NEXT (near-end) and FEXT (far-end crosstalk) values. Thanks to the cross-shaped PE stranding element, the stabilising intermediate sheath and the abrasion-resistant PUR outer sheath, the cable is suitable for mobile road use (touring grade). Double shielding (SF/UTP) reliably prevents electromagnetic interference. We recommend the metal Telegärtner MFP8 IE series as a suitable connector, available from us with article number RJ45SAT-FS. The RamCAT6A cable is available both as bulk cable and as premade cable with and without cable drum.

design

conductor	solid bare copper, Ø 0.57 mm (AWG23/1)
core insulation	Polyolefin, nom. Ø 1.1 mm
core stranding	2 cores twisted to a pair
cable stranding	4 pairs twisted within a central PE cross
inner jacket	LSZH, halogen-free
overall shield	AL/PET foil + tinned copper braid (85% coverage)
outer jacket	PUR, black
overall diameter	8.6 mm

mechanics

min. bending radius	8x overall diameter
installation operation	15x overall diameter
working temperature	-30°C / +80°C
flame retardancy	acc. to IEC 60332-1-2
halogen-free	acc. to IEC 60754-1

electric

conductor resistance	< 75 Ω/km
mutual capacitance	50 pF/m
characteristic impedance	100 Ω ± 15%
signal speed	0.66 c
propagation delay	< 555 ns/100m
delay skew	30 ns/100m

frequency [MHz]	attenuation [dB/100m]		PS NEXT [dB]		PS ACR-N [dB] @ 100 m		PS ACR-F [dB] @ 100m		RL [dB]	
	typical	channel E _A MAX	typical	channel E _A MIN	typical	channel E _A MIN	typical	channel E _A MIN	typical	channel E _A MIN
1	2.0	4.0	80	62.0	78	58.0	73	60.3	30	19
10	5.7	6.5	65	54.0	59	47.5	55	40.3	38	19
100	18.0	20.9	47	37.1	29	16.2	34	20.3	35	12
250	28.7	33.9	41	30.2	12	-3.7	29	12.3	32	8
500	41.6	49.3	33	24.8	-9	-24.5	21	6.3	27	6

order code	type	outer jacket	cable color	weight kg/m	standard lengths m
RC6A-SB1X	SF/UTP	PUR	black	0.08	50 / 100 / 300 / 500

technical specifications are subject to change