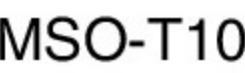
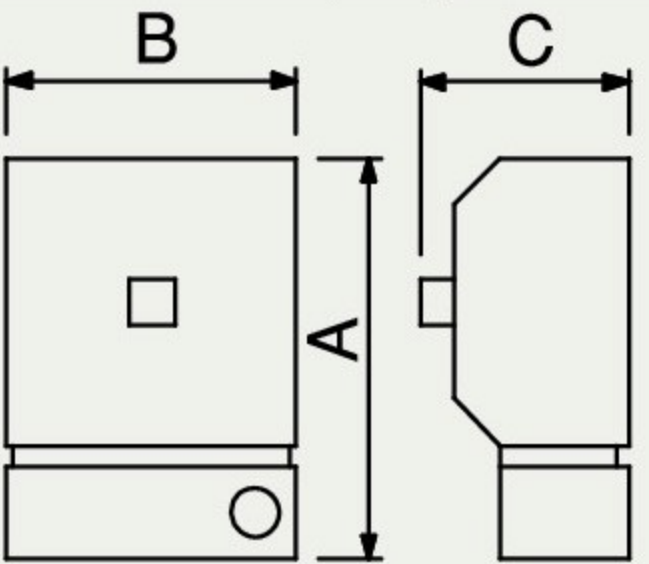
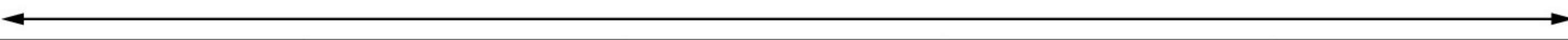
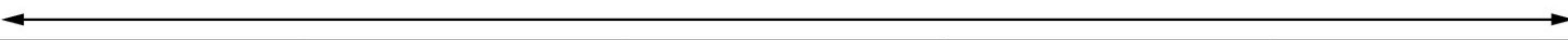
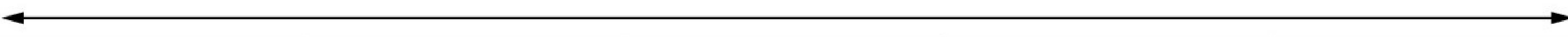


- MS-T series (non-Reversing) : Enclosed
- MS-2xT series (Reversing) : Enclosed



Note 1: The figure in the square brackets indicates the rated current shown on the rating plate of the product at which the category AC-3 opening/closing durability is 2,000,000 times (1,000,000 times for the T20 380V). Refer to the electric durability curve for the life performance.

- | Model name | | Non-Reversing | MSO-T10 | | | MSO(D)-T12 | | | MSO(D)-T20 | | | MSO(D)-T21 | | | MSO-T25 | | | |
|---|---|---------------|-----------|--|------|--------------|-----------|------|--------------|-----------|------|--------------|---------|------|-----------|----------|------|-----|
| | | Reversing | MSO-2×T10 | | | MSO(D)-2×T12 | | | MSO(D)-2×T20 | | | MSO(D)-2×T21 | | | MSO-2×T25 | | | |
| Rated capacity (kW)
Category AC-3
(Note 1) | | 220 to 240VAC | | 2.5[2.2] | | | 3.5[2.7] | | | 4.5[3.7] | | | 5.5[4] | | | 7.5[5.5] | | |
| | | 380 to 440VAC | | 4[2.7] | | | 5.5[4] | | | 7.5[7.5] | | | 11[7.5] | | | 15[11] | | |
| | | 500VAC | | 4[2.7] | | | 5.5[5.5] | | | 7.5[7.5] | | | 11[7.5] | | | 15[11] | | |
| Heater rating (designation) of standard
Thermal Overload Relays (A) | | | | 0.12 | 0.17 | 0.24 | 0.12 | 0.17 | 0.24 | 0.12 | 0.17 | 0.24 | 0.24 | 0.35 | 0.5 | 0.24 | 0.35 | 0.5 |
| | | | | 0.35 | 0.5 | 0.7 | 0.35 | 0.5 | 0.7 | 0.35 | 0.5 | 0.7 | 0.7 | 0.9 | 1.3 | 0.7 | 0.9 | 1.3 |
| | | | | 0.9 | 1.3 | 1.7 | 0.9 | 1.3 | 1.7 | 0.9 | 1.3 | 1.7 | 1.7 | 2.1 | 2.5 | 1.7 | 2.1 | 2.5 |
| | | | | 2.1 | 2.5 | 3.6 | 2.1 | 2.5 | 3.6 | 2.1 | 2.5 | 3.6 | 3.6 | 5 | 6.6 | 3.6 | 5 | 6.6 |
| | | | | 5 | 6.6 | 9 | 5 | 6.6 | 9 | 5 | 6.6 | 9 | 9 | 11 | 15 | 9 | 11 | 15 |
| Operation coil rating | | | | Refer to pages 876 | | | | | | | | | | | | | | |
| Auxiliary contact
arrangement | | Non-Reversing | Standard | 1a | | | 1a1b | | | 1a1b | | | 2a2b | | | 2a2b | | |
| | | | Special | 1b | | | 2a | | | 2a | | | — | | | — | | |
| | | Reversing | Standard | 1ax2+2b | | | 1a1bx2+2b | | | 1a1bx2+2b | | | 2a2bx2 | | | 2a2bx2 | | |
| | | | Special | 1bx2+2b | | | 2ax2+2b | | | 2ax2+2b | | | — | | | — | | |
| 
(unit: mm) | | Non-Reversing | A | 115 | | | 115 | | | 115 | | | 128 | | | 128 | | |
| | | | B | 45 | | | 45 | | | 45 | | | 63 | | | 63 | | |
| | | | C | 79 | | | 79(101) | | | 79(101) | | | 82(109) | | | 82 | | |
| | | Reversing | A | 125 | | | 125 | | | 125 | | | 138 | | | 138 | | |
| | | | B | 90 | | | 97 | | | 97 | | | 136 | | | 136 | | |
| | | | C | 79 | | | 79(101) | | | 79(101) | | | 82(115) | | | 82 | | |
| IEC 35mm rail mounting type | | | |  | | | | | | | | | | | | | | |
| Option | Front clip-on auxiliary contact block mounting type | | |  | | | | | | | | | | | | | | |
| | Side clip-on auxiliary contact block mounting type | | |  | | | | | | | | | | | | | | |
| | Surge absorber mounting type | | |  | | | | | | | | | | | | | | |

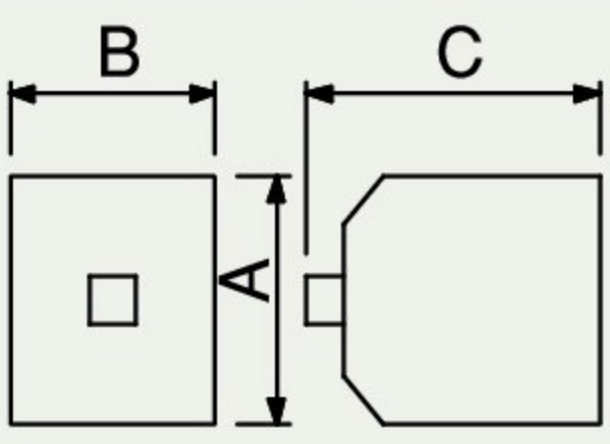
Note 1: The figure in the square brackets indicates the rated current shown on the rating plate of the product at which the category AC-3 opening/closing durability is 2,000,000 times (1,000,000 times for the T20 380V). Refer to the electric durability curve for the life performance.

Magnetic Contactors

- S-T series (non-Reversing)
- S-2xT series (Reversing)

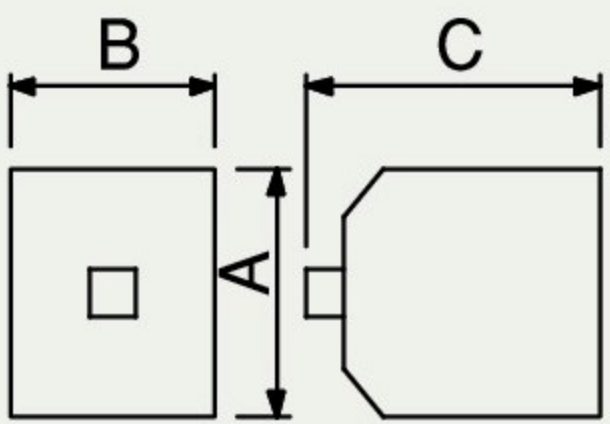


S-T10

Model name		Non-Reversing	S-T10	S(D)-T12	S(D)-T20	S(D)-T21	S-T25	S(D)-T32	
		Reversing	S-2×T10	S(D)-2×T12	S(D)-2×T20	S(D)-2×T21	S-2×T25	S(D)-2×T32	
Rated operational current (A) Category AC-3 (Note 1, 2)		220 to 240VAC	11[11]	13[13]	18[18]	25[20]	30(26)[26]	32[32]	
		380 to 440VAC	9[7]	12[9]	18[18]	23[20]	30(26)[25]	32[32]	
		500VAC	7[6]	9[9]	17[17]	17[17]	24[20]	24[20]	
Conventional free air thermal current Ith (A)			20	20	20	32	32	32	
Operation coil rating			Refer to pages 876						
Auxiliary contact arrangement	Non-Reversing	Standard	1a	1a1b	1a1b	2a2b	2a2b	—	
		Special	1b	2a	2a	—	—	—	
	Reversing	Standard	1a×2+2b	1a1b×2+2b	1a1b×2+2b	2a2b×2	2a2b×2	—	
		Special	1b×2+2b	2b×2+2b	2b×2+2b	—	—	—	
 (unit: mm)		Non-Reversing	A	75	75	75	81	81	81
			B	36	43	43	63	63	43
			C	78	78(100)	78(100)	81(108)	81	81(108)
		Reversing	A	85	85	85	81	81	81
			B	82	97	97	136	136	96
			C	78	78(100)	78(100)	81(114)	81	111(138)
IEC 35mm rail mounting type									
Option	Front clip-on auxiliary contact block mounting type								
	Side clip-on auxiliary contact block mounting type								
	Surge absorber mounting type								

Notes 1: The figure in the square brackets indicates the rated current shown on the rating plate of the product at which the category AC-3 opening/closing durability is 2,000,000 times (1,000,000 times for the T20 380V). Refer to the electric durability curve for the life performance.

2: The content within () of rated capacity and rated operational current is applied to the Magnetic Contactor.

Model name		Non-Reversing	S(D)-T35	S(D)-T50	S(D)-T65	S(D)-T80	S(D)-T100	
		Reversing	S(D)-2×T35	S(D)-2×T50	S(D)-2×T65	S(D)-2×T80	S(D)-2×T100	
Rated operational current (A) Category AC-3 (Note 1)		220 to 240VAC	40[35]	55[50]	65[65]	85[80]	105[100]	
		380 to 440VAC	40[32]	50[50]	65[65]	85[80]	105[93]	
		500VAC	32[26]	38[38]	60[45]	75[75]	85[75]	
Conventional free air thermal current Ith (A)			60	80	100	120	150	
Operation coil rating			Refer to pages 876					
Auxiliary contact arrangement	Non-Reversing	Standard	2a2b	2a2b	2a2b	2a2b	2a2b	
		Special	—	—	—	—	—	
	Reversing	Standard	2a2b×2	2a2b×2	2a2b×2	2a2b×2	2a2b×2	
		Special	—	—	—	—	—	
 (unit: mm)		Non-Reversing	A	89		106		124(134)
			B	75		88		100
			C	91(123)		106(133)		127(157)
		Reversing	A	114		115		140(147)
			B	160		216		270
			C	97(129)		112(139)		137(167)
IEC 35mm rail mounting type							—	
Option	Front clip-on auxiliary contact block mounting type						—	
	Side clip-on auxiliary contact block mounting type							
	Surge absorber mounting type				—			

Note 1: The figure in the square brackets indicates the rated current shown on the rating plate of the product at which the category AC-3 opening/closing durability is 2,000,000 times (1,000,000 times for the T20 380V). Refer to the electric durability curve for the life performance.

Open Model Magnetic Starters

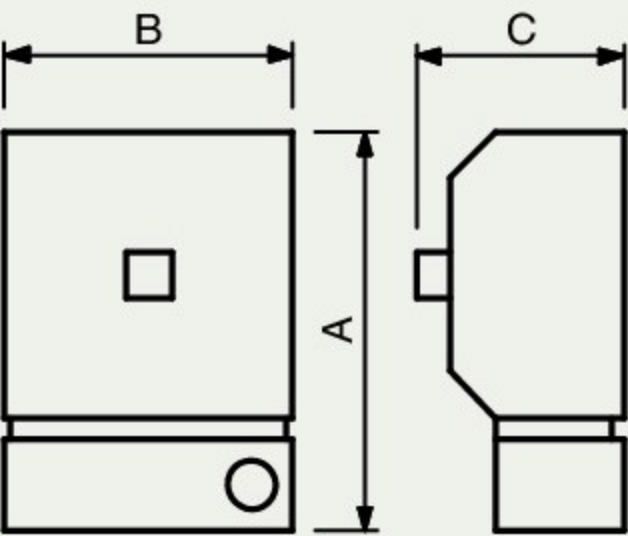
- MSO-N series (non-Reversing) : Open type
- MSO-2xN series (Reversing) : Open type



MSO-N150

MSO-N220

Delivery date category	
	Standard item
	Substandard item
	Special Item

Model name		Non-Reversing		MSO-N125		MSO-N150		MSO-N180		MSO-N220		MSO-N300		MSO-N400		
		Reversing		MSO-2xN125		MSO-2xN150		MSO-2xN180		MSO-2xN220		MSO-2xN300		MSO-2xN400		
Rated capacity (kW) Category AC-3		220 to 240VAC		30		37		45		55		75		110		
		380 to 440VAC		60		75		90		110		150		200		
		500VAC		60		90		110		132		160		200		
Heater rating (designation) of standard Thermal Overload Relays (A)				42 54		42 54		82 105		82 105		105 125		105 125		
				67 82		67 82		125 150		125 150		150 180		150 180		
				105		105 125				180		250		250 330		
Operation coil rating				Refer to the table below												
Auxiliary contact arrangement		Non-Reversing	Standard		2a2b		2a2b		2a2b		2a2b		2a2b		2a2b	
			Special		—		—		—		—		—		—	
		Reversing	Standard		2a2bx2		3a3bx2		○3a3bx2		3a3bx2		○3a3bx2		○3a3bx2	
			Special		—		—		—		—		—		—	
		Non-Reversing	A		239		250		282				360			
			B		112		120		144				163			
			C		136		145		178				195			
			Product weight [kg]		3.5		4.6		8.0				12			
		Reversing	A		251		276		304				392			
			B		276		296		370				395			
			C		147		156		194.5				209			
			Product weight [kg]		7		8.3		17				26			
IEC 35mm rail mounting type				—		—		—		—		—		—		
Option		Front clip-on auxiliary contact block mounting type		—		—		—		—		—		—		
		Side clip-on auxiliary contact block mounting type		←──												

Notes 1: *MSO-2xN18 model has auxiliary contacts (head on unit) as a standard attachment.
2: "CX" of the model name refers to the CAN terminal attachments.
3: The** mark means that CAN terminal attachments cannot be manufactured for this model.

●Thermal relay combined with an magnetic starter

Model names and types of heaters for thermal relays that can be combined with magnetic starters

Magnetic Contactors frame	Thermal Overload Relays model	Heater designation (adjustable range of stabilized current) (A)
N125, N150	TH-N120(KP)	42(34 to 50), 54(43 to 65), 67(54 to 80), 82(65 to 100)
	TH-N120TA(KP)	105(85 to 125), 125(100 to 150)*
N180, N220	TH-N220RH(KP)	82(65 to 100), 105(85 to 125), 125(100 to 150), 150(120 to 180), 180(140 to 220)*
N300, N400	TH-N400RH(KP)	105(85 to 125), 125(100 to 125), 150(120 to 180), 180(140 to 220), 250(200 to 300), 330(260 to 400)*
N600, N800	TH-N600(KP)	250(200 to 300):400/5A, 330(260 to 400):500/5A, 500(400 to 600):750/5A, 660(520 to 800)*:1000/5A

Notes 1: Where the stabilized current value is between two heater designations, choose the heater designation to which the current value is closer.
2: Use the TH-N600 model thermal relay combined with the transformer (CW-15□ model/15VA by Mitsubishi Electric) whose current transformation ratio is shown in the table.
3: The N600 and N800 models should be combined with the TH-N600. (An MSO model cannot be manufactured.)
4: "CX" of the model name refers to the CAN terminal attachments.
5: Heater designations with the *mark have magnetic starter frames to which they cannot be applied, so please refer to the heater rating (designation) column of the standard model thermal relay on the table above, for applicable magnetic starter frames.

●Coil Ratings

Operating coil rating (Alternating current operate) for S-N125 to N800

Coil designation	Ratings		Coil designation	Ratings		Coil designation	Ratings	
100VAC	100–127V	50Hz	300VAC	260–350V	50Hz	500VAC	460–550V	50Hz
	100–127V	60Hz		260–350V	60Hz		460–550V	60Hz
200VAC	200–240V	50Hz	400VAC	380–440V	50Hz	(24VAC)	24V	50/60Hz
	200–240V	60Hz		380–440V	60Hz	(48VAC)	48–50V	50/60Hz

Note 1: 24VAC cannot be manufactured for N180 to N800, 48VAC cannot be manufactured for N600 and N800.

Magnetic Contactors

S-N series (non-Reversing)

S-2x series (Reversing)



S-N125

S-N220

S-N600

Delivery date category	
	Standard item
	Substandard item
	Special Item

Model name		Non-Reversing	S-N125	S-N150	S-N180	S-N220	S-N300	S-N400	S-N600	S-N800	
		Reversing	S-2×N125	S-2×N150	S-2×N180	S-2×N220	S-2×N300	S-2×N400	S-2×N600	S-2×N800	
Rated capacity (kW) Category AC-3		220 to 240VAC	125	150	180	220	300	400	630	800	
		380 to 440VAC	120	150	180	220	300	400	630	800	
		500VAC	90	140	180	200	250	350	500	720	
Conventional free air thermal current Ith [A]			150	200	260	260	350	450	660	800	
Operation Coil Ratings			Refer to the table below								
Auxiliary contact arrangement		Non-Reversing	Standard	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b	●2a2b	
			Special	—	—	—	—	—	—	—	
		Reversing	Standard	2a2b×2	3a3b×2	3a3b×2	3a3b×2	○3a3b×2	○3a3b×2	●4a4b×2 ●4a4b×2	
			Special	—	—	—	—	—	—	—	
		Non-Reversing	A	150	160	204		243		310	
			B	100	120	138		163		290	
			C	137	145	175		195		235	
			Product weight [kg]	2.7	3.3	5.5		9.5		24	
		Reversing	A	150	160	215		250		435	
			B	276	296	370		395		660	
			C	147	156	189		209		254	
			Product weight [kg]	6	7	12.8		21		54	
IEC 35mm rail mounting type				—	—	—	—	—	—	—	
Option	Front clip-on auxiliary contact block mounting type			—	—	—	—	—	—	—	
	Side clip-on auxiliary contact block mounting type			←————→					—	—	
	Surge absorber mounting type			—	—	—	—	—	—	—	
	Reversing mechanical interlock attachment possible			←————→					—	—	
Special Specifications	Anti-corrosion treatment S-□YS			●	●	●	●	●	●	—	
	Delay open type S-□DL			—	●	—	●	●	●	—	

Notes 1: *S-2xN18 model has auxiliary contacts (head on unit) as a standard attachment.
2: "CX" of the model name refers to the CAN terminal attachments.
3: The** mark means that CAN terminal attachments cannot be manufactured for this model.

●Coil Ratings

Operating coil rating (Alternating current operate) for S-N125 to N800

Coil designation	Ratings		Coil designation	Ratings		Coil designation	Ratings	
100VAC	100—127V	50Hz	300VAC	260—350V	50Hz	500VAC	460—550V	50Hz
	100—127V	60Hz		260—350V	60Hz		460—550V	60Hz
200VAC	200—240V	50Hz	400VAC	380—440V	50Hz	(24VAC)	24V	50/60Hz
	200—240V	60Hz		380—440V	60Hz	(48VAC)	48—50V	50/60Hz

Note 1: 24VAC cannot be manufactured for N180 to N800, 48VAC cannot be manufactured for N600 and N800.

DC Operate magnetic Contactors

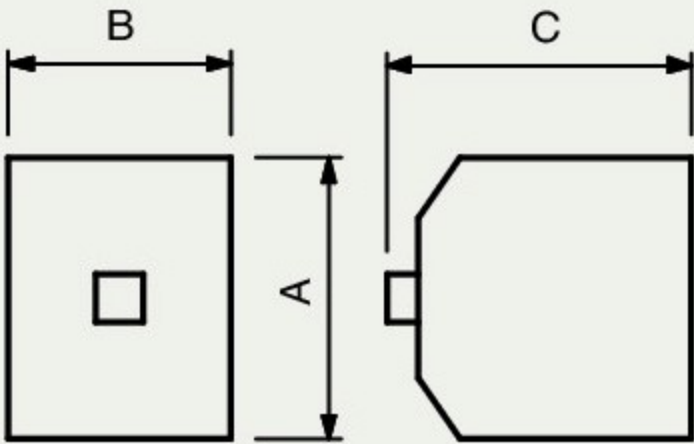
- SD-N series (non-Reversing)
- SD-2xN series (Reversing)



SD-N125



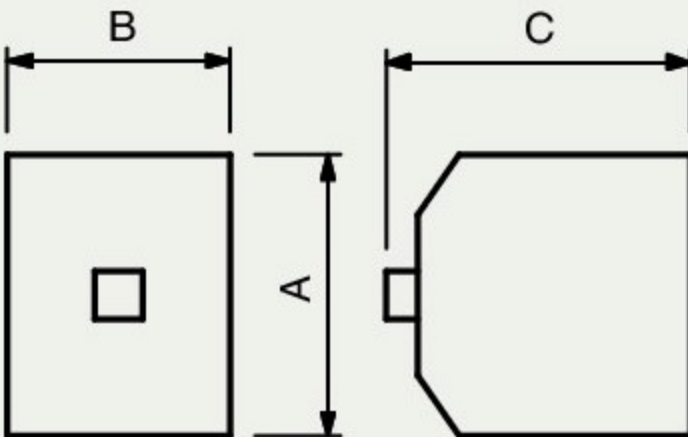
SD-N400

Model name	Non-Reversing		SD-N125	SD-N150	SD-N220	SD-N300	SD-N400	SD-N600	SD-N800
	Reversing		SD-2×N125	SD-2×N150	SD-2×N220	SD-2×N300	SD-2×N400	SD-2×N600	SD-2×N800
Rated capacity (kW)	200 to 220VAC		125	150	220	300	400	630	800
Category AC-3	380 to 440VAC		120	150	220	300	400	630	800
Conventional free air thermal current Ith [A]			150	200	260	350	450	660	800
Operating coil voltage (designation)			12VDC, 24VDC*, 48V, 100V, 110V, 125V (120 to 125V), 200V, 220V [Figures in brackets () indicates rated values]						
Auxiliary contact arrangement (Both standard and special)	Non-Reversing		2a2b	2a2b	2a2b	2a2b	○2a2b	○2a2b	○2a2b
	Reversing		○2a2b×2	○3a3b×2	○3a3b×2	○3a3b×2	○3a3b×2	●4a4b×2	●4a4b×2
	Non-Reversing	A	150	160	204	243		310	
		B	100	120	138	163		371	
		C	162	170	200	221		235	
		Product weight [kg]	4.3	4.8	7.5	13.5		29	
	Reversing	A	150	160	215	250		435	
		B	276	296	370	395		800	
		C	173	181	214	235		254	
		Product weight [kg]	9.2	10	17	29		64	
IEC 35mm rail mounting type			—	—	—	—	—	—	—

Notes 1: "CX" of the model name refers to the CAN terminal attachments.
2: Ratings with an * mark are for special products, rated at SD-N220 and above.
3: 12VDC cannot be manufactured for SD-N600 and N800.

Magnetic Contactor with Mechanical Latch

- SL-T series (AC closing coil, non-reversing)
- SL-N series (AC closing coil, non-reversing)
- SLD-N series (DC closing coil, non-reversing)
- SL-2×N series (AC closing coil, reversing)
- SLD-2×N series (DC closing coil, reversing)

Model name	Non-Reversing	SL-T21(BC)	SL SLD -N125	SL SLD -N150	SL SLD -N220	SL SLD -N300	SL SLD -N400	SL SLD -N600	SL SLD -N800
	Reversing	—	SL SLD -2×N125	SL SLD -2×N150	SL SLD -2×N220	SL SLD -2×N300	SL SLD -2×N400	SL SLD -2×N600	SL SLD -2×N800
Rated capacity (kW)	200 to 220VAC	20	125	150	220	300	400	630	800
Category AC-3	380 to 440VAC	20	120	150	220	300	400	630	800
Conventional free air thermal current Ith [A]		32	150	200	260	350	450	660	800
Operating coil voltage (designation)		Alternating current operate: 100V, 200V, 300V, 400V, 500V Direct current operate: 12VDC, 24VDC, 48VDC, 100V (100 to 110V), 125V (120 to 125V), 200V (200 to 220V) [Figures in brackets () indicate rated values]							
Auxiliary contact arrangement (Both standard and special)	Non-Reversing	2a2b	1a2b	1a2b	1a2b	1a2b	○1a2b	○1a2b	○1a2b
	Reversing	●2a2b	●1a2b×2	●2a3b×2	●2a3b×2	●2a3b×2	●2a3b×2	●3a4b×2	●3a4b×2
	Non-Reversing	A	81	194	203	227	262	392	
		B	63	100	120	138	163	290	
		C	136.5	137	145	175	195	235	
		Product weight [kg]	0.55	3.1	3.7	6	10	27	
	Reversing	A	81	194	203	232.5	265.5	467	
		B	136	276	296	370	395	660	
		C	136.5	148	156	189	209	254	
		Product weight [kg]	1.15	7	8	14	22	60	
IEC 35mm rail mounting type			—	—	—	—	—	—	—

Notes 1: Operating coils are rated for 15 minutes
2: "CX" of the model name refers to the CAN terminal attachments.
3: 12VDC cannot be manufactured for SD-N600 and N800.

DC Interface Contactors

SD-Q, MSOD-Q series (Non-Reversing)

SD-QR, MSOD-QR series (Reversing)



SD-Q11

Model name	Type		Non-Reversing		Reversing	
	Magnetic Contactors	SD-	Q11	Q12	QR11	QR12
	Magnetic Starters	MSOD-	Q11	Q12	QR11	QR12
Combined Thermal Overload Relays	Model name		TH-N12(KP)		TH-N12(KP)	
	Heater designation Applicable range [A]		0.12 to 11		0.12 to 11	
Rated capacity (kW) Category AC-3	200 to 240V		2.5		2.5	
	380 to 440V		4		4	
Rated operational current (A) Category AC-3	200 to 240V		12		12	
	380 to 440V		9		9	
Conventional free air thermal current Ith [A]			20		20	
Auxiliary contact arrangement	Standard		1a	1a1b	2b	2a2b
	Special		● 1b	● 2a	–	–
	Magnetic Contactors	A	51	52	59	59
		B	45	56	90	112
		C	66.5	67.5	66.5	67.5
		Product weight [kg]	0.19	0.21	0.42	0.46
	Magnetic Starters	A	91	92.5	98.5	98.5
		B	49.5	56	94.5	112
		C	77	77	77	77
		Product weight [kg]	0.3	0.31	0.52	0.56
IEC 35mm rail mounting type			←──			