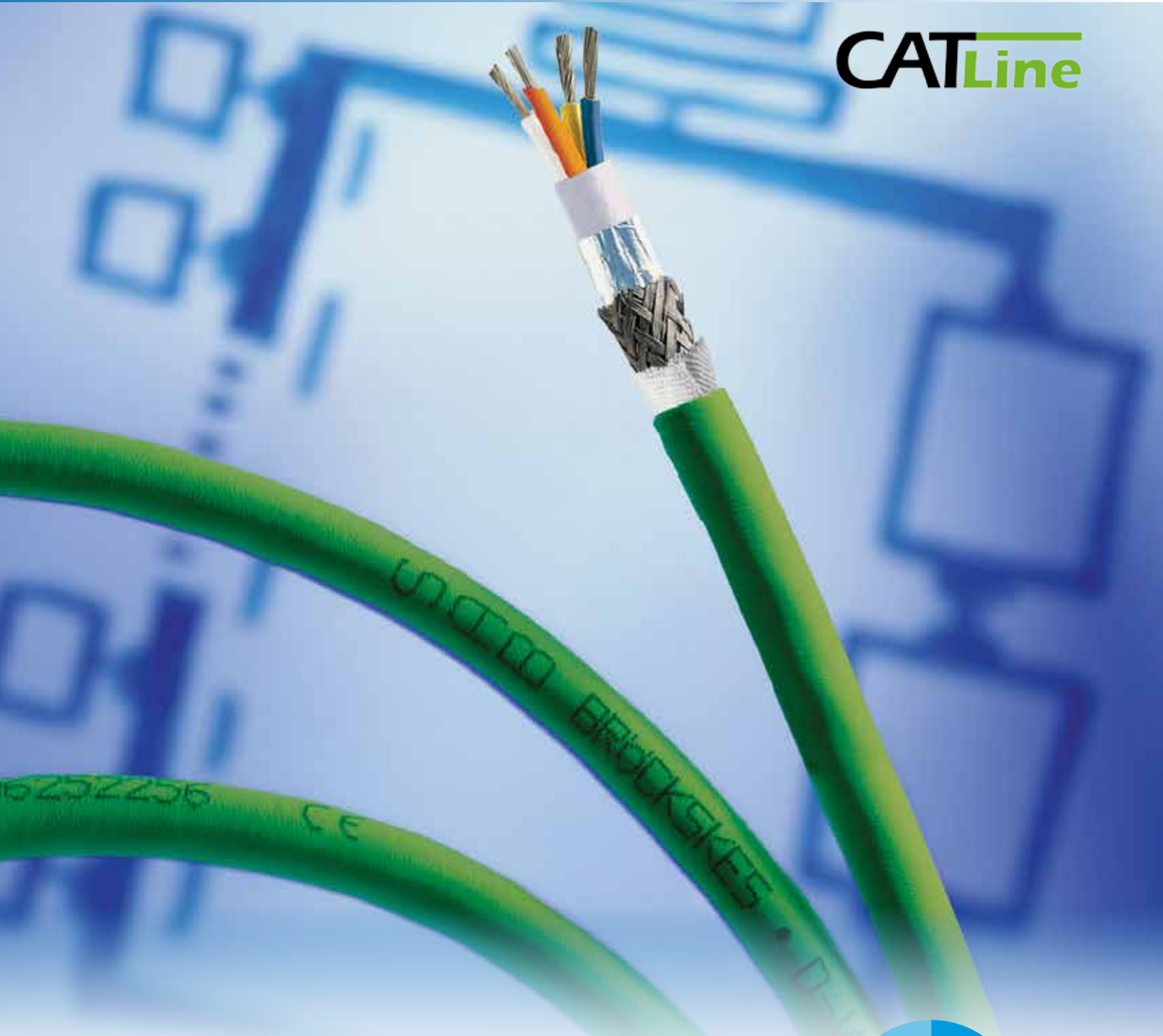


CATEGORY CABLES FOR AUTOMATION

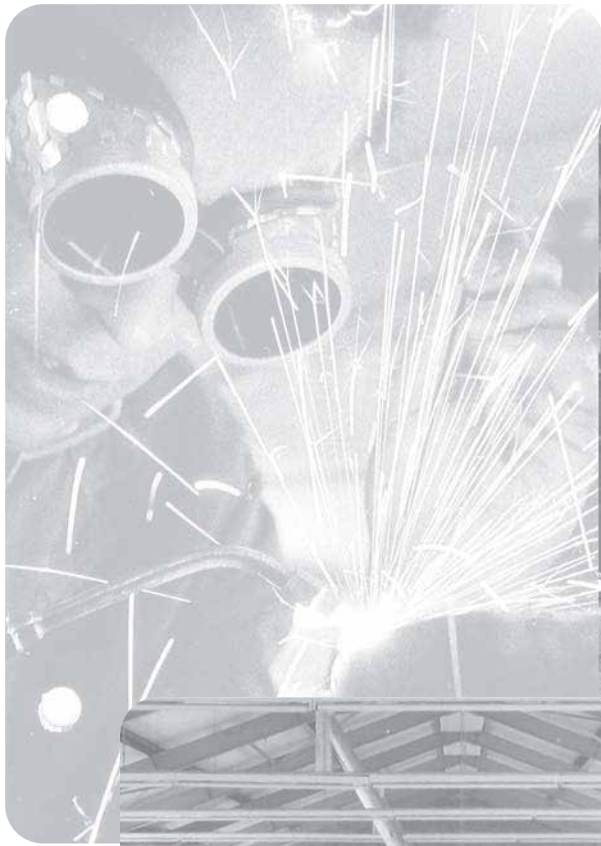
THE RIGHT SOLUTION FOR EVERY APPLICATION

CATLine



FLEXIBLE CONTROL · CONTINUOUS FLEX
SILICONE · TORSION · TRAY · VFD · DATA
SERVO MOTOR · EUROPEAN STYLE · BUS/CAT
HALOGEN-FREE · REELING · SPECIAL CUSTOM





TRADITIONAL
FAMILY BUSINESS
SINCE 1947

Profinet-CAT 5



S PN 667 Profinet CAT 5 Typ C 2x2x22AWG CE



Marking for S PN 667:
SAB BRÖCKSKES · D-VIERSEN · S PN 667 Profinet CAT 5 Typ C 2x2x22AWG CE

SAB has a full line of Profinet/CAT 5 cables for various applications. We offer stationary, flexible and continuous flex cables. Also included are torsion, reeling and halogen-free. For industrial areas, a PUR jacket is recommended for improved abrasion and oil resistance. Profinet and CAT 5 cables are designed for data rates of 1-100 Mhz.

P/N	Type	dimensions AWG (stranding, copper)	nominal outer-ø		cable weight± lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km
			inch	mm		
6552202	Type A	22/2pr (solid, BC)	0.232	5.9	34	58.0
6612202	Type B	22/2pr (7/30, BC)	0.260	6.6	47	58.0
6792604	Type B	26/4pr (7/34,TC)	0.287	7.3	38	148.0
6672202	Type C	22/2pr (7/30,TC)	0.256	6.5	39	58.8
6689010	Type C	22/2pr(19/TC) + 16/4c(84/BC)	0.394	10.0	106	58.0 / 13.3
6762404	Type C	24/4pr (19/36,TC)	0.327	8.3	53	145.0
6812604	Type C	26/4pr (19/38, TC)	0.283	7.2	39	145.0
6689001	Torsion	22/2pr (19/34,TC)	0.276	7.0	42	58.0
6892202	Reeling	22/2pr (19/34,TC)	0.307	7.8	52	58.8

Construction:

	PN 655 Type A <i>stationary</i>	PN 661 Type B <i>flexible</i>	PN 679 Type B <i>flexible</i>	S PN 667 Type C <i>flexing</i>	S PN 668 Type C <i>flexing hybrid</i>	S PN 676 Type C <i>flexing</i>	S PN 681 Type C <i>flexing</i>	RT PN 668 <i>torsion</i>	DR PN 689 P <i>reeling</i>
Part number	6552202	6612202	6792604	6679001	6689010	6762404	6812604	6689001	6892202
Insulation:	PE, L/MD*		special polymer	SABIX®/TPE	SABIX®		PE	SABIX®	
Color code:	code #1	code #1	code #2	code #1	code #3	code #2	code #2	code #1	code #1
Wrapping:	PETP tape				non-woven tape		woven tape	PETP tape	
Inner jacket:	-	thermoplastic	-	thermoplastic	SABIX®	-	-	-	SABIX®
Wrapping:	aluminum foil tape								
Shield:	tinned copper braid								
Wrapping:	non-woven tape								
Outer jacket:	PVC	SABIX®	-	-	-	PUR	-	-	PUR†
Jacket color:	green (similar to RAL 6018)								

* L/MD acc. to DIN VDE 0819 part 103

† Jacket is re-inforced PUR/supporting braid/PUR

Technical data:

	PN 655 Type A <i>stationary</i>	PN 661 Type B <i>flexible</i>	PN 679 Type B <i>flexible</i>	S PN 667 Type C <i>flexing</i>	S PN 668 Type C <i>flexing hybrid</i>	S PN 676 Type C <i>flexing</i>	S PN 681 Type C <i>flexing</i>	RT PN 668 <i>torsion</i>	DR PN 689 P <i>reeling</i>
Approvals:	UL AWM, CE		CE	UL & CSA AWM, CE	UL AWM, CE	UL & CSA AWM, CE	CE		
Peak operating voltage VDE:	max. 350 V								
Voltage UL:	300 V		-	300 V			-		
Test voltage:	conductor/conductor 1500 V - conductor/shield 1200 V								
Temperature range VDE	UL: up to +80°C	UL: up to +75°C	UL: up to +70°C	UL: up to +80°C	UL: up to +80°C	UL: up to +80°C	UL: up to +80°C	UL: up to +80°C	UL: up to +80°C
fixed:	-30°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +90°C	-40°C to +90°C	-40°C to +90°C	-40°C to +70°C	-40°C to +90°C
flexible:	-5°C to +70°C	-30°C to +70°C	-40°C to +70°C	-30°C to +70°C	-30°C to +90°C	-30°C to +90°C	-30°C to +90°C	-30°C to +70°C	-30°C to +90°C
Minimum bend radius									
fixed:	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.
flexible:	12 x O.D.		10 x O.D.	10 x O.D.	10 x O.D.	10 x O.D.	10 x O.D.	10 x O.D.	10 x O.D.
flexing (torsion angle):				15 x O.D.	12 x O.D.	12 x O.D.	12 x O.D.	(± 180°/m)	12 x O.D.
Characteristic impedance:	100Ω ± 5Ω		100Ω ± 10Ω	120Ω ± 5Ω	120Ω ± 5Ω		100Ω ± 10Ω		
	x Ω ± x Ω meets the electrical & transmission requirements with high frequency acc. to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)								
Data rate:	1 - 100 MHz								
Zero halogen:	acc. To DIN VDE 0472 part 815 + IEC 60754-1								
Oil resistance:	yes ¹	-	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10						yes ²
RoHS	yes - acc. to RoHS directive of the European Union								

¹Oil resistance acc. to internal standard. Please refer to full line catalog for more details.

²TMPU acc. to EN 50363-10-2

Color codes:

code #1	blue, yellow, white, orange
code #2	blue/white #1, orange/white #2, green/white #3, brown/white #4
code #3	blue, yellow, white, orange + 4 black #d
code #4	orange/white-orange, green/white-green
code #5	blue/white-blue, orange/white-orange, green/white-green, brown/white-brown
code #6	blue/white-blue, orange/white-orange, green-white/green, brown/white-brown + 4 black #d

CAT 5e



SABIX® R 660 FRNC CAT 5e 2x2x22AWG CE

Marking for SABIX® R 660 FRNC CAT 5e 66602202:
SAB BRÖCKSKES - D-VIERSEN · SABIX® R 660 FRNC CAT 5e 2x2x22AWG CE

SAB has flexible CAT5e cables with PLTC-ER, CMG and UL AWM 600V. Also included are LSZH cables for the rail industry that meet DIN standards and shipboard meeting ABS. CAT5e cables are designed for data rates of 1-250 Mhz.

P/N	Application	dimensions		cable weight≈ lbs/mft
		AWG (stranding, copper)	nominal outer-ø inch mm	
6752202	flexible	22/2pr (7/30, TC)	0.310 7.9	45
6752204	flexible	22/4pr (7/30, TC)	0.330 8.4	59
66602402	Rail	24/2pr (19/36, TC)	0.240 6.1	42
66602202	Rail	22/2pr (7/30, TC)	0.264 6.7	47
15679002	Rail	24/2pr (14/34, BC)	0.205 5.2	28
15679004	Rail	22/2pr (7/30, BC)	0.232 5.9	35
15479001	Shipboard	24/2pr (7/32, BC)	0.224 5.7	32
15479002	Shipboard	22/2pr (7/30, BC)	0.252 6.4	41
15474621	Shipboard	26/4pr (7/34, BC)	0.287 7.3	43

Construction:

	PN 675 <i>flexible</i>	PN 675 <i>flexible</i>	SABIX® R 660 FRNC Rail	SABIX® R 660 FRNC Rail	CATLine CAT 5e R Rail	CATLine CAT 5e R Rail	CATLine CAT 5e BL Shipboard	CATLine CAT 5e BL Shipboard
Part number	6752202	6752204	66602402	66602202	15679002	15679004	15479001 & 15479002	15474621
Insulation:	Polylefin	PFA/PP	PE	PE	PE	PE	special polymer	
Color code:	code #4	code #5	code #1				code #5	
Wrapping:	Polyester tape	Polyester tape	PETP tape				-	
Inner jacket:	-	-	SABIX®				-	
Wrapping:	aluminum foil tape							
Shield:	24 AWG (7/32) TC drain wire		tinned copper braid					
Wrapping:	-							
Outer jacket:	PVC		SABIX®				special SABIX®	
Jacket color:	Teal		Green (similar to RAL 6018)				Black (RAL 9005)	

* L/MD acc. to DIN VDE 0819 part 103

Technical data:

	PN 675 <i>flexible</i>	PN 675 <i>flexible</i>	SABIX® R 660 FRNC Rail	SABIX® R 660 FRNC Rail	CATLine CAT 5e R Rail	CATLine CAT 5e R Rail	CATLine CAT 5e BL Shipboard	CATLine CAT 5e BL Shipboard
Approvals:	UL CMR, PLTC-ER, AWM, c(UL) CMG		CE	CE	CE	CE	ABS & UL AWM	
Peak operating voltage VDE:	max. 350 V				max. 90 V			
Voltage UL:	600 V	600 V	-			300 V		
Test voltage:	conductor/conductor 1500 V - conductor/shield 1200 V							
Temperature range VDE	UL: up to +80°C		UL: up to +80°C		UL: up to +80°C		UL: up to +75°C	
fixed:	-40°C to +80°C	-40°C to +80°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
flexible:	-25°C to +80°C	-25°C to +80°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
Minimum bend radius								
fixed:	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.
flexible:	10 x O.D.	10 x O.D.	12 x O.D.	12 x O.D.	12 x O.D.	12 x O.D.	10 x O.D.	10 x O.D.
Characteristic impedance:	100Ω ± 15Ω (0.722-100.0 MHz)		100Ω ± 10Ω ¹	100Ω ± 10Ω ¹	100Ω ± 10Ω ¹	100Ω ± 10Ω ¹	100Ω ± 10Ω ¹	100Ω ± 10Ω ¹
Data rate:	1 - 250 MHz							
Zero halogen:	-		acc. To DIN VDE 0472 part 815 + IEC 60754-1			yes ²		acc. to IEC 60754-1 + IEC 60754-2
Burning Characteristics:	-		flame retardant and self-extinguishing acc. to IEC 60332-1 and EN 60332-1-2, no flame propagation acc. to IEC 60332-3-25, EN 60332-3-25 and EN 50266-2-5 for cable diameter > 6 mm < 12 mm			No flame propagation acc. to DIN EN 60332-3-25 + DIN EN 50305 section 9.1.1 + 9.1.2. Flame retardant and self-extinguishing acc. to DIN EN 60332-1-2		flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2, no flame propagation acc. to IEC 60332-3-22 cat. A, UL Horizontal Flame Test FT2
Smoke density:	-		acc. to IEC 61034-1 and EN 61034-1, transluence > 60%			acc. to IEC 61034		
Toxicity:	-		FED ₁₀₀ < 1 acc. to DIN EN 5510-2 appendix C 3.3			acc. to DIN EN 50305		-
Oil resistance:	Oil Res I		-					
RoHS	yes		yes - acc. to RoHS directive of the European Union					

¹ x Ω ± x Ω meets the electrical & transmission requirements with high frequency acc. to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)

² acc. to DIN EN 50306-1 + DIN EN 50264-1. Development of HCl is ≤ 0,5% acc. to DIN EN 50267-2-1. pH-value is ≥ 4,3 acc. to DIN EN 50267-2-2. Conductivity is ≤ 10,0 μS/mm acc. to DIN EN 50267-2-2. Fluoric content ≤ 0,1% acc. to DIN EN 60684-2

Color codes:

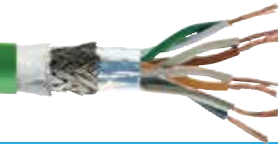
code #1	blue, yellow, white, orange
code #2	blue/white #1, orange/white #2, green/white #3, brown/white #4
code #3	blue, yellow, white, orange + 4 black #d
code #4	orange/white-orange, green/white-green
code #5	blue/white-blue, orange/white-orange, green/white-green, brown/white-brown
code #6	blue/white-blue, orange/white-orange, green-white/green, brown/white-brown + 4 black #d

CAT 6



80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE

Marking for GE 691:
SAB BROCKSKES · D-VIERSEN · GE 691 CAT6 Gigabit Ethernet Cable 4 x 2 x 26 AWG CE



SAB has a full line of CAT 6 cables for various applications. We offer flexible and continuous flex cables. Also included are torsion, reeling, rail and halogen-free options. For industrial areas, a PUR jacket is recommended for improved abrasion and oil resistance. CAT 6 cables are designed for data rates of 1-250 Mhz.

P/N	Application	dimensions AWG (stranding, copper)	nominal outer-ø		cable weight≈ lbs/mft
			inch	mm	
6912604	flexible	26/4pr (7/34, TC)	0.354	9.0	71
36962604	high temp	26/4pr (19/38, TC)	0.370	9.4	71
16774630	flexing	26/4pr (7/34, BC)	0.280	7.1	38
16874630	torsion	26/4pr (7/34, BC)	0.280	7.1	38
6949001	torsion	26/4pr(19/BC) + 18/4c(30/BC)	0.496	12.6	128
6982604	reeling	26/4pr (19/38, TC)	0.390	9.9	128
66912604	Rail	26/4pr (7/34, TC)	0.354	9.0	57

Construction:

	GE 691 <i>flexible</i>	S GE 696 HT <i>high temp</i>	CATLine CAT 6 S <i>flexing</i>	CATLine CAT 6 RT <i>torsion</i>	RT GE 694 <i>hybrid torsion</i>	DR GE 698 P <i>reeling</i>	SABIX® R 691 FRNC <i>Rail</i>
Part number	6912604	36962604	16774630	16874630	6949001	6982604	66912604
Insulation:	PE	PFA	special polymer		FEP/TPE	SABIX®	PE
Color code:	code #2		code #5		code #6	code #2	code #2
Wrapping (pairs):	PETP/alu foil	alu foil	-		alu foil/braid	PETP/alu foil	PETP/alu foil
Wrapping:	non-woven tape	PETP tape	non-woven tape		-	non-woven tape	
Wrapping:	aluminum foil tape			-	aluminum foil tape		
Shield:	tinned copper braid			-	tinned copper braid		
Wrapping:	non-woven tape	-	non-woven tape		non-woven tape		
Outer jacket:	PUR	Besilen®	PUR		PUR	PUR*	SABIX®
Jacket color:	Green (similar to RAL 6018)				Black (RAL 9005)		Green

* Jacket is re-reinforced, PUR/supporting braid/PUR

Technical data:

	GE 691 <i>flexible</i>	S GE 696 HT <i>high temp</i>	CATLine CAT 6 S <i>flexing</i>	CATLine CAT 6 RT <i>torsion</i>	RT GE 694 <i>hybrid torsion</i>	DR GE 698 P <i>reeling</i>	SABIX® R 691 FRNC <i>Rail</i>
Approvals:	CE		UL & CSA AWM, CE			CE	
Peak operating voltage VDE:	max. 350 V		max. 90 V			max. 350 V	
Voltage UL:	-		300 V			-	
Test voltage:	conductor/conductor 1500 V - conductor/shield 1200 V						
Temperature range VDE			UL: up to +80°C	UL: up to +80°C			
fixed:	-40°C to +70°C	-40°C to +180°C	-40°C to +70°C	-40°C to +70°C	-50°C to +90°C	-40°C to +90°C	-40°C to +70°C
flexible:	-30°C to +70°C	-25°C to +180°C	-40°C to +70°C	-40°C to +70°C	-40°C to +90°C	-30°C to +90°C	-30°C to +70°C
Minimum bend radius							
fixed:	5 x O.D.	7.5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.
flexible:	10 x O.D.	10 x O.D.	10 x O.D.	10 x O.D.	10 x O.D.	12 x O.D.	12 x O.D.
flexing (torsion angle):	15 x O.D.		15 x O.D.	(± 180°/m)	(± 360°/m)	15 x O.D.	
Characteristic impedance:	100Ω ± 10Ω ¹	100Ω ± 10Ω ¹	100Ω ± 5Ω ¹	100Ω ± 5Ω ¹	100Ω ± 10Ω ¹	100Ω ± 10Ω ¹	100Ω ± 10Ω ¹
	¹ x Ω ± x Ω meets the electrical & transmission requirements with high frequency acc. to EN 50288-5-2						
Data rate:	1-250 MHz						
Zero halogen:	yes ²	-	yes ²		-	yes ²	
Burning Characteristics:	-	-	yes ³		-	-	yes ⁴
Smoke density:				-	yes ⁵		
Toxicity:				-	yes ⁶		
Oil resistance:	yes ⁷	-	TMPU acc. to EN 50363-10-2		yes ⁷		-
Additional standards:				-	DIN 5510-2 ⁸		
RoHS	yes - acc. to RoHS directive of the European Union						

²acc. To DIN VDE 0472 part 815 + IEC 60754-1

³flame retardant and self-extinguishing acc. to IEC 60332-1 and EN 60332-1-2. UL Horizontal Flame Test FT2

⁴flame retardant and self-extinguishing acc. to IEC 60332-1 and EN 60332-1-2, no flame propagation acc. to IEC 60332-3-25, EN 60332-3-25 and EN 50266-2-5 for cable diameter > 6 mm < 12 mm

⁵acc. to IEC 61034-1 and EN 61034-1, translucence > 60%

⁶FED₃₀ < 1 acc. to DIN EN 5510-2 appendix C 3.3

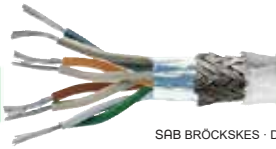
⁷TMPU acc. to DIN VDE 0282 part 10 + HD 22.10

⁸externally tested acc. to DIN 5510-2 edition May 2009

Color codes:

code #1	blue, yellow, white, orange
code #2	blue/white #1, orange/white #2, green/white #3, brown/white #4
code #3	blue, yellow, white, orange + 4 black #d
code #4	orange/white-orange, green/white-green
code #5	blue/white-blue, orange/white-orange, green/white-green, brown/white-brown
code #6	blue/white-blue, orange/white-orange, green-white/green, brown/white-brown + 4 black #d

CAT 6A



1631-4631 AWM Style 21618 150°C 600VCE

Marking for CATLine CAT 6A HT: SAB BRÖCKSKES · D-VIERSEN · CATLine Cat.6A HT 4x2x26AWG 1631-4631 u AWM Style 21618 150°C 600V CE

SAB has a full line of CAT 6A cables for various applications. We offer flexible and continuous flex cables. Also included are torsion, reeling, Rail, shipboard and halogen free options. For industrial areas, a PUR jacket is recommended for improved abrasion and oil resistance. CAT 6A cables are designed for data rates of 1-500MHz.

P/N	Application	dimensions		nominal outer- ϕ		cable weight= lbs/mft
		AWG (stranding, copper)		inch	mm	
16314631	high temp	26/4pr (7/34, BC)		0.224	5.7	35
16774631	flexing	26/4pr (7/34, BC)		0.280	7.1	38
16874631	torsion	26/4pr (7/34, BC)		0.280	7.1	38
16394651	reeling	26/4pr (7/34, BC)		0.343	8.7	54
16674621	Rail	26/4pr (18/38, BC)		0.268	6.8	39
16474621	Shipboard	26/4pr (7/34, BC)		0.287	7.3	43
16474421	Shipboard	24/4pr (7/32, BC)		0.327	8.3	54

Construction:	CATLine CAT 6A HT high temperature	CATLine CAT 6A S flexing	CATLine CAT 6A RT torsion	CATLine CAT 6A DR reeling	CATLine CAT 6A R Rail	CATLine CAT 6A BL Shipboard
Part number	16314631	16774631	16874631	16394651	16674621	16474621 & 16474421
Insulation:	FEP	special polymer			PE	special polymer
Color code:	code #2	code #5				
Wrapping:	alu foil	non-woven tape			PETP tape	-
Wrapping:	non-woven tape	aluminum foil tape				
Shield:	tinned copper braid					
Wrapping:	-	non-woven tape			-	
Outer jacket:	FEP	PUR		PUR*	SABIX®	special SABIX®
Jacket color:	Green (similar to RAL 6018)			Black (RAL 9005)	Green	Black (RAL 9005)

* Jacket is re-enforced, PUR/supporting braid/PUR

Technical data:	CATLine CAT 6A HT high temperature	CATLine CAT 6A S flexing	CATLine CAT 6A RT torsion	CATLine CAT 6A DR reeling	CATLine CAT 6A R Rail	CATLine CAT 6A BL Shipboard
Approvals:	UL AWM, CE	UL & CSA AWM, CE		CE	ABS & UL AWM	
Peak operating voltage VDE:	max. 90 V					
Voltage UL:	300 V			-	300 V	
Test voltage:	cond./cond. 1500 V - cond./shield 1200 V			600V / 600V	1500V / 1200V	
Temperature range VDE	UL: up to +150°C	UL: up to +80°C	UL: up to +80°C			UL: up to +75°C
fixed:	-90°C to +180°C	-40°C to +70°C	-40°C to +70°C	-50°C to +90°C	-40°C to +70°C	-40°C to +70°C
flexible:	-55°C to +180°C	-40°C to +70°C	-40°C to +70°C	-40°C to +90°C	-30°C to +70°C	-30°C to +70°C
Minimum bend radius						
fixed:	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.	5 x O.D.
flexible:	10 x O.D.	10 x O.D.	10 x O.D.	10 x O.D.	12 x O.D.	10 x O.D.
flexing (torsion angle):		15 x O.D.	($\pm 180^\circ/m$)	12 x O.D.		
Characteristic impedance:	100 Ω \pm 10 Ω ¹	100 Ω \pm 5 Ω ¹	100 Ω \pm 5 Ω ¹	100 Ω \pm 10 Ω ¹	100 Ω \pm 10 Ω ¹	100 Ω \pm 10 Ω ¹
	¹ x Ω \pm x Ω meets the electrical & transmission requirements with high frequency acc. to EN 50288-10-2					
Data rate:	1-500 MHz					
Zero halogen:	-	acc. To DIN VDE 0472 part 815 + IEC 60754-1			yes ²	acc. to IEC 60754-1 & -2
Burning Characteristics:	yes ³	yes ⁴		-	yes ⁵	yes ⁶
Smoke density:						acc. to DIN EN 61034
Toxicity:					acc. to DIN EN 50305	-
Tensile strength:				200 max. N	-	-
Oil resistance:	very good	TMPU acc. to EN 50363-10-2				
Additional standards:					DIN 45545-2 ⁷	IEC 60754-2 ⁸
RoHS	yes - acc. to RoHS directive of the European Union					

²acc. to DIN EN 50306-1 + DIN EN 50264-1. Development of HCl is \leq 0,5% acc. to DIN EN 50267-2-1. pH-value is \geq 4,3 acc. to DIN EN 50267-2-2.

Conductivity is \leq 10,0 μ S/mm acc. to DIN EN 50267-2-2. Fluoric content \leq 0,1% acc. to DIN EN 60684-2

³flame retardant and self-extinguishing acc. to IEC 60332-1 and EN 60332-1-2. UL VW-1

⁴flame retardant and self-extinguishing acc. to IEC 60332-1 and EN 60332-1-2. UL Horizontal Flame Test FT2

⁵No flame propagation acc. to DIN EN 60332-3-25 + DIN EN 50305 section 9.1.1 + 9.1.2. Flame retardant and self-extinguishing acc. to DIN EN 60332-1

⁶flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2, no flame propagation acc. to IEC 60332-3-22 cat. A, UL Horizontal Flame Test FT2

⁷fulfills fire protection requirements R15 (EL1A) acc. to DIN EN 45545-2 for hazard levels HL1-3 edition 2013

⁸no development of corrosive conflagration gases

Color codes:

code #1	blue, yellow, white, orange
code #2	blue/white #1, orange/white #2, green/white #3, brown/white #4
code #3	blue, yellow, white, orange + 4 black #d
code #4	orange/white-orange, green/white-green
code #5	blue/white-blue, orange/white-orange, green/white-green, brown/white-brown
code #6	blue/white-blue, orange/white-orange, green-white/green, brown/white-brown + 4 black #d

CAT 7A



CAT6 Gigabit Ethernet Cable 4 x 2 x 26 AWG CC



Marking for S CATLine CAT 7A S:
SAB BROCKSKES · D-VIERSEN · CATLine Cat.7A S 4x2x26AWG 1777-4631 x AWM Style 20549 80°C 300V CSA AWM III A/B 80°C 300V FT2 CE

SAB offers CAT 7A cables for various applications. We offer continuous flex, torsion, reeling, Rail and Shipboard cables and all are halogen free. For industrial areas, a PUR jacket is recommended for improved abrasion and oil resistance. CAT 7A cables are designed for data rates of 1-1000 Mhz.

P/N	Application	dimensions AWG (stranding, copper)	nominal		cable weight= lbs/mft
			inch	mm	
17774631	flexing	26/4pr (7/34, BC)	0.346	8.8	54
17874631	torsion	26/4pr (7/34, BC)	0.346	8.8	54
17394651	reeling	26/4pr (7/34, BC)	0.413	10.5	79
17674621	Rail	26/4pr (18/38, BC)	0.346	8.8	55
17474621	Shipboard	26/4pr (7/34, BC)	0.350	8.9	57
17474421	Shipboard	24/4pr (7/32, BC)	0.413	10.5	78
17479903	Cleanroom	26/4pr (7/34, BC)	0.354	9.0	57

Construction:

	CATLine CAT 7A S flexing	CATLine CAT 7A RT torsion	CATLine CAT 7A DR reeling	CATLine CAT 7A R Rail	CATLine CAT 7A R Shipboard	CATLine CAT 7A S Cleanroom
Part number	17774631	17874631	17394651	17674621	17474621 & 17474421	17779003
Insulation:	special polymer		PE		special polymer	
Color code:	code #5					
Wrapping (pairs):	aluminum foil tape					
Wrapping:				PETP tape		
Wrapping:	aluminum foil tape					
Shield:	tinned copper braid					
Wrapping:	non-woven tape					non-woven tape
Outer jacket:	PUR		PUR*	SABIX®	special SABIX®	TPE
Jacket color:	Green (similar to RAL 6018)		Black (RAL 9005)	Green	Black (RAL 9005)	

* Jacket is re-enforced, PUR/supporting braid/PUR

Technical data:

	CATLine CAT 7A S flexing	CATLine CAT 7A RT torsion	CATLine CAT 7A DR reeling	CATLine CAT 7A R Rail	CATLine CAT 7A R Shipboard	CATLine CAT 7A S Cleanroom
Approvals:	UL & CSA AWM, CE		CE	CE	ABS & UL AWM	
Peak operating voltage VDE:	max. 90 V					
Voltage UL:	300 V		-		300 V	
Test voltage:	cond/cond 1500 V - cond/shield 1200 V		600V / 600V	1500 V / 1200 V	1500 V / 1200 V	2000 V / 2000 V
Temperature range VDE	UL: up to +80°C		UL: up to +80°C		UL: up to +75°C	
fixed:	-40°C to +70°C		-40°C to +70°C		-40°C to +70°C	
flexible:	-40°C to +70°C		-40°C to +90°C		-30°C to +70°C	
Minimum bend radius						
fixed:	5 x O.D.		5 x O.D.		5 x O.D.	
flexible:	10 x O.D.		10 x O.D.		10 x O.D.	
flexing (torsion angle):	15 x O.D.		12 x O.D.		15 x O.D.	
Characteristic impedance:	100Ω ± 5Ω ¹		100Ω ± 10Ω ¹		100Ω ± 10Ω ¹	
	¹ x Ω ± x Ω meets the electrical & transmission requirements with high frequency acc. to EN 50288-9-2					
Data rate:	1-1000 MHz					
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1			yes ²	acc. to IEC 60754-1 & -2	
Burning Characteristics:	yes ⁷		-		yes ⁴	yes ⁷
Smoke density:	-		acc. to DIN EN 61034			
Toxicity:	-		acc. to DIN EN 50305			
Tensile strength:	-		200 max. N		-	
Oil resistance:	TMPU acc. to EN 50363-10-2			-		Oil 60°C acc. to UL 758
Additional standards:	-			DIN EN 45545-2 ⁵		IEC 60754-2 ⁶
RoHS	yes - acc. to RoHS directive of the European Union					

²acc. to DIN EN 50306-1 + DIN EN 50264-1. Development of HCl is ≤ 0,5% acc. to DIN EN 50267-2-1. pH-value is ≥ 4,3 acc. to DIN EN 50267-2-2. Conductivity is ≤ 10,0 μS/mm acc. to DIN EN 50267-2-2. Fluoric content ≤ 0,1% acc. to DIN EN 60684-2

³No flame propagation acc. to DIN EN 60332-3-25 + DIN EN 50305 section 9.1.1 + 9.1.2. Flame retardant and self-extinguishing acc. to DIN EN 60332-1-2

⁴flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2, no flame propagation acc. to IEC 60332-3-22 cat. A, UL Horizontal Flame Test FT2

⁵fulfills fire protection requirements R15 (EL1A) acc. to DIN EN 45545-2 for hazard levels HL1-3

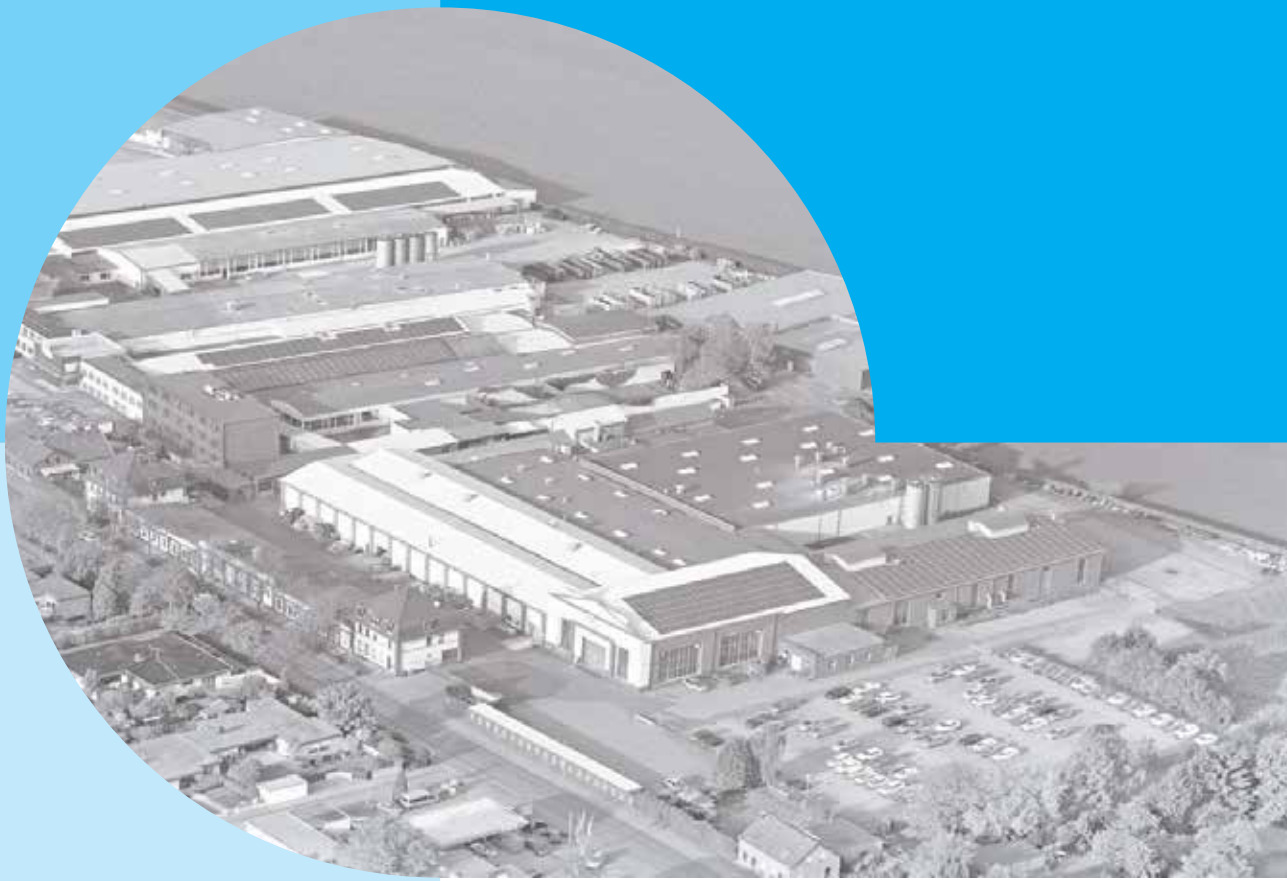
⁶no development of corrosive conflagration gases

⁷flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2, UL Horizontal Flame Test FT2

⁸acc. to DIN EN 14644-1, US Federal Standard 209 E

Color codes:

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code #6	blue/white-blue, orange/white-orange, green-white/green, brown/white-brown + 4 black #d



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