

Technische Fiche: AM018304UL

Miniature Circuit Breaker AMPARO 5kA, B 4A, 3-pole, UL1077

Product category AM10, Neutral on right side, Product standard EN 60898-1, IEC 60898-1, UL1077



Schrack Info

- Contact position indicator
- Lift und Clamp terminals on both sides
- Back terminal design for safe connection
- Neutral on right side
- Terminal cross-section: 1-25mm²
- Snap-on mounting for DIN rail according to EN 60715
- Compliant to the product standard UL1077

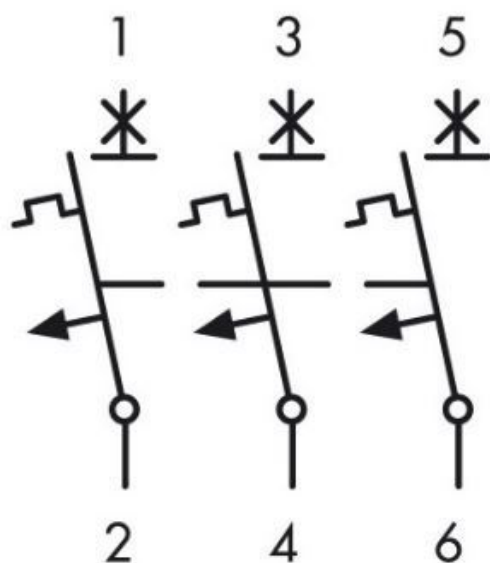
Technische gegevens

Normen	IEC 60898-1 UL1077 EN 60898-1
Nominale spanning	230/400 - 240/415V
Nominale frequentie (Hz)	50/60
Karakteristiek	B

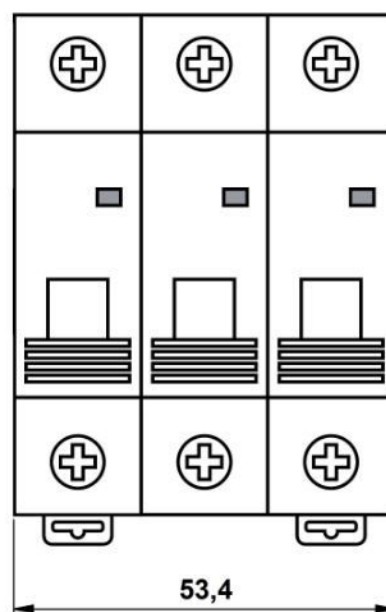
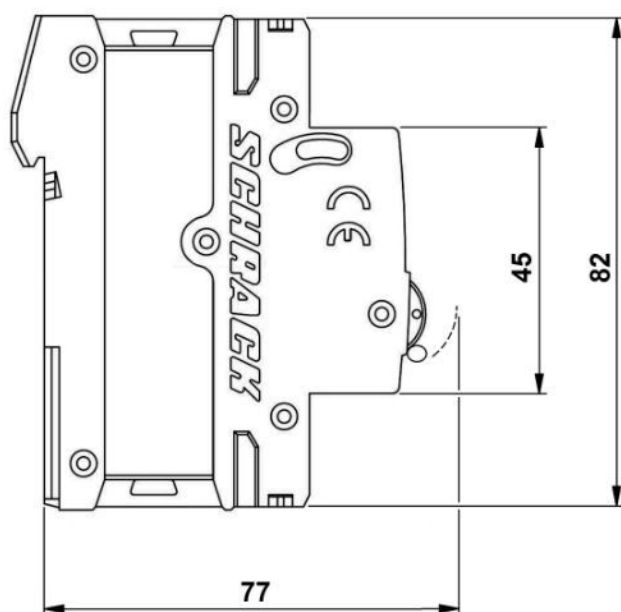
Technische gegevens - vervolg

Nominale stroom (A)	4
Aantal polen	3
Kortsluitvastheid	10 kA (IEC/EN 60898) , 5 kA (UL 1077)
Nominale impuls spanning U_{imp}	6kV
Selectiviteitsklasse	3
Test spanning (V)	2000
Vervuilingsgraad	2
Stroomwarmteverliezen (W)	6,00
Interne weerstand	4A: 94,007mΩ
Elektrische levensduur	4.000 schakelingen
Mechanische levensduur	2x10 ⁴ schakelingen
Beschermingsgraad	IP20
Klemdoorsnede (mm ²)	1 - 25
Aansluitcapaciteit verdeelrail	10mm ² / 16mm ²
Uitvoering geleider	Koper
Type klemmen	Dubbele functie klemmen (vork en kooi)
Calibratie temperatuur (°C)	30
Temperatuursbereik - Werking (°C)	-25°C tot +70
Omgevingstemperatuur nominale uitschakeling (°C)	-5°C tot +40
Bevestiging	Bevestiging op DIN-rail 35mm volgens EN60715
Optionele toebehoren	AM900099--;BSB90113-A;BSB90114-A;AM900008--;AM900006--;AM900005--
Montagerichting	Vrij
Certificaten	UL 1077, File No. E195102
Nominale stroomsterkte (A)	4
Product	AM10
Rated breaking capacity UL/ CSA (kA)	10
Productnormen	IEC 60898-1 EN 60898-1:2019

Circuit diagram



Dimensions



[mm]

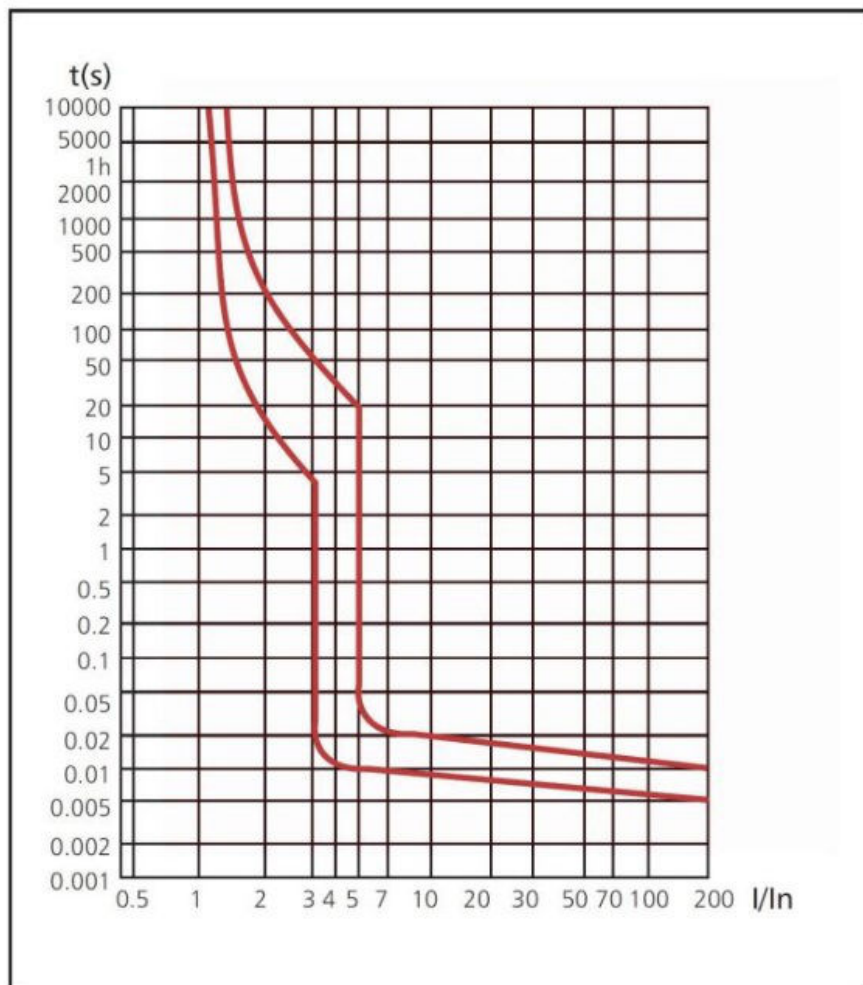
Let-through energy characteristic

I^2t Durchlassenergie/ let-through energy



Tripping characteristic according to IEC 60898

Kennlinie B



Short-circuit selectivity to D/D0 and cylindrical fuse links with characteristic curve gG/gL

I _n	16A	20A	25A	35A	50A	63A	80A	100A
≤2A	0.5 kA	0.8 kA	1.6 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA
3A	0.5 kA	0.8 kA	1.4 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA
4A	0.5 kA	0.6 kA	1.0 kA	3.6 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA
6A	0.5 kA	0.6 kA	0.9 kA	1.8 kA	3.2 kA	7.4 kA	10.0 kA	10.0 kA
10A	-	0.5 kA	0.8 kA	1.4 kA	2.2 kA	3.9 kA	6.0 kA	10.0 kA
13A	-	0.5 kA	0.7 kA	1.3 kA	2.0 kA	3.6 kA	5.4 kA	10.0 kA
16A	-	-	0.6 kA	1.2 kA	1.9 kA	3.2 kA	4.6 kA	8.4 kA
20A	-	-	-	1.2 kA	1.8 kA	3.1 kA	4.4 kA	4.6 kA
25A	-	-	-	1.2 kA	1.8 kA	3.0 kA	4.2 kA	4.1 kA
32A	-	-	-	-	1.7 kA	2.8 kA	3.9 kA	3.8 kA
40A	-	-	-	-	-	2.7 kA	3.8 kA	3 kA
50A	-	-	-	-	-	2.5 kA	3.5 kA	2.6 kA
63A	-	-	-	-	-	-	-	2.4 kA

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

I _n	16A	20A	25A	35A	40A	50A	63A	80A	100A	125A	160A
≤2A	0.5 kA	0.5 kA	1.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA
3A	0.5 kA	0.5 kA	0.9 kA	8.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA
4A	0.5 kA	0.5 kA	0.8 kA	2.3 kA	4.3 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA
6A	0.5 kA	0.5 kA	0.7 kA	1.5 kA	2.0 kA	3.3 kA	4.3 kA	7.6 kA	10.0 kA	10.0 kA	10.0 kA
10A	-	0.5 kA	0.6 kA	1.2 kA	1.5 kA	2.2 kA	2.7 kA	4.0 kA	9.0 kA	10.0 kA	10.0 kA
13A	-	0.5 kA	0.6 kA	1.1 kA	1.4 kA	2.1 kA	2.6 kA	3.8 kA	7.9 kA	10.0 kA	10.0 kA
16A	-	-	0.5 kA	1.0 kA	1.3 kA	1.9 kA	2.4 kA	3.4 kA	6.4 kA	9.3 kA	10.0 kA
20A	-	-	-	1.0 kA	1.3 kA	1.9 kA	2.4 kA	3.3 kA	6.0 kA	8.7 kA	10.0 kA
25A	-	-	-	1.0 kA	1.3 kA	1.8 kA	2.3 kA	3.2 kA	5.7 kA	8.0 kA	10.0 kA
32A	-	-	-	0.9 kA	1.2 kA	1.7 kA	2.2 kA	3.1 kA	5.4 kA	7.6 kA	10.0 kA
40A	-	-	-	-	-	-	2.1 kA	3.0 kA	5.1 kA	7.2 kA	10.0 kA
50A	-	-	-	-	-	-	1.9 kA	2.8 kA	4.7 kA	6.6 kA	9.5 kA
63A	-	-	-	-	-	-	-	-	4.4 kA	6.3 kA	8.6 kA

Short-circuit selectivity to circuit breaker size 1

I _{cu} = 25kA (50 kA)	40A	50A	63A	80A	100A	125A
1A	15 kA	15kA	15kA	15kA	15kA	15kA
2A	2 kA	15 kA	15 kA	15 kA	15 kA	15 kA
3A	1.2 kA	2 kA	3 kA	3 kA	10 kA	15 kA
4A	1.2 kA	2 kA	3 kA	3 kA	8 kA	15 kA
6A	1.2 kA	2 kA	2.5 kA	3 kA	5 kA	10 kA
10A	1.2 kA	1.5 kA	2 kA	2 kA	4 kA	10 kA
13A	1 kA	1.5 kA	2 kA	2 kA	4 kA	10 kA
16A	1 kA	1.2 kA	1.5 kA	2 kA	3 kA	8 kA
20A	0.8 kA	1.2 kA	1.5 kA	1.5 kA	3 kA	8 kA
25A	0.7 kA	1.2 kA	1.5 kA	1.5 kA	3 kA	7 kA
32A	-	1.2 kA	1 kA	1.5 kA	2 kA	6 kA
40A	-	-	1 kA	1.5 kA	2 kA	5 kA
50A	-	-	-	1.2 kA	1.5 kA	4 kA
63A	-	-	-	-	1.5 kA	3 kA

Short-circuit selectivity to circuit breaker size 2

I _{cu} =25kA (50kA), (100kA), (150kA)	40A	50A	63A	80A	100A	125A	160A	200A	250A
1A	15 kA	15 kA	15 kA	15 kA	15 kA	15 kA	15 kA	15 kA	15 kA
2A	3 kA	15 kA	15 kA	15 kA	15 kA	15 kA	15 kA	15 kA	15 kA
3A	1.5 kA	1.5 kA	3 kA	5 kA	15 kA	15 kA	15 kA	15 kA	15 kA
4A	1.2 kA	1.5 kA	3 kA	4 kA	15 kA	15 kA	15 kA	15 kA	15 kA
6A	1.2 kA	1.5 kA	2.5 kA	3 kA	15 kA	15 kA	15 kA	15 kA	15 kA
10A	1 kA	1.5 kA	2.5 kA	3 kA	10 kA	10 kA	10 kA	10 kA	10 kA
13A	1 kA	1.2 kA	2 kA	3 kA	10 kA	10 kA	10 kA	10 kA	10 kA
16A	1 kA	1.2 kA	1.5 kA	2.5 kA	10 kA	10 kA	10 kA	10 kA	10 kA
20A	1 kA	1.2 kA	1.5 kA	1.5 kA	10 kA	10 kA	10 kA	10 kA	10 kA
25A	0.8 kA	1kA	1.5 kA	2 kA	10 kA	10 kA	10 kA	10 kA	10 kA
32A	-	1 kA	1.5 kA	2 kA	8 kA	8 kA	8 kA	8 kA	10 kA
40A	-	-	1.2 kA	1.5 kA	7 kA	7 kA	7 kA	7 kA	10 kA
50A	-	-	-	1.5 kA	6 kA	6 kA	6 kA	6 kA	10 kA
63A	-	-	-	-	6 kA	6 kA	6kA	6 kA	10 kA

Influence of the ambient temperature on the thermal tripping behavior

I _n (A)	Ambient temperature T (°C)											
	-35	-30	-20	-10	0	10	20	30	40	50	60	70
1	1.30	1.26	1.23	1.19	1.15	1.11	1.05	1.00	0.96	0.93	0.88	0.83
2	2.60	2.52	2.46	2.38	2.28	2.20	2.08	2.00	1.92	1.86	1.76	1.66
3	3.90	3.78	3.69	3.57	3.42	3.30	3.12	3.00	2.88	2.79	2.64	2.49
4	5.20	5.04	4.92	4.76	4.56	4.40	4.16	4.00	3.84	3.76	3.52	3.32
6	7.80	7.56	7.38	7.14	6.84	6.60	6.24	6.00	5.76	5.64	5.28	4.98
10	13.20	12.70	12.50	12.00	11.50	11.10	10.60	10.00	9.60	9.30	8.90	8.40
16	21.12	20.48	20.00	19.20	18.40	17.76	16.96	16.00	15.36	14.88	14.24	13.44
20	26.40	25.60	25.00	24.00	23.00	22.20	21.20	20.00	19.20	18.60	17.80	16.80
25	33.00	32.00	31.25	30.00	28.75	27.75	26.50	25.00	24.00	23.25	22.25	21.00
32	42.56	41.28	40.00	38.72	37.12	35.52	33.92	32.00	30.72	29.76	28.16	26.88
40	53.20	51.20	50.00	48.00	46.40	44.80	42.40	40.00	38.40	37.20	35.60	33.60
50	67.00	65.5	63.00	60.50	58.00	56.00	53.00	50.00	48.00	46.50	44.00	41.50
63	83.79	81.90	80.01	76.86	73.71	70.56	66.78	63.00	60.48	58.90	55.44	52.29

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	-	-	-	-	-	-

Artikelen

Omschrijving	Kopergewicht (kg/km)	Referentie
Miniature Circuit Breaker AMPARO 5kA, B 4A, 3-pole, UL1077 Product category AM10, Neutral on right side, Product standard EN 60898-1, IEC 60898-1, UL1077		AM018304UL
Optionele toebehoren		
Amparo Hulpcontact 1CO klikmontage Product AM6, Productnormen EN 60947-5-1:2017		AM900099
BSB Verdeelrail 3P vorken 10mm ² L1,L2,L3 1m Not possible to break off, shortenable on both sides, TE=17.8mm	480	BSB90113-A
BSB Verdeelrail 3P vorken 16mm ² L1,L2,L3 1m Not possible to break off, shortenable on both sides, TE=17.8mm	670	BSB90114-A
Amparo Minimumspanningspoel 230VAC klikmontage Voor AM en AK		AM900008
Amparo Stroomuitschakelspoel 230/400VAC klikmontage Voor AM en AK		AM900006
Amparo Stroomuitschakelspoel 24VAC/DC klikmontage Voor AM en AK		AM900005