



Manual switches



TK type, industrial manual switches

The TK... type industrial manual switch product family is available in six nominal current values, from 20 A to 160 A, with 2, 3, or 4 poles and with 60° and 90° switching angle, in the versions listed below:

- Base version, without enclosure
- Enclosure version, with IP 44 protection degree after assembly
- Enclosure version, with IP 65 protection degree after assembly

RELEVANT STANDARD

EN 60947-3



Technical data

Rated voltage: 50/60 Hz
 Insulating voltage: 690 V
 Voltage shock resistance: 6 kV
 Pollution degree: 3
 Ambient temperature: -5 °C ... +55 °C
 Thickness of mounting plate: max. 5 mm

Protection degree:

- body: IP 00
- after mounting: IP 42
- covered versions: IP 44
- with sealing set: IP 65

Status

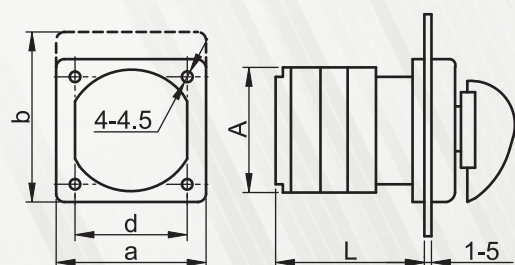
- ON-OFF switches
- Motor switches
- Main switches
- Select switches
- Measuring switches

Technical data / Mounting size

Rated thermal current (A)			20	25	32	63	125	160
Switchable power P _e (kW)	400 V~	AC-23A	7,5	11	15	30	45	75
		AC-2	7,5	11	15	30	45	55
		AC-3	5,5	7,5	11	18,5	30	37
		AC-4	1,5	3	5,5	7,5	12	15
Rated operating current I _e (A)	400 V~	AC-21A	20	25	32	63	100	150
		AC-22A	20	25	32	63	100	150
		AC-23A	15	22	30	37	90	135
		AC-2	15	22	30	37	90	135
		AC-3	11	15	22	36	75	95
		AC-4	3,5	6,5	11	15	30	55
		AC-15	4	5	6	-	-	-
		240 V =	DC-13	1	1,5	4	-	-
Mechanical life (×10 ⁵ cycle)			5	5	3	1,5	1.5	1.5
Electrical life (×10 ⁵ cycle)			3	3	1,2	1	1	1
Max. switching frequency (c/h)			200	150	100	60	30	30
Terminal capacity (mm ²)	solid		1×2,5	1×4,0	1×6,0	1×25	1×50	1×70
			2×1,5	2×1,5	2×4,0	2×10	2×25	2×35
	flexible		1×2,5	1×4,0	1×4,0	1×16	1×35	1×50
			2×1,5	2×1,5	2×2,5	2×6	2×10	2×16
Rated short time limit current (1s; A)			200	250	400	600	600	800
Rated optional short circuit current (kA _{eff}), if the gG type shunt value (A)			6	6	12	15	15	
			20	25	32	63	125	160

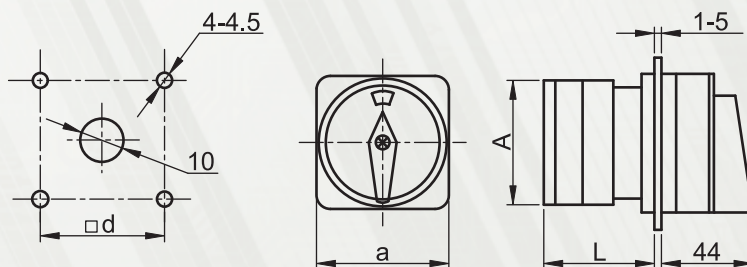
Dimensions and fixing holes

TK..., TKV..., TKB..., TKM..., TKU..., TKI-F



Dimensions see on the table!

TKF..., TKFL...





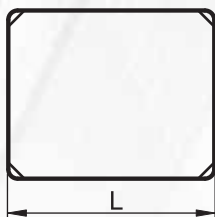
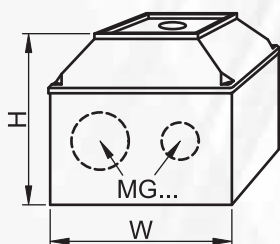
Manual switches



Accessories

For basic type manual switches it is possible to order IP44 enclosures. For versions with enclosures sealing set is available, what gives IP65 protection.

Enclosures



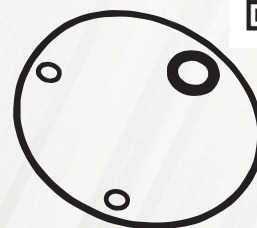
Tracon code	Description	Color	W (mm)	H (mm)	L (mm)	Cable glands
TK/T1+F1/	Mounted low enclosure for manual switches (IP44)	Light grey base + light grey cover	68	64	68	2 pcs MG-20
TK/T2+F1/	Mounted high enclosure for manual switches	Light grey base + light grey cover	68	72	68	2 pcs MG-20
TK/T2+F2/	Mounted high enclosure for main switches with key	Light grey base + light grey cover	68	80	68	2 pcs MG-20
TK/T2+F2S/	Mounted high enclosure for main switches with key	Light grey base + yellow cover	68	80	68	2 pcs MG-20
TK/T3+F3/	Mounted triple enclosure for 32, 63 A manual switches	Light grey base + light grey cover	112	108	112	2 pcs MG-25 2 pcs MG-32
TK/T3+F3S/	Mounted triple enclosure for lockable 20, 25, 32 and 63 A main switches	Light grey base + yellow cover	112	108	112	2 pcs MG-25 2 pcs MG-32
TKTS-01	Plastic enclosure, size 1	Light grey base + light grey cover	83	69	110	2x2 pcs MG-20
TKTS-02	Plastic enclosure, size 2	Light grey base + light grey cover	113	87	120	2x2 pcs MG-25
TKTS-03	Plastic enclosure, size 3	Light grey base + light grey cover	140	109	200	2 pcs MG-25 2 pcs MG-32

Seal sets

For enclosures seal sets are available, which secure IP 65 protection



Tracon code	Description
TKT-65	Sealing set for enclosures IP65 (20 A, 25 A)
TKT-65/2	Sealing set for enclosures IP65 (32 A, 63 A)
TKT-65/3	Sealing set for enclosures IP65 for lockable switches
TKT-65/4	Sealing set for enclosures IP65, TKFK for key switches



Adaptor

The 20 and 25 A types are applicable to mount on 7,5x35 mm mounting rails (according to EN 50022 standard) with a TKA adaptor.



Tracon code	Description
TKA	Adaptor for 20-25 A manual switches

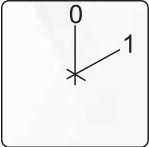
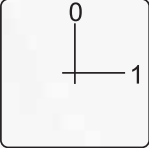
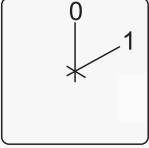
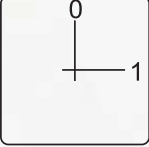
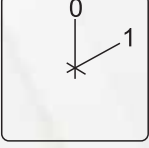
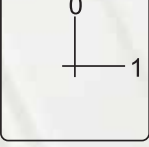
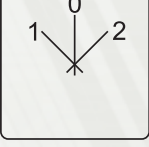
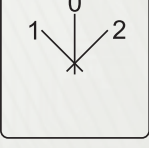


Manual switches



General ON-OFF switches

Select switches

	Tracon code			Description	Enclosure	Front plate
	Basis type	With enclosure IP44	With enclosure IP65			
General ON-OFF switches	TK-206/2 TK-256/2	TK-206/2T TK-256/2T	TK-206/2T65 TK-256/2T65	2 p, 20A, ON-OFF, 60° 2 p, 25A, ON-OFF, 60°	TK/T1+F1/ TK/T1+F1/	
	TK-209/2 TK-259/2	TK-209/2T TK-259/2T	TK-209/2T65 TK-259/2T65	2 p, 20A, ON-OFF, 90° 2 p, 25A, ON-OFF, 90°	TK/T1+F1/ TK/T1+F1/	
	TK-206/3 TK-256/3 TK-326/3 TK-636/3 TK-126/3 TK-166/3	TK-206/3T TK-256/3T TK-326/3T TK-636/3T – –	TK-206/3T65 TK-256/3T65 TK-326/3T65 TK-636/3T65 TK-126/3T65 TK-166/3T65	3 p, 20A, ON-OFF, 60° 3 p, 25A, ON-OFF, 60° 3 p, 32A, ON-OFF, 60° 3 p, 63A, ON-OFF, 60° 3 p, 125A, ON-OFF, 60° 3 p, 160A, ON-OFF, 60°	TK/T1+F1/ TK/T2+F1/ TK/T3+F3/ TK/T3+F3/ TKTS-03 TKTS-03	
	TK-209/3 TK-259/3 TK-329/3 TK-639/3 TK-129/3 TK-169/3	TK-209/3T TK-259/3T TK-329/3T TK-639/3T – –	TK-209/3T65 TK-259/3T65 TK-329/3T65 TK-639/3T65 TK-129/3T65 TK-169/3T65	3 p, 20A, ON-OFF, 90° 3 p, 25A, ON-OFF, 90° 3 p, 32A, ON-OFF, 90° 3 p, 63A, ON-OFF, 90° 3 p, 125A, ON-OFF, 90° 3 p, 160A, ON-OFF, 90°	TK/T1+F1/ TK/T2+F1/ TK/T3+F3/ TK/T3+F3/ TKTS-03 TKTS-03	
	TK-206/4 TK-256/4 TK-326/4 TK-636/4 TK-126/4 TK-166/4	TK-206/4T TK-256/4T TK-326/4T TK-636/4T – –	TK-206/4T65 TK-256/4T65 TK-326/4T65 TK-636/4T65 TK-126/4T65 TK-166/4T65	4 p, 20A, ON-OFF, 60° 4 p, 25A, ON-OFF, 60° 4 p, 32A, ON-OFF, 60° 4 p, 63A, ON-OFF, 60° 4 p, 125A, ON-OFF, 60° 4 p, 160A, ON-OFF, 60°	TK/T1+F1/ TK/T2+F1/ TK/T3+F3/ TK/T3+F3/ TKTS-03 TKTS-03	
	TK-209/4 TK-259/4 TK-329/4 TK-639/4 TK-129/4 TK-169/4	TK-209/4T TK-259/4T TK-329/4T TK-639/4T – –	TK-209/4T65 TK-259/4T65 TK-329/4T65 TK-639/4T65 TK-129/4T65 TK-169/4T65	4 p, 20A, ON-OFF, 90° 4 p, 25A, ON-OFF, 90° 4 p, 32A, ON-OFF, 90° 4 p, 63A, ON-OFF, 90° 4 p, 125A, ON-OFF, 90° 4 p, 160A, ON-OFF, 90°	TK/T1+F1/ TK/T2+F1/ TK/T3+F3/ TK/T3+F3/ TKTS-03 TKTS-03	
Select switches	TKV-206/3 TKV-256/3 TKV-326/3 TKV-636/3 TKV-126/3 TKV-166/3	TKV-206/3T – TKV-326/3T – – –	TKV-206/3T65 TKV-256/3T65 TKV-326/3T65 TKV-636/3T65 – –	2×3 p, 20A, "1-0-2", 60° 2×3 p, 25A, "1-0-2", 60° 2×3 p, 32A, "1-0-2", 60° 2×3 p, 63A, "1-0-2", 60° 2×3 p, 125A, "1-0-2", 60° 2×3 p, 160A, "1-0-2", 60°	TK/T2+F1/ TKTS-02 TK/T3+F3/ TKTS-03 – –	
	TKV-206/4 TKV-256/4 TKV-326/4 TKV-636/4 TKV-126/4 TKV-166/4	– – TKV-326/4T – – –	TKV-206/4T65 TKV-256/4T65 TKV-326/4T65 – – –	2×4 p, 20A, "1-0-2", 60° 2×4 p, 25A, "1-0-2", 60° 2×4 p, 32A, "1-0-2", 60° 2×4 p, 63A, "1-0-2", 60° 2×4 p, 125A, "1-0-2", 60° 2×4 p, 160A, "1-0-2", 60°	TKTS-01 TKTS-02 TK/T3+F3/ – – –	



Manual switches



Terminal peeling		L (mm)	A (mm)	a (mm)	b (mm)	d (mm)	Wiring diagram	
0° 60°								
1-2	×							
3-4	×							
		28	43,5	48	48	36		
		28	43,5	48	48	36		
0° 90°								
1-2	×							
3-4	×							
		33	45,3	48	48	36		
		33	45,3	48	48	36		
0° 60°								
1-2	×	41,2	43	48	48	36		
3-4	×	48,6	45,2	48	48	36		
5-6	×	54,8	58	64	64	48		
		72,2	66	64	64	48		
		84	84	88	88	68		
		97	88	88	88	68		
0° 90°								
1-2	×	41,2	43	48	48	36		
3-4	×	48,6	45,2	48	48	36		
5-6	×	54,8	58	64	64	48		
		72,2	66	64	64	48		
		84	84	88	88	68		
		97	88	88	88	68		
0° 60°								
1-2	×	41,2	43	48	48	36		
3-4	×	48,6	45,2	48	48	36		
5-6	×	54,8	58	64	64	48		
7-8	×	72,2	66	64	64	48		
		84	84	88	88	68		
		97	88	88	88	68		
0° 90°								
1-2	×	41,2	43	48	48	36		
3-4	×	48,6	45,2	48	48	36		
5-6	×	54,8	58	64	64	48		
7-8	×	72,2	66	64	64	48		
		84	84	88	88	68		
		97	88	88	88	68		
-60° 0° 60°								
1-2	×	50,8	43	48	48	36		
3-4		61,4	45,2	48	48	36		
5-6	×	67,6	58	64	64	48		
7-8		93,7	66	64	64	48		
9-10	×	110	84	88	88	68		
11-12		130	88	88	88	68		
-60° 0° 60°								
1-2	×	60,4	43	48	48	36		
3-4		74,2	45,2	48	48	36		
5-6	×	80,4	58	64	64	48		
7-8		115,2	66	64	64	48		
		136	84	88	88	68		
		163	88	88	88	68		





Manual switches



Select switches

Motor switches

	Tracon code			Description	Enclosure	Front plate
	Basis type	With enclosure IP44	With enclosure IP65			
Select switches	TKV-209/3	TKV-209/3T	TKV-209/3T65	2×3 p, 20A, „1-0-2” 90°	TK/T2+F1/ TKTS-02	
	TKV-259/3	–	TKV-259/3T65	2×3 p, 25A, „1-0-2” 90°	TKTS-02	
	TKV-329/3	TKV-329/3T	TKV-329/3T65	2×3 p, 32A, „1-0-2” 90°	TK/T3+F3/ TKTS-03	
	TKV-639/3	–	TKV-639/3T65	2×3 p, 63A, „1-0-2” 90°	–	
	TKV-129/3	–	–	2×3 p, 125A, „1-0-2” 90°	–	
	TKV-169/3	–	–	2×3 p, 160A, „1-0-2” 90°	–	
	TKV-209/4	–	TKV-209/4T65	2×4 p, 20A, „1-0-2” 90°	TKTS-01	
	TKV-259/4	–	TKV-259/4T65	2×4 p, 25A, „1-0-2” 90°	TKTS-02	
	TKV-329/4	TKV-329/4T	TKV-329/4T65	2×4 p, 32A, „1-0-2” 90°	TK/T3+F3/ TKTS-03	
	TKV-639/4	–	–	2×4 p, 63A, „1-0-2” 90°	–	
	TKV-129/4	–	–	2×4 p, 125A, „1-0-2” 90°	–	
	TKV-169/4	–	–	2×4 p, 160A, „1-0-2” 90°	–	
	TKB-206/3	TKB-206/3T	TKB-206/3T65	2×3 p, 20A, „0-1-2”, 60°	TK/T2+F1/ TKTS-02	
	TKB-256/3	–	TKB-256/3T65	2×3 p, 25A, „0-1-2”, 60°	TKTS-02	
	TKB-326/3	TKB-326/3T	TKB-326/3T65	2×3 p, 32A, „0-1-2”, 60°	TK/T3+F3/ TKTS-03	
	TKB-636/3	–	TKB-636/3T65	2×3 p, 63A, „0-1-2”, 60°	–	
	TKB-126/3	–	–	2×3 p, 125A, „0-1-2”, 60°	–	
	TKB-166/3	–	–	2×3 p, 160A, „0-1-2”, 60°	–	
	TKB-206/4	–	TKB-206/4T65	2×4 p, 20A, „0-1-2”, 60°	TKTS-01	
	TKB-256/4	–	TKB-256/4T65	2×4 p, 25A, „0-1-2”, 60°	TKTS-02	
	TKB-326/4	TKB-326/4T	TKB-326/4T65	2×4 p, 32A, „0-1-2”, 60°	TK/T3+F3/ TKTS-03	
	TKB-636/4	–	–	2×4 p, 63A, „0-1-2”, 60°	–	
	TKB-126/4	–	–	2×4 p, 125A, „0-1-2”, 60°	–	
	TKB-166/4	–	–	2×4 p, 160A, „0-1-2”, 60°	–	
	TKB-209/3	TKB-209/3T	TKB-209/3T65	2×3 p, 20A, „0-1-2”, 90°	TK/T2+F1/ TKTS-02	
	TKB-259/3	–	TKB-259/3T65	2×3 p, 25A, „0-1-2”, 90°	TKTS-02	
	TKB-329/3	TKB-329/3T	TKB-329/3T65	2×3 p, 32A, „0-1-2”, 90°	TK/T3 +F3/ TKTS-03	
	TKB-639/3	–	TKB-639/3T65	2×3 p, 63A, „0-1-2”, 90°	–	
	TKB-129/3	–	–	2×3 p, 125A, „0-1-2”, 90°	–	
	TKB-169/3	–	–	2×3 p, 160A, „0-1-2”, 90°	–	
	TKB-209/4	–	TKB-209/4T65	2×4 p, 20A, „0-1-2”, 90°	TKTS-01	
	TKB-259/4	–	TKB-259/4T65	2×4 p, 25A, „0-1-2”, 90°	TKTS-02	
	TKB-329/4	TKB-329/4T	TKB-329/4T65	2×4 p, 32A, „0-1-2”, 90°	TK/T3+F3/ TKTS-03	
	TKB-639/4	–	–	2×4 p, 63A, „0-1-2”, 90°	–	
	TKB-129/4	–	–	2×4 p, 125A, „0-1-2”, 90°	–	
	TKB-169/4	–	–	2×4 p, 160A, „0-1-2”, 90°	–	
Motor switches	TKM-20/Q	TKM-20/QT	TKM-20/QT65	ON-OFF 5,5kW	TK/T1+F1/ TK/T2+F1/ TK/T3+F3/ TK/T3+F3/ TKTS-03 TKTS-03	
	TKM-25/Q	TKM-25/QT	TKM-25/QT65	ON-OFF 7,5kW	TKTS-02	
	TKM-32/Q	TKM-32/QT	TKM-32/QT65	ON-OFF 11kW	TK/T3+F3/ TK/T3+F3/ TKTS-03 TKTS-03	
	TKM-63/Q	TKM-63/QT	TKM-63/QT65	ON-OFF 18,5kW	TKTS-03	
	TKM-12/Q	–	TKM-12/QT65	ON-OFF 30kW	–	
	TKM-16/Q	–	TKM-16/QT65	ON-OFF 37kW	–	
	TKM-20/N	TKM-20/NT	TKM-20/NT65	Direction rev. 1,5kW	TK/T2+F1/ TKTS-02	
	TKM-25/N	–	TKM-25/NT65	Direction rev. 3kW	TKTS-02	
	TKM-32/N	TKM-32/NT	TKM-32/NT65	Direction rev. 5,5kW	TK/T3+F3/ TKTS-03	
	TKM-63/N	–	TKM-63/NT65	Direction rev. 7,5kW	–	
	TKM-12/N	–	–	Direction rev. 12kW	–	
	TKM-16/N	–	–	Direction rev. 15kW	–	



Manual switches



Terminal peeling			L (mm)	A (mm)	a (mm)	b (mm)	d (mm)	Wiring diagram
-90°	0°	90°						
1-2	×		50,8	43	48	48	36	
3-4		×	61,4	45,2	48	48	36	
5-6	×		67,6	58	64	64	48	
7-8		×	93,7	66	64	64	48	
9-10	×		110	84	88	88	68	
11-12		×	130	88	88	88	68	
-90°	0°	90°	-90°	0°	90°			
1-2	×		60,4	43	48	48	36	
3-4		×	74,2	45,2	48	48	36	
5-6	×		80,4	58	64	64	48	
7-8		×	115,2	66	64	64	48	
			136	84	88	88	68	
			163	88	88	88	68	
-60°	0°	60°						
1-2	×		50,8	43	48	48	36	
3-4		×	61,4	45,2	48	48	36	
5-6	×		67,6	58	64	64	48	
7-8		×	93,7	66	64	64	48	
9-10	×		110	84	88	88	68	
11-12		×	130	88	88	88	68	
-60°	0°	60°	-60°	0°	60°			
1-2	×		60,4	43	48	48	36	
3-4		×	74,2	45,2	48	48	36	
5-6	×		80,4	58	64	64	48	
7-8		×	115,2	66	64	64	48	
			136	84	88	88	68	
			163	88	88	88	68	
-90°	0°	90°						
1-2	×		50,8	43	48	48	36	
3-4		×	61,4	45,2	48	48	36	
5-6	×		67,6	58	64	64	48	
7-8		×	93,7	66	64	64	48	
9-10	×		110	84	88	88	68	
11-12		×	130	88	88	88	68	
-90°	0°	90°	-90°	0°	90°			
1-2	×		60,4	43	48	48	36	
3-4		×	74,2	45,2	48	48	36	
5-6	×		80,4	58	64	64	48	
7-8		×	115,2	66	64	64	48	
			136	84	88	88	68	
			163	88	88	88	68	
0°	60°							
1-2	×		41,2	43	48	48	36	
3-4	×		48,6	45,2	48	48	36	
5-6	×		54,8	58	64	64	48	
			72,2	66	64	64	48	
			84	84	88	88	68	
			97	88	88	88	68	
-60°	0°	60°						
1-2	×	×	50,8	43	48	48	36	
3-4	×	×	61,4	45,2	48	48	36	
5-6	×		67,6	58	64	64	48	
7-8		×	93,7	66	64	64	48	
9-10		×	111	84	88	88	68	
11-12	×		130	88	88	88	68	



G



Manual switches



	Tracon code			Description	Enclosure	Front plate
	Basis type	With enclosure IP44	With enclosure IP65			
Motor switches	TKM-20/C	–	TKM-20/CT65	Y-D 1,5 kW	TKTS-01	
	TKM-25/C	–	TKM-25/CT65	Y-D 3,0 kW	TKTS-02	
	TKM-32/C	TKM-32/CT	TKM-32/CT65	Y-D 5,5 kW	TK/T3+F3/	
	TKM-63/C	–	–	Y-D 7,5 kW	–	
	TKM-12/C	–	–	Y-D 12,0 kW	–	
	TKM-16/C	–	–	Y-D 15,0 kW	–	
	TKM-20/D	–	TKM-20/DT65	Dahlander 1,5 kW	TKTS-01	
	TKM-25/D	–	TKM-25/DT65	Dahlander 3,0 kW	TKTS-02	
	TKM-32/D	TKM-32/DT	TKM-32/DT65	Dahlander 5,5 kW	TK/T3+F3/	
	TKM-63/D	–	–	Dahlander 7,5 kW	–	
	TKM-12/D	–	–	Dahlander 12,0 kW	–	
	TKM-16/D	–	–	Dahlander 15,0 kW	–	
Measure switches	TKU-F	–	–	Voltage measure switch for phase voltage	–	
	TKU-V	–	–	Voltage measure switch for line voltage	–	
	TKU-K	–	–	Voltage measure switch for line and phase voltage	–	
	TKI-F	–	–	Current measure switch for phase current	–	
Main switches	TKF-20	TKF-20T	TKF-20T65	4 p, 20A, ON-OFF	TK/T3+F3/	
	TKF-25	TKF-25T	TKF-25T65	4 p, 25A, ON-OFF	TK/T3+F3/	
	TKF-32	TKF-32T	TKF-32T65	4 p, 32A, ON-OFF	TK/T3+F3/	
	TKF-63	TKF-63T	TKF-63T65	4 p, 63A, ON-OFF	TK/T3+F3/	
	TKFK-20	TKFK-20T	TKFK-20T65	With key, 4 p, 20A, ON-OFF	TK/T2+F2/	
	TKFK-25	TKFK-25T	TKFK-25T65	With key, 4 p, 25A, ON-OFF	TK/T2+F2/	
	TKFK-32	–	–	With key, 4 p, 32A, ON-OFF	–	
	TKFK-63	–	–	With key, 4 p, 63A, ON-OFF	–	
	TKFL-20	TKFL-20TS	TKFL-20T65S	Lockable, 4 p, 20A, ON-OFF	TK/T3+F3S/	
	TKFL-25	TKFL-25TS	TKFL-25T65S	Lockable, 4 p, 25A, ON-OFF	TK/T3+F3S/	
	TKFL-32	TKFL-32TS	TKFL-32T65S	Lockable, 4 p, 32A, ON-OFF	TK/T3+F3S/	
	TKFL-63	TKFL-63TS	TKFL-63T65S	Lockable, 4 p, 63A, ON-OFF	TK/T3+F3S/	



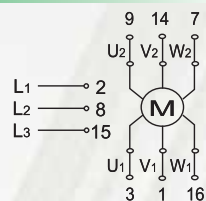
Manual switches



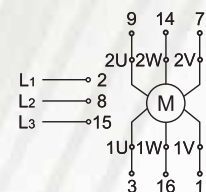
Terminal peeling

Wiring diagram

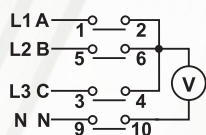
	60°	0°	60°	60°	0°	60°	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2		x	x	9-10		x	57	44	48	48	36
3-4		x	x	11-12		x	70	46	48	48	36
5-6			x	13-14		x	78	58	64	64	48
7-8			x	15-16		x	112	66	64	64	48
							138	84	88	88	68
							163	88	88	88	68



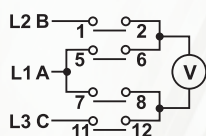
	-60°	0°	60°	-60°	0°	60°	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2			x	9-10		x	57	44	48	48	36
3-4			x	11-12		x	70	46	48	48	36
5-6		x		13-14		x	78	58	64	64	48
7-8		x		15-16		x	112	66	64	64	48
							138	84	88	88	68
							163	88	88	88	68



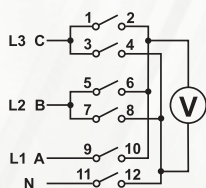
	0	A	B	C	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2		x							
3-4				x					
5-6			x						
9-10		x	x	x	50,8	43	48	60	36



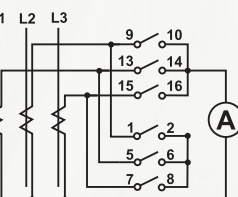
	0	AB	BC	CA	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2		x	x						
5-6				x					
7-8		x							
11-12			x	x	50,8	43	48	60	36



	CA	BC	AB	0	A	B	C	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2		x					x					
3-4	x											
5-6						x						
7-8		x	x					50,8	43	48	60	36
9-10	x		x		x							
11-12					x	x	x					



	0	A	B	C	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2	x	x		x					
5-6	x		x	x					
7-8	x	x	x						
9-10			x		60,4	43	48	60	36
13-14		x							
15-16				x					



	0°	90°	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2		x					
3-4		x	41,2	43	48	48	36
5-6		x	48,6	45,2	48	48	36
7-8		x	54,8	58	64	64	48
			72,2	66	64	64	48



	0°	90°	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2		x					
3-4		x	41,2	43	48	48	36
5-6		x	48,6	45,2	48	48	36
7-8		x	75	58/105	64	64/112	48/96
			93	66/105	64	64/122	48/96



	0°	90°	L (mm)	A (mm)	a (mm)	b (mm)	d (mm)
1-2		x					
3-4		x	44,2	43	64	64	48
5-6		x	52,1	45,2	64	64	48
7-8		x	54,8	58	64	64	48
			72,2	66	64	64	48





Disconnecter switches



TS disconnect switch

The devices have doubled braking centre line connections; with this high brake capacity they are suitable to use as disconnectors or emergency switches. The appliances are also fit to switch DC current. Produces in six different current levels, with 90° switching angle by 3 or 4 poles, according to the following range:

- Basic type disconnecter switches without enclosure
- Disconnecter switches with enclosure; installed, with IP44 protection degree
- Disconnecter switches with enclosure; installed, with IP65 protection degree

RELEVANT STANDARD

EN 60947-3



Type

- Switch disconnectors
- Switch disconnectors with door coupling
- Lockable main switches
- Lockable main switches with door coupling
- Lockable main switch for distribution boards

Technical data

Size		TS-20	TS-32	TS-40	TS-63	TS-80	TS-100
Rated thermal current I_{th} (A)		20	32	40	63	80	100
Rated impulse withstand voltage U_{imp} (kV)		6	6	6	6	6	6
Switchable power P_e (kW) 400 V~	AC-23A	7,5	11	15	22	30	37
	AC-3	5,5	7,5	11	18,5	22	30
Mechanical life ($\times 10^5$ cycle)		5	5	3	1,5	1,5	1,5
Electrical life ($\times 10^5$ cycle)		3	3	1,2	1	1	1
Max. switching frequency (c/h)		200	150	100	60	30	30
Terminal capacity (mm ²)	solid	1×2,5	1×4,0	1×6,0	1×25	1×50	1×70
		2×1,5	2×1,5	2×4,0	2×10	2×25	2×35
	flexible	1×2,5	1×4,0	1×4,0	1×16	1×35	1×50
		2×1,5	2×1,5	2×2,5	2×6	2×10	2×16
Rated short time limit current (1s; A)		180	264	360	516	684	840
Rated optional short circuit current (kA_{eff}), if the used gG type shunt fuse value is (A)		10	10	25	25	25	25
		20	35	50	63	80	100

General data

Rated frequency:	50/60 Hz
Protection degree:	
Switching body:	IP 20
After installation:	IP 42
Covered versions:	IP 44
With sealing set:	IP 65
Pollution degree:	3
Ambient temperature:	-5 °C...40 °C
Mode of connection:	With female clips
Mounting plate thickness:	max. 5 mm

Wiring diagram



Main features

- applicable for on/off switching under load and for disconnection
- applicable as motor switch, main switch, disconnector, security switch
- high electric and mechanic durability
- two way breaking connections
- the switching speed independent from mechanical operation
- the live parts are protected from accidental touch
- the body was made from self-extinguishing (UL94-V0), high mechanical strength insulation

RELEVANT STANDARD

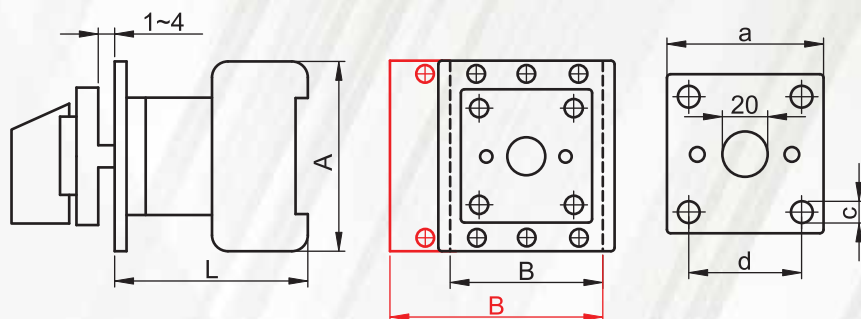
EN 60947-3



Disconnecter switches

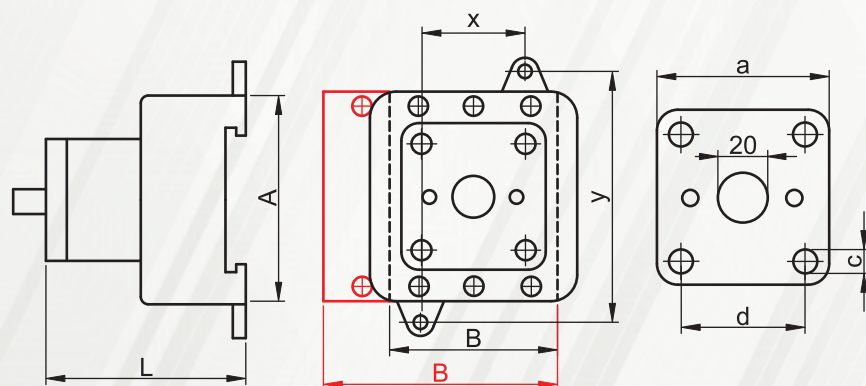


Disconnecter switch



Tracon code			Performance	Enclosure	Dimensions (mm)					
Basic type	With IP44 enclosure	With IP65 enclosure			L	A	B	a	d	c
TS-20/3	TS-20/3T	TS-20/3T65	20A/3P	TK/T3+F3/	61	54	42	64	48	4.2
TS-32/3	TS-32/3T	TS-32/3T65	32A/3P		61	54	42	64	48	4.2
TS-40/3	TS-40/3T	TS-40/3T65	40A/3P		67	64	50	64	48	4.2
TS-63/3	TS-63/3T	TS-63/3T65	63A/3P		67	64	50	64	48	4.2
TS-80/3	-	TS-80/3T65	80A/3P	TKTS-03	82	80	70	64	48	4.2
TS-10/3	-	TS-10/3T65	100A/3P	TKTS-03	82	80	70	88	68	5.2
TS-20/4	TS-20/4T	TS-20/4T65	20A/4P	TK/T3+F3/	61	54	55.5	64	48	4.2
TS-32/4	TS-32/4T	TS-32/4T65	32A/4P		61	54	55.5	64	48	4.2
TS-40/4	TS-40/4T	TS-40/4T65	40A/4P		67	64	66	64	48	4.2
TS-63/4	TS-63/4T	TS-63/4T65	63A/4P		67	64	66	64	48	4.2
TS-80/4	-	-	80A/4P	-	82	80	92.5	64	48	4.2
TS-10/4	-	-	100A/4P	-	82	80	92.5	88	68	5.2

Disconnecter switch with door coupling



The door coupling makes security interlock at the door of the distribution box; the door can be opened, when the switch is on „0“, as „OFF“ position!

The length of the door coupling: 150 mm

Mountable on 35/7,5 mm size mounting rail (according to EN 50022 standard).



Tracon code	Performance	Dimensions							
		L (mm)	A (mm)	B (mm)	a (mm)	d (mm)	c (mm)	x (mm)	y (mm)
TS-20/3K	20A/3P	50	54	42	64	48	4.2	22	62
TS-32/3K	32A/3P	50	54	42	64	48	4.2	22	62
TS-40/3K	40A/3P	61	64	50	64	48	4.2	25	70
TS-63/3K	63A/3P	61	64	50	64	48	4.2	25	70
TS-80/3K	80A/3P	68	80	70	64	48	4.2	25	90
TS-10/3K	100A/3P	68	80	70	88	68	5.2	25	90
TS-20/4K	20A/4P	50	54	55.5	64	48	4.2	22	62
TS-32/4K	32A/4P	50	54	55.5	64	48	4.2	22	62
TS-40/4K	40A/4P	61	64	66	64	48	4.2	25	70
TS-63/4K	63A/4P	61	64	66	64	48	4.2	25	70
TS-80/4K	80A/4P	68	80	92.5	64	48	4.2	25	90
TS-10/4K	100A/4P	68	80	92.5	88	68	5.2	25	90





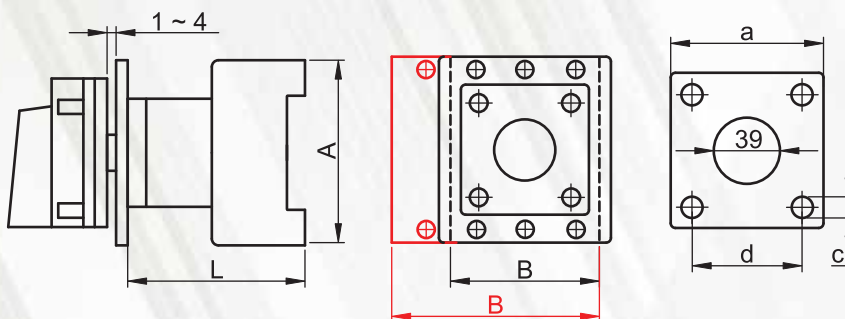
Disconnecter switches



Lockable security disconnecter switch



The switch disconnecter is lockable on "OFF" position.



Tracon code			Performance	Enclosure	Dimensions (mm)					
Basic type	With IP44 enclosure	With IP65 enclosure			L	A	B	a	d	c
TSS-20/3	TSS-20/3TS	TSS-20/3T65S	20A/3P	TK/T3+F3S/	61	54	42	64	48	4.2
TSS-32/3	TSS-32/3TS	TSS-32/3T65S	32A/3P		61	54	42	64	48	4.2
TSS-40/3	TSS-40/3TS	TSS-40/3T65S	40A/3P		67	64	50	64	48	4.2
TSS-63/3	TSS-63/3TS	TSS-63/3T65S	63A/3P		67	64	50	64	48	4.2
TSS-80/3	-	TSS-80/3T65	80A/3P	TKTS-03	82	80	70	64	48	4.2
TSS-10/3	-	TSS-10/3T65	100A/3P	TKTS-03	82	80	70	88	68	5.2
TSS-20/4	TSS-20/4TS	TSS-20/4T65S	20A/4P	TK/T3+F3S/	61	54	55.5	64	48	4.2
TSS-32/4	TSS-32/4TS	TSS-32/4T65S	32A/4P		61	54	55.5	64	48	4.2
TSS-40/4	TSS-40/4TS	TSS-40/4T65S	40A/4P		67	64	66	64	48	4.2
TSS-63/4	TSS-63/4TS	TSS-63/4T65S	63A/4P		67	64	66	64	48	4.2
TSS-80/4	-	-	80A/4P	-	82	80	92.5	64	48	4.2
TSS-10/4	-	-	100A/4P	-	82	80	92.5	88	68	5.2

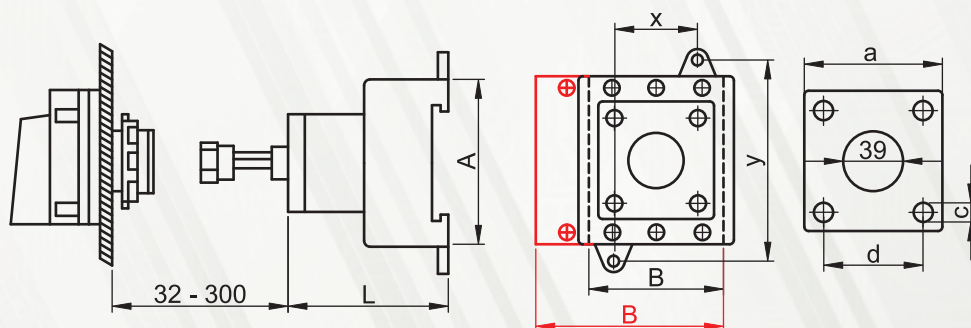
Lockable security disconnecter switch with door coupling

Mountable on 35/7,5 mm size mounting rails (according to EN 50022 standard).

The door coupling makes safety interlock at the door of distribution box; the door can be opened at "OFF" position of the switch!



The length of the door coupling: 150 mm



Tracon code	Performance	Dimensions								
		L (mm)	A (mm)	B (mm)	a (mm)	d (mm)	c (mm)	x (mm)	y (mm)	
TSS-20/3K	20A/3P	50	54	42	64	48	4.2	22	62	
TSS-32/3K	32A/3P	50	54	42	64	48	4.2	22	62	
TSS-40/3K	40A/3P	61	64	50	64	48	4.2	25	70	
TSS-63/3K	63A/3P	61	64	50	64	48	4.2	25	70	
TSS-80/3K	80A/3P	68	80	70	64	48	4.2	25	90	
TSS-10/3K	100A/3P	68	80	70	88	68	5.2	25	90	
TSS-20/4K	20A/4P	50	54	55.5	64	48	4.2	22	62	
TSS-32/4K	32A/4P	50	54	55.5	64	48	4.2	22	62	
TSS-40/4K	40A/4P	61	64	66	64	48	4.2	25	70	
TSS-63/4K	63A/4P	61	64	66	64	48	4.2	25	70	
TSS-80/4K	80A/4P	68	80	92.5	64	48	4.2	25	90	
TSS-10/4K	100A/4P	68	80	92.5	88	68	5.2	25	90	

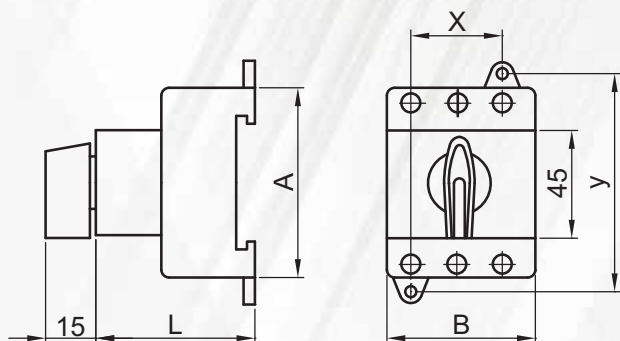


Disconnecter switches



Moulded lockable disconnecter switch

Passing into 45 mm standard front panel cut-out, mountable from its back with two screws or can be clipped on mounting rail according to EN 50022.



Tracon code	Performance	Dimensions				
		L (mm)	A (mm)	B (mm)	x (mm)	y (mm)
TSM-20/3	20A/3P	50	54	42	22	62
TSM-32/3	32A/3P	50	54	42	22	62
TSM-20/4	20A/4P	50	54	55.5	22	62
TSM-32/4	32A/4P	50	54	55.5	22	62

RELEVANT STANDARD

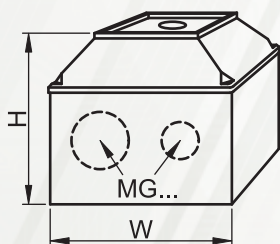
EN 60947-3

Accessories

For basic type disconnecter switches it is possible to order IP44 enclosures up to 63 A. For versions with enclosures sealing set is available, which gives IP65 protection.

Enclosures

For basic type disconnecter switches it is possible to order IP44 enclosure up to 63 A



TÜV MEEI TEST DOCUMENTATION

V-15180

TÜV MEEI TEST DOCUMENTATION

28204984 001

RELEVANT STANDARD

EN 60947-3

RELEVANT STANDARD

EN 60529

Tracon code	Title	Color	W (mm)	H (mm)	x (mm)	Cable glands
TK/T3+F3/	Compiled type 3 closure for 20, 32, 40, 63A-es switches	Light grey basic + light grey cover	112	108	78	2 pcs MG-25 2 pcs MG-32
TK/T3+F3S/	Compiled type 3 closure for 20, 32, 40, 63A	Light grey basic + yellow cover	112	108	78	2 pcs MG-25 2 pcs MG-32

Sealing sets

For enclosures sealing sets can be ordered, the protection degree increases to IP 65!

Tracon code	Description
TKT-65/3	Sealing sets for lockable switches from 20 to 63 A

