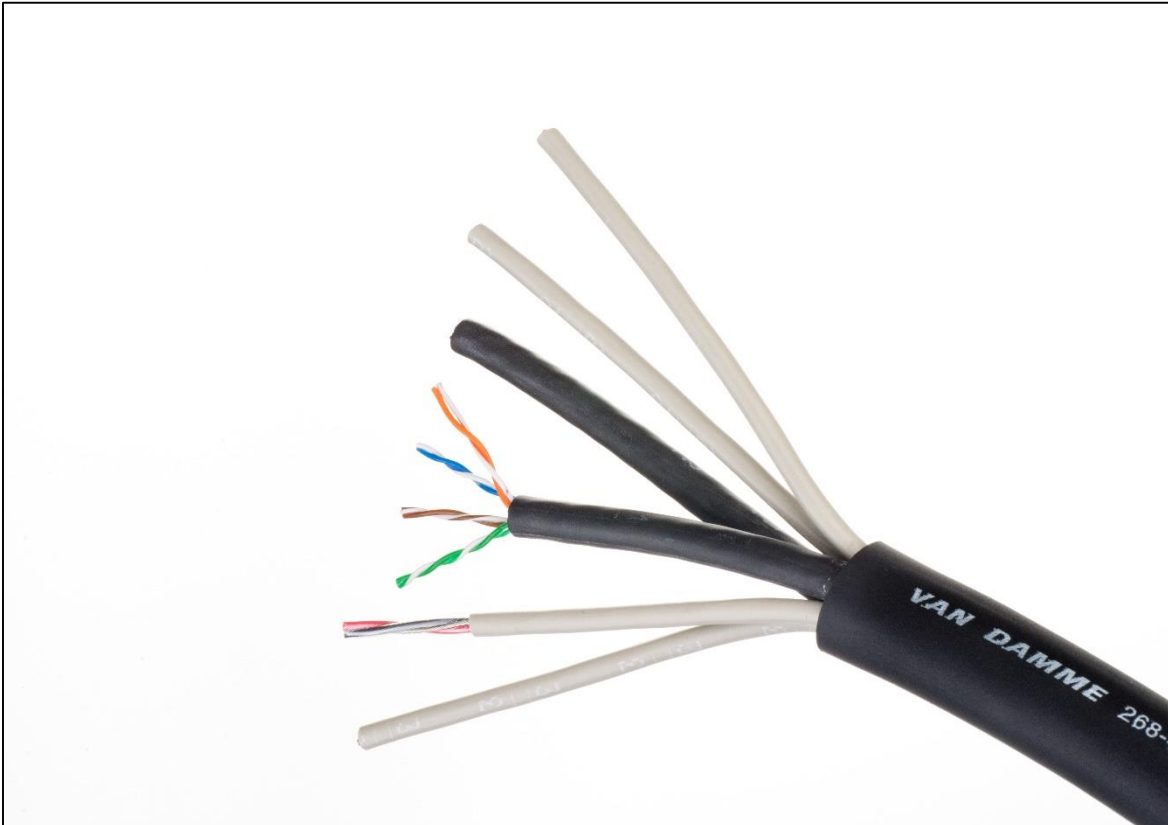













THE ROUTE OF LEAST RESISTANCE

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VAN DAMME CAT 6A TOURCAT HYBRID MULTICORES



The Van Damme upgraded Cat 6A hybrid range features 2 and 4 way Cat 6A multicores, 2 Cat 6A and 4 110 Ω analogue/digital audio pairs, and 2 options with power - 2 Cat 6A, 4 110 Ω audio pairs, 1 3 x 2.5mm² HO5 power and 4 Cat 6A, 8 110 Ω audio pairs, 1 3 x 2.5mm² HO5 power. The 23 AWG solid conductor F/UTP Cat cable elements will support Gigabit Ethernet channel link at 100 metres, ideal for the common network protocols used in digital audio and video. The 110 Ω audio pairs are also suitable for DMX512 and other balanced data applications.

KEY BENEFITS	MATERIALS	APPLICATIONS
 Flexibility	 Oxygen Free Copper	 Broadcast
 Tour Grade Construction	 Skin-foam-skin polyethylene	 Presentations
 Category 6A TIA/EIA-568-C-2	 PVC	 Live Sound

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Applications

- Extended distance tactical cables for Ethernet and Ethernet based protocols
- Ideal for use with the Neutrik Cat 6A Ethercon

Application Notes

- Meets the requirements of Category 6A TIA/EIA-568-C-2, EN 50288-5-1 and ISO/IEC 11801
- Passes Cat 5E channel link test at 100 metres

Mechanical Specification

Cat 6A elements

Conductor	1 x 0.574 mm bare oxygen free copper
Conductor Size	1 x 0.574 mm, 0.259 mm ² , AWG 23
Dielectric	Skin-foam-skin polyethylene
Diameter	1.12 ± 0.02 mm
Colour Code	Pair 1: White/Blue-Blue, Pair 2: White/Orange-Orange, Pair 3: White/Green-Green, Pair 4 White/Brown-Brown
Cross member	Polyethylene
Screen	Aluminium/Polyester foil >115% coverage
Jacket material	Flexible PVC
Overall diameter	7.30 ± 0.20 mm

Audio Pairs

Conductor	7 x 0.20 mm bare oxygen-free copper
Conductor size	7 x 0.20 mm, 0.22 mm ² , AWG 24/7
Insulation	Foam skin polyethylene
Drain wire	7 x 0.20 mm tinned oxygen-free copper
Drain wire size	7 x 0.20 mm, 0.22 mm ² , AWG 24/7
Screen	Aluminium/Polyester Foil > 100% coverage
Jacket material	Flexible PVC composite Pebble Grey RAL 7032
Overall diameter	3.90 ± 0.15 mm

Power Elements

Cable type	PVC insulated – HO5VV-F
Conductor size	2.5 mm ² , 20 A
Overall diameter	7.80 mm

Overall Construction

Jacket material	Flexible PVC composite Jet Black RAL 9005
Bend Radius	10 x overall diameter
Operating temperature	-10 to +70 °C

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Overall diameters:

268-662-002	18.00 ± 0.50 mm
268-662-004	21.40 ± 0.50 mm
268-662-402	18.20 ± 0.50 mm
268-662-022	20.00 ± 0.60 mm
268-662-084	27.00 ± 0.80 mm

Electrical Specification

Cat 6A elements:

Conductor resistance		< 75 Ohms/km
Characteristic Impedance (Ω)	1 - 100 MHz	100 ± 15
	200 – 250 MHz	100 ± 22
	250 – 500 MHz	100 ± 25
Capacitance (core to core)		48 pF/m
Velocity of Propagation		74 %

Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB/100m)	ELFEXT (dB/100m)	Return Loss (dB)
4	3.4	80	83	80	27
10	5.4	75	70	73	30
16	6.9	70	63	68	30
20	7.8	68	60	66	30
31.25	9.8	66	56	63	30
62.5	13.8	64	50	59	30
100	17.5	62	44	54	28
200	24.9	55	30	48	24
250	27.5	53	25	47	23
350	33.0	50	17	44	22
400	34.7	49	14	41	21
500	39.8	47	7	38	19

Audio Pairs:

Conductor resistance	< 85 Ohm/km
Capacitance (core to core)	50 pF/m
Impedance	110 ± 20 % Ohms

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Part Numbers & Description

Part number	Description	Diameter	Max. Reel Length
268-662-002	Van Damme TourCat 2 x Cat 6A hybrid	18.00 mm	500 m
268-662-004	Van Damme TourCat 4 x Cat 6A hybrid	21.40 mm	500 m
268-662-402	Van Damme TourCat 2 x Cat 6A 4 x AES pair hybrid	18.20 mm	500 m
268-662-022	Van Damme TourCat 2 x Cat 6A 2 x AES pair 1 x 3 x 2.5 mm ² HO5VV-F power hybrid	20.00 mm	500 m
268-662-084	Van Damme TourCat 4 x Cat 6A 8 x AES pair 1 x 3 x 2.5 mm ² HO5VV-F power hybrid	27.00 mm	500 m

Recommended RJ45 Connectors

Van Damme Shielded Cat 6A RJ45, part no. 351-000-002

Neutrik NE8MX6 Ethercon cable connector (nickel)
 Neutrik NE8MX6-B Ethercon cable connector (black)
 Neutrik NE8FDX-Y6 Ethercon chassis IDC connector (nickel)
 Neutrik NE8FDX-B-Y6 Ethercon chassis IDC connector (black)

Connector selection criteria:

Conductor size 23AWG; conductor diameter 1.12 mm; overall diameter 7.30 mm

Compliance

TIA/EIA-568-C-2
 EN 50288-2-2
 ISO/IEC 11801

RoHS 2011/65/EU Restriction of Hazardous Substances

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals