

Data Sheet for Article: AK618640--

Combined MCB/RCD (RCBO) 1+N, AMPARO 10kA, B 40A, 30mA, Typ A

Neutral right, Product category A, Type undelayed, Product standard EN 61009-1:2012 + A1:2014 + A2:2014 + A11:2015 + A12:2016, EN 61009-2-1:1994 + A11:1998, IEC 61009-1, IEC 61009-2-1



Schrack Info

- Double lift terminals on the lower side
- Pinch protection for safe connection
- Terminal cross-section: 1 - 25mm²
- Switch position indicator

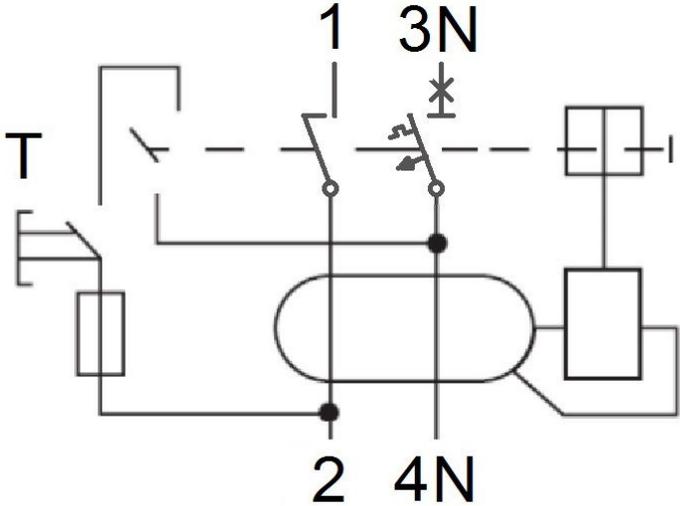
Technical Data

Standard	IEC 61009-1 EN 61009-1
Product category	A
Type	undelayed
Rated sensitivity I Δ n (mA)	30
Tripping characteristics	B
Rated current (A)	40
Poles	1+N

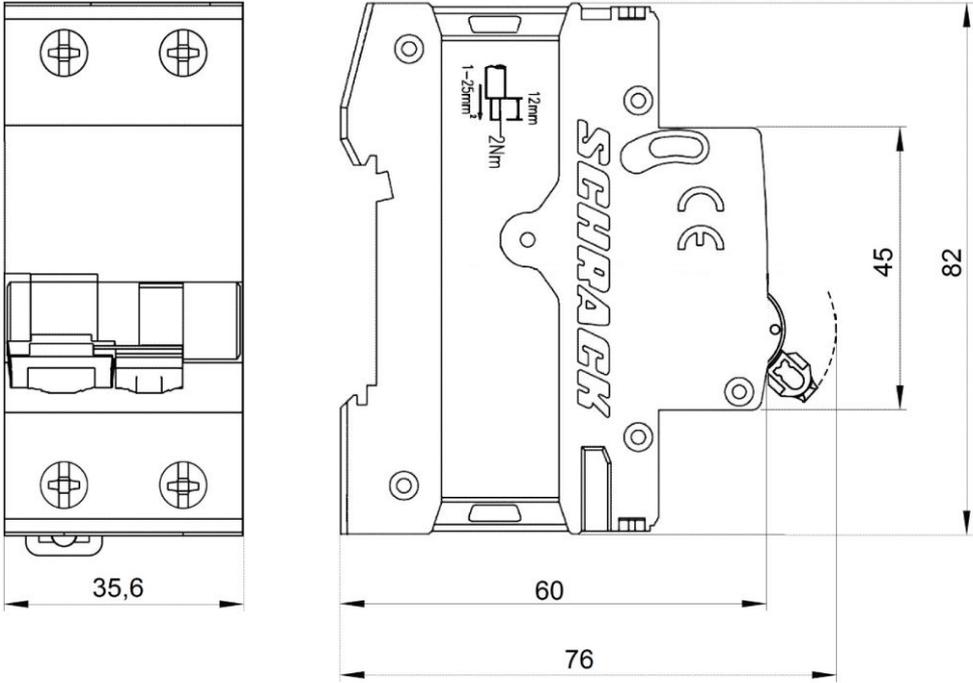
Technical Data - continued

Rated voltage	230/400 V AC
Rated frequency (Hz)	50/ 60
Energy limiting class	3
Breaking capacity I _m (A)	500
Short circuit withstand	10 kA
Rated breaking capacity (kA)	10
Rated impulse withstand voltage U _{imp}	6kV
Dielectric test voltage at ind. Frequency (V)	2000
Insulation voltage	500 V
Max. permissible back-up fuse against short circuit (A gG)	63
Trigger time undelayed	≥5 x I _{Δn} : ≤40ms 2 x I _{Δn} : ≤150ms I _{Δn} : ≤300ms
Non-tripping residual current	≤0,5 I _{Δn}
Power loss (W)	9,61
Pollution degree	2
Lifetime, electric	2000 Operations
Lifespan, mechanical	2000 Operations
Contact setting display	Yes
IP Rating	IP20
Terminal cross section (mm ²)	1-25
Clamp size for busbar	10 mm ²
Conductor material	Copper
Torque	2 Nm
Infeed	two-sided
Terminal type	Double function clamp / pin and fork busbar (bottom) Lift clamp cable / pin busbar (top)
Reference temperature (°C)	30
Ambient temperature Open (°C)	-25 bis +70
Mounting	On DIN rail according to EN 60715 (35mm) via quick mounting clip
Optional Accessories	AM900099--;BS990112-A
Series	AMPARO

Circuit diagram

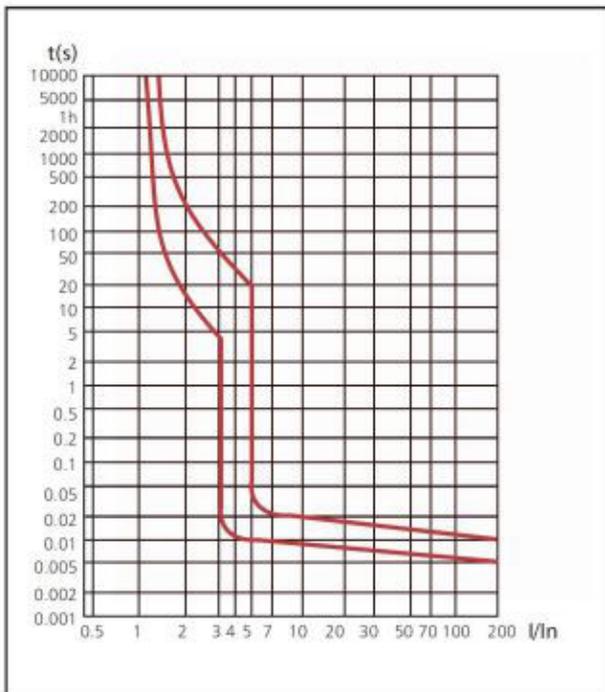


Dimensions



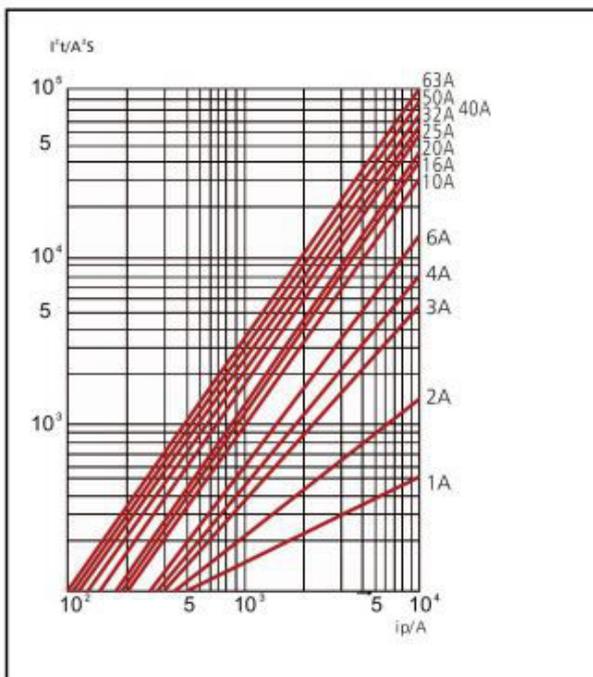
Tripping characteristic according to IEC 60898

Kennlinie B

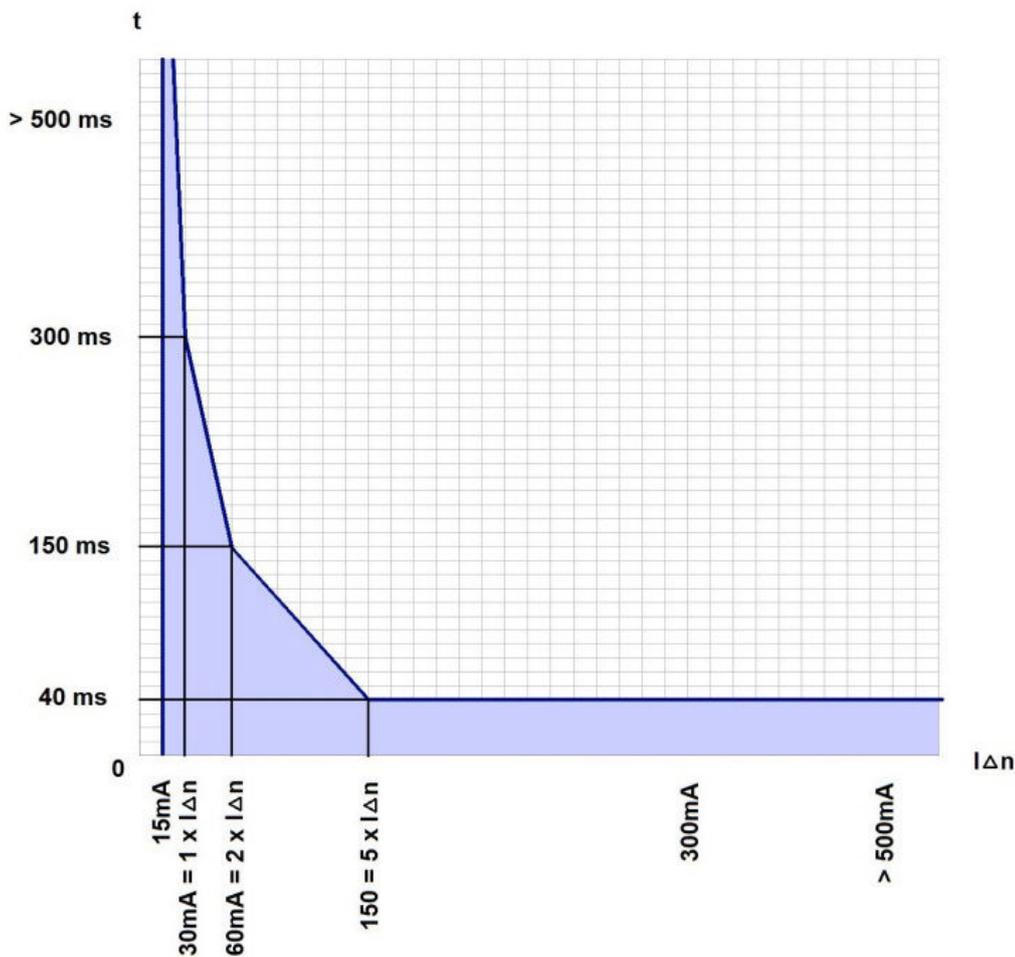


Let-through energy characteristic

Durchlassenergie I^2t



Tripping characteristic



Influence of the ambient temperature on the thermal tripping behavior

In (A)	Ambient temperature T (°C)								
	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
6	7.2	6.9	6.6	6.3	6	5.7	5.4	5.1	4.8
10	12	11.5	11	10.5	10	9.5	9	8.5	8
16	19.2	18.4	17.6	16.8	16	15.2	14.4	13.6	12.8
20	24	23	22	21	20	19	18	17	16
25	30	28.8	27.5	26.3	25	23.8	22,5	21.3	20
32	38.4	36.8	35.2	33.6	32	30.4	28.8	27.2	25.6
40	48	46	44	42	40	38	36	34	32

Short-circuit selectivity to NH fuses with characteristic curve gG/gL

Short-circuit selectivity **Characteristic B** of fuse insert

I_n [A]	NH-00 gL/gG								
	20	25	36	50	63	80	100	125	160
6	0.5 kA	0.8 kA	1.9 kA	2.5 kA	4.5 kA	5 kA	6 kA	6 kA	6 kA
10		0.7 kA	1.4 kA	2.2 kA	3.2 kA	3.6 kA	6 kA	6 kA	6 kA
16			1.2 kA	1.8 kA	2.6 kA	3 kA	5.6 kA	6 kA	6 kA
20				1.5 kA	2.2 kA	2.5 kA	4.6 kA	6 kA	6 kA
25				1.3 kA	2 kA	2.2 kA	4.1 kA	5.5 kA	6 kA

Short-circuit selectivity **Characteristic C** of fuse insert

I_n [A]	NH-00 gL/gG								
	20	25	36	50	63	80	100	125	160
6	0.5 kA	0.8 kA	1.9 kA	2.5 kA	4.5 kA	5 kA	6 kA	6 kA	6 kA
10		0.7 kA	1.4 kA	2.2 kA	3.2 kA	3.6 kA	6 kA	6 kA	6 kA
16			1.2 kA	1.8 kA	2.6 kA	3 kA	5.6 kA	6 kA	6 kA
20				1.5 kA	2.2 kA	2.5 kA	4.6 kA	6 kA	6 kA
25				1.3 kA	2 kA	2.2 kA	4.1 kA	5.5 kA	6 kA

Short-circuit selectivity to circuit breaker size 1

Short-circuit selectivity **Kennlinie B** of fuse insert

I_n [A]	MC1				
	40	50	63	80	100
6	1.2 kA	2 kA	2.5 kA	3 kA	5 kA
10	1.2 kA	1.5 kA	2 kA	2 kA	4 kA
16	1 kA	1.2 kA	1.5 kA	2 kA	3 kA
20	0.8 kA	1.2 kA	1.5 kA	1.5 kA	3 kA
25	0.7 kA	1.2 kA	1.5 kA	1.5 kA	3 kA

Short-circuit selectivity **Kennlinie C** of fuse insert

I_n [A]	MC1				
	40	50	63	80	100
6	1.2 kA	2 kA	2.5 kA	3 kA	5 kA
10	1.2 kA	1.5 kA	2 kA	2 kA	4 kA
16	1 kA	1.2 kA	1.5 kA	2 kA	3 kA
20	0.8 kA	1.2 kA	1.5 kA	1.5 kA	3 kA
25	0.7 kA	1.2 kA	1.5 kA	1.5 kA	3 kA

Short-circuit selectivity to circuit breaker size 2

Short-circuit selectivity **Kennlinie B** to circuit breaker

I_n [A]	MC2				
	40	50	63	80	100
6	1.2 kA	1.5 kA	2.5 kA	3 kA	6 kA
10	1 kA	1.5 kA	2.5 kA	3 kA	6 kA
13	1 kA	1.2 kA	2 kA	3 kA	6 kA
16	1 kA	1.2 kA	1.5 kA	2.5 kA	6 kA
20	1 kA	1.2 kA	1.5 kA	2 kA	6 kA
25	0.8 kA	1 kA	1.5 kA	2 kA	6 kA

Short-circuit selectivity **Kennlinie C** to circuit breaker

I_n [A]	MC2				
	40	50	63	80	100
6	1.2 kA	1.5 kA	2.5 kA	3 kA	6 kA
10	1 kA	1.5 kA	2.5 kA	3 kA	6 kA
13	1 kA	1.2 kA	2 kA	3 kA	6 kA
16	1 kA	1.2 kA	1.5 kA	2.5 kA	6 kA
20	1 kA	1.2 kA	1.5 kA	1.5 kA	6 kA
25	0.8 kA	1 kA	1.5 kA	2 kA	6 kA

Number of possible wires

Cross-section [mm ²]	Number of rigid single wire conductors					
	1	2	3	4	5	6
1	+	+	+	+	+	+
1.5	+	+	+	+	+	+
2.5	+	+	+	-	-	-
4	+	+	+	-	-	-
6	+	+	+	-	-	-

Cross-section [mm ²]	Number of rigid multi wire conductors					
	1	2	3	4	5	6
10	+	+	-	-	-	-
16	+	-	-	-	-	-
25	+	-	-	-	-	-

Cross-section [mm ²]	Number of flexible single wire conductors (without ferrule)					
	1	2	3	4	5	6
1	+	+	+	+	+	+
1.5	+	+	+	+	+	+
2.5	+	+	+	+	-	-
4	+	+	+	-	-	-
6	+	+	-	-	-	-
10	+	+	-	-	-	-
16	+	-	-	-	-	-
25	+	-	-	-	-	-

Cross-section [mm ²]	Number of flexible single wire conductors (with ferrule)					
	1	2	3	4	5	6
1	+	-	-	-	-	-
1.5	+	-	-	-	-	-
2.5	+	-	-	-	-	-
4	+	-	-	-	-	-
6	+	-	-	-	-	-
10	+	-	-	-	-	-
16	+	-	-	-	-	-
25	-	-	-	-	-	-

Article Table

DESCRIPTION	Order No.
Combined MCB/RCD (RCBO) 1+N, AMPARO 10kA, B 40A, 30mA, Typ A Neutral right, Product category A, Type undelayed, Product standard EN 61009-1:2012 + A1:2014 + A2:2014 + A11:2015 + A12:2016, EN 61009-2-1:1994 + A11:1998, IEC 61009-1, IEC 61009-2-1	AK618640
Optional Accessories	
Auxiliary Contact 1 CO, series AMPARO snap-on Product category AM6, Product standard EN 60947-5-1:2017	AM900099
	BS990112-A