

INS36, Miniature Circuit Breaker, 6kA, 3p+n/4p – 2MU (36mm)



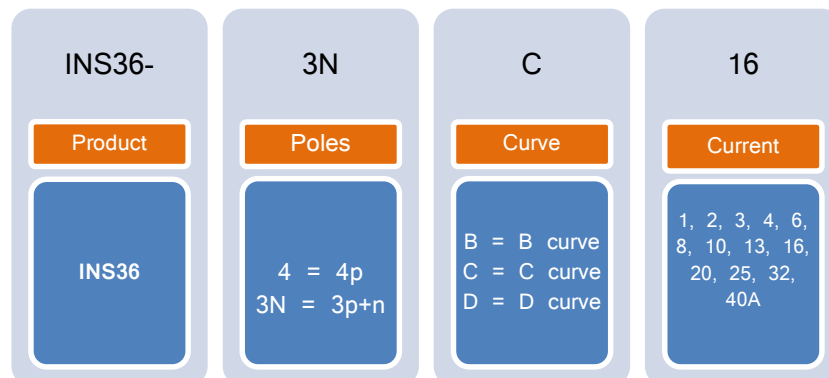
- △ IEC/EN 60898-1
- △ Rated current up to 40A
- △ Rated operational voltage 415VAC
- △ Rated short-circuit breaking capacity 6kA (60898)
- △ Small size 36mm / 2 modules (2MU)
- △ 3p+n and 4p versions available (others on request)
- △ Pin- type busbar connection
- △ Connectable with Accessories

General information

INS36 miniature circuit breaker are suitable for domestic, utility as well as industrial applications. The small size of only 36mm (2MU) with the high short-circuit value make it a unique product. They can be combined with signal contacts (maximum three). The INS36 comes in different sensitivity's and amperage, so that you can use them in different applications.

Type key

Example:
INS36-3NC16



Certification marks



INS36 - B- Characteristic, 3p+n pole, 6kA



Rated current	Poles	Curve	Width	Article no.	Type	EAN code	Packing
6A	3p+n	B	2MU	3101643006	INS36-3NB06	8718959025655	6/60
10A	3p+n	B	2MU	3101643010	INS36-3NB10	8718959025679	6/60
13A	3p+n	B	2MU	3101643013	INS36-3NB13	8718959025686	6/60
16A	3p+n	B	2MU	3101643016	INS36-3NB16	8718959025693	6/60
20A	3p+n	B	2MU	3101643020	INS36-3NB20	8718959025709	6/60
25A	3p+n	B	2MU	3101643025	INS36-3NB25	8718959025716	6/60
32A	3p+n	B	2MU	3101643032	INS36-3NB32	8718959025723	6/60
40A	3p+n	B	2MU	3101643040	INS36-3NB40	8718959025730	6/60



INS36 - C- Characteristic, 3p+n pole, 6kA



Rated current	Poles	Curve	Width	Article no.	Type	EAN code	Packing
6A	3p+n	C	2MU	3101653006	INS36-3NC06	8718959026201	6/60
10A	3p+n	C	2MU	3101653010	INS36-3NC10	8718959026225	6/60
13A	3p+n	C	2MU	3101653013	INS36-3NC13	8718959026232	6/60
16A	3p+n	C	2MU	3101653016	INS36-3NC16	8718959026249	6/60
20A	3p+n	C	2MU	3101653020	INS36-3NC20	8718959026256	6/60
25A	3p+n	C	2MU	3101653025	INS36-3NC25	8718959026263	6/60
32A	3p+n	C	2MU	3101653032	INS36-3NC32	8718959026270	6/60
40A	3p+n	C	2MU	3101653040	INS36-3NC40	8718959026287	6/60



INS36 - D- Characteristic, 3p+n pole, 6kA



Rated current	Poles	Curve	Width	Article no.	Type	EAN code	Packing
6A	3p+n	D	2MU	3101663006	INS36-3ND06	8718959026720	6/60
10A	3p+n	D	2MU	3101663010	INS36-3ND10	8718959026744	6/60
13A	3p+n	D	2MU	3101663013	INS36-3ND13	8718959026751	6/60
16A	3p+n	D	2MU	3101663016	INS36-3ND16	8718959026768	6/60
20A	3p+n	D	2MU	3101663020	INS36-3ND20	8718959026775	6/60
25A	3p+n	D	2MU	3101663025	INS36-3ND25	8718959026782	6/60
32A	3p+n	D	2MU	3101663032	INS36-3ND32	8718959026799	6/60
40A	3p+n	D	2MU	3101663040	INS36-3ND40	8718959026805	6/60



INS36 - B- Characteristic, 4 pole, 6kA



Rated current	Poles	Curve	Width	Article no.	Type	EAN code	Packing
6A	4p	B	2MU	3101644006	INS36-4B06	8718959025785	6/60
10A	4p	B	2MU	3101644010	INS36-4B10	8718959025808	6/60
13A	4p	B	2MU	3101644013	INS36-4B13	8718959025815	6/60
16A	4p	B	2MU	3101644016	INS36-4B16	8718959025822	6/60
20A	4p	B	2MU	3101644020	INS36-4B20	8718959025839	6/60
25A	4p	B	2MU	3101644025	INS36-4B25	8718959025846	6/60
32A	4p	B	2MU	3101644032	INS36-4B32	8718959025853	6/60
40A	4p	B	2MU	3101644040	INS36-4B40	8718959025860	6/60



INS36 - C- Characteristic, 4 pole, 6kA



Rated current	Poles	Curve	Width	Article no.	Type	EAN code	Packing
6A	4p	C	2MU	3101654006	INS36-4C06	8718959026331	6/60
10A	4p	C	2MU	3101654010	INS36-4C10	8718959026355	6/60
13A	4p	C	2MU	3101654013	INS36-4C13	8718959026362	6/60
16A	4p	C	2MU	3101654016	INS36-4C16	8718959026379	6/60
20A	4p	C	2MU	3101654020	INS36-4C20	8718959026386	6/60
25A	4p	C	2MU	3101654025	INS36-4C25	8718959026393	6/60
32A	4p	C	2MU	3101654032	INS36-4C32	8718959026409	6/60
40A	4p	C	2MU	3101654040	INS36-4C40	8718959026416	6/60



INS36 - D- Characteristic, 4 pole, 6kA



Rated current	Poles	Curve	Width	Article no.	Type	EAN code	Packing
6A	4p	D	2MU	3101664006	INS36-4D06	8718959026850	6/60
10A	4p	D	2MU	3101664010	INS36-4D10	8718959026874	6/60
13A	4p	D	2MU	3101664013	INS36-4D13	8718959026881	6/60
16A	4p	D	2MU	3101664016	INS36-4D16	8718959026898	6/60
20A	4p	D	2MU	3101664020	INS36-4D20	8718959026904	6/60
25A	4p	D	2MU	3101664025	INS36-4D25	8718959026911	6/60
32A	4p	D	2MU	3101664032	INS36-4D32	8718959026928	6/60
40A	4p	D	2MU	3101664040	INS36-4D40	8718959026935	6/60



INS36 –Auxiliary contact



Function	Contacts	Width	Article no.	Type	EAN code	Packing
Auxiliary	1 CO	1/2 MU	3104500001	RCE1-AUX	8718959013911	20/240

Wiring diagram



INS36 – Isolator, cover



Color	Pole	Width	Article no.	Type	EAN code	Packing
Yellow	4p	2MU	3102490010	HS18-C4	8718959010644	200/ 2.000



General parameters

High breaking capacity up to 6kA for IEC/EN 60898-1
Only 36mm for 4 poles (2MU)
Compatible with accessories
Compatible with customized busbar

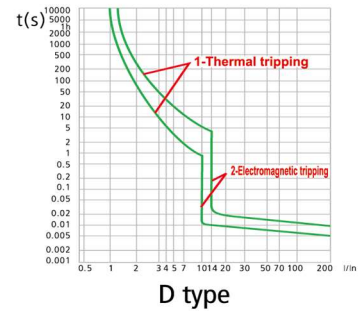
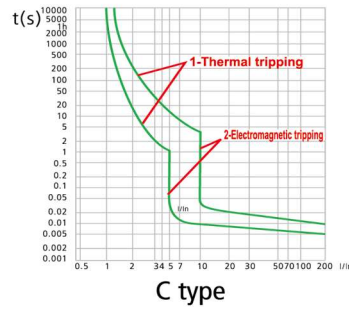
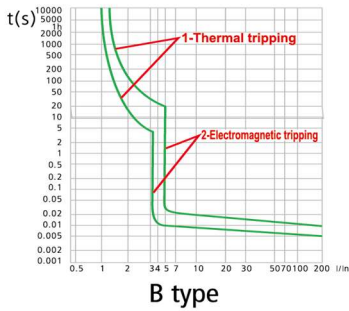
Electrical parameters

Tested according		IEC/EN 60898-1
Rated operational voltage	Ue	400 / 415 VAC
Minimum working voltage	Umin	12V AC/DC
Rated frequency		50/60Hz
Rated short-circuit capacity	Ic	6kA
Rated making and breaking capacity	Icn1	6kA
Poles		3p+n, 4p
Rated current	In	1, 2, 3, 4, 6, 8, 10, 13, 16, 20, 25, 32, 40
Tripping characteristics		B, C, D
Rated impulse withstand	Uimp	4 kV
Rated insulation voltage	Ui	415V
Transient overvoltage category		3
Selectivity class		3
Energy limiting class		3
Dielectric test voltage		2 kV (1min)
Mechanical life time	cycles	≥ 10 000
Electrical life time	cycles	≥ 4 000
Max. back-up fuse		Max. 125A gG
Line voltage connection		Arbitrary above or below

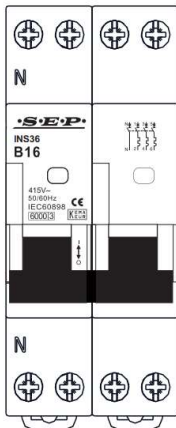
Mechanical parameters

Device width	36mm
Device height	86mm
Device depth	72mm
Mounting	Easy fastening onto 35mm device rail (DIN)
Degree of protection (all sides)	IP40
Degree of protection (connection terminals)	IP20
Connection possibility	Cable / busbar
Terminals	Cage clamp terminal
Terminal capacity	1-16mm ² (solid wire) 1-10mm ² (stranded wire)
Fastening torque of terminal	1.2Nm
Busbar connection	Pin type
Busbar thickness	10 mm ²
Storage temperature	-5°C + 70°C
Reference temperature	30°C
Ambient temperature	-25°C + 40°C (with daily average < 35°C)
Resistance to humidity and heat	Class 2
Installation class	III
Pollution degree	2
Weight	0,23 kg (3p+n) / 0,242 kg (4p)

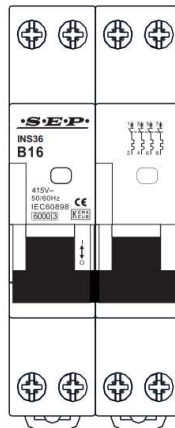
Tripping characteristics



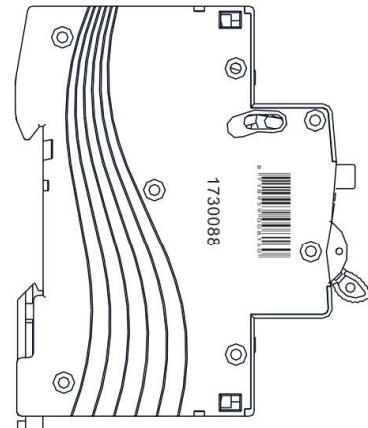
Dimensions



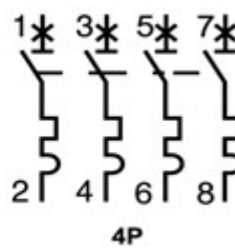
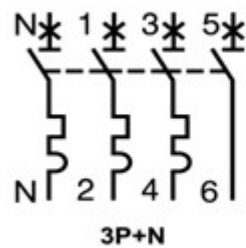
3P+N



4P



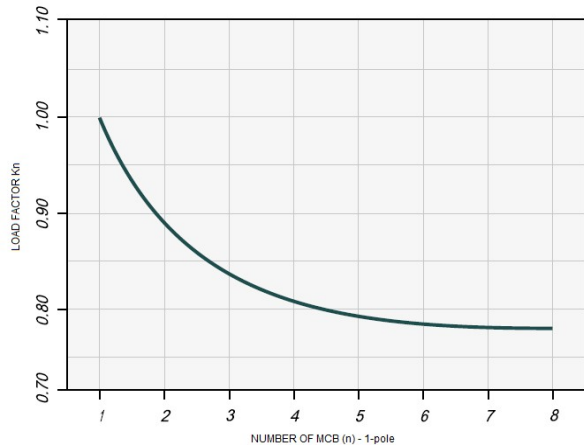
Wiring diagrams



Dependence of tripping characteristics on ambient temperature

In [A]	Temperatuur (°C)																	
	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60
	Ib [A]																	
1	1,20	1,18	1,17	1,15	1,13	1,11	1,09	1,08	1,06	1,04	1,02	1	0,98	0,96	0,94	0,92	0,90	0,88
2	2,35	2,32	2,29	2,26	2,23	2,20	2,17	2,13	2,10	2,07	2,03	2	1,96	1,93	1,89	1,86	1,82	1,78
3	3,52	3,47	3,43	3,38	3,34	3,29	3,24	3,20	3,15	3,10	3,05	3	2,95	2,90	2,84	2,79	2,73	2,68
4	4,75	4,68	4,62	4,55	4,49	4,42	4,35	4,29	4,22	4,15	4,07	4	3,93	3,85	3,77	3,69	3,61	3,53
6	7,59	7,46	7,32	7,19	7,50	6,91	6,77	6,62	6,47	6,32	6,16	6	5,83	5,66	5,49	5,30	5,12	4,92
8	10,12	9,95	9,76	9,59	10,00	9,21	9,03	8,83	8,63	8,43	8,21	8	7,77	7,53	7,30	7,04	6,79	6,51
10	11,75	11,60	11,45	11,30	11,14	10,99	10,83	10,67	10,51	10,34	10,17	10	9,83	9,65	9,47	9,29	9,09	8,90
13	16,29	16,02	15,74	15,45	15,17	15,83	14,58	14,29	13,97	13,65	13,34	13	12,62	12,24	11,86	11,44	11,04	10,59
16	19,30	19,02	18,74	18,46	18,17	17,88	17,58	17,27	16,96	16,65	16,33	16	15,67	15,32	14,97	14,61	14,25	13,87
20	24,09	23,75	23,40	23,05	22,69	22,33	21,96	21,58	21,20	20,81	20,41	20	19,58	19,16	18,73	18,28	17,82	17,36
25	29,36	28,99	28,62	28,24	27,86	27,47	27,07	26,67	26,26	25,85	25,43	25	24,56	24,12	23,67	23,21	22,74	22,26
32	38,93	38,35	37,76	37,17	36,56	35,95	35,32	34,68	34,03	33,37	32,69	32	31,29	30,57	29,83	29,07	28,28	27,48
40	47,81	47,15	46,48	45,81	45,13	44,43	43,72	43,00	42,27	41,53	40,77	40	39,21	38,41	37,59	36,75	35,89	35,01

Correction factor laterally mounted miniature circuit breakers



Correction factor (K) in mutual thermal influence of parallel mounted breakers at rated load.

Power dispensation per pole

In	1A	2A	3A	4A	6A	8A	10A
P [W]	1,6	1,6	1,6	2	1,3	1,4	1,4

In	13A	16A	20A	25A	32A	40A
P [W]	2,4	2,4	3,7	3,9	4,3	4,7