

Data Sheet for Article: AM617540--

Miniature Circuit Breaker (MCB) AMPARO 6kA, C 40A, 1+N, 1MW

Neutral left, Product category 1+N auf 1TE, Product standard EN 60898-1:2019, IEC 60898-1



Schrack Info

- Double lift and clamp terminals on both sides
- Neutral on the left side
- Back terminal protection for safe connection
- Terminal cross section: 1 - 25mm²
- Snap-on mounting for DIN rail EN 60715

Technical Data

Standard	IEC 60898-1 EN 60898-1
Rated voltage	230/400 - 240/415V
Rated frequency (Hz)	50/ 60
Tripping characteristics	C
Rated current (A)	40
Poles	N+1
Short circuit withstand	6 kA (IEC/EN 60898)

Technical Data - continued

Rated impulse withstand voltage Uimp	4kV
Energy limiting class	3
Test voltage (V)	2000
Pollution degree	2
Power loss (W)	7,00
Internal resistance	40A: 1.660mΩ
Lifetime, electric	4000 Operations
Lifespan, mechanical	20000 Operations
IP Rating	IP20
Connections	both sides
Terminal cross section (mm²)	1-25
Conductor material	Copper
Terminal type	Double Mouth Lift Clamp with Back clamps Protection
Torque	2.5 Nm
Calibration-Temperature (°C)	30
Temperature range - Operation (°C)	-25 to +70
Ambient temperature Open (°C)	-5°C bis +40
Mounting	On DIN rail according to EN 60715 (35mm) via quick mounting clip
Optional Accessories	BSA90121--;BSA90120--;BSA90122--;BSA90169--;BSA90164--;BSA90167--;BSA90170--;BSA90172--;AM900099--;AM900008--;AM900006--;AM900005--
Mounting position	any
Amperage (A)	40
Product category	1+N auf 1TE
Rated breaking capacity (kA)	6
Product standard	IEC 60898-1 EN 60898-1:2019

Datei Tabelle: Miniature Circuit Breaker (MCB) AMPARO 6kA, C 40A, 1+N, 1MW

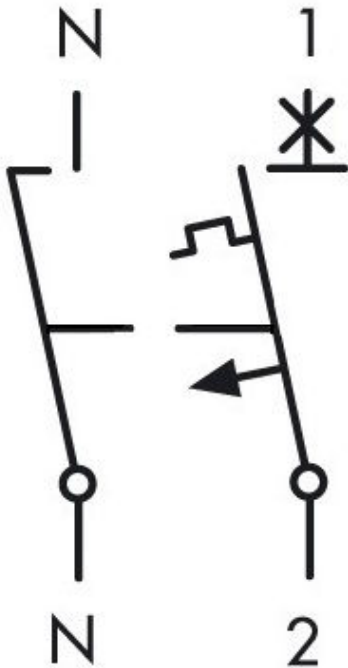
Cross-section [mm ²]	Number of rigid single wire conductors					
	1	2	3	4	5	6
1	+	+	+	+	-	-
1.5	+	+	+	+	+	-
2.5	+	+	+	+	-	-
4	+	+	+	-	-	-
6	+	+	-	-	-	-

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

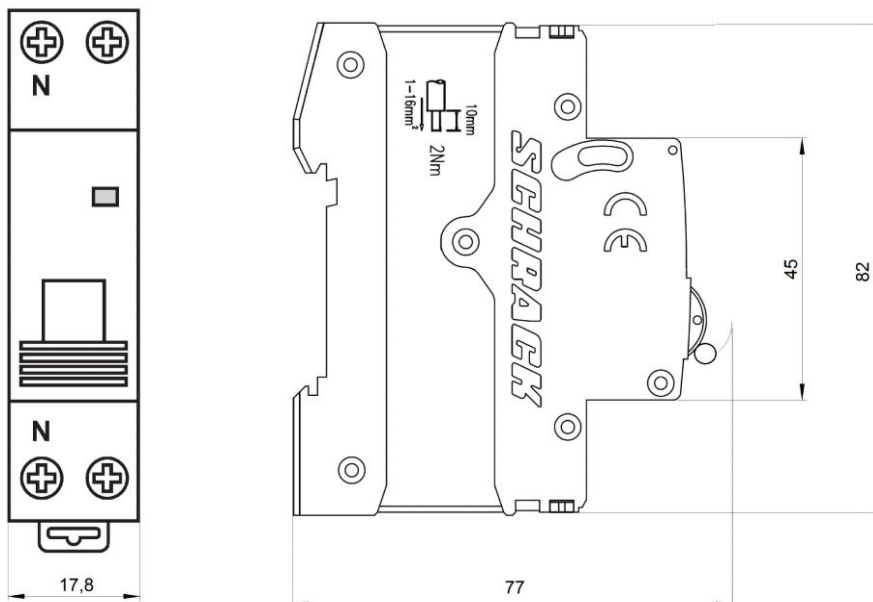
Cross-section [mm ²]	Number of flexible single wire conductors (without ferrule)					
	1	2	3	4	5	6
1	+	+	+	+	+	+
1.5	+	+	+	+	+	+
2.5	+	+	+	+	-	-
4	+	+	+	-	-	-
6	+	+	-	-	-	-
10	+	+	-	-	-	-
16	+	-	-	-	-	-

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	-	-	-	-	-	-

Schaltbild

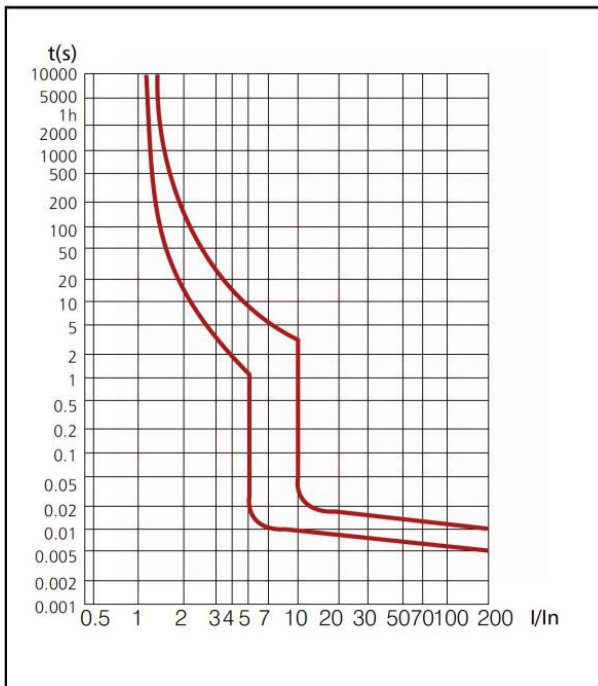


Maßbild



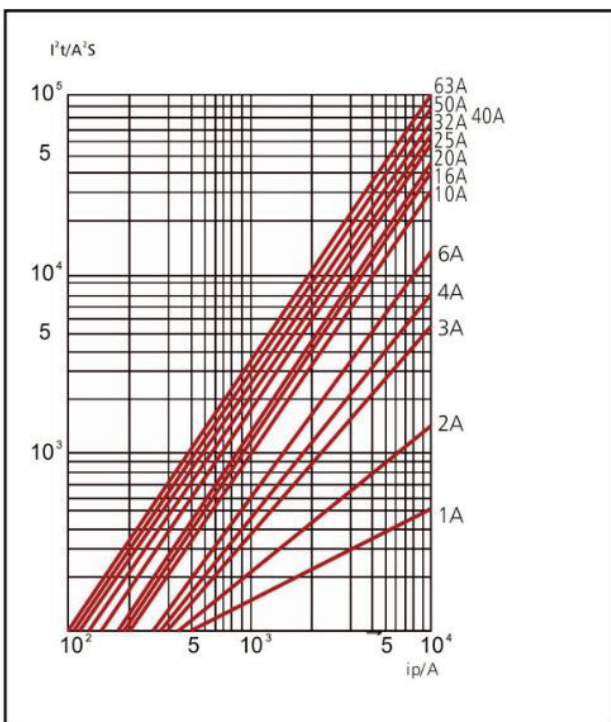
Auslösecharakteristik nach IEC 60898

Kennlinie C



Durchlassenergie-Kennlinie

I^2t Durchlassenergie/ let-through energy



Influence of ambient temperature on tripping current

In	Ambient temperature [°C]											
	-35°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
2A	2.60	2.52	2.46	2.38	2.28	2.20	2.08	2.00	1.92	1.86	1.76	1.66
4A	5.20	5.04	4.92	4.76	4.56	4.40	4.16	4.00	3.84	3.76	3.52	3.32
6A	7.80	7.56	7.38	7.14	6.84	6.60	6.24	6.00	5.76	5.64	5.28	4.98
10A	13.20	12.70	12.50	12.00	11.50	11.10	10.60	10.00	9.60	9.30	8.90	8.40
16A	21.12	20.48	20.00	19.20	18.40	17.76	16.96	16.00	15.36	14.88	14.24	13.44
20A	26.40	25.60	25.00	24.00	23.00	22.20	21.20	20.00	19.20	18.60	17.80	16.80
25A	33.00	32.00	31.25	30.00	28.75	27.75	26.50	25.00	24.00	23.25	22.25	21.00
32A	42.56	41.28	40.00	38.72	37.12	35.52	33.92	32.00	30.72	29.76	28.16	26.88
40A	53.20	51.20	50.00	48.00	46.40	44.80	42.40	40.00	38.40	37.20	35.60	33.60
50A	67.00	65.50	63.00	60.50	58.00	56.00	53.00	50.00	48.00	46.50	44.00	41.50
63A	83.79	81.90	80.01	76.86	73.71	70.56	66.78	63.00	60.48	58.90	55.44	52.29

Selectivity to Fuses characteristic gG/gL

	Power supply side: fuse characteristic gG/gL									
	IN	20A	25A	36A	50A	63A	80A	100A	125A	150A
Load side: MCB, series AMPARO characteristic B and C	2A	1.2 kA	4 kA	6 kA	6 kA	6 kA	6 kA	6 kA	6 kA	6 kA
	4A	0.6 kA	0.9 kA	2.5 kA	3.8 kA	6 kA	6 kA	6 kA	6 kA	6 kA
	6A	0.5 kA	0.8 kA	1.9 kA	2.5 kA	4.5 kA	5 kA	6 kA	6 kA	6 kA
	10A	-	0.7 kA	1.4 kA	2.2 kA	3.2 kA	3.6 kA	6 kA	6 kA	6 kA
	16A	-	-	1.2 kA	1.8 kA	2.6 kA	3 kA	5.6 kA	6 kA	6 kA
	20A	-	-	-	1.5 kA	2.2 kA	2.5 kA	4.6 kA	6 kA	6 kA
	25A	-	-	-	1.3 kA	2 kA	2.2 kA	4.1 kA	5.5 kA	6 kA
	32A	-	-	-	-	1.7 kA	1.9 kA	3.8 kA	4.5 kA	6 kA
	40A	-	-	-	-	-	1.7 kA	3 kA	4 kA	5 kA
	50A	-	-	-	-	-	1.5 kA	2.6 kA	3.5 kA	4.5 kA
	60A	-	-	-	-	-	-	2.4 kA	3.3 kA	4.5 kA

Selectivity to MCCB type MC1

Power supply side: MCCB type MC1						
Load side: MCB, series AMPARO characteristic B	I_N	40 A	50 A	63 A	80 A	100 A
	2A	2 kA	6 kA	6 kA	6 kA	6 kA
	4A	1.2 kA	2 kA	3 kA	3 kA	6 kA
	6A	1.2 kA	2 kA	2.5 kA	3 kA	5 kA
	10A	1.2 kA	1.5 kA	2 kA	2 kA	4 kA
	16A	1 kA	1.2 kA	1.5 kA	2 kA	3 kA
	20A	0.8 kA	1.2 kA	1.5 kA	1.5 kA	3 kA
	25A	0.7 kA	1.2 kA	1.5 kA	1.5 kA	3 kA
	32A	-	1.2 kA	1 kA	1.5 kA	2 kA
	40A	-	-	1 kA	1.5 kA	2 kA
	50A	-	-	-	1.2 kA	1.5 kA
	63A	-	-	-	-	1.5 kA

Selectivity to MCCB type MC1

Power supply side: MCCB type MC1						
Load side: MCB, series AMPARO characteristic C	I_N	40 A	50 A	63 A	80 A	100 A
	2A	2 kA	6 kA	6 kA	6 kA	6 kA
	4A	1.2 kA	2 kA	3 kA	3 kA	6 kA
	6A	1.2 kA	2 kA	2.5 kA	3 kA	5 kA
	10A	1.2 kA	1.5 kA	2 kA	2 kA	4 kA
	16A	1 kA	1.2 kA	1.5 kA	2 kA	3 kA
	20A	0.8 kA	1.2 kA	1.5 kA	1.5 kA	3 kA
	25A	0.7 kA	1.2 kA	1.5 kA	1.5 kA	3 kA
	32A	-	1.2 kA	1 kA	1.5 kA	2 kA
	40A	-	-	1 kA	1.5 kA	2 kA
	50A	-	-	-	1.2 kA	1.5 kA
	63A	-	-	-	-	1.5 kA

Selectivity to MCCB type MC2

	Power supply side: MCCB type MC2					
	I _N	40 A	50 A	63 A	80 A	100 A
Load side: MCB, series AMPARO characteristic B	2A	3 kA	6 kA	6 kA	6 kA	6 kA
	4A	1.2 kA	1.5 kA	3 kA	4 kA	6 kA
	6A	1.2 kA	1.5 kA	2.5 kA	3 kA	6 kA
	10A	1 kA	1.5 kA	2.5 kA	3 kA	6 kA
	13A	1 kA	1.2 kA	2 kA	3 kA	6 kA
	16A	1 kA	1.2 kA	1.5 kA	2.5 kA	6 kA
	20A	1 kA	1.2 kA	1.5 kA	2 kA	6 kA
	25A	0.8 kA	1 kA	1.5 kA	2 kA	6 kA
	32A		1 kA	1.5 kA	2 kA	6 kA
	40A			1.2 kA	1.5 kA	6 kA
	50A				1.5 kA	6 kA
	63A					6 kA

Selectivity to MCCB type MC2

	Power supply side: MCCB type MC2					
	I _N	40 A	50 A	63 A	80 A	100 A
Load side: MCB, series AMPARO characteristic C	2A	3 kA	6 kA	6 kA	6 kA	6 kA
	4A	1.2 kA	1.5 kA	3 kA	4 kA	6 kA
	6A	1.2 kA	1.5 kA	2.5 kA	3 kA	6 kA
	10A	1 kA	1.5 kA	2.5 kA	3 kA	6 kA
	13A	1 kA	1.2 kA	2 kA	3 kA	6 kA
	16A	1 kA	1.2 kA	1.5 kA	2.5 kA	6 kA
	20A	1 kA	1.2 kA	1.5 kA	2 kA	6 kA
	25A	0.8 kA	1 kA	1.5 kA	2 kA	6 kA
	32A		1 kA	1.5 kA	2 kA	6 kA
	40A			1.2 kA	1.5 kA	6 kA
	50A				1.5 kA	6 kA
	63A					6 kA

Article Table

DESCRIPTION	COPPER WEIGHT (kg/km)	Order No.
Miniature Circuit Breaker (MCB) AMPARO 6kA, C 40A, 1+N, 1MW		AM617540
Neutral left, Product category 1+N auf 1TE, Product standard EN 60898-1:2019, IEC 60898-1		
Optional Accessories		
Small Connect Pin Busbar 3-pole, 10mm ² MCB 1+N/1MW, 1m		
Break-out, shortenable on both sides, TE=17.8mm, suitable for products in the AMPARO and BC, BM, BO, BS series	530	BSA90121

Article Table

DESCRIPTION	COPPER WEIGHT (kg/km)	Order No.
Optional Accessories		
Small Connect Pin Busbar 1-pole, 10mm ² MCB 1+N/1MW, 1m, blue Break-out, shortenable on both sides, TE=17.8mm, suitable for products in the AMPARO and BC, BM, BO, BS series	249	BSA90120
Small Connect Pin Busbar 1-pole, 10mm ² MCB 1+N/1MW, 1m, grey Break-out, shortenable on both sides, TE=17.8mm, suitable for products in the AMPARO and BC, BM, BO, BS series	205	BSA90122
Busbar, 1 x MCB 3+N 4-pole, 8 MCB 1+N/1 MW, 12MW Compact-Busbar, suitable for products of AMPARO series, Forkbusbar, 4-pole, not possible to break off, the shortening is not possible, no end caps required	157	BSA90169
Busbar, 1xRCCB 4-pole, 1 MCB 4-pole, 4 MCB 1+N/1 MW, 12MW Compact-Busbar, suitable for products of AMPARO series, Fork-/Busbar Pin Version, 4-pole, not possible to break off, no end caps required	161	BSA90164
Busbar, 1xRCCB 4-pole, 1 MCB 3-pole, 5 MCB 1+N/1 MW, 12MW Compact-Busbar, suitable for products of AMPARO series, Forkbusbar, 4-pole, not possible to break off, the shortening is not possible, no end caps required	160	BSA90167
Busbar, 1xRCCB 4-pole, 8 MCB 1+N/1 MW, 12MW Compact-Busbar, suitable for products of AMPARO series, Pin version, 4-pole, not possible to break off, the shortening is not possible, no end caps required	146	BSA90170
Busbar 4-p., NL1NL2NL3, MCB N+1/1MW, 10mm ² , 1m, Amparo Meter-Busbar, suitable for N+1/1MW MCBs of AMPARO series, Pin-busbar 4-pole, N/L1/N/L2/N/L3, not possible to break off, the shortening is possible	754	BSA90172
Auxiliary Contact 1CO, series AMPARO snap-on Product category AM6, Product standard EN 60947-5-1:2017		AM900099
Undervoltage Release 230VAC, series AMPARO, snap-on Product category AM6, Product standard EN 60947-5-1:2004 + A1:2009		AM900008
Shunt Release 230V/400VAC, series AMPARO, snap-on Product category AM6, Product standard EN 60947-5-1:2004 + A1:2009		AM900006
Shunt Release 24VAC/DC, series AMPARO, snap-on Product category AM6, Product standard EN 60947-5-1:2004 + A1:2009		AM900005