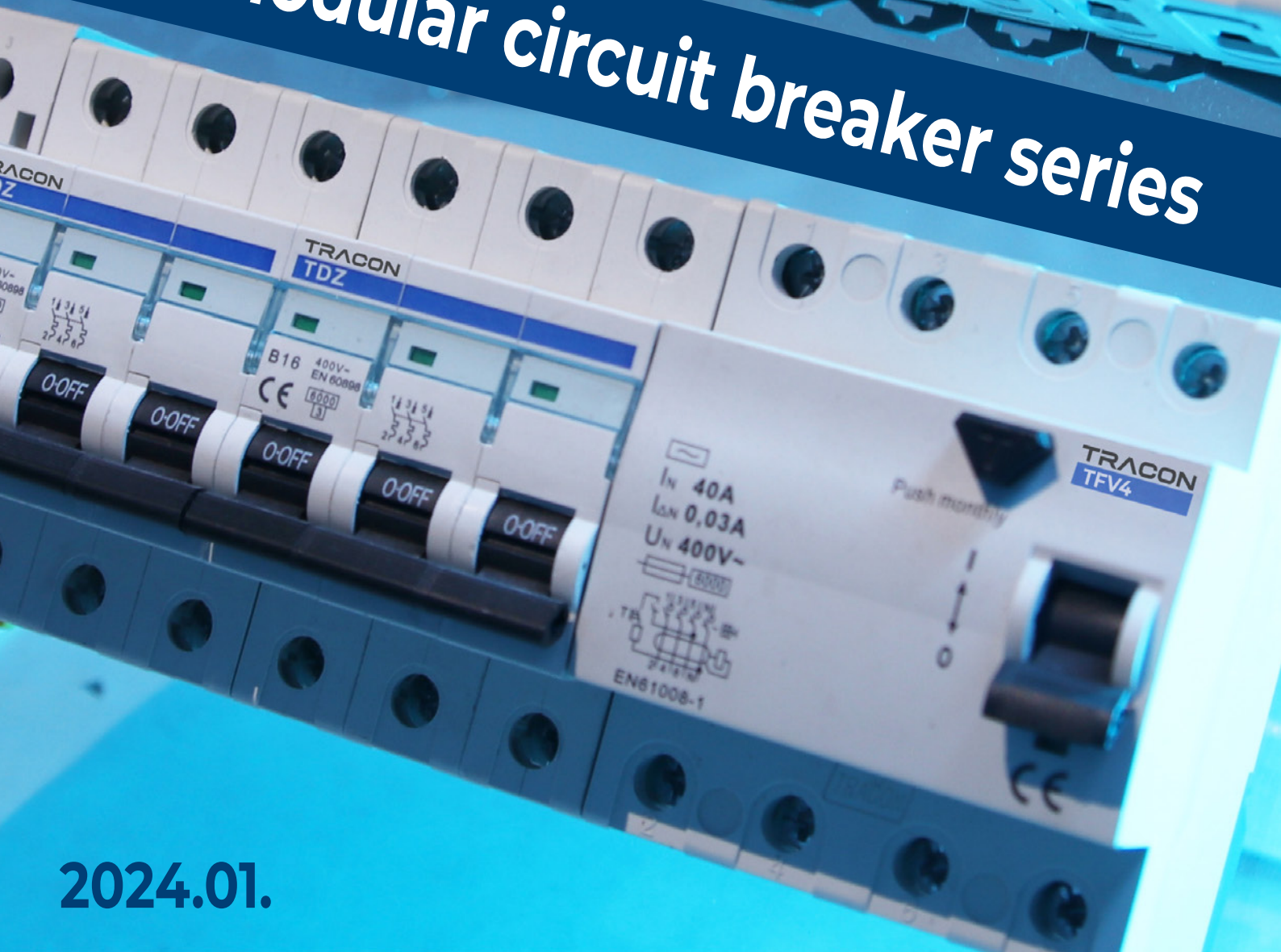


TDZ modular circuit breaker series



EVOZ | TDZ

MODULAR CIRCUIT BREAKERS
WITH LIFETIME WARRANTY





TI+T2 AC-type surge arresters **4**



T2 AC-type surge arresters **5**



T2+T3 AC-type surge arresters **6**



TI+T2+T3 AC-type surge arresters **6**



T3 AC-type surge arresters **7**



TI+2 and T2 DC-type surge arresters **7**



TDZ Circuit breakers **8**



TFV residual current circuit breakers **9**



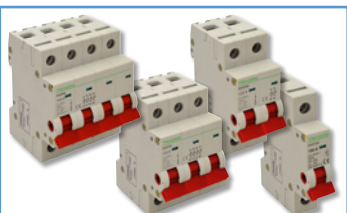
TFVH residual current circuit breakers for high current **9**



TFG residual current circuit breakers **10**



TDZN Modular circuit breaker, 1+N pole, C characteristic **10**



EVOTIK isolation switches **11**



EVOSVK modular changeover switches **12**



EVOMS modular lockable disconnection switches **13**



EVOSLJL signal lamps **13**



Contactors for installations **14**



Auxiliary contact unit for SHK contactor **14**



KMH type high current overload circuit breakers **15**



KVKM type combined protective switches, electromechanical **16**



KVKVE Combined protective switch with one-module width **17**



Lockable latch for modular protecting devices **17**



Auxiliary units **18**



Working current (shunt) release **18**



Under/over voltage release **18**



One function (ON delay) time relay **19**



Star-delta time relay **20**

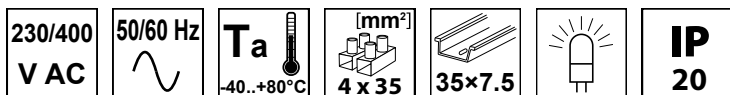


Multifunction time relay (10 functions) **21**



Auto reclose under- and overvoltage relay **22**

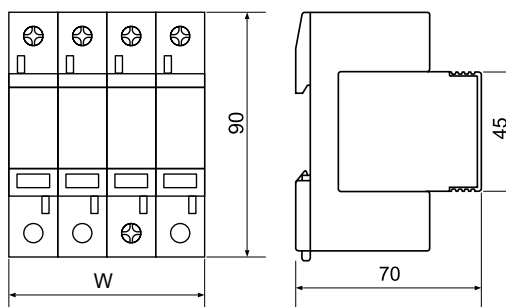
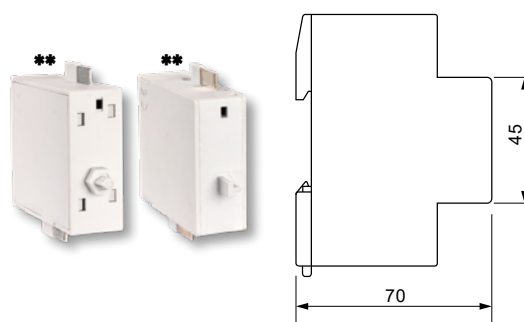
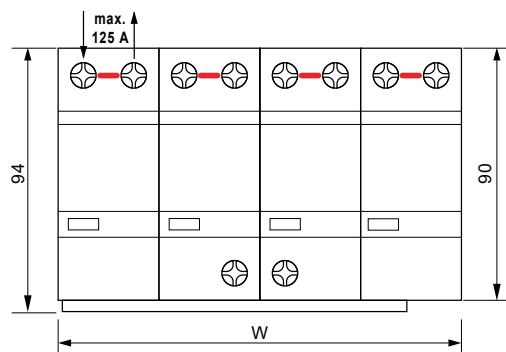
T1+T2 AC-type surge arresters



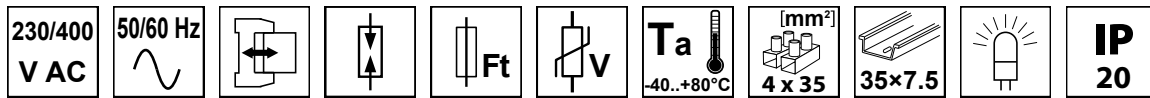
TRACON	xP	U _c	I _{imp} L-N/(N-PE)1P 10/350µs	I _n L-N/(N-PE) 8/20µs	I _{max} 8/20µs	U _p L-N/(N-PE)	gG	W (mm)
ESPD1+2-50-1P	1P	385 V AC	50 kA	50 kA	160 kA	≤ 2,5 kV	500 A	TN
ESPD1+2-50-2P	2P	385 V AC	50 kA	50 kA	160 kA	≤ 2,5 kV		TN
ESPD1+2-50-3P	3P	385 V AC	50 kA	50 kA	160 kA	≤ 2,5 kV		TN-C
ESPD1+2-50-4P	4P	385 V AC	50 kA	50 kA	160 kA	≤ 2,5 kV		TN-S
ESPD1+2-50-1+1P	1+1P	385 V AC	50 kA / 100 kA	50 kA / 100 kA	160 kA / 200 kA	≤ 2,5 kV		TN, TT
ESPD1+2-50-3+1P	3+1P	385 V AC	50 kA / 100 kA	50 kA / 100 kA	160 kA / 200 kA	≤ 2,5 kV		TN-S, TT
ESPD1+2-12.5-1P	1P	275 V AC	12,5 kA	20 kA	50 kA	≤ 1,3 kV	160 A	TN
ESPD1+2-12.5-2P	2P	275 V AC	12,5 kA	20 kA	50 kA	≤ 1,3 kV		TN
ESPD1+2-12.5-3P	3P	275 V AC	12,5 kA	20 kA	50 kA	≤ 1,3 kV		TN-C
ESPD1+2-12.5-4P	4P	275 V AC	12,5 kA	20 kA	50 kA	≤ 1,3 kV		TN-S
ESPD1+2-12.5-1+1P	1+1P	275 V AC	12,5 kA	20 kA / 40 kA	50 kA / 70 kA	≤ 1,3 kV / 1,5 kV		TN, TT
ESPD1+2-12.5-3+1P	3+1P	275 V AC	12,5 kA	20 kA / 40 kA	50 kA / 70 kA	≤ 1,3 kV / 1,5 kV		TN-S, TT
ESPD1+2-12.5M*	1P	275 V AC	12,5 kA	20 kA	50 kA	≤ 1,3 kV	-	TN
ESPD1+2-12.5MO*	1P	275 V AC	12,5 kA	20 kA	50 kA	≤ 1,3 kV	-	TN
ESPD1+2-12.5NPE*	+1P	275 V AC	12,5 kA	40 kA	70 kA	≤ 1,5 kV	-	TN, TT
ESPD1+2-12.5NPEO*	+1P	275 V AC	12,5 kA	40kA	70kA	≤ 1,5 kV	-	TN, TT

* changeable insert

** shape of the connection insert



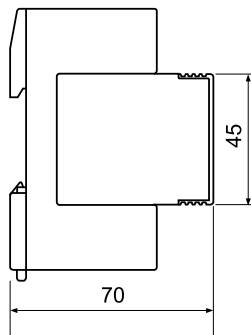
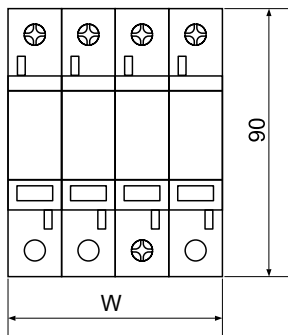
T2 AC-type surge arresters



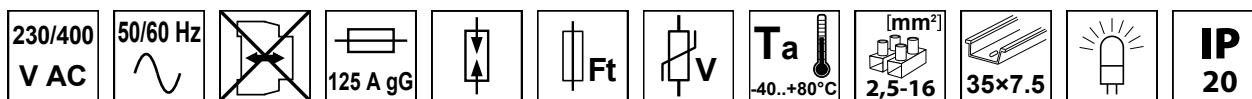
TRACON	$\times P$	U_c	I_n L-N/(N-PE) 8/20 μ s	I_{max} 8/20 μ s	U_p L-N/(N-PE)	gG	w (mm)
ESPD2-40-1P	1P	275 V AC	20 kA	40 kA	$\leq 1,3$ kV	125 A	TN 18
ESPD2-40-2P	2P	275 V AC	20 kA	40 kA	$\leq 1,3$ kV		TN 36
ESPD2-40-3P	3P	275 V AC	20 kA	40 kA	$\leq 1,3$ kV		TN-C 54
ESPD2-40-4P	4P	275 V AC	20 kA	40 kA	$\leq 1,3$ kV		TN-S 72
ESPD2-40-1+1P	1+1P	275 / 255 V AC	20 kA	40 kA	$\leq 1,3$ kV / 1,5 kV		TN, TT 36
ESPD2-40-3+1P	3+1P	275 / 255 V AC	20 kA	40 kA	$\leq 1,3$ kV / 1,5 kV	TN-S, TT 72	
ESPD2-40M*	1P	275 V AC	20 kA	40 kA	$\leq 1,3$ kV	-	TN 18
ESPD2-40MO*	1P	275 V AC	20 kA	40 kA	$\leq 1,3$ kV	-	TN 18
ESPD2-40NPE*	+1P	255 V AC	20 kA	40 kA	$\leq 1,5$ kV	-	TN, TT 18
ESPD2-40NPEO*	+1P	255 V AC	20 kA	40 kA	$\leq 1,5$ kV	-	TN, TT 18
ESPD2-70-1P	1P	275 V AC	40 kA	70 kA	$\leq 1,7$ kV	200 A	TN 18
ESPD2-70-2P	2P	275 V AC	40 kA	70 kA	$\leq 1,7$ kV		TN 36
ESPD2-70-3P	3P	275 V AC	40 kA	70 kA	$\leq 1,7$ kV		TN-C 54
ESPD2-70-4P	4P	275 V AC	40 kA	70 kA	$\leq 1,7$ kV		TN-S 72
ESPD2-70-1+1P	1+1P	275 / 255 V AC	40 kA	70 kA	$\leq 1,7$ kV / 1,5 kV		TN, TT 36
ESPD2-70-3+1P	3+1P	275 / 255 V AC	40 kA	70 kA	$\leq 1,7$ kV / 1,5 kV	TN-S, TT 72	
ESPD2-70M*	1P	275 V AC	40 kA	70 kA	$\leq 1,7$ kV	-	TN 18
ESPD2-70MO*	1P	275 V AC	40 kA	70 kA	$\leq 1,7$ kV	-	TN 18
ESPD2-70NPE*	+1P	255 V AC	40 kA	70 kA	$\leq 1,5$ kV	-	TN, TT 18
ESPD2-70NPEO*	+1P	255 V AC	40 kA	70 kA	$\leq 1,5$ kV	-	TN, TT 18

* changeable insert

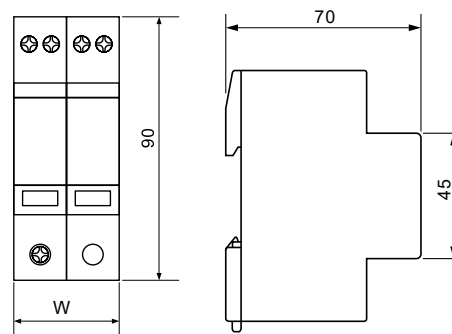
** shape of the connection insert



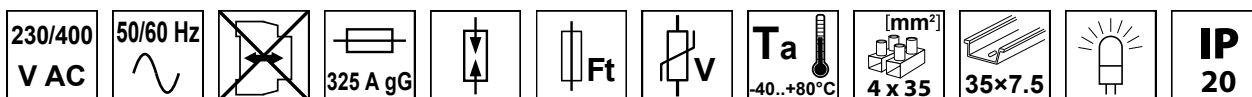
T2+T3 AC-type surge arresters



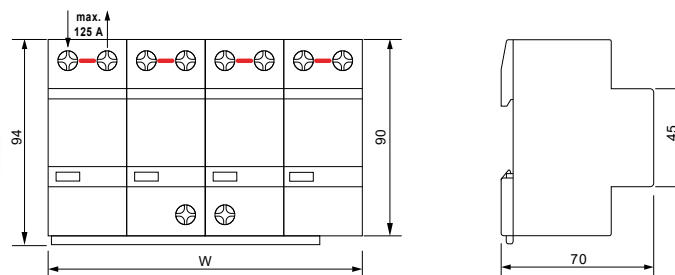
TRACON	xP	U _c	I _n L-N/(N-PE) 8/20µs	I _{max} 8/20µs	U _{oc}	U _p L-N/(N-PE)		W (mm)
ESPD2+3-40-2P	2P	275 V AC	20 kA	40 kA	10 kV	≤ 1,3 kV	TN	18
ESPD2+3-40-4P	4P	275 V AC	20 kA	40 kA	10 kV	≤ 1,3 kV	TN-S	36
ESPD2+3-40-1+1P	1+1P	275 V AC	20 kA	40 kA	10 kV	≤ 1,3 kV / 1,5 kV	TN, TT	18
ESPD2+3-40-3+1P	3+1P	275 V AC	20 kA	40 kA	10 kV	≤ 1,3 kV / 1,5 kV	TN-S, TT	36



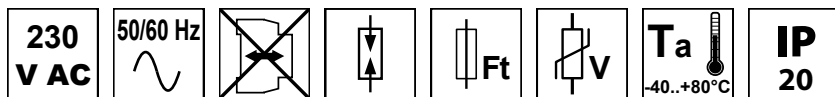
T1+T2+T3 AC-type surge arresters



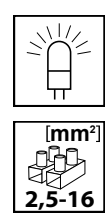
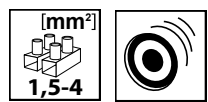
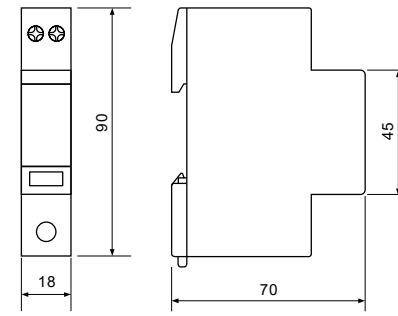
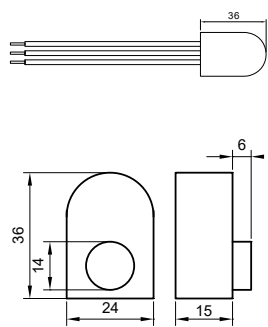
TRACON	xP	U _c	I _{imp} L-N/(N-PE)1P 10/350µs	I _n L-N/(N-PE) 8/20µs	I _{max} 8/20µs	U _{oc}	U _p L-N/(N-PE)		W (mm)
ESPD1+2+3-25-1P	1P	275 V AC	25 kA	25 kA	100 kA	20 kV	≤ 1,3 kV	TN	36
ESPD1+2+3-25-2P	2P	275 V AC	25 kA	25 kA	100 kA	20 kV	≤ 1,3 kV	TN	72
ESPD1+2+3-25-3P	3P	275 V AC	25 kA	25 kA	100 kA	20 kV	≤ 1,3 kV	TN-C	108
ESPD1+2+3-25-4P	4P	275 V AC	25 kA	25 kA	100 kA	20 kV	≤ 1,3 kV	TN-S	144
ESPD1+2+3-25-1+1P	1+1P	275 V AC	25 kA / 100 kA	25 kA / 100 kA	100 kA	20 kV	≤ 1,3 kV / 1,5 kV	TN, TT	72
ESPD1+2+3-25-3+1P	3+1P	275 V AC	25 kA / 100 kA	25 kA / 100 kA	100 kA	20 kV	≤ 1,3 kV / 1,5 kV	TN-S, TT	144



T3 AC-type surge arresters

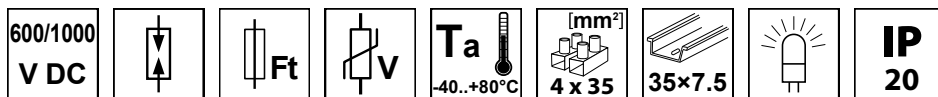


TRACON	xP	U _n	U _c	I _n L-N/(N-PE) 8/20µs	I _{max} 8/20µs	U _{oc}	U _p	gG	W (mm)	
ESPD3-3-2P	1+1P	230 V AC	275 V AC	3 kA	6 kA	6 kV	≤ 1,2 kV	16 A	TN, TT	36×24×15
ESPD3-5-1+1P	1+1P	230 V AC	275 V AC	5 kA	10 kA	10 kV	≤ 1,1 kV	32 A	TN, TT	18
ESPD3-5-2P	2P	230 V AC	275 V AC	5 kA	10 kA	10 kV	≤ 1,1 kV	32 A	TN	18
ESPD3-10-1+1P	1+1P	230 V AC	275 V AC	10 kA	20 kA	20 kV	≤ 1,2 kV	63 A	TN, TT	18
ESPD3-10-2P	2P	230 V AC	275 V AC	10 kA	20 kA	20 kV	≤ 1,2 kV	63 A	TN	18



ESPD3-3-2P

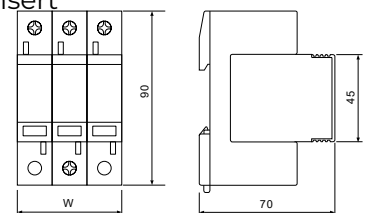
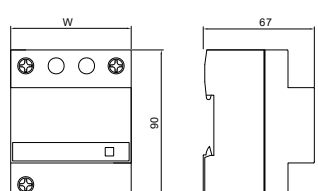
T1+2 and T2 DC-type surge arresters



TRACON	xP	U _n	U _c	gG	I _{imp} L-N/(N-PE)1P 10/350µs	I _n L-N/(N-PE) 8/20µs	I _{max} 8/20µs	U _p	W (mm)
ESPD1+2-DC50-600	3P	600 V DC	800 V DC	200 A	12,5 kA	20 kA	50 kA	≤ 3 kV	72
ESPD1+2-DC50-1000	3P	1.000 V DC	1.200 V DC		12,5 kA	20 kA	50 kA	≤ 4 kV	72
ESPD2-DC40-600	3P	600 V DC	800 V DC	125 A	-	20 kA	40 kA	≤ 3 kV	72
ESPD2-DC40-1000	3P	1.000 V DC	1.200 V DC		-	20 kA	40 kA	≤ 4 kV	72
ESPD2-DC40-600V*	**	600 V DC	800 V DC	-	-	20 kA	40 kA	≤ 3 kV	18
ESPD2-DC40-600VO*	**	600 V DC	800 V DC	-	-	20 kA	40 kA	≤ 3 kV	18
ESPD2-DC40-600VG*	**	600 V DC	800 V DC	-	-	20 kA	40 kA	≤ 3 kV	18
ESPD2-DC40-600VGO*	**	600 V DC	800 V DC	-	-	20 kA	40 kA	≤ 3 kV	18
ESPD2-DC40-1000V*	**	1.000 V DC	1.200 V DC	-	-	20 kA	40 kA	≤ 4 kV	18
ESPD2-DC40-1000VO*	**	1.000 V DC	1.200 V DC	-	-	20 kA	40 kA	≤ 4 kV	18
ESPD2-DC40-1000VG*	**	1.000 V DC	1.200 V DC	-	-	20 kA	40 kA	≤ 4 kV	18
ESPD2-DC40-1000VGO*	**	1.000 V DC	1.200 V DC	-	-	20 kA	40 kA	≤ 4 kV	18

* changeable insert

** shape of the connection insert

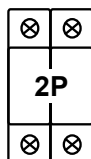
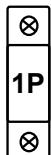


TDZ Circuit breakers

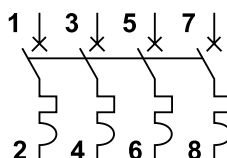
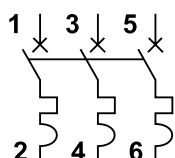
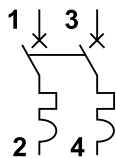
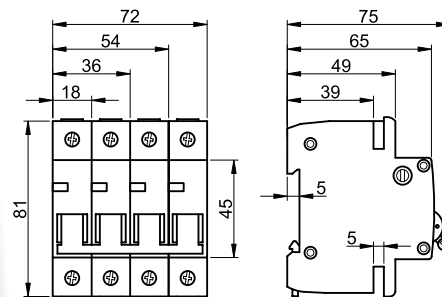
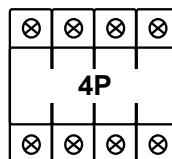
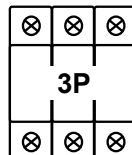
230/400 V AC	$\times 20.000$	$\times 6.000$	IP 20	35×7.5	$1,5-25$ (mm ²)	Ta $-25..+55^{\circ}\text{C}$	U_i 500 V		I_{2t} 3	I_{cn} EN 60898 6 kA	OFF
-----------------	-----------------	----------------	--------------	-----------------	-----------------------------	--------------------------------------	--------------------------------------	--	----------------------	--	-----



TRACON			I _n (A)
TDZ-1B-1	TDZ-1C-1	TDZ-1D-1	1
TDZ-1B-2	TDZ-1C-2	TDZ-1D-2	2
TDZ-1B-4	TDZ-1C-4	TDZ-1D-4	4
TDZ-1B-6	TDZ-1C-6	TDZ-1D-6	6
TDZ-1B-10	TDZ-1C-10	TDZ-1D-10	10
TDZ-1B-13	TDZ-1C-13	TDZ-1D-13	13
TDZ-1B-16	TDZ-1C-16	TDZ-1D-16	16
TDZ-1B-20	TDZ-1C-20	TDZ-1D-20	20
TDZ-1B-25	TDZ-1C-25	TDZ-1D-25	25
TDZ-1B-32	TDZ-1C-32	TDZ-1D-32	32
TDZ-1B-40	TDZ-1C-40	TDZ-1D-40	40
TDZ-1B-50	TDZ-1C-50	TDZ-1D-50	50
TDZ-1B-63	TDZ-1C-63	TDZ-1D-63	63
TDZ-2B-1	TDZ-2C-1	TDZ-2D-1	1
TDZ-2B-2	TDZ-2C-2	TDZ-2D-2	2
TDZ-2B-4	TDZ-2C-4	TDZ-2D-4	4
TDZ-2B-6	TDZ-2C-6	TDZ-2D-6	6
TDZ-2B-10	TDZ-2C-10	TDZ-2D-10	10
TDZ-2B-13	TDZ-2C-13	TDZ-2D-13	13
TDZ-2B-16	TDZ-2C-16	TDZ-2D-16	16
TDZ-2B-20	TDZ-2C-20	TDZ-2D-20	20
TDZ-2B-25	TDZ-2C-25	TDZ-2D-25	25
TDZ-2B-32	TDZ-2C-32	TDZ-2D-32	32
TDZ-2B-40	TDZ-2C-40	TDZ-2D-40	40
TDZ-2B-50	TDZ-2C-50	TDZ-2D-50	50
TDZ-2B-63	TDZ-2C-63	TDZ-2D-63	63



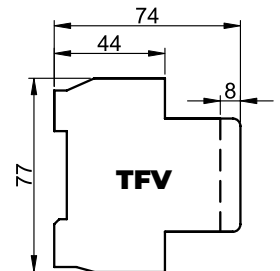
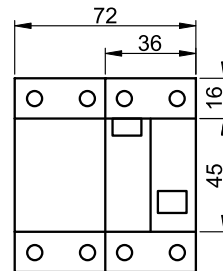
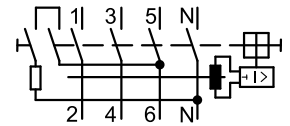
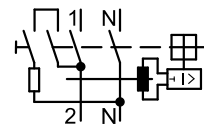
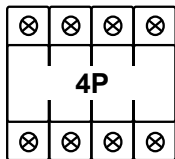
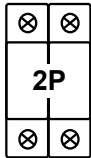
TRACON			I _n (A)
TDZ-3B-1	TDZ-3C-1	TDZ-3D-1	1
TDZ-3B-2	TDZ-3C-2	TDZ-3D-2	2
TDZ-3B-4	TDZ-3C-4	TDZ-3D-4	4
TDZ-3B-6	TDZ-3C-6	TDZ-3D-6	6
TDZ-3B-10	TDZ-3C-10	TDZ-3D-10	10
TDZ-3B-13	TDZ-3C-13	TDZ-3D-13	13
TDZ-3B-16	TDZ-3C-16	TDZ-3D-16	16
TDZ-3B-20	TDZ-3C-20	TDZ-3D-20	20
TDZ-3B-25	TDZ-3C-25	TDZ-3D-25	25
TDZ-3B-32	TDZ-3C-32	TDZ-3D-32	32
TDZ-3B-40	TDZ-3C-40	TDZ-3D-40	40
TDZ-3B-50	TDZ-3C-50	TDZ-3D-50	50
TDZ-3B-63	TDZ-3C-63	TDZ-3D-63	63
TDZ-4B-1	TDZ-4C-1	TDZ-4D-1	1
TDZ-4B-2	TDZ-4C-2	TDZ-4D-2	2
TDZ-4B-4	TDZ-4C-4	TDZ-4D-4	4
TDZ-4B-6	TDZ-4C-6	TDZ-4D-6	6
TDZ-4B-10	TDZ-4C-10	TDZ-4D-10	10
TDZ-4B-13	TDZ-4C-13	TDZ-4D-13	13
TDZ-4B-16	TDZ-4C-16	TDZ-4D-16	16
TDZ-4B-20	TDZ-4C-20	TDZ-4D-20	20
TDZ-4B-25	TDZ-4C-25	TDZ-4D-25	25
TDZ-4B-32	TDZ-4C-32	TDZ-4D-32	32
TDZ-4B-40	TDZ-4C-40	TDZ-4D-40	40
TDZ-4B-50	TDZ-4C-50	TDZ-4D-50	50
TDZ-4B-63	TDZ-4C-63	TDZ-4D-63	63



RELEVANT STANDARD
EN 60898

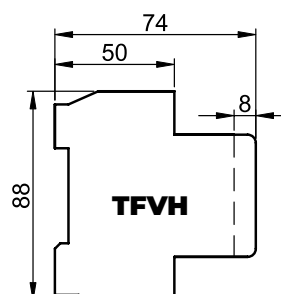
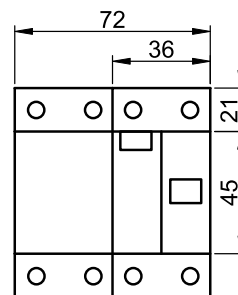
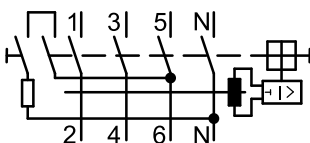
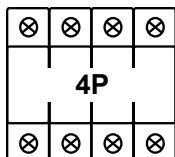
TFV residual current circuit breakers

TRACON	I _n (A)	I Δ _n (mA)
TFV2-16030	16	30
TFV2-16100	16	100
TFV2-16300	16	300
TFV2-25030	25	30
TFV2-25100	25	100
TFV2-25300	25	300
TFV2-40030	40	30
TFV2-40100	40	100
TFV2-40300	40	300
TFV2-63030	63	30
TFV2-63100	63	100
TFV2-63300	63	300
TFV4-16030	16	30
TFV4-16100	16	100
TFV4-16300	16	300
TFV4-25030	25	30
TFV4-25100	25	100
TFV4-25300	25	300
TFV4-40030	40	30
TFV4-40100	40	100
TFV4-40300	40	300
TFV4-63030	63	30
TFV4-63100	63	100
TFV4-63300	63	300



TFVH residual current circuit breakers for high current

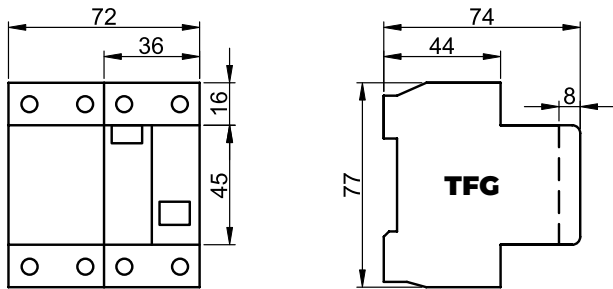
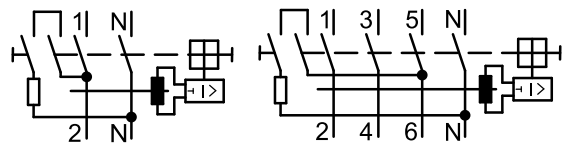
TRACON	I _n (A)	I Δ _n (mA)
TFVH4-80030	80	30
TFVH4-80100	80	100
TFVH4-80300	80	300
TFVH4-100030	100	30
TFVH4-100100	100	100
TFVH4-100300	100	300



**TÜV MEEI TEST DOCUMENTATION
M1 2792130 01**

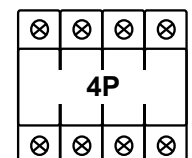
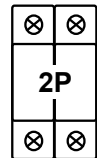
TFG residual current circuit breakers

230/400 V AC
 $\times 10.000$
 $\times 4.000$
IP 20
35x7.5
[mm²] 2,5-25
Ta -25..+55°C
500 V
A, AC
Icn EN 60898 6 kA
OFF



RELEVANT STANDARD
EN 61008-1

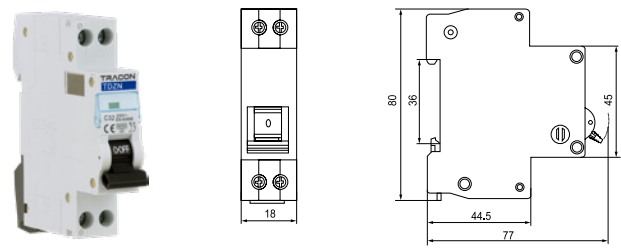
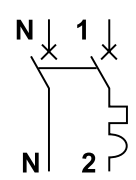
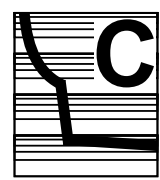
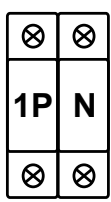
TRACON	I _n (A)	I Δ _n (mA)
TFG2-16030	16	30
TFG2-16100	16	100
TFG2-16300	16	300
TFG2-25030	25	30
TFG2-25100	25	100
TFG2-25300	25	300
TFG2-40030	40	30
TFG2-40100	40	100
TFG2-40300	40	300
TFG2-63030	63	30
TFG2-63100	63	100
TFG2-63300	63	300
TFG4-16030	16	30
TFG4-16100	16	100
TFG4-16300	16	300
TFG4-25030	25	30
TFG4-25100	25	100
TFG4-25300	25	300
TFG4-40030	40	30
TFG4-40100	40	100
TFG4-40300	40	300
TFG4-63030	63	30
TFG4-63100	63	100
TFG4-63300	63	300



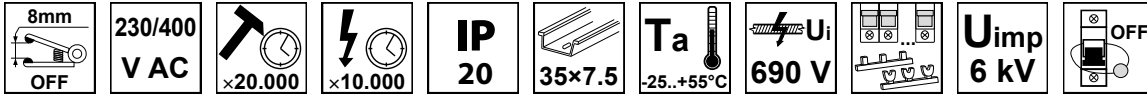
TDZN Modular circuit breaker, 1+N pole, C characteristic

230 V AC
 $\times 4.000$
 $\times 4.000$
400 V
Ta -25..+55°C
Icn EN 60898 6 kA
35x7.5
[mm²] 1,5-10
IP 20

TRACON	I _n (A)
TDZNC3	3
TDZNC6	6
TDZNC10	10
TDZNC13	13
TDZNC16	16
TDZNC20	20
TDZNC25	25
TDZNC32	32

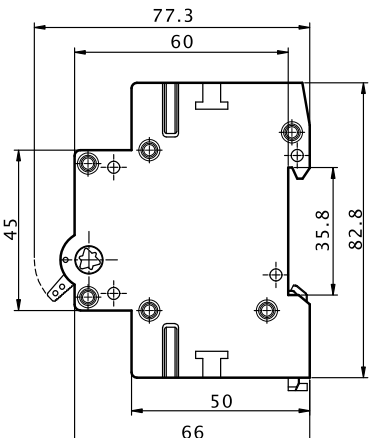
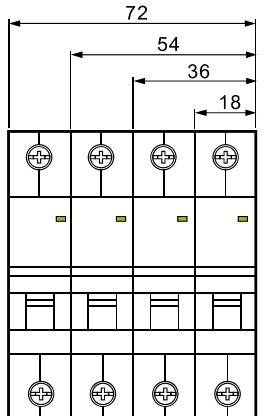
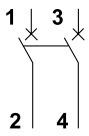
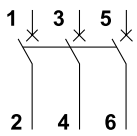
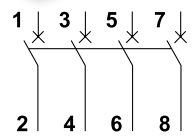
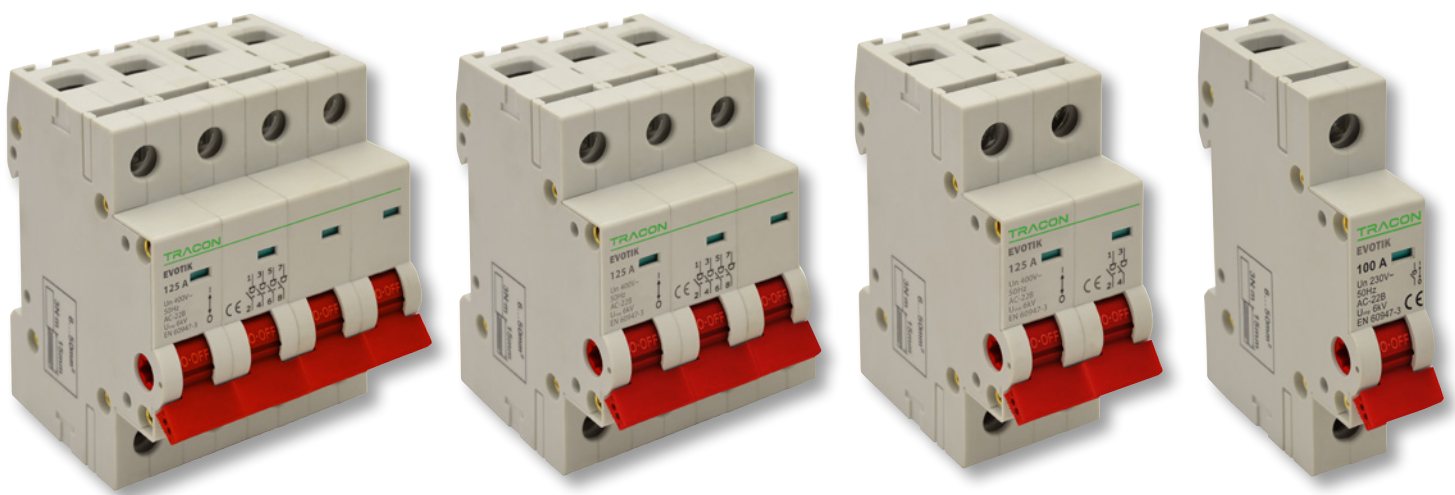
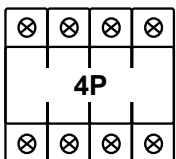
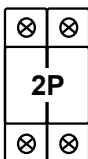
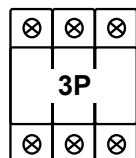


EVOTIK isolation switches



TRACON	In (A)	mm ²
TIK1-20	20	1,5-50
TIK1-25	25	
TIK1-32	32	
TIK1-40	40	
TIK1-63	63	
TIK1-80	80	
TIK1-100	100	
TIK1-125	125	
TIK2-20	20	
TIK2-25	25	
TIK2-32	32	
TIK2-40	40	
TIK2-63	63	
TIK2-80	80	
TIK2-100	100	
TIK2-125	125	

TRACON	In (A)	mm ²
TIK3-20	20	1,5-50
TIK3-25	25	
TIK3-32	32	
TIK3-40	40	
TIK3-63	63	
TIK3-80	80	
TIK3-100	100	
TIK3-125	125	
TIK4-20	20	
TIK4-25	25	
TIK4-32	32	
TIK4-40	40	
TIK4-63	63	
TIK4-80	80	
TIK4-100	100	
TIK4-125	125	



**RELEVANT STANDARD
EN 60947-3**

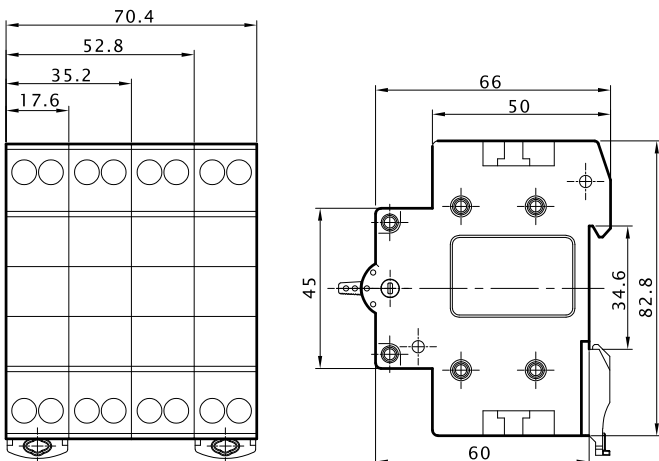
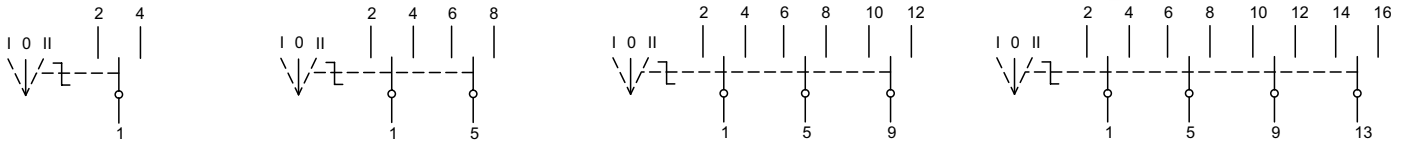
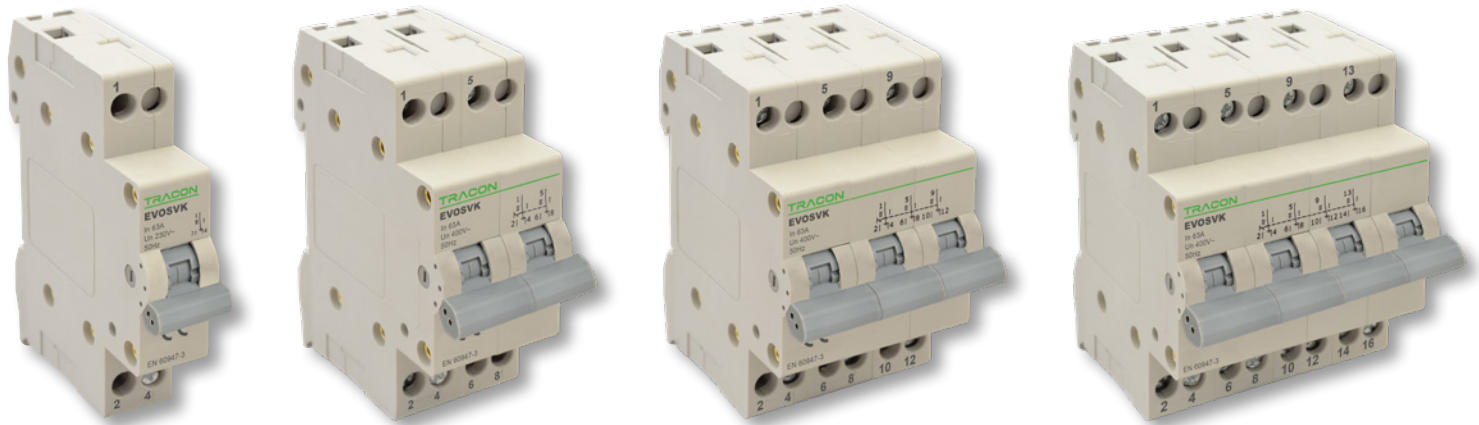


EVOSVK modular changeover switches

230/400 V AC	x30.000	x10.000	IP 20	35x7.5	[mm ²] 1-16	T_a -25...+55°C	U _i 690 V		U_{imp} 6 kV	1 0 2
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TRACON		I _n (A)
	SVK1-16	16
	SVK1-32	32
	SVK1-63	63
	SVK2-16	16
	SVK2-32	32
	SVK2-63	63

TRACON		I _n (A)
	SVK3-16	16
	SVK3-32	32
	SVK3-63	63
	SVK4-16	16
	SVK4-32	32
	SVK4-63	63

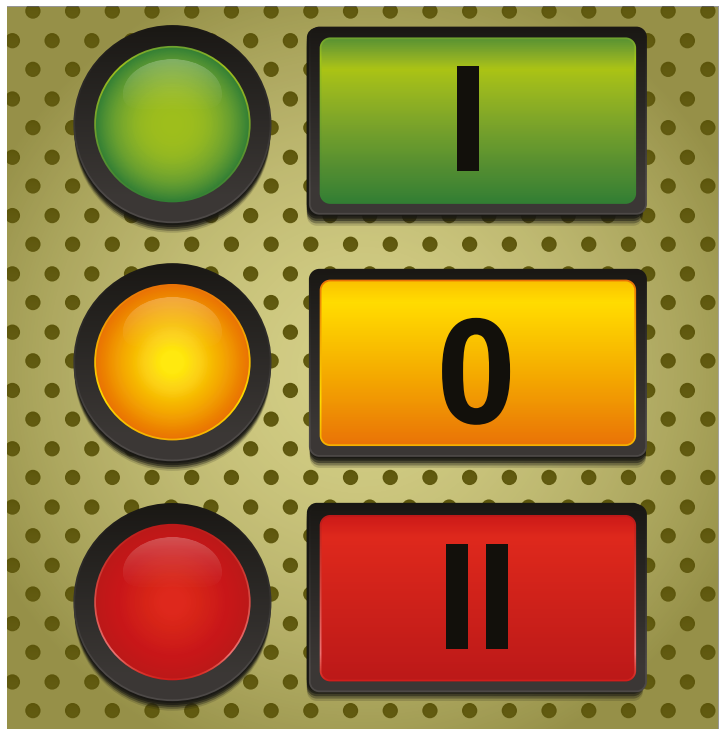


RELEVANT STANDARD
EN 60947-3

RELEVANT STANDARD
EN 60669-1



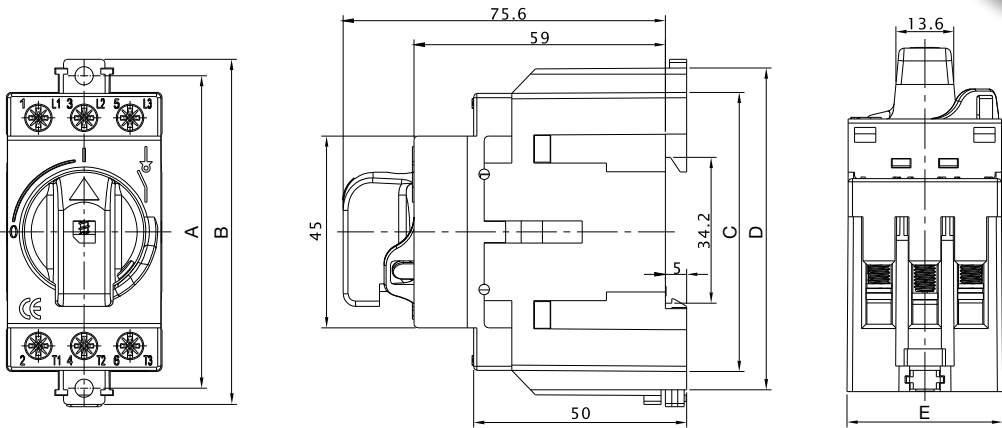
TÜV MEEI TEST DOCUMENTATION
28211822 001



EVOMS modular lockable disconnection switches

230/400 V AC
IP 20
35×7.5
Ta -25..+55°C
Ui 800 V
OFF

TRACON	Ith (40 °C)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	mm ²
EVOMS16/3	16A/3P						
EVOMS20/3	20A/3P	73,3	81	65,5	75,5	36,5	1,5-16
EVOMS25/3	25A/3P						
EVOMS40/3	40A/3P						
EVOMS80/3	80A/3P						
EVOMS100/3	100A/3P	88	97,5	76,5	93,5	52	25-50
EVOMS125/3	125A/3P						

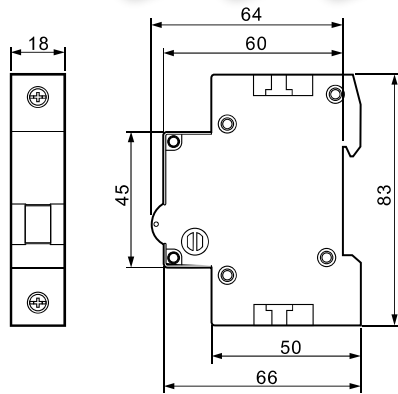


RELEVANT STANDARD
EN 60947-3

EVOSLJL signal lamps

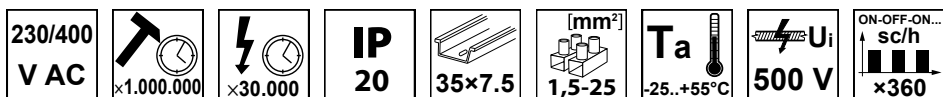
Pm 0,8 VA
20.000 [h]
IP 20
1-25 [mm²]
35×7.5
Ta -25..+55°C

TRACON	Color	Un	LED
SLJL-AC230-P	Red	230 V AC	× 1 LED
SLJL-AC230-Z	Blue	230 V AC	× 1 LED
SLJL-AC230-S	Yellow	230 V AC	× 1 LED
SLJL-AC230-F	White	230 V AC	× 1 LED
SLJL-AC230-K	Dark Blue	230 V AC	× 1 LED
SLJL-AC24-P	Red	24 V AC	× 1 LED
SLJL-AC24-Z	Blue	24 V AC	× 1 LED
SLJL-AC24-S	Yellow	24 V AC	× 1 LED
SLJL-AC24-F	White	24 V AC	× 1 LED
SLJL-AC24-K	Dark Blue	24 V AC	× 1 LED
SLJL-AC230-3Z	Blue, Red, Yellow	3×230 V AC	× 3 LED
SLJL-AC230-SZP	Yellow, Red, Blue	3×230 V AC	× 3 LED
SLJL-DC220-P	Red	220 V DC	× 1 LED
SLJL-DC220-Z	Blue	220 V DC	× 1 LED
SLJL-DC220-S	Yellow	220 V DC	× 1 LED
SLJL-DC220-F	White	220 V DC	× 1 LED
SLJL-DC220-K	Dark Blue	220 V DC	× 1 LED
SLJL-DC24-P	Red	24 V DC	× 1 LED
SLJL-DC24-Z	Blue	24 V DC	× 1 LED
SLJL-DC24-S	Yellow	24 V DC	× 1 LED
SLJL-DC24-F	White	24 V DC	× 1 LED
SLJL-DC24-K	Dark Blue	24 V DC	× 1 LED

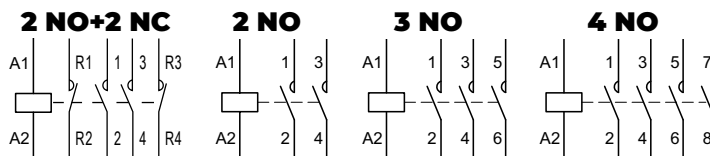
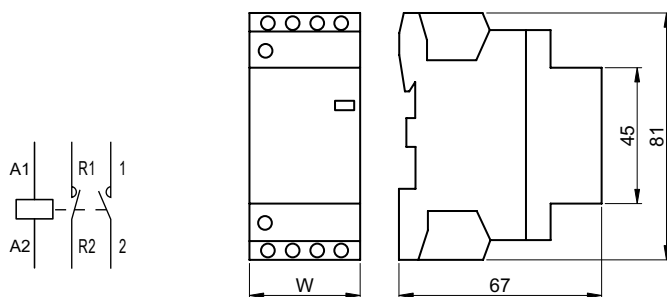


RELEVANT STANDARD
EN 62094-1
EN 60947-5

Contactors for installations

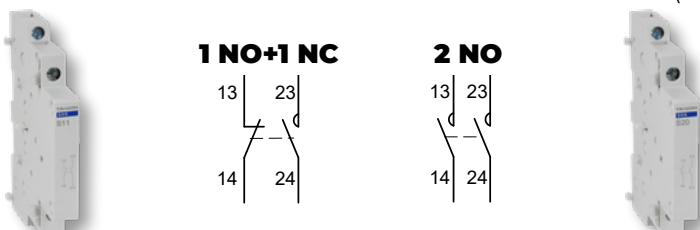


TRACON	U _m	I _n (A)	W (mm)	P _e (kW)				P _s			NC NO	
				AC1/ AC7a 230V	AC3/ AC7b 230V	AC1/ AC7a 400V	AC3/ AC7b 400V					
SHK2-25	230 V AC	25	18	5 kW	1,5 kW	-	-	1,35 W	20A gG	2 × NO	1-6	
SHK2-25V11	230 V AC	25	18	5 kW	1,5 kW	-	-	1,35 W	20A gG	1 × NO+1 × NC	1-6	
SHK2-25-24	24 V AC	25	18	5 kW	1,5 kW	-	-	1,35 W	20A gG	2 × NO	1-6	
SHK2-40	230 V AC	40	36	9 kW	2,2 kW	-	-	1,55 W	32A gG	2 × NO	2,5-25	
SHK2-40V11	230 V AC	40	36	9 kW	2,2 kW	-	-	1,55 W	32A gG	1 × NO+1 × NC	2,5-25	
SHK2-63	230 V AC	63	36	14 kW	5,5 kW	-	-	1,55 W	50A gG	2 × NO	2,5-25	
SHK2-63V11	230 V AC	63	36	14 kW	5,5 kW	-	-	1,55 W	50A gG	1 × NO+1 × NC	2,5-25	
SHK3-25	230 V AC	25	36	5 kW	1,5 kW	9,5 kW	3,4 kW	1,35 W	20A gG	3 × NO	1-6	
SHK3-40	230 V AC	40	54	9 kW	2,2 kW	16 kW	4 kW	1,55 W	32A gG	3 × NO	2,5-25	
SHK3-63	230 V AC	63	54	14 kW	5,5 kW	24 kW	9 kW	1,55 W	50A gG	3 × NO	2,5-25	
SHK4-25	230 V AC	25	36	5 kW	1,5 kW	9,5 kW	3,4 kW	1,35 W	20A gG	4 × NO	1-6	
SHK4-25V22	230 V AC	25	36	5 kW	1,5 kW	9,5 kW	3,4 kW	1,35 W	20A gG	2 × NO+2 × NC	1-6	
SHK4-40	230 V AC	40	54	9 kW	2,2 kW	16 kW	4 kW	1,55 W	32A gG	4 × NO	2,5-25	
SHK4-40V22	230 V AC	40	54	9 kW	2,2 kW	16 kW	4 kW	1,55 W	32A gG	2 × NO+2 × NC	2,5-25	
SHK4-63	230 V AC	63	54	14 kW	5,5 kW	24 kW	9 kW	1,55 W	50A gG	4 × NO	2,5-25	
SHK4-63V22	230 V AC	63	54	14 kW	5,5 kW	24 kW	9 kW	1,55 W	50A gG	2 × NO+2 × NC	2,5-25	
SHK2-25K	230 V AC	25	18	5 kW	1,5 kW	-	-	1,35 W	20A gG	2 × NO	1-6	
SHK2-40K	230 V AC	40	36	9 kW	2,2 kW	-	-	1,55 W	32A gG	2 × NO	2,5-25	
SHK2-63K	230 V AC	63	36	14 kW	5,5 kW	-	-	1,55 W	50A gG	2 × NO	2,5-25	
SHK4-25K	230 V AC	25	36	5 kW	1,5 kW	9,5 kW	3,4 kW	1,35 W	20A gG	4 × NO	1-6	
SHK4-40K	230 V AC	40	54	9 kW	2,2 kW	16 kW	4 kW	1,55 W	32A gG	4 × NO	2,5-25	
SHK4-63K	230 V AC	63	54	14 kW	5,5 kW	24 kW	9 kW	1,55 W	50A gG	4 × NO	2,5-25	










Auxiliary contact unit for SHK contactor

TRACON	U _m	I _n (A)	W (mm)	AC12 (230V)	AC15 (230V)	DC13 (130V)	NC NO	
SHK-S11	230 V AC	5 A	9 mm	5 A (AC12)	2 A (AC15)	1 A	1 × NO+1 × NC	1-6 mm ²
SHK-S20	230 V AC	5 A	9 mm	5 A (AC12)	2 A (AC15)	1 A	2 × NO	1-6 mm ²



KMH type high current overload circuit breakers

230/400 V AC	 $\times 10.000$	 $\times 4.000$	IP 20	 35x7.5	 [mm ²] 16-35	Ta -25..+55°C	 U_i 500 V	 12t 3	I_{cn} EN 60898 6 kA	 OFF
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TRACON



I_n
(A)

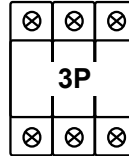
TRACON



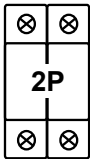
I_n
(A)



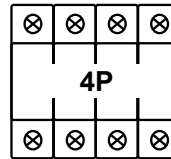
KMH-163	63
KMH-180	80
KMH-1100	100
KMH-1125	125



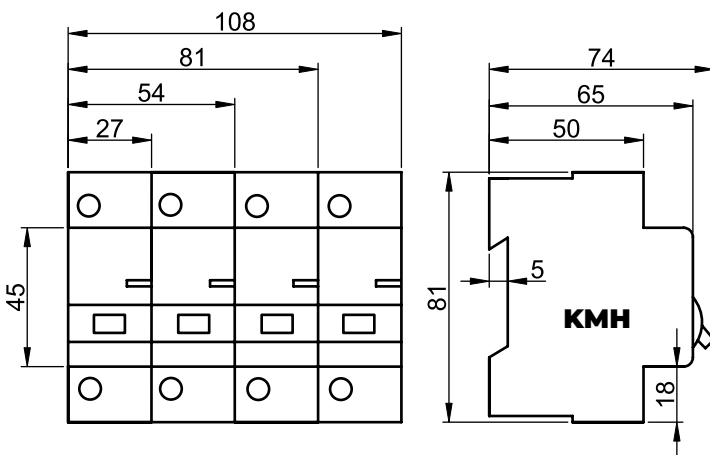
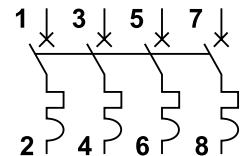
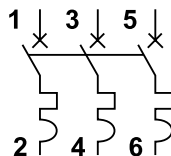
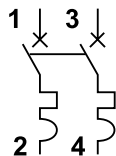
KMH-363	63
KMH-380	80
KMH-3100	100
KMH-3125	125



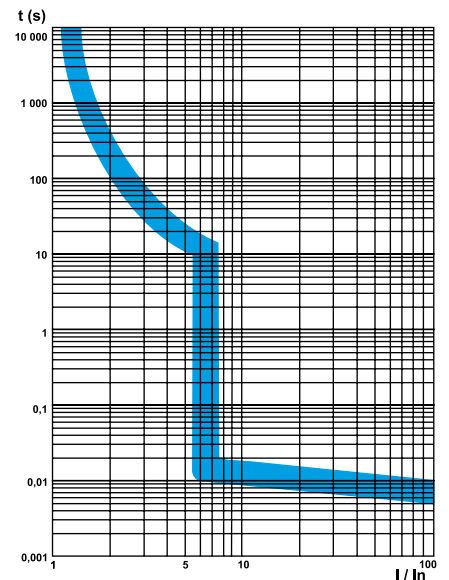
KMH-263	63
KMH-280	80
KMH-2100	100
KMH-2125	125



KMH-463	63
KMH-480	80
KMH-4100	100
KMH-4125	125



Tripping characteristic



RELEVANT STANDARD
EN 60898

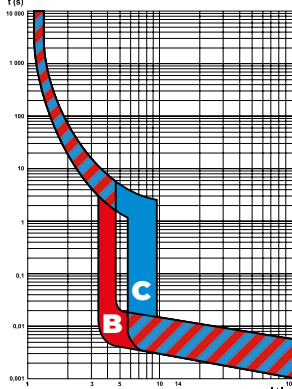
KVK type combined protective switches



230 V AC
 $\times 20.000$
 $\times 4.000$
IP 20
35x7.5
[mm²] 1,0-10
Ta -25...+55°C
690 V
AC
I_{cn} EN 60898 3 kA

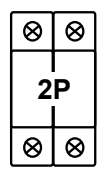
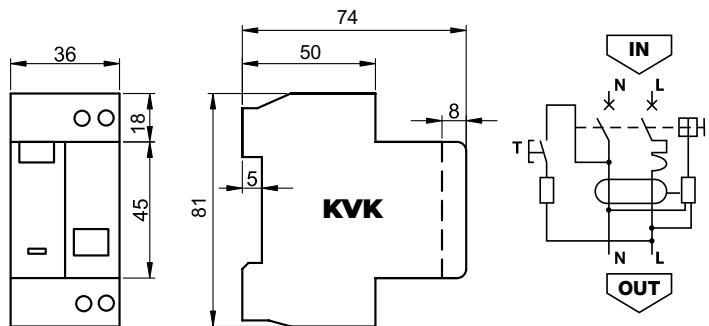


Tripping characteristic



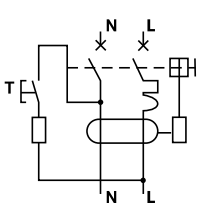
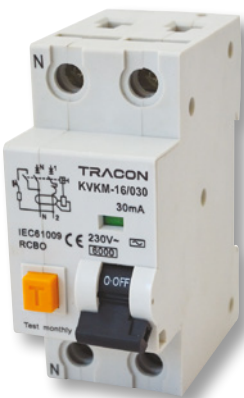
E3

TRACON		I _n (A)	I Δ _n (mA)
B	C		
KVKB-6/03	KVK-6/03	6	30
KVKB-6/10	KVK-6/10	6	100
KVKB-6/30	KVK-6/30	6	300
KVKB-10/03	KVK-10/03	10	30
KVKB-10/10	KVK-10/10	10	100
KVKB-10/30	KVK-10/30	10	300
KVKB-16/03	KVK-16/03	16	30
KVKB-16/10	KVK-16/10	16	100
KVKB-16/30	KVK-16/30	16	300
KVKB-20/03	KVK-20/03	20	30
KVKB-20/10	KVK-20/10	20	100
KVKB-20/30	KVK-20/30	20	300
KVKB-25/03	KVK-25/03	25	30
KVKB-25/10	KVK-25/10	25	100
KVKB-25/30	KVK-25/30	25	300
KVKB-32/03	KVK-32/03	32	30
KVKB-32/10	KVK-32/10	32	100
KVKB-32/30	KVK-32/30	32	300

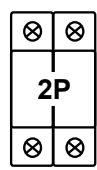
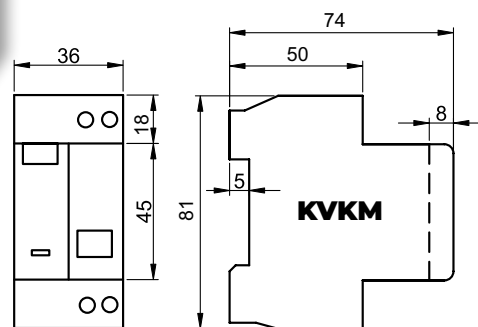


KVKM type combined protective switches, electromechanical

230 V AC
 $\times 20.000$
 $\times 4.000$
IP 20
35x7.5
[mm²] 1,5-10
Ta -25...+55°C
690 V
AC
I_{cn} EN 60898 6 kA
OFF

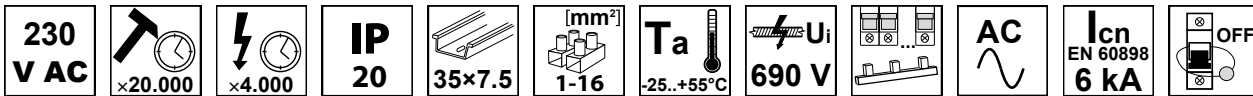


TRACON		I _n (A)	I Δ _n (mA)
B	C		
KVKMB-6/030	KVKM-6/030	6	30
KVKMB-6/100	KVKM-6/100	6	100
KVKMB-6/300	KVKM-6/300	6	300
KVKMB-10/030	KVKM-10/030	10	30
KVKMB-10/100	KVKM-10/100	10	100
KVKMB-10/300	KVKM-10/300	10	300
KVKMB-16/030	KVKM-16/030	16	30
KVKMB-16/100	KVKM-16/100	16	100
KVKMB-16/300	KVKM-16/300	16	300
KVKMB-20/030	KVKM-20/030	20	30
KVKMB-20/100	KVKM-20/100	20	100
KVKMB-20/300	KVKM-20/300	20	300
KVKMB-25/030	KVKM-25/030	25	30
KVKMB-25/100	KVKM-25/100	25	100
KVKMB-25/300	KVKM-25/300	25	300
KVKMB-32/030	KVKM-32/030	32	30
KVKMB-32/100	KVKM-32/100	32	100
KVKMB-32/300	KVKM-32/300	32	300
KVKMB-40/030	KVKM-40/030	40	30
KVKMB-40/100	KVKM-40/100	40	100
KVKMB-40/300	KVKM-40/300	40	300

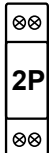


The electro-mechanic RCCB protects against electric shock even in case of braking of neutral-wire!

KVKVE Combined protective switch with one-module width

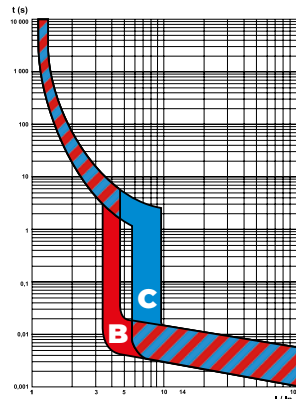


TRACON		I _n (A)	I Δ _n (mA)
B	C		
KVKVEB-6/30	KVKVE-6/30	6	30
KVKVEB-6/100	KVKVE-6/100	6	100
KVKVEB-10/30	KVKVE-10/30	10	30
KVKVEB-10/100	KVKVE-10/100	10	100
KVKVEB-13/30	KVKVE-13/30	13	30
KVKVEB-13/100	KVKVE-13/100	13	100
KVKVEB-16/30	KVKVE-16/30	16	30
KVKVEB-16/100	KVKVE-16/100	16	100
KVKVEB-20/30	KVKVE-20/30	20	30
KVKVEB-20/100	KVKVE-20/100	20	100
KVKVEB-25/30	KVKVE-25/30	25	30
KVKVEB-25/100	KVKVE-25/100	25	100
KVKVEB-32/30	KVKVE-32/30	32	30
KVKVEB-32/100	KVKVE-32/100	32	100

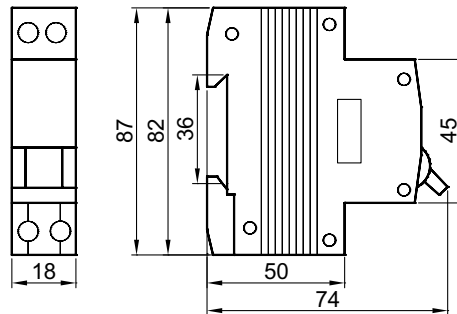


**RELEVANT STANDARD
EN 61009-1**

Tripping characteristic



E3



Lockable latch for modular protecting devices

The modular protecting devices can be locked with padlock on "OFF" position by using this latch. It is suitable for devices with 8 – 10 mm actuator lever cutting and two 1 - 1,5 mm hole are needed on the top of lever arch to fix the latch. The shackle diameter of used padlock can be up to 8 mm. Using the latch to lock "ON" position is forbidden!

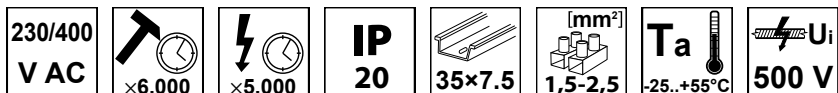


MDL

MB, RB, TDZ, KVKM, KVK, KVKVE, TFG, TFIG, TFV, EVO..



Auxiliary units



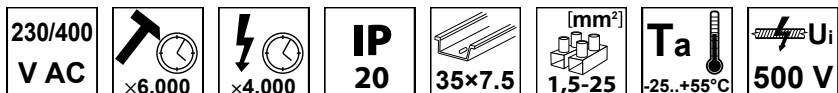
TRACON		I_n (A) (415 V AC)	I_n (A) (240 V AC)	I_n (A) (125 V DC)	I_n (A) (48 V DC)	I_n (A) (24 V DC)
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TDZ-F2

TDZ 3 A 6 A 1 A 2 A 4 A

This contact shows the ON/OFF state of the circuit breaker's contact.

Working current (shunt) release



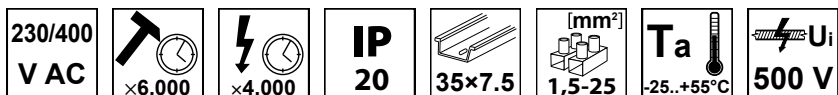
TRACON		U_m
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C60-S2

TDZ 110-415 V AC / 110-220 V DC

It switches off the connected circuit breaker by impulse operating voltage, thus being suitable for remote control. In case of release the reset button jumps out and the circuit breaker can be switched on again only after pushing this button in. Attention: the operating coil is allowed to be under voltage for 10 sec maximum!

Under/over voltage release



TRACON		U_{up}	U_{down}
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C60-U2/O2

TDZ 280 V ± 5 % 170 V ± 5 %

The release switches off the circuit breaker if the supply voltage is beyond rated operating range, protecting the attached device from harmful impacts of voltage variation. The circuit breaker is able to switch on only when the voltage on the contacts of the release gets back into the operating range (170 V – 280 V). In case of release the reset button jumps out and the circuit breaker can be switched on again only after pushing this button in.

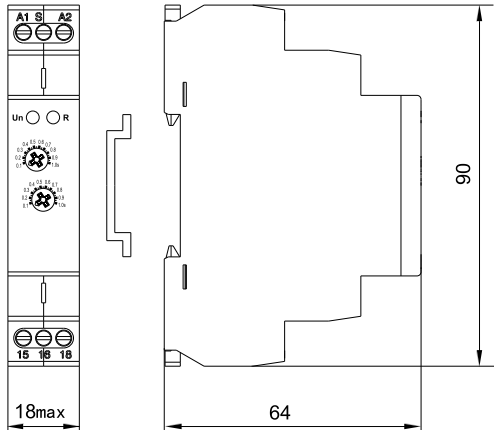
One function (ON delay) time relay

I_e (AC 1, 230 V) 16 A	mm² 1-2,5	IP 20	T_a -20...+55 °C	35×7.5		AUX 1×CO
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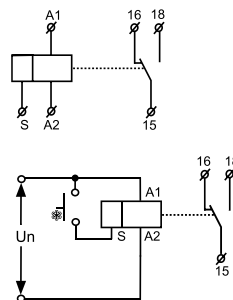
TRACON	U_m	VAC A				
NARIDON	AC/DC 12-240 V	16 A 230 VAC	± 0,2 %	± 5 %	0,1 s - 10 h	62 g

Application:

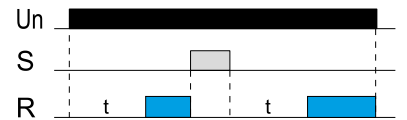
- for tasks where the operation time depends on the switch ON of the device
- for pumps, heatings, ventilations, etc.



**RELEVANT STANDARD
EN 61812-1**



* Step button (impulse signal)



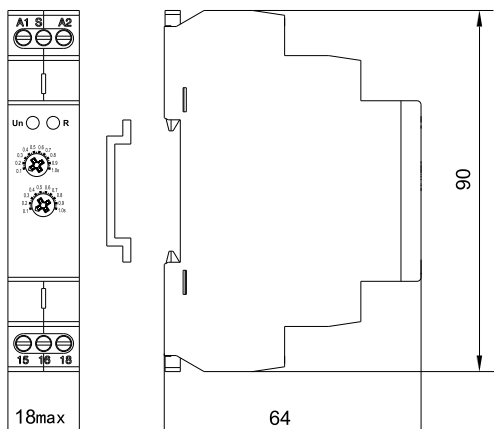
One function (OFF delay) time relay

I_e (AC 1, 230 V) 16 A	mm² 1-2,5	IP 20	T_a -20...+55 °C	35×7.5		AUX 1×CO
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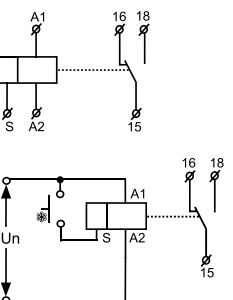
TRACON	U_m	VAC A				
NARIDOFF	AC/DC 12-240 V	16 A 230 VAC	± 0,2 %	± 5 %	0,1 s - 10 h	62 g

Application:

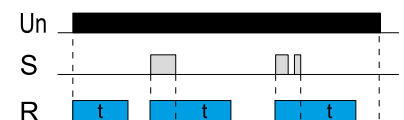
- for tasks where the operation time is depends on the switch OFF of the device
- for pumps, heatings, ventilations, etc.



**RELEVANT STANDARD
EN 61812-1**



* Step button (impulse signal)



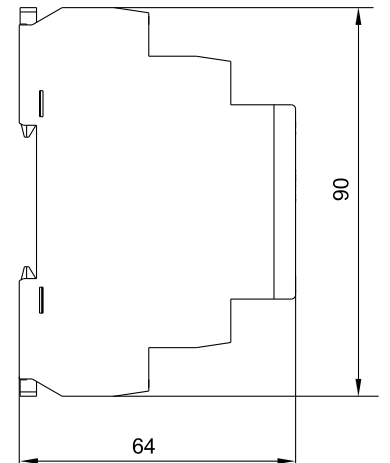
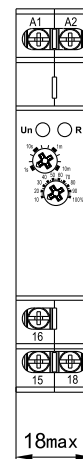
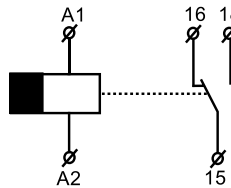
Delay OFF time relay with supply voltage actuation

I_e (AC 1, 230 V) 16 A	[mm²] 1-2,5	IP 20	T_a -20...+55 °C	35×7.5		 1×CO
---	----------------------------------	------------------------	--------------------------------------	--------	--	----------

TRACON	U_m	VAC A	 0 10 ha %	 ha %	 0,1 s - 10 min.	 86 g
NARIDOFFS	AC/DC 12-240 V	16 A 230 VAC	± 0,2 %	± 5 %		

Application:

- For emergency applications where the device must be operating in case of blackout.



RELEVANT STANDARD
EN 61812-1

Star-delta time relay

I_e (AC 1, 230 V) 16 A	[mm²] 1-2,5	IP 20	T_a -20...+55 °C	35×7.5		 2×CO
---	----------------------------------	------------------------	--------------------------------------	--------	--	----------

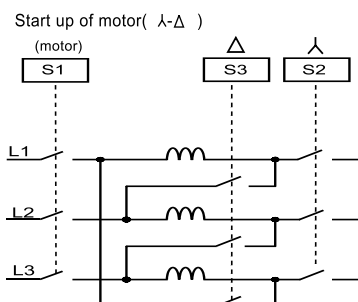
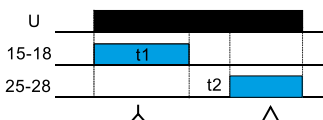
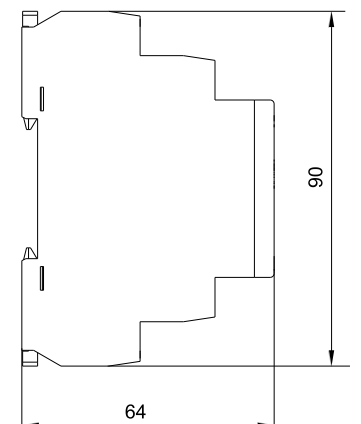
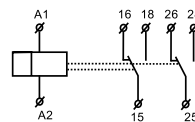
TRACON	U_m	VAC A	 0 10 ha %	 ha %	t₁ 	t₂ 	 86 g
NARIST	AC/DC 12-240 V	16 A 230 VAC	± 0,2 %	± 5 %	0,1 s - 10 min.	0,1 s - 1 s	

Application:

- Three phase electric motors with short circuit rotor need too much current during start procedure. To prevent damages, the supply voltage is first applied and the star contacts are closed. After the motor reaches its rated regime, relays commute back to triangle mode.



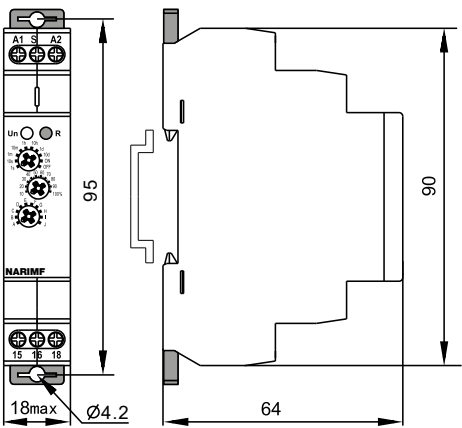
RELEVANT STANDARD
EN 61812-1



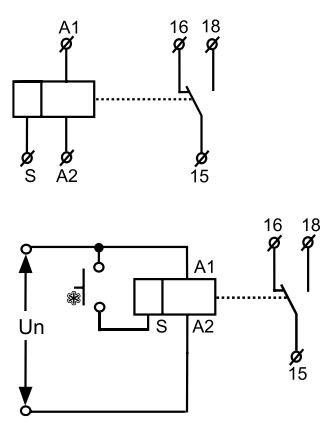
Multifunction time relay (10 functions)

I_e (AC 1, 230 V) 16 A	[mm²] 1-2,5	IP 20	T_a -20...+55 °C	35×7.5	1×CO
---	----------------------------------	------------------------	--------------------------------------	---------------	-------------

TRACON	U_m	VAC A	0 10 ha %	ha %	0 10 6	m
NARIMF	AC/DC 12-240 V	16 A 230 VAC	± 0,2 %	± 5 %	0,1 s - 10 d	64 g



Application
- This multifunction time relay gives some wide range solutions for different time control tasks with only one device.



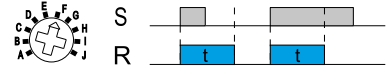
RELEVANT STANDARD
EN 61812-1

* Step button (impulse signal)

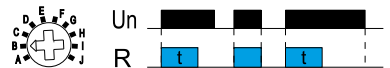
A: ON delay



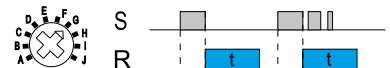
F: OFF delay (S control signal, 1 tact)



B: OFF delay



G: One tact, control impulse for running edge (cannot restart in ON state)



C: Flasher (starts OFF)



H: ON and OFF delay



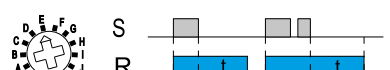
D: Flasher (starts ON)



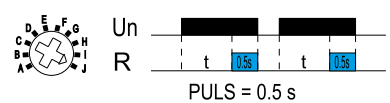
I: Impulse relay



E: OFF delay (S control signal pause)



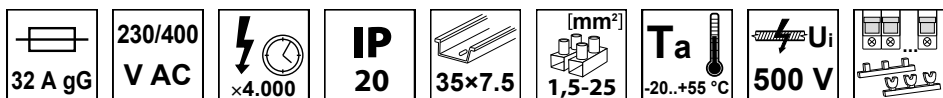
J: Impulse generator



Time range

0.1 - 1s	1 - 10s	6 - 60s	1 - 10min	6 - 60min	1 - 10hr	0.1 - 1day	1 - 10day	only ON	only OFF
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Auto reclose under- and overvoltage relay

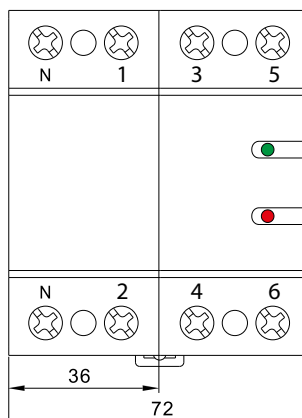


TRACON	2P		4P	
	EVOU02	EVOUC2P63	EVOU04	EVOU04P63
Rated voltage	230 V AC		230 V AC (L-N)	
Rated frequency			50 Hz	
Rated current			40 A (AC 1)	
Self power consumption			AC max. 3 VA	
Upper protection level	265 V (fix)		265 V (L-N) (fix)	
Upper reclosing level	257 V (fix)		257 V (L-N) (fix)	
Lower protection level	175 V (fix)		175 V (L-N) (fix)	
Lower reclosing level	180 V (fix)		180 V (L-N) (fix)	
Switching time			1 s	
Switching delay			2 s	
Reclosing time			30 s	
Measuring accuracy			≤1%	

Weight

120 g

250 g

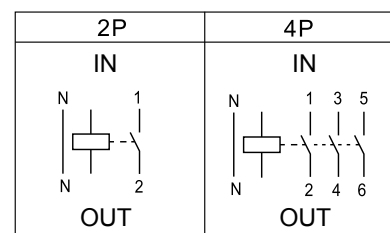
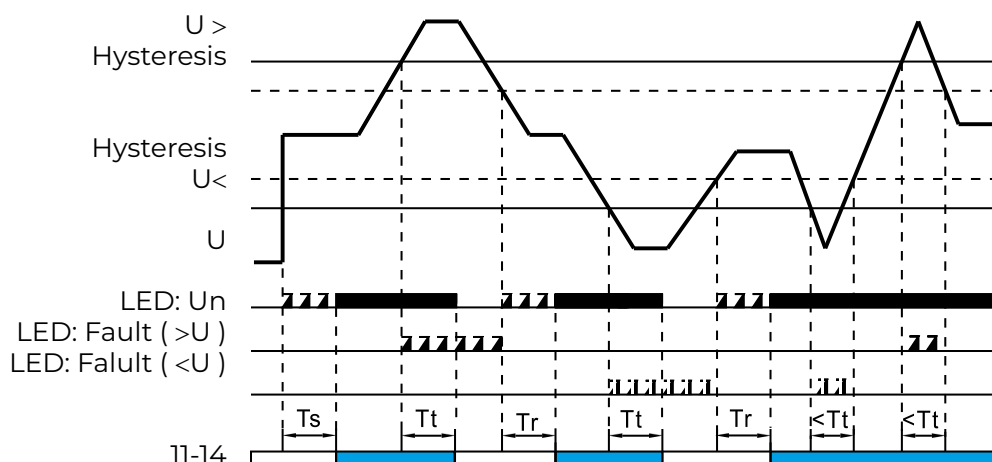


EVOU02

EVOU04



- protection against voltage rise and fall.
- the device disconnects the circuit from the mains as soon as the voltage exceeds the limits
- as soon as the voltage is within the limits, it automatically returns the voltage to the mains after 30s!
- the operating status is indicated by LEDs



LED- fault Ts: Operation run-up time
 LED- fault Tt: Switch-OFF delay
 Tr: Reset time



BREAKS?



MALFUNCTIONS?



STOPS WORKING?



IT'S TIME FOR THAT TO CHANGE



**TRACON CIRCUIT BREAKERS
ONCE AND FOR ALL!**



**TRACON'S TDZ AND EVOZ PRODUCTS ARE THE
RESULT OF SUCH AN ENGINEERING EXCELLENCE,
THAT MADE TRACON THE OFFICIAL SUPPLIER TO
HUNGARIAN POWER COMPANIES.**

**WE ARE SO CONFIDENT IN THE QUALITY OF OUR PRODUCTS,
THAT WE ARE AMONG THE FIRST IN THE WORLD,
TO OFFER A LIFETIME WARRANTY
ON OUR CIRCUIT BREAKERS.**



TRUST IN OUR 30 YEARS OF EXPERIENCE.



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ertekesites@tracon.hu

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