

TKFF300-SERIES CABLES FOR HIGH DYNAMIC APPLICATION
PUR OIL RESISTANT, UL/CSA APPROVALS, HALOGEN FREE

TKFF300-MULTICORE CONTROL AND POWER CABLE UNSHIELDED AND SHIELDED

CHARACTERISTICS OF THE CABLE



Conductors

CEI 20-29 Class 6 – IEC 60228 Class 6 – VDE 0295 Class 6



Insulation

Polyolefin 2Y (UL-CSA Standards)



Core Identification

Black Numbered + Yellow/Green



Overall Shield (optional)

Tinned Copper Coverage $\geq 85\%$ according to EMC 89/336 ©



Sheath

Polyurethane 11Y (UL-CSA Standards)



Outer Jacket Colour

Grey Ral 7040 according to DESINA colour chart page 196
other colours available upon request



TECHNICAL DATA



Operating Voltage

300V Cross-sectional area $0,5\text{mm}^2$ (AWG21) ÷ $1,0\text{mm}^2$ (AWG18)
1000V Cross-sectional area $\geq 1,0\text{mm}^2$ (AWG18)



Test Voltage

2000 Va.c. Cross-sectional area $0,5\text{mm}^2$ (AWG21) ÷ $1,0\text{mm}^2$ (AWG18)
3000 Va.c. Cross-sectional area $\geq 1,0\text{mm}^2$ (AWG18)



Temperature Range

-40°C ÷ $+80^\circ\text{C}$

TK-FF300

≤ 12 conductors : concentric conductors
 > 12 conductors : in group



Bending Radius

$5 \times \emptyset$ (Static Installation)
 $7,5 \times \emptyset$ ($1,5 \div 16\text{mm}^2$ / Dynamic installation)
 $10 \times \emptyset$ ($25 \div 50\text{mm}^2$ / Dynamic Installation)



Maximum Speed

300 m/min



Maximum Acceleration

50 m/s²



Maximum Chain length

15 m (only horizontal)



Flex life

6.000.000



Torsion

Please contact our technical support office

TK-FF300L

From 16 to 25 conductors in concentric layers



Bending Radius

$5 \times \emptyset$ (Static Installation)
 $7,5 \times \emptyset$ ($1,5 \div 16\text{mm}^2$ / Dynamic Installation)
 $10 \times \emptyset$ ($25 \div 50\text{mm}^2$ / Dynamic Installation)



Maximum Speed

240 m/min



Maximum Acceleration

30 m/s²



Maximum Chain length

15 m (only horizontal)



Flex life

6.000.000



Torsion

Please contact our technical support office

TKFF300-SERIES CABLES FOR HIGH DYNAMIC APPLICATION PUR OIL RESISTANT, UL/CSA APPROVALS, HALOGEN FREE

REFERENCE STANDARDS



Cable according to UL75, UL1581 and CSA C22.2 210.2

UL 80°C 300V – CSA AWM I/II A/B 80°C 300V,
Cross-sectional area 0,5mm² (AWG21) ÷ 1,0mm² (AWG18)
UL 80°C 1000V – CSA AWM I/II A/B 80°C 1000V,
Cross-sectional area ≥ 1,0mm² (AWG18)



Flame Retardant

CEI 20-35 – EN50265 – IEC 60332-1 – UL VW-1 – CSA FT1



Halogen Free

CEI 20-37 – IEC 60754-1 – EN 50267-2-1



Hydrocarbons and oil resistance

UL 1581 – VDE 0472 part 803 A/B – HD 22.10 S1 – CNOMO E.03.40.150N



Water Resistance

UL 1581 – IEC 60811



EC Directives

Product compliant with Low Voltage Regulation 72/33/EEC

Directive EMC 89/336

Electromagnetic Compatibility, in order to obtain maximum result in terms of a reduction in radio frequency interferences (European Directive EMC 89/336), shield connections must comply with the instructions provided by individual manufacturers of electrical equipment



UNSHIELDED MULTICORE CONTROL CABLES

TKFF300	TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
	330TKFF30001	2x0,50mm ²	5.3	11.4	42.8
	330TKFF30002	3x0,50mm ²	5.4	17.2	51.2
	330TKFF30003	4x0,50mm ²	5.9	23	61.8
	330TKFF30004	5x0,50mm ²	6.1	28.6	72.6
	330TKFF30005	7x0,50mm ²	7.5	40	93.4
	330TKFF30006	12x0,50mm ²	8.8	68.6	147.3
	330TKFF30007	18x0,50mm ²	12.0	103	216.9
	330TKFF30008	25x0,50mm ²	13.8	143	288.5
	330TKFF30009	34x0,50mm ²	16.7	194.5	379.1
	330TKFF30010	41x0,50mm ²	18.4	234.5	435.6
	330TKFF300L1	18x0,50mm ²	10	90.9	184
	330TKFF300L2	25x0,50mm ²	12	126.3	245

UNSHIELDED MULTICORE CONTROL CABLES

TKFF300	TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
	340TKFF30001	2x1mm ²	6.0	16.3	51.7
	340TKFF30002	3x1mm ²	6.5	24.4	62.6
	340TKFF30003	4x1mm ²	7.0	32.5	75.1
	340TKFF30004	5x1mm ²	7.5	40.7	90.2
	340TKFF30005	7x1mm ²	9.0	56.9	117.1
	340TKFF30006	12x1mm ²	10.8	97.6	186.3
	340TKFF30007	18x1mm ²	16.0	146.3	272.6
	340TKFF30008	25x1mm ²	17.6	203.3	315.8
	340TKFF30009	34x1mm ²	22.0	276.4	493.3
	340TKFF30010	41x1mm ²	24.4	333.3	577.1
	340TKFF300L1	18x1mm ²	12,6	182	231
	340TKFF300L2	25x1mm ²	15,8	252	268

SHIELDED MULTICORE CONTROL CABLES

TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
530TKFF30007	2x0,50mm ²	5.7	22.6	50.1
530TKFF30008	3x0,50mm ²	5.8	30	61.5
530TKFF30009	4x0,50mm ²	6.3	45.6	83.5
530TKFF30010	5x0,50mm ²	6.7	51.6	94.7
530TKFF30011	7x0,50mm ²	8.0	66.2	118
530TKFF30012	12x0,50mm ²	9.4	105.3	181.5
530TKFF30013	18x0,50mm ²	12.6	146.2	253.2
530TKFF30014	25x0,50mm ²	14.4	194	330.1
530TKFF30015	34x0,50mm ²	17.3	276.5	458.8
530TKFF30016	41x0,50mm ²	19.2	327.5	549.2
530TKFF300L1	18x0,50mm ²	10,6	127	215
530TKFF300L2	25x0,50mm ²	12,8	168	280

TKFF300

SHIELDED MULTICORE CONTROL CABLES

TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
540TKFF30001	2x1mm ²	6.5	28.8	58.8
540TKFF30002	3x1mm ²	6.8	47.1	82.7
540TKFF30003	4x1mm ²	7.4	55.4	95.3
540TKFF30004	5x1mm ²	8.0	66.8	114.1
540TKFF30005	7x1mm ²	9.4	86.4	143.8
540TKFF30006	12x1mm ²	11.5	135.2	219.9
540TKFF30007	18x1mm ²	16.6	195.8	315.3
540TKFF30008	25x1mm ²	18.2	284.7	446.9
540TKFF30009	34x1mm ²	22.8	368.7	581.2
540TKFF30010	41x1mm ²	25.4	429	659
540TKFF300L1	18x1mm ²	13.2	219	268
540TKFF300L2	25x1mm ²	16.6	316	380

TKFF300

UNSHIELDED MULTICORE CONTROL AND POWER CABLES

TKFF300	TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
	345TKFF30001	2x1,5mm ²	7.0	25.4	68.8
	345TKFF30002	3x1,5mm ²	7.7	38.1	85
	345TKFF30003	4x1,5mm ²	8.2	50.8	104.2
	345TKFF30004	5x1,5mm ²	8.9	63.6	124.4
	345TKFF30005	7x1,5mm ²	11.0	89	162.6
	345TKFF30006	12x1,5mm ²	13.0	152.2	267.9
	345TKFF30007	18x1,5mm ²	19.2	228.8	384.5
	345TKFF30008	25x1,5mm ²	21.8	317.8	529.3
	345TKFF30009	34x1,5mm ²	26.5	432.2	709.2
	345TKFF30010	41x1,5mm ²	29.2	521.1	882.1
	345TKFF300L1	18x1,5mm ²	15.2	273	326
	345TKFF300L2	25x1,5mm ²	19.2	379	450

UNSHIELDED MULTICORE CONTROL AND POWER CABLES

TKFF300	TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
	355TKFF30001	2x2,5mm ²	8.6	40.5	93.4
	355TKFF30002	3x2,5mm ²	9.2	60.8	117.3
	355TKFF30003	4x2,5mm ²	10.0	81	145.5
	355TKFF30004	5x2,5mm ²	11.0	101.3	175
	355TKFF30005	7x2,5mm ²	13.5	141.8	231.2
	355TKFF30006	12x2,5mm ²	16.0	243	385
	355TKFF30007	18x2,5mm ²	24.6	364.5	554.5
	355TKFF30008	25x2,5mm ²	28.0	506.3	781
	355TKFF300L1	18x2,5mm ²	19	455	471
	355TKFF300L2	25x2,5mm ²	23.4	631	750

UNSHIELDED MULTICORE CONTROL AND POWER CABLES

TKFF300	TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
	365TKFF30001	2x4mm ²	8.8	20.5	134.7
	365TKFF30002	3x4mm ²	10.6	96.1	171.6
	365TKFF30003	4x4mm ²	11.8	128.1	214.6
	365TKFF30004	5x4mm ²	13.0	160.1	263.8
	365TKFF30005	7x4mm ²	15.6	224.1	355.5

UNSHIELDED MULTICORE CONTROL AND POWER CABLES

TECHNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)	TKFF300
370TKFF30001	4x6mm ²	13.6	197.2	327.2	
370TKFF30002	5x6mm ²	14.8	246.5	395.1	
370TKFF30003	7x6mm ²	18.2	345	533.7	

UNSHIELDED MULTICORE CONTROL AND POWER CABLES

TECHNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)	TKFF300
380TKFF30001	4x10mm ²	16.7	325.1	527	
380TKFF30002	5x10mm ²	18.8	405.1	645.9	
380TKFF30003	7x10mm ²	23.5	567.1	882.1	

UNSHIELDED MULTICORE CONTROL AND POWER CABLES

TECHNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)	TKFF300
385TKFF30001	4x16mm ²	20.4	519.2	857.2	
385TKFF30002	5x16mm ²	22.7	649	1041.8	
385TKFF30003	7x16mm ²	28.0	908.5	1385.8	

UNSHIELDED MULTICORE CONTROL AND POWER CABLES

TECHNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)	TKFF300
390TKFF30001	4x25mm ²	25.2	945.3	1315.9	
393TKFF30001	4x35mm ²	30.5	1342.8	1865	
395TKFF30001	4x50mm ²	36.6	2149.4	2866.5	
397TKFF30001	4x70mm ²	39.4	2675.66	3561.4	
398TKFF30001	4x95mm ²	45.6	3650.46	4713.2	

SHIELDED MULTICORE CONTROL AND POWER CABLES

TKFF300	TECHNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
	545TKFF30001	2x1,5mm ²	7.5	48.2	83.9
	545TKFF30002	3x1,5mm ²	8.2	64	105.9
	545TKFF30003	4x1,5mm ²	8.7	77	126
	545TKFF30004	5x1,5mm ²	9.5	93.3	149.6
	545TKFF30005	7x1,5mm ²	11.6	123.9	192
	545TKFF30006	12x1,5mm ²	13.6	196.2	304.9
	545TKFF30007	18x1,5mm ²	19.8	301.4	446.6
	545TKFF30008	25x1,5mm ²	22.6	410.8	608.5
	545TKFF30009	34x1,5mm ²	27.5	537.4	843.6
	545TKFF30010	41x1,5mm ²	30.2	641.5	998.2
	545TKFF300L1	18x1,5mm ²	15.8	328	380
	545TKFF300L2	25x1,5mm ²	19.8	447	517

SHIELDED MULTICORE CONTROL AND POWER CABLES

TKFF300	TECHNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
	555TKFF30001	2x2,5mm ²	9.2	66.7	107.8
	555TKFF30002	3x2,5mm ²	9.8	90.1	138.3
	555TKFF30003	4x2,5mm ²	10.9	110.8	167.7
	555TKFF30004	5x2,5mm ²	11.6	137.9	204
	555TKFF30005	7x2,5mm ²	14.2	179.3	260
	555TKFF30006	12x2,5mm ²	16.6	294.6	422.6
	555TKFF30007	18x2,5mm ²	25.5	544	636
	555TKFF30008	25x2,5mm ²	29	742	911
	555TKFF300L1	18x2,5mm ²	20.0	453.9	635.7
	555TKFF300L2	25x2,5mm ²	24.2	616.5	911.5

SHIELDED MULTICORE CONTROL AND POWER CABLES

TKFF300	TECHNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)
	565TKFF30001	2x4mm ²	9.4	40.4	134.4
	565TKFF30002	3x4mm ²	11.2	132.5	193.9
	565TKFF30003	4x4mm ²	12.3	165.3	238.5
	565TKFF30004	5x4mm ²	13.6	203.2	288.7
	565TKFF30005	7x4mm ²	16.2	273.6	385.2

SHIELDED MULTICORE CONTROL AND POWER CABLES

TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)	TKFF300
570TKFF30001	4x6mm ²	14.2	247.2	352.6	
570TKFF30002	5x6mm ²	15.5	298.6	408.6	
570TKFF30003	7x6mm ²	19.2	404.7	573.5	

SHIELDED MULTICORE CONTROL AND POWER CABLES

TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)	TKFF300
580TKFF30001	4x10mm ²	17.6	384.8	566.1	
580TKFF30002	5x10mm ²	19.6	475.1	697	
580TKFF30003	7x10mm ²	24.5	677.7	985	

SHIELDED MULTICORE CONTROL AND POWER CABLES

TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)	TKFF300
585TKFF30001	4x16mm ²	21.5	593.9	858.7	
585TKFF30002	5x16mm ²	23.5	765.5	1086.8	
585TKFF30003	7x16mm ²	29.0	1033	1439.6	

SHIELDED MULTICORE CONTROL AND POWER CABLES

TECNIKABEL CODE	DESCRIPTION	Ø NOMINAL (mm)	COPPER WEIGHT (Kg/Km)	CABLE WEIGHT (Kg/Km)	TKFF300
590TKFF30001	4x25mm ²	26.2	1078.7	1442	
593TKFF30001	4x35mm ²	31.8	1536	2046.8	
595TKFF30001	4x50mm ²	37.6	2380.8	3073	
597TKFF30001	4x35mm ²	40.5	2920.7	3801.9	
598TKFF30001	4x95mm ²	46.8	3950	4992.3	