



MAGNETIC CONTACTOR & MOTOR STARTER



N Series



SHIHLIN ELECTRIC & ENGINEERING

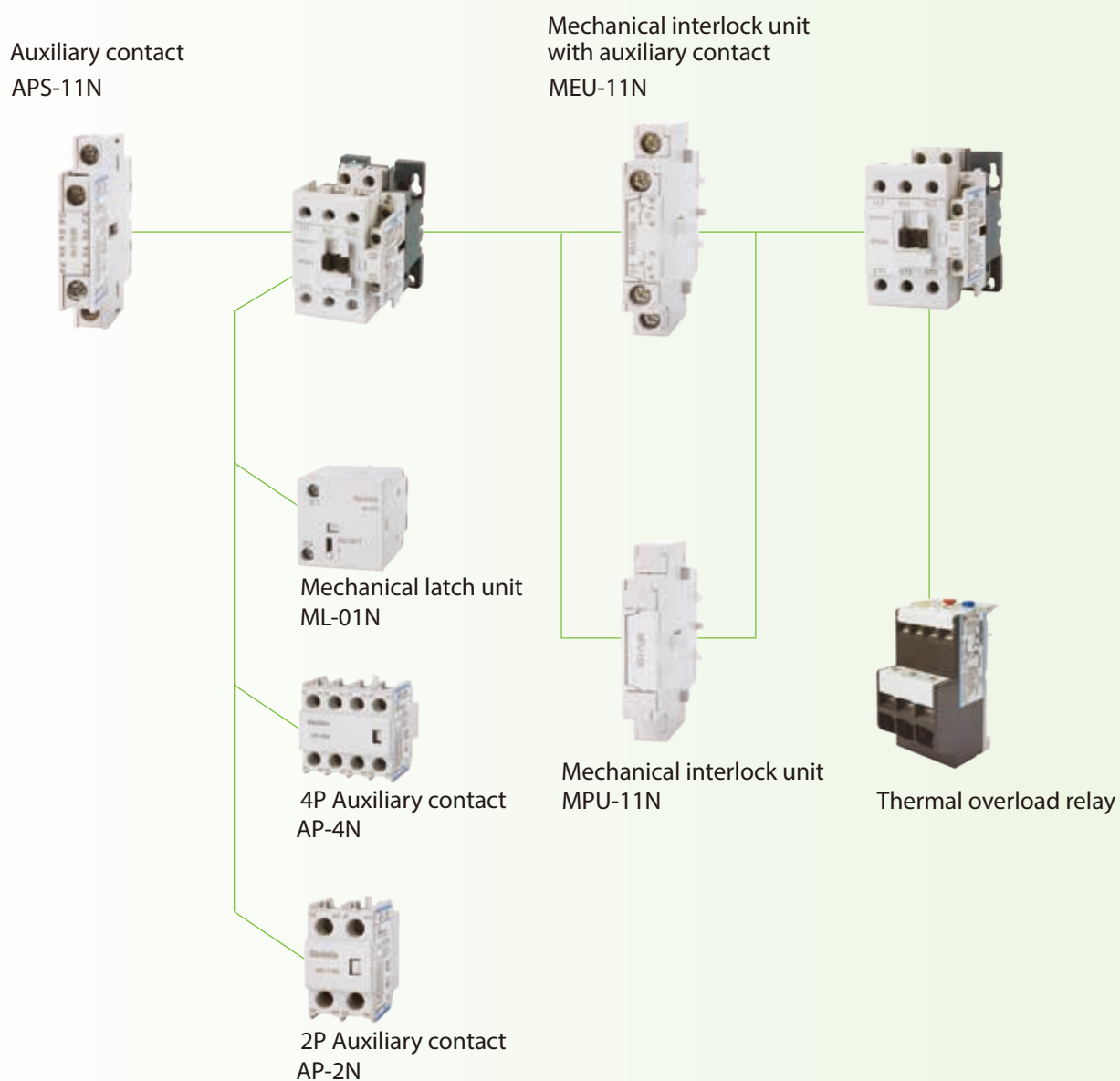
Functionalities and characteristics of Magnetic Contactor

■ Configuration

Composite magnetic switch (initialism MS) comprises of a contactor for switching on and off current and a thermal overload relay for protecting the load.

■ Functions

- Switching the control system for electric power transmission and distribution.
- Operation of the start and stop of motors.
- Electric power control for all kinds of industrial machinery, machine tools, injection molding machines.



Safety

Terminal Cover

Safety Cover

 $U_i=690V$

UL-94 class plastic

Utility

Screw type main circuit terminal
Box lug for S-P40NL~100NL, TH-P65NL~100NL

Tool free installation
Din-rail 35mm & 75 mm

Tool free top / side auxiliary contact unit
(Interlock unit can be attached on)

Coil position can be switched

Endurance
AC3 1.5 million times
AC4 35 thousand times

Mechanical interlock

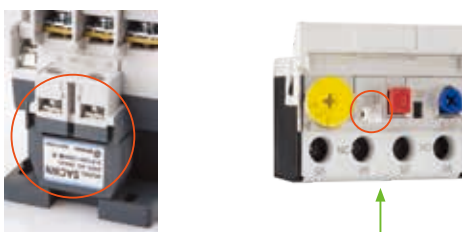
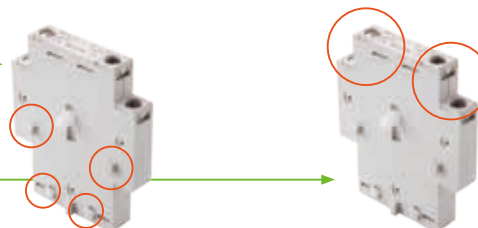
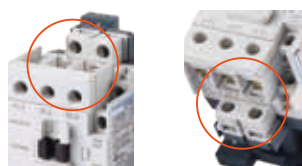
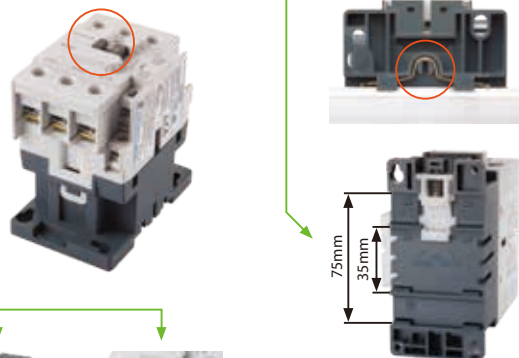
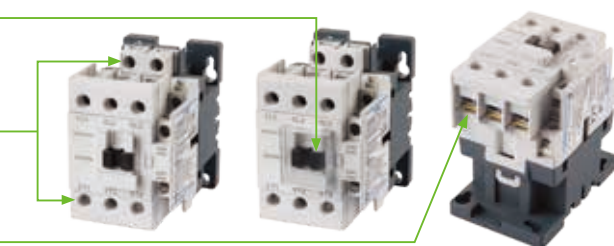
Mechanical & electrical interlock combination
with 2 NC

Surge unit

Thermal overload relay with OFF button

Knob cover (lock attachable)

Mechanical latch unit
(energy saving, no noise)

Separate installation unit
(TH-P38N, 65N)


AC Control



TYPE					9N			12N			
Model	Magnetic contactor		Non-reversing		S-P9N			S-P12N			
			Reversing		S-2 x P9N			S-2 x P12N			
	Motor starter	Without enclosure		Non-reversing		MSO-P9N			MSO-P12N		
				Reversing		MSO-2 x P9N			MSO-2 x P12N		
		With enclosure		Non-reversing		MS-P9N			MS-P12N		
				Reversing		MS-2 x P9N			MS-2 x P12N		
		Enclosure with on / off button		Non-reversing		MS-P9N-PB			MS-P12N-PB		
		Enclosure with emergency button		Non-reversing		MS-P9N-EM			MS-P12N-EM		
	T.O.R		3 heaters (E)		TH-P38NE			TH-P38NE			
			Differential (PP)		TH-P38NPP			TH-P38NPP			
Rated insulation voltage (Ui) IEC (V)					690			690			
Rated operation voltage (Ue) IEC / UL (V)					690 / 600			690 / 600			
Rated impulse withstand voltage (Uimp) IEC (KV)					6			6			
Main contacts					3NO			3NO			
Rated Capacity	Rated power factor and current				kW	HP	A	kW	HP	A	
	IEC60947-4-1 EN60947-4-1 DIN VDE 0660	AC3	3 ϕ	200 / 240V	2.2	3	9	3.5	4.5	13	
				380 / 400V	4	5.5	9	5.5	7.5	12	
				415V	4	5.5	9	5.5	7.5	12	
				440V	4	5.5	9	5.5	7.5	12	
				550V	4	5.5	7	5.5	7.5	9	
				660V	4	5.5	5	5.5	7.5	7	
				690V	4	5.5	5	5.5	7.5	7	
		AC-1 Resistance load (A)				25			25		
	Continuous current (Ith) (A)				25			25			
	UL 508 CSA-C22.2	FLA	1 ϕ	110 ~ 120V		0.5	9.8		0.5	9.8	
				220 ~ 240V		1	8		2	12	
			3 ϕ	220 ~ 240V		2	6.8		3	9.6	
				440 ~ 480V		5	7.6		7.5	11	
				550 ~ 600V		7.5	9		10	11	
		Continuous current (Ith) (A)				25			25		
		NEMA size				00			0		
Auxiliary contact	Auxiliary Contact			1NO1NC			1NO1NC				
	IEC 60947-5-1 EN 60947-5-1	AC 15 (A)	120V	6			6				
			240V	3			3				
			380V	1.9			1.9				
			480V	1.5			1.5				
			500V	1.4			1.4				
			600V	1.2			1.2				
	Continuous current (Ith) (A)			10			10				
Contact class (UL)				A600, Q300			A600, Q300				
Endurance	Mechanical				15 Mil.			15 Mil.			
	Electrical (AC3)				2 Mil.			2 Mil.			
	Operation (Time / hour)				1200			1200			
Accessory	Auxiliary Contact Unit	Front	2P	2NO, 1NO1NC, 2NC	●			●			
			4P	4NO, 3NO1NC, 2NO2NC, 1NO3NC	●			●			
		Side		1NO1NC		●			●		
	Surge unit (SACWN)				●			●			
	Mechanical interlock	MPU-11N			●			●			
		MEU-11N (With 2NC)			●			●			
	Mechanical latch	ML-01N			●			●			
Dimension (mm)	Appearance W x H x D				45 x 80 x 85			45 x 80 x 85			
	Installation										

Note :

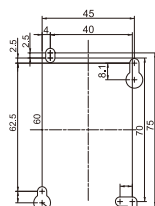
1. The model name "L" means Box lug type terminal (For model 40~100). Ex. S-P40NL
2. Standard model of 40 ~ 100 have no auxiliary contact. For additional AX please specify when order.



18N			25N		
S-P18N			S-P25N		
S-2 x P18N			S-2 x P25N		
MSO-P18N			MSO-P25N		
MSO-2 x P18N			MSO-2 x P25N		
MS-P18N			MS-P25N		
MS-2 x P18N			MS-2 x P25N		
MS-P18N-PB			MS-P25N-PB		
MS-P18N-EM			MS-P25N-EM		
TH-P38NE			TH-P38NE		
TH-P38NPP			TH-P38NPP		
690			690		
690 / 600			690 / 600		
6			6		
3NO			3NO		
kW	HP	A	kW	HP	A
4.5	6	18	7.5	10	28
7.5	10	18	11	15	28
7.5	10	18	11	15	25
7.5	10	18	11	15	25
7.5	10	13	15	20	23
7.5	10	10	15	20	18
7.5	10	9	15	20	17
32			40		
32			40		
1		16	2		24
3		17	3		17
5		15.2	7.5		22
10		14	15		21
10		11	15		17
25			40		
0			1		
1NO1NC			1NO1NC		
6			6		
3			3		
1.9			1.9		
1.5			1.5		
1.4			1.4		
1.2			1.2		
10			10		
A600, Q300			A600, Q300		
15 Mil.			15 Mil.		
2 Mil.			2 Mil.		
1200			1200		
●			●		
●			●		
●			●		
●			●		
●			●		
●			●		
●			●		
45 x 80 x 85			55 x 86 x 89		

AC Control



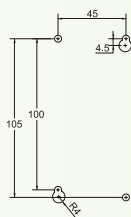
TYPE					32N			38N			
Model	Magnetic contactor		Non-reversing		S-P32N			S-P38N			
			Reversing		S-2 x P32N			S-2 x P38N			
	Motor starter	Without enclosure		Non-reversing		MSO-P32N			MSO-P38N		
				Reversing		MSO-2 x P32N			MSO-2 x P38N		
		With enclosure		Non-reversing		MS-P32N			MS-P38N		
				Reversing		MS-2 x P32N			MS-2 x P38N		
		Enclosure with on / off button		Non-reversing		MS-P32N-PB			MS-P38N-PB		
		Enclosure with emergency button		Non-reversing		MS-P32N-EM			MS-P38N-EM		
		T.O.R		3 heaters (E)		TH-P38NE			TH-P38NE		
Differential (PP)				TH-P38NPP			TH-P38NPP				
Rated insulation voltage (Ui) IEC (V)					690			690			
Rated operation voltage (Ue) IEC / UL (V)					690 / 600			690 / 600			
Rated impulse withstand voltage (Uimp) IEC (KV)					6			6			
Main contacts					3NO			3NO			
Rated Capacity	Rated power factor and current				kW	HP	A	kW	HP	A	
	IEC60947-4-1 EN60947-4-1 DIN VDE 0660	AC3	3 ϕ	200 / 240V	9	12.5	33	11	15	39	
				380 / 400V	15	20	33	18.5	25	38	
				415V	15	20	32	18.5	25	38	
				440V	15	20	32	18.5	25	38	
				550V	18.5	25	29	22	30	33	
				660V	18.5	25	22	22	30	27	
				690V	18.5	25	21	22	30	26	
	AC-1 Resistance load (A)				50			50			
	Continuous current (Ith) (A)				50			50			
	UL 508 CSA-C22.2	FLA	1 ϕ	110 ~ 120V		3	34		3	34	
				220 ~ 240V		5	28		5	28	
			3 ϕ	220 ~ 240V		10	28		10	28	
				440 ~ 480V		20	27		25	34	
				550 ~ 600V		20	22		25	27	
		Continuous current (Ith) (A)				50			50		
NEMA size				1			1				
Auxiliary contact	Auxiliary Contact			1NO1NC			1NO1NC				
	IEC 60947-5-1 EN 60947-5-1	AC 15 (A)	120V	6			6				
			240V	3			3				
			380V	1.9			1.9				
			480V	1.5			1.5				
			500V	1.4			1.4				
			600V	1.2			1.2				
	Continuous current (Ith) (A)			10			10				
Contact class (UL)			A600, Q300			A600, Q300					
Endurance	Mechanical		(10000 times)	15 Mil.			15 Mil.				
	Electrical		(AC3, 10000 times)	2 Mil.			1.6 Mil.				
	Operation		(Time / hour)	1200			1200				
Accessory	Auxiliary Contact Unit	Front	2P	2NO, 1NO1NC, 2NC	●			●			
			4P	4NO, 3NO1NC, 2NO2NC, 1NO3NC	●			●			
		Side	1NO1NC		●			●			
	Surge unit (SACWN)				●			●			
	Mechanical interlock	MPU-11N			●			●			
		MEU-11N (With 2NC)			●			●			
	Mechanical latch	ML-01N			●			●			
Dimension (mm)	Appearance W x H x D				55 x 86 x 89			55 x 86 x 89			
	Installation										

Note :

1. The model name "L" means Box lug type terminal (For model 40~100). Ex. S-P40NL
2. Standard model of 40 ~ 100 have no auxiliary contact. For additional AX please specify when order.

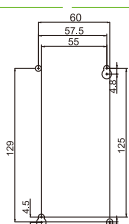


40N			40NL			50N			50NL			65N			65NL		
S-P40N			S-P40NL			S-P50N			S-P50NL			S-P65N			S-P65NL		
S-2 x P40N			S-2 x P40NL			S-2 x P50N			S-2 x P50NL			S-2 x P65N			S-2 x P65NL		
MSO-P40N			MSO-P40NL			MSO-P50N			MSO-P50NL			MSO-P65N			MSO-P65NL		
MSO-2 x P40N			MSO-2 x P40NL			MSO-2 x P50N			MSO-2 x P50NL			MSO-2 x P65N			MSO-2 x P65NL		
MS-P40N			MS-P40NL			MS-P50N			MS-P50NL			MS-P65N			MS-P65NL		
MS-2 x P40N			MS-2 x P40NL			MS-2 x P50N			MS-2 x P50NL			MS-2 x P65N			MS-2 x P65NL		
MS-P40N-PB			MS-P40NL-PB			MS-P50N-PB			MS-P50NL-PB			MS-P65N-PB			MS-P65NL-PB		
MS-P40N-EM			MS-P40NL-EM			MS-P50N-EM			MS-P50NL-EM			MS-P65N-EM			MS-P65NL-EM		
TH-P65NE			TH-P65NLE			TH-P65NE			TH-P65NLE			TH-P65NE			TH-P65NLE		
TH-P65NPP			TH-P65NLPP			TH-P65NPP			TH-P65NLPP			TH-P65NPP			TH-P65NLPP		
690			690			690			690			690			690		
690 / 600			690 / 600			690 / 600			690 / 600			690 / 600			690 / 600		
6			8			8			8			8			8		
3NO			3NO			3NO			3NO			3NO			3NO		
kW	HP	A	kW	HP	A	kW	HP	A	kW	HP	A	kW	HP	A	kW	HP	A
12.5	17	44	12.5	17	44	15	20	58	15	20	58	18.5	25	65	18.5	25	65
22	30	40	22	30	40	25	34	52	25	34	52	30	40	65	30	40	65
22	30	40	22	30	40	30	40	50	30	40	50	37	50	65	37	50	65
22	30	40	22	30	40	30	40	50	30	40	50	37	50	65	37	50	65
22	30	33	22	30	33	30	40	41	30	40	41	37	50	52	37	50	52
22	30	27	22	30	27	30	40	34	30	40	34	37	50	43	37	50	43
22	30	26	22	30	26	30	40	32	30	40	32	37	50	39	37	50	39
65			60			80			80			100			98		
60			60			80			80			98			98		
3			3			5			5			5			5		
7.5			7.5			10			10			15			15		
15			15			20			20			25			25		
30			30			40			40			50			50		
30			30			40			40			50			50		
60			60			80			80			98			98		
2			2			2			2			2			2		
Note 2			Note 2			Note 2			Note 2			Note 2			Note 2		
6			6			6			6			6			6		
3			3			3			3			3			3		
1.9			1.9			1.9			1.9			1.9			1.9		
1.5			1.5			1.5			1.5			1.5			1.5		
1.4			1.4			1.4			1.4			1.4			1.4		
1.2			1.2			1.2			1.2			1.2			1.2		
10			10			10			10			10			10		
A600, Q600			A600, Q600			A600, Q600			A600, Q600			A600, Q600			A600, Q600		
10 Mil.			10 Mil.			10 Mil.			10 Mil.			10 Mil.			10 Mil.		
1.6 Mil.			1.6 Mil.			1.5 Mil.			1.5 Mil.			1.5 Mil.			1.5 Mil.		
1200			1200			1200			1200			1200			1200		
●			●			●			●			●			●		
●			●			●			●			●			●		
●			●			●			●			●			●		
●			●			●			●			●			●		
●			●			●			●			●			●		
●			●			●			●			●			●		
●			●			●			●			●			●		
55 x 115 x 120			55 x 115 x 120			55 x 115 x 120			55 x 115 x 120			55 x 115 x 120			55 x 115 x 120		



AC Control



TYPE					80N			80NL			100N			100NL				
Model	Magnetic contactor		Non-reversing		S-P80N			S-P80NL			S-P100N			S-P100NL				
			Reversing		S-2 x P80N			S-2 x P80NL			S-2 x P100N			S-2 x P100NL				
	Mot or starter	Without enclosure		Non-reversing		MSO-P80N			MSO-P80NL			MSO-P100N			MSO-P100NL			
				Reversing		MSO-2 x P80N			MSO-2 x P80NL			MSO-2 x P100N			MSO-2 x P100NL			
		With enclosure		Non-reversing		MS-P80N			MS-P80NL			MS-P100N			MS-P100NL			
				Reversing		MS-2 x P80N			MS-2 x P80NL			MS-2 x P100N			MS-2 x P100NL			
		Enclosure with on / off button		Non-reversing		MS-P80N-PB			MS-P80NL-PB			MS-P100N-PB			MS-P100NL-PB			
		Enclosure with emergency button		Non-reversing		MS-P80N-EM			MS-P80NL-EM			MS-P100N-EM			MS-P100NL-EM			
	T.O.R		3 heaters (E)		TH-P100NE			TH-P100NLE			TH-P100NE			TH-P100NLE				
Differential (PP)			TH-P100NPP			TH-P100NLPP			TH-P100NPP			TH-P100NLPP						
Rated insulation voltage (Ui) IEC (V)					690			690			690			690				
Rated operation voltage (Ue) IEC / UL (V)					690 / 600			690 / 600			690 / 600			690 / 600				
Rated impulse withstand voltage (Uimp) IEC (KV)					8			8			8			8				
Main contacts					3NO			3NO			3NO			3NO				
Rated Capacity	Rated power factor and current				kW	HP	A	kW	HP	A	kW	HP	A	kW	HP	A		
	IEC60947-4-1 EN60947-4-1 DIN VDE 0660	AC3	3 ϕ	200 / 240V	22	30	85	22	30	85	30	40	105	30	40	105		
				380 / 400V	40	54	85	40	54	85	55	73	105	55	73	105		
				415V	40	54	80	40	54	80	60	80	100	60	80	100		
				440V	40	54	80	40	54	80	60	80	100	60	80	100		
				550V	45	60	60	45	60	60	60	80	85	60	80	85		
				660V	45	60	50	45	60	50	60	80	70	60	80	70		
				690V	45	60	50	45	60	50	60	80	65	60	80	65		
	AC-1 Resistance load (A)				125			125			140			140				
	Continuous current (Ith) (A)				125			125			140			140				
	UL 508 CSA-C22.2	FLA	1 ϕ	110 ~ 120V		7.5	80		7.5	80		10	100		10	100		
				220 ~ 240V		20	88		20	88		25	110		25	110		
			3 ϕ	220 ~ 240V		30	80		30	80		40	104		40	104		
				440 ~ 480V		60	77		60	77		75	96		75	96		
				550 ~ 600V		60	62		60	62		75	77		75	77		
			Continuous current (Ith) (A)				125			125			140			140		
			NEMA size				2			2			3			3		
Auxiliary contact	Auxiliary Contact				Note 2			Note 2			Note 2			Note 2				
	IEC 60947-5-1 EN 60947-5-1	AC 15 (A)	120V	6			6			6			6					
			240V	3			3			3			3					
			380V	1.9			1.9			1.9			1.9					
			480V	1.5			1.5			1.5			1.5					
			500V	1.4			1.4			1.4			1.4					
			600V	1.2			1.2			1.2			1.2					
Continuous current (Ith) (A)				10			10			10			10					
Contact class (UL)				A600, Q600			A600, Q600			A600, Q600			A600, Q600					
Endurance	Mechanical		(10000 times)		10 Mil.			10 Mil.			10 Mil.			10 Mil.				
	Electrical		(AC3, 10000 times)		1.5 Mil.			1.5 Mil.			1.2 Mil.			1.2 Mil.				
	Operation		(Time / hour)		1200			1200			1200			1200				
Accessory	Auxiliary Contact Unit	Front	2P	2NO, 1NO1NC, 2NC	●			●			●			●				
			4P	4NO, 3NO1NC, 2NO2NC, 1NO3NC	●			●			●			●				
		Side	1NO1NC		●			●			●			●				
	Surge unit (SACWN)				●			●			●			●				
	Mechanical interlock	MPU-11N		●			●			●			●					
		MEU-11N (With 2NC)		●			●			●			●					
	Mechanical latch		ML-01N		●			●			●			●				
Dimension (mm)	Appearance W x H x D				70 x 140 x 136			70 x 140 x 136			70 x 140 x 136			70 x 140 x 136				
	Installation																	

Note :

1. The model name "L" means Box lug type terminal (For model 40~100). Ex. S-P40NL
2. Standard model of 40 ~ 100 have no auxiliary contact. For additional AX please specify when order.

AC Control 4P

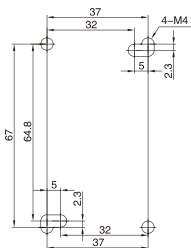


TYPE					9N4			12N4			18N4				
Model	Magnetic contactor		Non-reversing		S-P9N4			S-P12N4			S-P18N4				
			Reversing		S-2 x P9N4			S-2 x P12N4			S-2 x P18N4				
	Motor starter	Without enclosure		Non-reversing		MSO-P9N4			MSO-P12N4			MSO-P18N4			
				Reversing		MSO-2 x P9N4			MSO-2 x P12N4			MSO-2 x P18N4			
		With enclosure		Non-reversing		MS-P9N4			MS-P12N4			MS-P18N4			
				Reversing		MS-2 x P9N4			MS-2 x P12N4			MS-2 x P18N4			
		Enclosure with on / off button		Non-reversing		MS-P9N4-PB			MS-P12N4-PB			MS-P18N4-PB			
		Enclosure with emergency button		Non-reversing		MS-P9N4-EM			MS-P12N4-EM			MS-P18N4-EM			
	T.O.R		3 heaters (E)		TH-P38NE			TH-P38NE			TH-P38NE				
			Differential (PP)		TH-P38NPP			TH-P38NPP			TH-P38NPP				
Rated insulation voltage (Ui) IEC (V)					690			690			690				
Rated operation voltage (Ue) IEC / UL (V)					690 / 600			690 / 600			690 / 600				
Rated impulse withstand voltage (Uimp) IEC (KV)					6			6			6				
Main contacts					4NO / 2NO2NC / 3NO			4NO / 2NO2NC / 3NO			4NO / 2NO2NC / 3NO				
Rated Capacity	Rated power factor and current				kW	HP	A	kW	HP	A	kW	HP	A		
	IEC60947-4-1 EN60947-4-1 DIN VDE 0660	AC3	3 ϕ	200 / 240V	2.2	3	9	3.5	4.5	13	4.5	6	18		
				380 / 400V	4	5.5	9	5.5	7.5	12	7.5	10	18		
				415V	4	5.5	9	5.5	7.5	12	7.5	10	18		
				440V	4	5.5	9	5.5	7.5	12	7.5	10	18		
				550V	4	5.5	7	5.5	7.5	9	7.5	10	13		
				660V	4	5.5	5	5.5	7.5	7	7.5	10	10		
				690V	4	5.5	5	5.5	7.5	7	7.5	10	9		
	AC-1 Resistance load (A)				25			25			32				
	Continuous current (Ith) (A)				25			25			32				
	UL 508 CSA-C22.2	FLA	1 ϕ	110 ~ 120V		0.5	9.8		0.5	9.8		1	16		
				220 ~ 240V		1	8		2	12		3	17		
			3 ϕ	220 ~ 240V		2	6.8		3	9.6		5	15.2		
				440 ~ 480V		5	7.6		7.5	11		10	14		
				550 ~ 600V		7.5	9		10	11		10	11		
			Continuous current (Ith) (A)				25			25			25		
			NEMA size				00			0			0		
Auxiliary contact	Auxiliary Contact				Note 1			Note 1			Note 1				
	IEC 60947-5-1 EN 60947-5-1	AC 15 (A)		120V	6			6			6				
				240V	3			3			3				
				380V	1.9			1.9			1.9				
				480V	1.5			1.5			1.5				
				500V	1.4			1.4			1.4				
				600V	1.2			1.2			1.2				
	Continuous current (Ith) (A)				10			10			10				
Contact class (UL)				A600, Q300			A600, Q300			A600, Q300					
Endurance	Mechanical (10000 times)				15 Mil.			15 Mil.			15 Mil.				
	Electrical (AC3, 10000 times)				2 Mil.			2 Mil.			2 Mil.				
	Operation (Time / hour)				1200			1200			1200				
Accessory	Auxiliary Contact Unit	Front	2P	2NO, 1NO1NC, 2NC	●			●			●				
			4P	4NO, 3NO1NC, 2NO2NC, 1NO3NC	●			●			●				
		Side	1NO1NC		●			●			●				
	Surge unit (SACWN)				●			●			●				
	Mechanical interlock	MPU-11N			●			●			●				
		MEU-11N (With 2NC)			●			●			●				
	Mechanical latch		ML-01N			●			●			●			
Dimension (mm)	Appearance W x H x D				45 x 80 x 85			45 x 80 x 85			45 x 80 x 85				
	Installation														

Note :

1. Main contact of 3NO model come with 1NO or 1NC auxiliary contact, please specify when order.
2. Please specify the main contact configuration when place the order.

DC Control (SD)

TYPE					9N			12N			18N				
Model	Magnetic contactor		Non-reversing		SD-P9N			SD-P12N			SD-P18N				
			Reversing		SD-2 x P9N			SD-2 x P12N			SD-2 x P18N				
T.O.R			3 heaters (E)		TH-P38NE			TH-P38NE			TH-P38NE				
			Differential (PP)		TH-P38NPP			TH-P38NPP			TH-P38NPP				
Rated insulation voltage (Ui) IEC			(V)		690			690			690				
Rated operation voltage (Ue) IEC / UL			(V)		690 / 600			690 / 600			690 / 600				
Rated impulse withstand voltage (Uimp) IEC			(KV)		6			6			6				
Main contacts					3NO			3NO			3NO				
Rated Capacity	Rated power factor and current				kW	HP	A	kW	HP	A	kW	HP	A		
	IEC60947-4-1 EN60947-4-1 DIN VDE 0660	AC3	3 ϕ	200 / 240V	2.2	3	9	3.5	4.5	13	4.5	6	18		
				380 / 400V	4	5.5	9	5.5	7.5	12	7.5	10	18		
				415V	4	5.5	9	5.5	7.5	12	7.5	10	18		
				440V	4	5.5	9	5.5	7.5	12	7.5	10	18		
				550V	4	5.5	7	5.5	7.5	9	7.5	10	13		
				660V	4	5.5	5	5.5	7.5	7	7.5	10	10		
				690V	4	5.5	5	5.5	7.5	7	7.5	10	9		
	AC-1 Resistance load (A)				25			25			32				
	Continuous current (Ith) (A)				25			25			32				
	UL 508 CSA-C22.2	FLA	1 ϕ	110 ~ 120V		0.5	9.8		0.5	9.8		1	16		
				220 ~ 240V		1	8		2	12		3	17		
			3 ϕ	220 ~ 240V		2	6.8		3	9.6		5	15.2		
				440 ~ 480V		5	7.6		7.5	11		10	14		
				550 ~ 600V		7.5	9		10	11		10	11		
			Continuous current (Ith) (A)				25			25			25		
			NEMA size				00			00			00		
Auxiliary Contact					1NO1NC			1NO1NC			1NO1NC				
Auxiliary Contact	IEC 60947-5-1 EN 60947-5-1	AC 15 (A)	120V	6			6			6					
			240V	3			3			3					
			380V	1.9			1.9			1.9					
			480V	1.5			1.5			1.5					
			500V	1.4			1.4			1.4					
			600V	1.2			1.2			1.2					
	Continuous current (Ith) (A)				10			10			10				
Contact class (UL)					A600, Q300			A600, Q300			A600, Q300				
Endurance	Mechanical		(10000 times)		1500			1500			1500				
	Electrical		(AC3, 10000 times)		200			200			200				
	Operation		(Time / hour)		1200			1200			1200				
Accessory	Auxiliary Contact Unit	Front	2P	2NO, 1NO1NC, 2NC	●			●			●				
			4P	4NO, 3NO1NC, 2NO2NC, 1NO3NC	●			●			●				
		Side	1NO1NC		●			●			●				
	Mechanical interlock	MPU-11N		●			●			●					
		MEU-11N (With 2NC)		●			●			●					
	Mechanical latch	ML-01N		●			●			●					
Dimension (mm)	Appearance W x H x D				45 x 80 x 99			45 x 80 x 99			45 x 80 x 99				
	Installation														

Note :

1. Standard model of 40 ~ 100 have no auxiliary contact. For additional AX please specify when order.

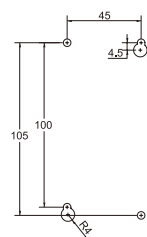
DC Control (SD)

TYPE					25N			32N			38N			40N			40NL			
Model	Magnetic contactor				Non-reversing	SD-P25N			SD-P32N			SD-P38N			SD-P40N			SD-P40NL		
					Reversing	SD-2 x P25N			SD-2 x P32N			SD-2 x P38N			SD-2 x P40N			SD-2 x P40NL		
T.O.R					3 heaters (E)	TH-P38NE			TH-P38NE			TH-P38NE			TH-P65NE			TH-P65NLE		
					Differential (PP)	TH-P38NPP			TH-P38NPP			TH-P38NPP			TH-P65NPP			TH-P65NLPP		
Rated insulation voltage (Ui) IEC (V)					690			690			690			690			690			
Rated operation voltage (Ue) IEC / UL (V)					690 / 600			690 / 600			690 / 600			690 / 600			690 / 600			
Rated impulse withstand voltage (Uimp) IEC (KV)					6			6			6			8			8			
Main contacts					3NO			3NO			3NO			3NO			3NO			
Rated Capacity	Rated power factor and current				kW	HP	A	kW	HP	A	kW	HP	A	kW	HP	A	kW	HP	A	
	IEC60947-4-1 EN60947-4-1 DIN VDE 0660	AC3	3 ϕ	200 / 240V	7.5	10	28	9	12.5	33	11	15	39	12.5	17	44	12.5	17	44	
				380 / 400V	11	15	28	15	20	33	18.5	25	38	22	30	40	22	30	40	
				415V	11	15	25	15	20	32	18.5	25	38	22	30	40	22	30	40	
				440V	11	15	25	15	20	32	18.5	25	38	22	30	40	22	30	40	
				550V	15	20	25	18.5	25	29	22	30	33	22	30	33	22	30	33	
				660V	15	20	18	18.5	25	22	22	30	27	22	30	27	22	30	27	
				690V	15	20	17	18.5	25	21	22	30	26	22	30	26	22	30	26	
	AC-1 Resistance load (A)				40			50			50			60			60			
	Continuous current (Ith) (A)				40			50			50			60			60			
	UL 508 CSA-C22.2	FLA	1 ϕ	110 ~ 120V		2	24		3	34		3	34		3	34		3	34	
				220 ~ 240V		3	17		5	28		5	28		7.5	40		7.5	40	
			3 ϕ	220 ~ 240V		7.5	22		10	28		10	28		15	42		15	42	
				440 ~ 480V		15	21		20	27		25	27		30	40		30	40	
				550 ~ 600V		15	17		20	22		25	22		30	32		30	32	
Continuous current (Ith) (A)				40			50			50			60			60				
NEMA size				1			1			1			1			2				
Auxiliary Contact	Auxiliary Contact				1NO1NC			1NO1NC			1NO1NC			Note 1			Note 1			
	IEC 60947-5-1 EN 60947-5-1	AC 15 (A)	120V	6			6			6			6			6				
			240V	3			3			3			3			3				
			380V	1.9			1.9			1.9			1.9			1.9				
			480V	1.5			1.5			1.5			1.5			1.5				
			500V	1.4			1.4			1.4			1.4			1.4				
			600V	1.2			1.2			1.2			1.2			1.2				
	Continuous current (Ith) (A)				10			10			10			10			10			
Contact class (UL)				A600, Q300			A600, Q300			A600, Q300			A600, Q600			A600, Q600				
Endurance	Mechanical (10000 times)				1000			1000			1000			1000			1000			
	Electrical (AC3, 10000 times)				160			160			160			160			160			
	Operation (Time / hour)				1200			1200			1200			1200			1200			
Accessory	Auxiliary Contact Unit	Front	2P	2NO, 1NO1NC, 2NC	●			●			●			●			●			
			4P	4NO, 3NO1NC, 2NO2NC, 1NO3NC	●			●			●			●			●			
		Side <td>1NO1NC</td> <td>●</td> <td></td> <td></td> <td>●</td> <td></td> <td></td> <td>●</td> <td></td> <td></td> <td>●</td> <td></td> <td></td> <td>●</td> <td></td> <td></td>	1NO1NC	●			●			●			●			●				
	Mechanical interlock	MPU-11N			●			●			●			●			●			
		MEU-11N (With 2NC)			●			●			●			●			●			
	Mechanical latch	ML-01N				●			●			●			●			●		
Dimension (mm)	Appearance W x H x D				55 x 86 x 108			55 x 86 x 108			55 x 86 x 108			55 x 115 x 123.5			55 x 115 x 123.5			
	Installation																			

Note :

1. Standard model of 40 ~ 100 have no auxiliary contact. For additional AX please specify when order.

DC Control (SD)

TYPE					50N			50NL			65N			65NL				
Model	Magnetic contactor				Non-reversing		SD-P50N			SD-P50NL			SD-P65N			SD-P65NL		
					Reversing		SD-2 x P50N			SD-2 x P50NL			SD-2 x P65N			SD-2 x P65NL		
T.O.R				3 heaters (E)		TH-P65NE			TH-P65NLE			TH-P65NE			TH-P65NLE			
				Differential (PP)		TH-P65NPP			TH-P65NLPP			TH-P65NPP			TH-P65NLPP			
Rated insulation voltage (Ui) IEC (V)					690			690			690			690				
Rated operation voltage (Ue) IEC / UL (V)					690 / 600			690 / 600			690 / 600			690 / 600				
Rated impulse withstand voltage (Uimp) IEC (KV)					8			8			8			8				
Main contacts					3NO			3NO			3NO			3NO				
Rated Capacity	Rated power factor and current				kW	HP	A	kW	HP	A	kW	HP	A	kW	HP	A		
	IEC60947-4-1 EN60947-4-1 DIN VDE 0660	AC3	3 ϕ	200 / 240V	15	20	58	15	20	58	18.5	25	65	18.5	25	65		
				380 / 400V	25	34	52	25	34	52	30	40	65	30	40	65		
				415V	30	40	50	30	40	50	37	50	65	37	50	65		
				440V	30	40	50	30	40	50	37	50	65	37	50	65		
				550V	30	40	41	30	40	41	37	50	52	37	50	52		
				660V	30	40	34	30	40	34	37	50	43	37	50	43		
				690V	30	40	32	30	40	32	37	50	39	37	50	39		
	AC-1 Resistance load (A)				80			80			98			98				
	Continuous current (Ith) (A)				80			80			98			98				
	UL 508 CSA-C22.2	FLA	1 ϕ	110 ~ 120V		5	56		50	56		5	56		5	56		
				220 ~ 240V		10	50		10	50		15	68		15	68		
			3 ϕ	220 ~ 240V		20	54		20	54		25	68		25	68		
				440 ~ 480V		40	52		40	52		50	65		50	65		
				550 ~ 600V		40	41		40	41		50	52		50	52		
			Continuous current (Ith) (A)				80			80			98			98		
			NEMA size				2			2			2			2		
Auxiliary Contact	Auxiliary Contact				Note 1			Note 1			Note 1			Note 1				
	IEC 60947-5-1 EN 60947-5-1	AC 15 (A)	120V	6			6			6			6					
			240V	3			3			3			3					
			380V	1.9			1.9			1.9			1.9					
			480V	1.5			1.5			1.5			1.5					
			500V	1.4			1.4			1.4			1.4					
			600V	1.2			1.2			1.2			1.2					
	Continuous current (Ith) (A)				10			10			10			10				
Contact class (UL)				A600, Q600			A600, Q600			A600, Q600			A600, Q600					
Endurance	Mechanical (10000 times)				1000			1000			1000			1000				
	Electrical (AC3, 10000 times)				150			150			150			150				
	Operation (Time / hour)				1200			1200			1200			1200				
Accessory	Auxiliary Contact Unit	Front	2P	2NO, 1NO1NC, 2NC	●			●			●			●				
			4P	4NO, 3NO1NC, 2NO2NC, 1NO3NC	●			●			●			●				
	Side <td>1NO1NC</td> <td colspan="3">●</td> <td colspan="3">●</td> <td colspan="3">●</td> <td colspan="3">●</td>	1NO1NC	●			●			●			●						
		Mechanical interlock	MPU-11N	●			●			●			●					
	MEU-11N (With 2NC)		●			●			●			●						
	Mechanical latch	ML-01N				●			●			●			●			
Dimension (mm)	Appearance W x H x D				55 x 115 x 123.5			55 x 115 x 123.5			55 x 115 x 123.5			55 x 115 x 123.5				
	Installation																	

Note :

1. Standard model of 40 ~ 100 have no auxiliary contact. For additional AX please specify when order.

Capacitor Contactor (SC)

Model					SC-P12N	SC-P16N	SC-P20N	SC-P25N	SC-P30N	SC-P40N	SC-P50N	SC-P60N	SC-P70N	
Rated insulation voltage (Ui) (V)					690									
Rated Capacity	IEC60947-4-1 EN60947-4-1	AC-6b (kVAR / A)	3 ϕ	220 / 240V	6.7 / 18	8.5 / 22	10 / 26	15 / 39	20 / 52	25 / 66	30 / 79	35 / 92	45 / 118	
				400 / 415V	12.5 / 18	16.7 / 24	20 / 29	25 / 36	33 / 48	40 / 58	50 / 72	60 / 87	70 / 101	
				440V	12.5 / 16	16.7 / 22	20 / 26	25 / 33	33 / 43.7	40 / 52	50 / 66	60 / 79	70 / 92	
				500 / 550V	15 / 17	20 / 23	26 / 30	36 / 42	48 / 55	58 / 67	66 / 76	80 / 92	90 / 104	
				600 / 690V	18 / 17	24 / 23	26 / 25	36 / 35	48 / 46	58 / 56	66 / 64	80 / 77	90 / 87	
	Continuous current (Ith) (A)			25	32	40	50	60	80	98	125	140		
Auxiliary contact	Auxiliary Contact			2NO1NC					1NO					
	IEC 60947-5-1 EN 60947-5-1	AC 15 (A)	120V	6										
			240V	3										
			380V	1.9										
			480V	1.5										
			500V	1.4										
			600V	1.2										
	Continuous current (Ith) (A)			10										
	Endurance	Mechanical AC-6b			1 Mil.									
Electrical AC-6b ≤ 440V			0.3 Mil.											
Operation (Time / hour)			240							100				

Contactor Relay (SR)

Model			SR-P40N
Contact			4NO 3NO 1NC 2NO 2NC
Rated Capacity (A)	AC-15 (IEC)	120V	6
		240V	3
		380V	1.9
		480V	1.5
		500V	1.4
		600V	1.2
	DC-13 (IEC)	125V	0.55
		250V	0.27
		400V	0.15
		500V	0.13
		600V	0.1
Contact class		(UL)	A600, Q600
Rated insulation voltage (Ui)		(V)	690
Continuous current (Ith)		(A)	10
Electrical life		10000 times	50
Mechanical life		10000 times	1000

Coil Characteristics (AC)

Model	Impulse (VA)	Operation (VA)	Power Consumption (W)
S-P9N	65	9.0	3.0
S-P9N4	65	9.0	3.0
S-P12N	65	9.0	3.0
S-P12N4	65	9.0	3.0
S-P18N	65	9.0	3.0
S-P18N4	65	9.0	3.0
S-P25N	75	11.0	3.0
S-P25N4	75	11.0	3.0
S-P32N	75	11.0	3.0
S-P32N4	75	11.0	3.0
S-P38N	75	11.0	3.0
S-P38N4	75	11.0	3.0
S-P40N(D)	185	15.5	5.6
S-P40NL(D)	185	15.5	5.6
S-P50N(D)	185	15.5	5.6
S-P50NL(D)	185	15.5	5.6
S-P65N(D)	185	15.5	5.6
S-P65NL(D)	185	15.5	5.6
S-P80N(D)	340	24.5	6.7
S-P80NL(D)	340	24.5	6.7
S-P100N(D)	340	24.5	6.7

Coil Characteristics (DC)

Model	Impulse (VA)	Operation (VA)	Power Consumption (W)
SD-P9N	-	-	6.0
SD-P12N	-	-	6.0
SD-P18N	-	-	6.0
SD-P25N	-	-	6.0
SD-P32N	-	-	6.0
SD-P38N	-	-	6.0
SD-P40N(D)	27	8.3	8.0
SD-P40NL(D)	27	8.3	8.0
SD-P50N(D)	27	8.3	8.0
SD-P50NL(D)	27	8.3	8.0
SD-P65N(D)	27	8.3	8.0
SD-P65NL(D)	27	8.3	8.0
S-P80N(D) (AC/DC Shared)	300	10	2.4
S-P80NL(D) (AC/DC Shared)	300	10	2.4
S-P100N(D) (AC/DC Shared)	300	10	2.4
S-P100NL(D) (AC/DC Shared)	300	10	2.4

Note :

AC/DC shared is not standard type, please specify when ordering.

Coil Specification Table

S-P9N(4)~P38N(4), S-P40N(L)~P100N(L)				
Description	AC 12V	AC 24V	AC 48V	AC 110V
Coil rated specifications marking	12V 50/60Hz	24V 50/60Hz	48V 50/60Hz	110V 50/60Hz
Description	AC 120V	AC 127V	AC 200V	AC 220V
Coil rated specifications marking	120V 50/60Hz	127V 50/60Hz	200V 50/60Hz	220V 50/60Hz
Description	AC 230V	AC 240V	AC 260V	AC 380V
Coil rated specifications marking	230V 50/60Hz	240V 50/60Hz	260V 50/60Hz	380V 50/60Hz
Description	AC 440V	AC 480V	AC 550V	
Coil rated specifications marking	440V 50/60Hz	480V 50/60Hz	550V 50/60Hz	

SD-P9N~P38N, SD-P40N(L)~P65N(L)				
Description	DC 12V	DC 24V	DC 48V	DC 72V
Coil rated specifications marking	12V DC	24V DC	48V DC	72V DC
Description	DC 110V	DC 125V	DC 200V	DC 220V
Coil rated specifications marking	110V DC	125V DC	200V DC	220V DC

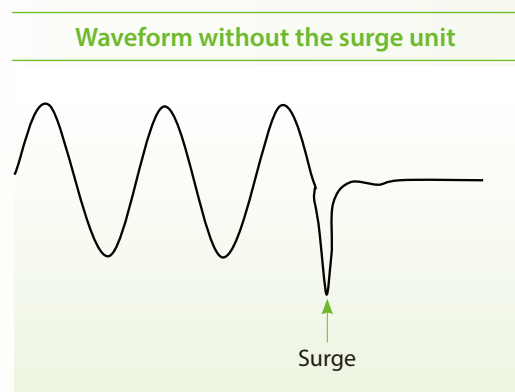
S-P80N(L)~P100N(L)				
Description	AC/DC 24V	AC/DC 48V	AC/DC 110V	AC/DC 220V
Coil rated specifications marking	AC 24-25V 50/60Hz DC 24V	AC 46-50V 50/60Hz DC 48V	AC 110-127V 50/60Hz DC 100-120V	AC 200-250V 50/60Hz DC 200-220V

Surge unit

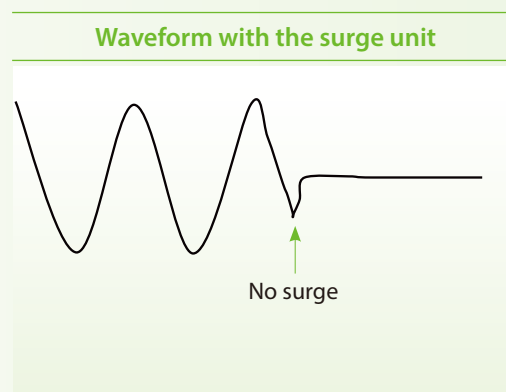
Model	Voltage	Application
SACWN240	Max. 240V	S-P9N(4) ~ P38N(4) S-P40N(L) ~ P100N(L)

Function and Feature

- Prevents surge voltage caused by coil operation, which interferes with other surrounding electronic equipment (CNC processing machine, wire cutting machine)
- Built-in style and easy to install
- IP 20 level with cover case
- Used in AC coil
- Comparison of coil characteristics with and without surge unit (waveform when the coil is turned OFF)



When the coil is OFF, it will generate a surge that will interfere surrounding equipment



Absorb the surge and protect surrounding equipment

Auxiliary Contact Unit (AP)



TYPE			2P Front			4P Front				Side
Model			AP-20N	AP-11N	AP-02N	AP-40N	AP-31N	AP-22N	AP-13N	APS-11N
Contact			2NO	1NO1NC	2NC	4NO	3NO1NC	2NO2NC	1NO3NC	1NO1NC
Appliance			N series AC control & SR model contactor							
Rated Capacity (A)	AC-15 (IEC)	120V	6							
		240V	3							
		380V	1.9							
		480V	1.5							
		500V	1.4							
		600V	1.2							
	DC-13 (IEC)	125V	0.55							
		250V	0.27							
		400V	0.15							
		500V	0.13							
600V		0.1								
Contact class		(UL)	A600, Q600							
Rated insulation voltage (Ui)		(V)	690							
Continuous current (Ith)		(A)	10							
Electrical life		10000 times	50							
Mechanical life		10000 times	1000							

Note :

1. The maximum number of auxiliary contact is 6.

Wye Delta Starter (EYD)

TYPE		25		38		50		65		80		100	
Model	Open type (w / o CT)	EYD-O-P25N		EYD-O-P38N		EYD-O-P50N		EYD-O-P65N		EYD-O-P80N		EYD-O-P100N	
	Enclosure (w / o Ammeter)	EYD-E-P25N		EYD-E-P38N		EYD-E-P50N		EYD-E-P65N		EYD-E-P80N		EYD-E-P100N	
	Enclosure (Ammeter)	EYD-A-P25N		EYD-A-P38N		EYD-A-P50N		EYD-A-P65N		EYD-A-P80N		EYD-A-P100N	
Rated Capacity	Voltage	kW	HP	kW	HP	kW	HP	kW	HP	kW	HP	kW	HP
	200 ~ 220V	11	15	19	25	22	30	30	40	37	50	45	60
	380 ~ 440V	19	25	30	40	45	60	55	75	75	100	90	125
Contactor	MCM	S-P25N		S-P38N		S-P50N		S-P65N		S-P80N		S-P100N	
	MCD	S-P25N		S-P38N		S-P50N		S-P65N		S-P80N		S-P100N	
	MCS	S-P12N		S-P18N		S-P25N		S-P25N		S-P32N		S-P32N	
T.O.R.		TH-P65NER		TH-P65NER		TH-P65NER		TH-P100NE		TH-P100NE		TH-P100NE	
Wire (mm ²)	Line	2 ~ 14		2 ~ 22		2 ~ 38		8 ~ 50		8 ~ 80		8 ~ 100	
	Load	2 ~ 8		2 ~ 14		2 ~ 22		3.5 ~ 38		3.5 ~ 50		3.5 ~ 60	
	Control	1.25 ~ 2		1.25 ~ 2		1.25 ~ 2		1.25 ~ 2		1.25 ~ 2		1.25 ~ 2	

Note :

1. EYD-E-P25N ~ P100N contents push button, indicator lamp and door handle.

2. EYD-A-P25N ~ P100N contents push button, indicator lamp, door handle and Ammeter.

Mechanical latching device ML-01N

Operation principle

1. Conduct: When the contactor is activated (ON), the mechanism of the latching device will be pulled down, pressing onto the contactor and maintaining conduction. (The control power can be disconnected)
2. Release: ML will receive a signal and release the latching (the contactor has to be released first), causing the contactor to disconnect

Feature

1. The contactor conducts and locks under the action of the mechanical latching device
2. When the control power is disconnected, the contactor is still in conduction status (energy saving and quiet)
3. Top mounted to remain same installation space
4. Disconnect by receiving a signal (pulse)



(ML-01N)

ML-01N+Contact-1

Performance

1. Rated insulation voltage (Ui) 690V
2. Maximum operation frequency 360 times/Hr

Application

All N type model (except capacitor contactor)

Precautions

1. The time between power on and off of the control circuit must be greater than 100ms
2. The coil of the contactor and latching device cannot be powered on at the same time
3. When the main circuit is conducting, the reset linkage cannot be touched by hands, to avoid electric shock
4. If there is a power outage, use the reset linkage to reset the device before resumption of electricity, to avoid damage of equipment or any other danger

Mechanical latching device coil specification

Description	AC 24V	AC 110V	AC220-277V	AC 380~480V
Coil rated specifications marking	24-32V	110-127V	220-277V	380-480V
Description	DC 24V	DC 48V		
Coil rated specifications marking	24-36V	42-48V		

Thermal Overload Relay (TH)



Model			TH-P18N		TH-P38N		TH-P65N		TH-P65NL	
3 heaters	Contactor combination type		TH-P18NE		TH-38NE		TH-65NE		TH-65NLE	
	Separate installation type		TH-P18NER		TH-38NER		TH-65NER		TH-65NLER	
Differential	Contactor combination type		TH-P18NPP		TH-38NPP		TH-65NPP		TH-65NLPP	
	Separate installation type		TH-P18NPPR		TH-38NPPR		TH-65NPPR		TH-65NLPPR	
Rated insulation voltage			1000V				690V			
Applicable contactor			6Kv		SD-P9N SD-P12N SD-P18N S-P9N S-P12N S-P18N		S-P40N S-P50N S-P65N		S-P40NL S-P50NL S-P65NL	
Tripping class			class 10							
T.O.R. adjusting range			Rating	Range	Rating	Range	Rating	Range	Rating	Range
			0.25	0.19-0.31	0.25	0.19-0.31	11	9-13	11	9-13
			0.4	0.3-0.5	0.4	0.3-0.5	15	12-18	15	12-18
			0.6	0.45-0.75	0.6	0.45-0.75	21	17-24	21	17-24
			0.9	0.7-1.1	0.9	0.7-1.1	28	23-33	28	23-33
			1.2	0.9-1.5	1.2	0.9-1.5	35	30-40	35	30-40
			1.7	1.3-2.1	1.7	1.3-2.1	43	38-48	43	38-48
			2.1	1.6-2.6	2.1	1.6-2.6	54	43-65	54	43-65
			3.3	2.5-4.1	3.3	2.5-4.1	72	62-82	72	62-82
			4.4	3.4-5.4	4.4	3.4-5.4				
			6.5	5-8	6.5	5-8				
			9	7-11	9	7-11				
			11	9-13	11	9-13				
			15	12-18	15	12-18				
					21	17-24				
					28	23-33				
					35	30-40				
Dimension (mm)			45 x 64.5 x 82		45 x 84 x 66		55 x 87 x 72		55 x 87 x 72	
Weight (g)		3 heaters (E)	130		145		170		185	
		Differential (PP)	130		155		180		195	
Auxiliary contact	Auxiliary Contact		1NO 1NC		1NO 1NC		1NO 1NC		1NO 1NC	
	IEC 60947-5-1 EN 60947-5-1 AC 15 (A)	120V	3		3		3		3	
		240V	1.5		1.5		1.5		1.5	
		480V	0.75		0.75		0.75		0.75	
		600V	0.6		0.6		0.6		0.6	
		Continuous current (Ith) (A)	5		5		5		5	
	Contact class (UL)				B600, R300					
Separate installation unit (Optional)			UATP18N		UATP38N		UATP65N		UATP65NL	

Note :

1. Model name "R" means with separate installation unit.

Thermal Overload Relay (TH)



Model		TH-P100N	TH-P100NL	TH-P100NT			
3 heaters	Contactor combination type	TH-100NE	TH-100NLE	TH-P100NTE			
	Separate installation type	-	-	TH-P100NTER			
Differential	Contactor combination type	TH-100NPP	TH-100NLPP	TH-P100NTPP			
	Separate installation type	-	-	TH-P100NTPPR			
Rated insulation voltage		690V		1000V			
Applicable contactor		S-P80N S-P100N	S-P80NL S-P100NL	S-P80N S-P100N			
Tripping class		class 10					
T.O.R. adjusting range		Rating	Range	Rating	Range	Rating	Range
		35	30-40	35	30-40	35	30 - 40
		43	38-48	43	38-48	43	38 - 48
		54	43-65	54	43-65	54	43 - 65
		72	62-82	72	62-82	72	62 - 82
		95	80-110	95	80-110	95	80 - 110
Dimension (mm)		123 x 118 x 102	123 x 118 x 102	70 x 95 x 83.5			
Weight (g)		3 heaters (E)	845	861	310		
		Differential (PP)	855	871	315		
Auxiliary contact	Auxiliary Contact		1NO1NC	1NO1NC	1NO1NC		
	IEC 60947-5-1 EN 60947-5-1 AC 15 (A)	120V	3	3	3		
		240V	1.5	1.5	1.5		
		480V	0.75	0.75	0.75		
		600V	0.6	0.6	0.6		
		Continuous current (Ith) (A)	5	5	5		
Contact class (UL)			B600, R300				
Separate installation unit (Optional)		-	-	UATP100N			

Note :

1. Model name "R" means with separate installation unit.

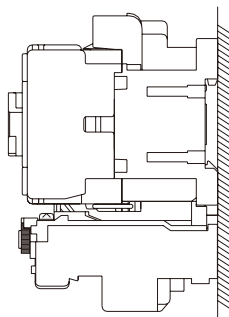
Installation Notes

■ Operating Environment

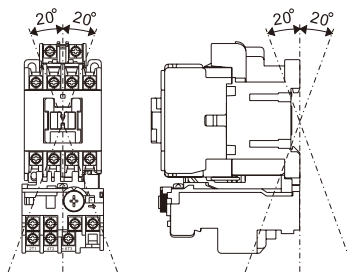
- Altitude below 3000m
- Ambient temperature: $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$
- Storage temperature: $-50^{\circ}\text{C} \sim +80^{\circ}\text{C}$
- Relative humidity: 50~90%RH
- Withstand vibration 10Hz~55Hz 2G
- Withstand impact 5G
- Please do not install in a place that contains dust, 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.



Regular installation ◎



Tilt installation ○

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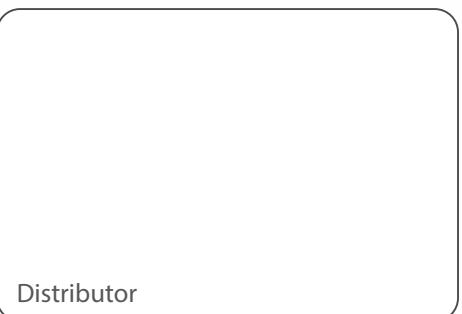


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