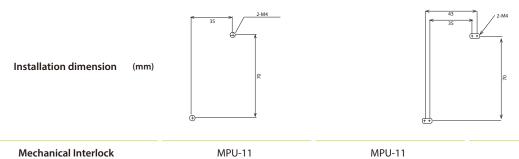
ther   SD Series   DC control type	2								AGNETIC CONTACTOR / STARTER
Type designation	SD	- 2×	Р	21	220V				NTA
	1	2	3	4	5				CTOR
001	1	Model		SD	DC Contactor				AIC /
	2	Non-revers reversing	sing/	Blank 2×	Non-reversing Reversing				
SD-P11	3	Series		P	P Series			_	
	4	Rated capaci	ty	11 \ 16	× 21				
	5	Control circu	it voltage	EX : 12	V × 24V × 48V1	10V \ 220	V (Refer to		Cha -eris
NUMBER OF STREET								-	S
SD-2×P11									S
her   MDO Series   DC control ty	уре								
her   MDO Series   DC control ty Type designation	ype MDO	- 2×	Ρ	21	380V / 220V	28A	E		S
		- 2×	P	21	380V / 220V 5 6	28A 7	E		S
	MDO					7	8		s Otl
	MDO	2	3	4 MDO Blank	5 6 DC Magnetic Sw Non-reversing	7	8		S Otl S
	MDO 1	2 Model Non-revers	3	4 MDO	5 6 DC Magnetic Sw	7	8		s Otil s Ca T
	MDO 1 1	2 Model Non-revers reversing	3 sing/	4 MDO Blank 2×	<ul> <li>5</li> <li>6</li> <li>DC Magnetic Sw</li> <li>Non-reversing</li> <li>Reversing</li> <li>P Series</li> </ul>	7	8		s Oti s Ca T s S
	MDO 1 2 3	2 Model Non-revers reversing Series	3 sing/	<ul> <li>4</li> <li>MDO</li> <li>Blank</li> <li>2×</li> <li>P</li> <li>11 \ 16</li> <li>EX : 110</li> <li>(When the set of the set of</li></ul>	<ul> <li>5</li> <li>6</li> <li>DC Magnetic Sw</li> <li>Non-reversing</li> <li>Reversing</li> <li>P Series</li> </ul>	7     itch withou     itch withou     440V	8 t enclosure	 	s Otti s Ccc T s S Se
Type designation	MDO 1 2 3 4	Anodel     Model     Non-revers     reversing     Series     Rated capaci     Main circui	3 sing/ ty it	<ul> <li>MDO</li> <li>Blank</li> <li>2×</li> <li>P</li> <li>11 \ 16</li> <li>EX : 110</li> <li>(When the same same same same same same same sam</li></ul>	5 6 DC Magnetic Sw Non-reversing Reversing P Series > 21 W > 220V > 380V > main circuit voltage	7       itch withou       440V       e and contr	8 t enclosure	   Je are	s Ottl s Cc T S S S S e
Type designation	MDO 1 1 2 3 4 5	2 Model Non-revers reversing Series Rated capaci Main circui voltage	3 sing/ ty it it voltage	<ul> <li>MDO</li> <li>Blank</li> <li>2×</li> <li>P</li> <li>11 \ 16</li> <li>EX : 110</li> <li>(When the sam)</li> <li>EX : 12</li> </ul>	5    6      DC Magnetic Sw      Non-reversing      Reversing      P Series      • 21      W > 220V > 380V >      main circuit voltage      e, it will be blank.)	2     itch withou     440V     and contr     10V \cdot 220	8 t enclosure ol circuit voltag		s Oth s Cc T S S S S el -tic
Type designation	MDO 1 2 3 4 5 6	Anon-reversing     Series     Rated capacit     Main circui     voltage     Control circui     TH heater r	3 sing/ ty it it voltage	<ul> <li>MDO</li> <li>Blank</li> <li>2×</li> <li>P</li> <li>11 \ 16</li> <li>EX : 110</li> <li>(When the sam)</li> <li>EX : 12</li> </ul>	5    6      DC Magnetic Sw      Non-reversing      Reversing      P Series      > 21      W > 220V > 380V >      main circuit voltage      e, it will be blank.)      V > 24V > 48V1	<b>7</b> itch withou 440V e and contr 10V \ 220 11A21A.	8 t enclosure ol circuit voltag		So Oth So Co TI So So Sol -tio
Type designation	MDO 1 2 3 4 5 6	Anon-reversing     Series     Rated capacit     Main circui     voltage     Control circui     TH heater r	3 sing/ ty it it voltage	<ul> <li>MDO</li> <li>Blank</li> <li>2×</li> <li>P</li> <li>11 \ 16</li> <li>EX : 110</li> <li>(When the sam)</li> <li>EX : 12</li> <li>EX : 3.3</li> </ul>	5       6         DC Magnetic Sw         Non-reversing         Reversing         P Series         • 21         W > 220V > 380V >         main circuit voltage         e, it will be blank.)         V > 24V > 48V1         BA > 6.5A > 9A >	<b>7</b> itch withou 440V e and contr 10V \ 220 11A21A.	8 t enclosure ol circuit voltag		M Se Co Th Se Selo -tic

MA

# Magnetic Contactor / Starter + DC control

	Magnetic	Nonre	versing	SD-P11	SD-P16	SD-P21	
	Contactor	Reve	ersing	SD-2×P11	SD-2×P16	SD-2×P21	
		without	Nonreversing	MDO-P11	MDO-P16	MDO-P21	
		enclosure	Reversing	MDO-2×P11	MDO-2×P16	MDO-2×P21	
Type		with	Nonreversing	_	_	-	
	Motor Starter	enclosure	Reversing	_		-	
	Starter	with enclosure (push button)	Nonreversing	_	_	-	
			Standard	TH-P12	TH-P20	TH-P20	
		TOR	Differential	TH-P12PP	TH-P20PP	TH-P20PP	
			240V	3.5/ 4.5/ 13	4.5/ 6/ 18	5.5/ 7.5/ 24	
	IEC 60947-4-1 EN 60947-4-1		380/440V	5.5/ 7.5/ 12	7.5/ 10/ 18	11/ 15/ 21	
	DIN VDE 0660	3ø	550V	5.5/ 7.5/ 9	7.5/ 10/ 13	11/ 15/ 17	
	AC 3 (kW/HP/A)		660V	5.5/ 7.5/ 7	7.5/ 10/ 9	11/ 15/ 14	
Rate		Continuous Curr	ent (Ith) AC1 (A)	20	30	32	
Rated Capacity				0.5/ 9.8	1/16	2/24	
pacity		1ø	220~240V	2/12	3/17	3/ 17	
	UL 508 CSA-C22.2		220~240V	3/ 9.6	5/ 15.2	7.5/ 22	
	AC3	3ø	440~480V	7.5/11	10/ 14	15/ 21	
	(HP/A)		550~600V	10/11	10/ 11	15/ 17	
		Continuous Curr	ent (Ith) AC1 (A)	24	30	35	
		NEMA		0	0	1	
	Auxi	liary contact		1NO or 1NC	1NO 1NC	1NO 1NC	
	Control coil v	voltage	DC (V)		12/ 24/ 48/ 72/ 110/ 125/ 220		
Ele	ctrical Life	AC3	(10 thousand)	120	120	120	
Mec	Mechanical Life (10 thousand)		600	600	600		
	Weight		(kg)	0.33	0.37	0.38	
	Appearance (W×H×D)	Dimensions	(mm)	43×81×83.5	53.5×81×83.5	53.5×81×83.5	
Magnetic Contact Installation dimension (mm)			ion (mm)	2-M4 2-M4 R	€ 43 ≤ 35	2-M4	

Others



MPU-11

Charact -eristics

SP

MS

Series

Series

Other

Coil

TΗ

SD

Selec -tion

Series

Series

# Auxiliary Contact Block AP Series

Installation		2P FRONT MOUNTED TYPE			4P FRONT MOUNTED TYPE			SIDE MOUNTED TYPE	
Туре		AP-20	AP-11	AP-02	AP-40	AP-31	AP-22	APS-11	APL-11
Contact	Contact		1NO 1NC	2NC	4NO	3NO 1NC	2NO 2NC	1NO 1NC	1NO 1NC
Applicable contactor		5	SR-P40, SR-P50 S-P11~ S-P80T SD-P11~ SD-P21		SR-P40, SR-P50 S-P11~ S-P80T SD-P11~ SD-P21		SR-P40, SR-P50 S-P11~ S-P60T SD-P11~ SD-P21	S-P125, S-P150T S-P200T, S-P220T S-P300T, S-P400T	
Rated Capacity 220V		1.6							
AC 15 (A) 380V		0.95							
Operation current (Ith) (A)		16							

# Auxiliary Contact Block MAP Series

Installatio	on	2P F	RONT MOUNTED	ТҮРЕ	4P FRONT MOUNTED TYPE			
Туре		MAP-20	MAP-11	MAP-02	MAP-40 MAP-31		MAP-22	
Contact	t	2NO 1NO 1NC 2NC			4NO	3NO 1NC	2NO 2NC	
Applicable co	ntactor	S-P09.						
Rated Capacity	220V	3.3						
AC 15 (A) 380V 1.9								
Continuous Current	(Ith) (A)	10						

## Timer



Туре		PTR-30	PTR-180			
Contac	t	1NO 1NC	1NO 1NC			
Adjustable tin	ne (Sec)	0~30 0~180				
Applicable co	ntactor	SR-P40, SR-P50, S-P11~ 5	S-P60T, SD-P11~ SD-P21.			
Rated Capacity	220V	1.6				
AC 15 (A)	380V	0.95				
Continuous Current	(Ith) (A)	16				



# Varistors: Anti-surge interference

Туре	BMSACW220V	BMSACW380V		
Applicable contactor	SR-P40, SR-P50, S-P11~ S-P60T.			

Charact -eristics

Coil

TH

Series

Series

SD

Selec -tion

Others

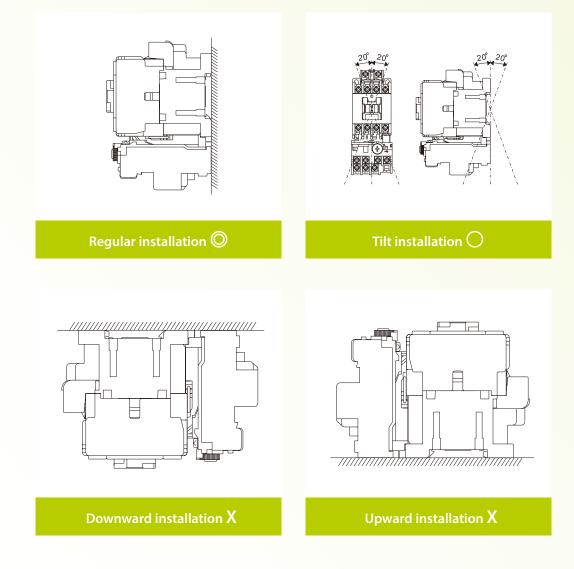
### Installation notes

#### • Operating environment

- \_ Altitude below 3000m
- \_ Ambient temperature: -30°C~+70°C (dew is not allowed)
- Relative humidity: Relative humidity could not exceed 50% when the surrounding temperature is +40oC. For lower temperature, the relative humidity can be higher. The average maximum relative humidity for the month with the highest humidity is 90%, and the average lowest temperature of that month is +25oC. Please consider the possibility of frosting on the surface of the product due to temperature change.
- \_ Withstand vibration 10Hz $\sim$ 55Hz 2G
- Withstand impact 5G
- Storage temperature:  $-50^{\circ}C \sim +85^{\circ}C$  (dew is not allowed)
- Please do not install in a place that contains dust, moisture, salt, oil stains, or corrosive or flammable gases.
- After switch installed, please add temporary protection to avoid harmful substances like dust or moisture etc coming into contact with it, if the switch is not to be used for a long period of time.
- Coil operating voltage should be applied within 85~110% of rated voltage. If higher than 110%, the coil life will be reduced, or the coil could burn out if lower than 85%.

#### Installation direction

The regular installation direction of the contactor is vertical, but is allowed 20° tilt along all directions. Refer to the figure below.



SP

Selec -tion

#### Others