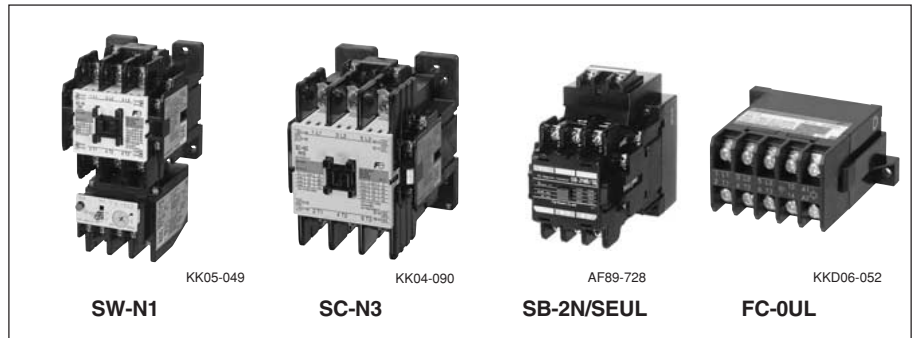


**UL and CSA approved**  
Up to 300HP 240V AC, 3-phase

**Description**

FUJI high quality contactors and starters conform to UL and CSA requirements as they are.

These have high standards of efficiency and safety and are being used throughout the world. We can recommend them with confidence. Other advantages are that they take up less installation space, are easily installed and can replace other starters without trouble because of their compact size.



**Ordering information**

Specify the following:

1. Ordering code
2. Overload relay setting range code
3. Operating coil voltage code

UL [File No. E42419, E44592], CSA [File No. LR20479]

**Non reversing contactors (Open type)**

Frame size	Max. motor capacity (HP)				Rated continuous current	Aux. contact NO NC	AC operated			DC operated		
	200V 240V	220V 480V	440V 550V	550V 600V			Type	Ordering code	UL/CSA	Type	Ordering code	UL/CSA
03	2	2	5	5	11A	1 - <sup>1</sup>	SC-03	SC11AA-■10	●	SC-03/G	SC11AG-■10	●
0	3	3	5	5	13A	1 - <sup>1</sup>	SC-0	SC13AA-■10	●	SC-0/G	SC13AG-■10	●
05	3	3	5	5	13A	1 1 <sup>2</sup>	SC-05	SC14AA-■11	●	SC-05/G	SC14AG-■11	●
4-0	5	5	7.5	7.5	20A	1 - <sup>1</sup>	SC-4-0	SC18AA-■10	●	SC-4-0/G	SC18AG-■10	●
4-1	5	5	10	10	20A	1 - <sup>1</sup>	SC-4-1	SC19AA-■10	●	SC-4-1/G	SC19AG-■10	●
5-1	5	5	10	10	20A	1 1 <sup>3</sup>	SC-5-1	SC20AA-■11	●	SC-5-1/G	SC20AG-■11	●
N1	7.5	10	25	25	50A	2 2 <sup>4</sup>	SC-N1	SC25BAA-■22	●	SC-N1/G	SC25BAG-■22	●
N2	10	15	30	30	60A	2 2 <sup>4</sup>	SC-N2	SC35BAA-■22	●	SC-N2/G	SC35BAG-■22	●
N2S	15	20	40	40	80A	2 2 <sup>4</sup>	SC-N2S	SC50BAA-■22	●	SC-N2S/G	SC50BAG-■22	●
N3	20	25	50	50	100A	2 2 <sup>4</sup>	SC-N3	SC65BAA-■22	●	SC-N3/G	SC65BAG-■22	●
N4	25	30	60	60	135A	2 2 <sup>4</sup>	SC-N4	SC80BAA-■22	●			
N5	30	30	60	75	150A	2 2 <sup>4</sup>	SC-N5	SC93BAA-■22	●	SC-N5	SC93BAA-■22	●
N6	40	40	75	100	150A	2 2 <sup>4</sup>	SC-N6	SC1CBAA-■22	●	SC-N6	SC1CBAA-■22	●
N7	50	50	100	125	200A	2 2 <sup>4</sup>	SC-N7	SC1FBAA-■22	●	SC-N7	SC1FBAA-■22	●
N8	60	60	150	150	260A	2 2 <sup>4</sup>	SC-N8	SC1JBAA-■22	●	SC-N8	SC1JBAA-■22	●
N10	75	75	150	200	260A	2 2 <sup>4</sup>	SC-N10	SC2CBAA-■22	●	SC-N10	SC2CBAA-■22	●
N11	100	100	200	250	350A	2 2 <sup>4</sup>	SC-N11	SC3ABAA-■22	●	SC-N11	SC3ABAA-■22	●
N12	125	150	300	350	450A	2 2 <sup>4</sup>	SC-N12	SC4ABAA-■22	●	SC-N12	SC4ABAA-■22	●
N14	200	200	500	600	660A	2 2 <sup>4</sup>	SC-N14	SC6ABAA-■22	●	SC-N14	SC6ABAA-■22	●
N16	250	300	600	700	800A	2 2 <sup>4</sup>	SC-N16	SC8ABAA-■22	●	SC-N16	SC8ABAA-■22	●
N1	7.5	10	25	25	50A	2 2 <sup>4</sup>	SC-N1/SE	SC25BAS-■22	●	SC-N1/SE	SC25BAS-■22	●
N2	10	15	30	30	60A	2 2 <sup>4</sup>	SC-N2/SE	SC35BAS-■22	●	SC-N2/SE	SC35BAS-■22	●
N2S	15	20	40	40	80A	2 2 <sup>4</sup>	SC-N2S/SE	SC50BAS-■22	●	SC-N2S/SE	SC50BAS-■22	●
N3	20	25	50	50	100A	2 2 <sup>4</sup>	SC-N3/SE	SC65BAS-■22	●	SC-N3/SE	SC65BAS-■22	●
N4	25	30	60	60	135A	2 2 <sup>4</sup>	SC-N4/SE	SC80BAS-■22	●	SC-N4/SE	SC80BAS-■22	●



Notes: ● Available  
■ Coil voltage code

<sup>1</sup> Auxiliary contact 1NC is available on request.  
<sup>2</sup> Auxiliary contact 2NO or 2NC is available on request.  
<sup>3</sup> Auxiliary contact 2NO or 2NC or 2NO+2NC is available on request.  
<sup>4</sup> Auxiliary contact 4NO+4NC is available on request for frame sizes N1 and above.

# Magnetic Contactors and Starters

## UL and CSA approved

### Non reversing starters (Open type)

Frame size	Max. motor capacity (HP)				Aux. contact NO NC	AC operated			DC operated		
	200V	220V 240V	440V 480V	550V 600V		Type	Ordering code		Type	Ordering code	
03	2	2	5	5	1 - *1	SW-03/3H	SC11AAN-■10T□□	●	SW-03/G3H	SC11AGN-■10T□□	●
0	3	3	5	5	1 - *1	SW-0/3H	SC13AAN-■10T□□	●	SW-0/G3H	SC13AGN-■10T□□	●
05	3	3	5	5	1 1 *2	SW-05/3H	SC14AAN-■11T□□	●	SW-05/G3H	SC14AGN-■11T□□	●
4-0	5	5	7.5	7.5	1 - *1	SW-4-0/3H	SC18AAN-■10T□□	●	SW-4-0/G3H	SC18AGN-■10T□□	●
4-1	5	5	10	10	1 - *1	SW-4-1/3H	SC19AAN-■10T□□	●	SW-4-1/G3H	SC19AGN-■10T□□	●
5-1	5	5	10	10	1 1 *3	SW-5-1/3H	SC20AAN-■11T□□	●	SW-5-1/G3H	SC20AGN-■10T□□	●
N1	7.5	10	25	25	2 2 *4	SW-N1/3H	SC25BAAN-■22T□□	●	SW-N1/G3H	SC25BGN-■10T□□	●
N2	10	15	30	30	2 2 *4	SW-N2/3H	SC35BAAN-■22T□□	●	SW-N2/G3H	SC35BGN-■10T□□	●
N2S	15	20	40	40	2 2 *4	SW-N2S/3H	SC50BAAN-■22T□□	●	SW-N2S/G3H	SC50BGN-■10T□□	●
N3	20	25	50	50	2 2 *4	SW-N3/3H	SC65BAAN-■22T□□	●	SW-N3/G3H	SC65BGN-■10T□□	●
N4	25	30	60	60	2 2 *4	SW-N4/3H	SC80BAAN-■22T□□	●	SW-N4/SE3H	SC80BASN-■22T□□	●
N5	30	30	60	75	2 2 *4	SW-N5/3H	SC93BAAN-■22T□□	●	SW-N5/3H	SC93BAAN-■22T□□	●
N6	40	40	75	100	2 2 *4	SW-N6/3H	SC1CBAAN-■22T□□	●	SW-N6/3H	SC1CBAAN-■22T□□	●
N7	50	50	100	125	2 2 *4	SW-N7/3H	SC1FBAAN-■22T□□	●	SW-N7/3H	SC1FBAAN-■22T□□	●
N8	60	60	150	150	2 2 *4	SW-N8/3H	SC1JBAAN-■22T□□	●	SW-N8/3H	SC1JBAAN-■22T□□	●
N10	75	75	150	200	2 2 *4	SW-N10/3H	SC2CBAAN-■22T□□	●	SW-N10/3H	SC2CBAAN-■22T□□	●
N11	100	100	200	250	2 2 *4	SW-N11/3H	SC3ABAAN-■22T□□	●	SW-N11/3H	SC3ABAAN-■22T□□	●
N12	125	150	300	350	2 2 *4	SW-N12/3H	SC4ABAAN-■22T□□	●	SW-N12/3H	SC4ABAAN-■22T□□	●
N14	200	200	500	600	2 2 *4	SW-N14/3H	SC6ABAAN-■22T□□	●	SW-N14/3H	SC6ABAAN-■22T□□	●
N1	7.5	10	25	25	2 2 *4	SW-N1/SE3H	SC25BASN-■22T□□	●	SW-N1/SE3H	SC25BASN-■22T□□	●
N2	10	15	30	30	2 2 *4	SW-N2/SE3H	SC35BASN-■22T□□	●	SW-N2/SE3H	SC35BASN-■22T□□	●
N2S	15	20	40	40	2 2 *4	SW-N2S/SE3H	SC50BASN-■22T□□	●	SW-N2S/SE3H	SC50BASN-■22T□□	●
N3	20	25	50	50	2 2 *4	SW-N3/SE3H	SC65BASN-■22T□□	●	SW-N3/SE3H	SC65BASN-■22T□□	●

Notes: ● Available

■ Coil voltage code

□ Thermal overload relay ampere setting range code



\*1 Auxiliary contact 1NC is available on request.

\*2 Auxiliary contact 2NO or 2NC is available on request.

\*3 Auxiliary contact 2NO or 2NC or 2NO+2NC is available on request.

\*4 Auxiliary contact 4NO+4NC is available on request for frame sizes N1 and above.

### Non reversing starters with phase-loss protective device (Open type)

Frame size	Max. motor capacity (HP)				Rated continuous current	Aux. contact NO NC	AC operated			DC operated		
	200V	220V 240V	440V 480V	550V 600V			Type	Ordering code		Type	Ordering code	
03	2	2	5	5	11A	1 - *1	SW-03/2E	SC11AAE-■10T□□	●	SW-03/G2E	SC11AGN-■10T□□	●
0	3	3	5	5	13A	1 - *1	SW-0/2E	SC13AAE-■10T□□	●	SW-0/G2E	SC13AGN-■10T□□	●
05	3	3	5	5	13A	1 1 *2	SW-05/2E	SC14AAE-■11T□□	●	SW-05/G2E	SC14AGN-■11T□□	●
4-0	5	5	7.5	7.5	20A	1 - *1	SW-4-0/2E	SC18AAE-■10T□□	●	SW-4-0/G2E	SC18AGN-■10T□□	●
4-1	5	5	10	10	20A	1 - *1	SW-4-1/2E	SC19AAE-■10T□□	●	SW-4-1/G2E	SC19AGN-■10T□□	●
5-1	5	5	10	10	20A	1 1 *3	SW-5-1/2E	SC20AAE-■11T□□	●	SW-5-1/G2E	SC20AGN-■10T□□	●
N1	7.5	10	25	25	50A	2 2 *4	SW-N1/2E	SC25BAAE-■22T□□	●	SW-N1/G2E	-	●
N2	10	15	30	30	60A	2 2 *4	SW-N2/2E	SC35BAAE-■22T□□	●	SW-N2/G2E	-	●
N2S	15	20	40	40	80A	2 2 *4	SW-N2S/2E	SC50BAAE-■22T□□	●	SW-N2S/G2E	-	●
N3	20	25	50	50	100A	2 2 *4	SW-N3/2E	SC65BAAE-■22T□□	●	SW-N3/G2E	-	●
N4	25	30	60	60	135A	2 2 *4	SW-N4/2E	SC80BAAE-■22T□□	●	SW-N4/SE2E	-	●
N5	30	30	60	75	150A	2 2 *4	SW-N5/2E	SC93BAAE-■22T□□	●	SW-N5/2E	SC93BAAE-■22T□□	●
N6	40	40	75	100	150A	2 2 *4	SW-N6/2E	SC1CBAAE-■22T□□	●	SW-N6/2E	SC1CBAAE-■22T□□	●
N7	50	50	100	125	200A	2 2 *4	SW-N7/2E	SC1FBAAE-■22T□□	●	SW-N7/2E	SC1FBAAE-■22T□□	●
N8	60	60	150	150	260A	2 2 *4	SW-N8/2E	SC1JBAAE-■22T□□	●	SW-N8/2E	SC1JBAAE-■22T□□	●
N10	75	75	150	200	260A	2 2 *4	SW-N10/2E	SC2CBAAE-■22T□□	●	SW-N10/2E	SC2CBAAE-■22T□□	●
N11	100	100	200	250	350A	2 2 *4	SW-N11/2E	SC3ABAAE-■22T□□	●	SW-N11/2E	SC3ABAAE-■22T□□	●
N12	125	150	300	350	450A	2 2 *4	SW-N12/2E	SC4ABAAE-■22T□□	●	SW-N12/2E	SC4ABAAE-■22T□□	●
N14	200	200	500	600	660A	2 2 *4	SW-N14/2E	SC6ABAAE-■22T□□	●	SW-N14/2E	SC6ABAAE-■22T□□	●
N1	7.5	10	25	25	50A	2 2 *4	SW-N1/2E	SC25BAAE-■22T□□	●	SW-N1/SE2E	-	●
N2	10	15	30	30	60A	2 2 *4	SW-N2/2E	SC35BAAE-■22T□□	●	SW-N2/SE2E	-	●
N2S	15	20	40	40	80A	2 2 *4	SW-N2S/2E	SC50BAAE-■22T□□	●	SW-N2S/SE2E	-	●
N3	20	25	50	50	100A	2 2 *4	SW-N3/2E	SC65BAAE-■22T□□	●	SW-N3/SE2E	-	●
N4	25	30	60	60	135A	2 2 *4	SW-N4/2E	SC80BAAE-■22T□□	●	SW-N4/SE2E	-	●

Notes: ● Available

■ Coil voltage code

□ Thermal overload relay ampere setting range code


\*1 Auxiliary contact 1NC is available on request.

\*2 Auxiliary contact 2NO or 2NC is available on request.

\*3 Auxiliary contact 2NO or 2NC or 2NO+2NC is available on request.

\*4 Auxiliary contact 4NO+4NC is available on request for frame sizes N1 and above.

Reversing contactors and starters (Open type)

Auxiliary contact NO NC	Contactor AC operated		Starter Standard		With phase-loss protective device		Approved 
	Type	Ordering code	Type	Ordering code	Type	Ordering code	
- 2 *1	SC-03RM	SC11RA-■01	SW-03RM/3H	SC11RAN-■01T □D	SW-03RM/2E	SC11RAE-■01T□	●
- 2 *1	SC-0RM	SC13RA-■01	SW-0RM/3H	SC13RAN-■01T □D	SW-0RM/2E	SC13RAE-■01T□	●
2 2 *2	SC-05RM	SC14RA-■11	SW-05RM/3H	SC14RAN-■11T □D	SW-05RM/2E	SC14RAE-■11T□	●
- 2 *1	SC-4-0RM	SC18RA-■01	SW-4-0RM/3H	SC18RAN-■01T □D	SW-4-0RM/2E	SC18RAE-■01T□	●
- 2 *1	SC-4-1RM	SC19RA-■01	SW-4-1RM/3H	SC19RAN-■01T □D	SW-4-1RM/2E	SC19RAE-■01T□	●
2 2 *3	SC-5-1RM	SC20RA-■11	SW-5-1RM/3H	SC20RAN-■11T □D	SW-5-1RM/2E	SC20RAE-■11T□	●
4 4 *4	SC-N1RM	SC25BRA-■22	SW-N1RM/3H	SC25BRAN-■22T □D	SW-N1RM/2E	SC25BRAE-■22T□	●
4 4 *4	SC-N2RM	SC35BRA-■22	SW-N2RM/3H	SC35BRAN-■22T □D	SW-N2RM/2E	SC35BRAE-■22T□	●
4 4 *4	SC-N2SRM	SC50BRA-■22	SW-N2SRM/3H	SC50BRAN-■22T □D	SW-N2SRM/2E	SC50BRAE-■22T□	●
4 4 *4	SC-N3RM	SC65BRA-■22	SW-N3RM/3H	SC65BRAN-■22T □D	SW-N3RM/2E	SC65BRAE-■22T□	●
4 4 *4	SC-N4RM	SC80BRA-■22	SW-N4RM/3H	SC80BRAN-■22T □	SW-N4RM/2E	SC80BRAE-■22T□	●
4 4 *4	SC-N5RM	SC93BRA-■22	SW-N5RM/3H	SC93BRAN-■22T □	SW-N5RM/2E	SC93BRAE-■22T□	●
4 4 *4	SC-N6RM	SC1CBRA-■22	SW-N6RM/3H	SC1CBRAN-■22T □	SW-N6RM/2E	SC1CBRAE-■22T□	●
4 4 *4	SC-N7RM	SC1FBRA-■22	SW-N7RM/3H	SC1FBRAN-■22T □	SW-N7RM/2E	SC1FBRAE-■22T□	●
4 4 *4	SC-N8RM	SC1JBRA-■22	SW-N8RM/3H	SC1JBRAN-■22T □	SW-N8RM/2E	SC1JBRAE-■22T□	●
4 4 *4	SC-N10RM	SC2CBRA-■22	SW-N10RM/3H	SC2CBRAN-■22T □	SW-N10RM/2E	SC2CBRAE-■22T□	●
4 4 *4	SC-N11RM	SC3ABRA-■22	SW-N11RM/3H	SC3ABRAN-■22T □	SW-N11RM/2E	SC3ABRAE-■22T□	●
4 4 *4	SC-N12RM	SC4ABRA-■22	SW-N12RM/3H	SC4ABRAN-■22T □	SW-N12RM/2E	SC4ABRAE-■22T□	●
4 4 *4	SC-N14RM	SC6ABRA-■22	SW-N14RM/3H	SC6ABRAN-■22T □	SW-N14RM/2E	SC6ABRAE-■22T□	●

Notes: ● Available

■ Coil voltage code

□ Thermal overload relay ampere setting range code

Ratings are same as non-reversing types.

\*1 Auxiliary contact 2NO is available on request.

\*2 Auxiliary contact 4NC is available on request.

\*3 Auxiliary contact 4NC, 4NO+4NC is available on request.

\*4 Auxiliary contact 6NO+6NC is available on request.

● Coil characteristics

Frame size 03 to N4

Coil operating voltage			Code
24V	50Hz / 24-26V	60Hz	<b>E</b>
48V	50Hz / 48-52V	60Hz	<b>F</b>
100V	50Hz / 100-110V	60Hz	<b>1</b>
100-110V	50Hz / 110-120V	60Hz	<b>H</b>
110-120V	50Hz / 120-130V	60Hz	<b>K</b>
200V	50Hz / 200-220V	60Hz	<b>2</b>
200-220V	50Hz / 220-240V	60Hz	<b>M</b>
220-240V	50Hz / 240-260V	60Hz	<b>P</b>
346-380V	50Hz / 380-420V	60Hz	<b>S</b>
380-400V	50Hz / 400-440V	60Hz	<b>4</b>
415-440V	50Hz / 440-480V	60Hz	<b>T</b>
480-500V	50Hz / 500-550V	60Hz	<b>5</b>

Note: Other voltages are available in 24-600V AC range on request.

Frame size N5 to N16

Coil operating voltage			Code
AC	DC		
24-25V	50/60Hz	24V	<b>E</b>
48-50V	50/60Hz	48V	<b>F</b>
100-127V	50/60Hz	100-120V	<b>1</b>
200-250V	50/60Hz	200-240V	<b>2</b>
380-450V	50/60Hz	—	<b>4</b>

Notes: • Be careful of these voltages because they are different from the standard range.  
• 24V and 48V is not available for N14 and 16.

Frame size 03/G to N3/G

Coil operating voltage		Code
DC		
12V		<b>B</b>
24V		<b>E</b>
48V		<b>F</b>
60V		<b>G</b>
100V		<b>1</b>
110V		<b>H</b>
120V		<b>K</b>
200V		<b>2</b>
210V		<b>Y</b>
220V		<b>M</b>

Note: Other voltages are available in 12-250V DC range on request.

# Magnetic Contactors and Starters

## UL and CSA approved

### Thermal overload relays

Standard type Type	Ordering code	With phase-loss protective device Type	Ordering code	Setting range (A)	Reset	Combined motor starter Standard	With phase-loss protective device
TR-0N/3	TR13DW-□	TK-0N	TR13EW-□	0.1-0.15, 0.13-0.2, 0.15-0.24, 0.2-0.3 0.24-0.36, 0.3-0.45, 0.36-0.54, 0.48-0.72 0.64-0.96, 0.8-1.2, 0.95-1.45, 1.4-2.2 1.7-2.6, 2.2-3.4, 2.8-4.2, 4-6, 5-8, 6-9 7-11	Manual/auto	SW-03/3H SW-0/3H SW-05/3H	SW-03/2E SW-0/2E SW-05/2E
TR-5-1N/3	TR20DW-□	TK-5-1N	TR20EW-□	0.1-0.15, 0.13-0.2, 0.15-0.24, 0.2-0.3 0.24-0.36, 0.3-0.45, 0.36-0.54 0.48-0.72, 0.64-0.96, 0.8-1.2, 0.95-1.45 1.4-2.2, 1.7-2.6, 2.2-3.4, 2.8-4.2, 4-6 5-8, 6-9, 7-11, 9-13, 12-18	Manual/auto	SW-4-0/3H SW-4-1/3H SW-5-1/3H	SW-4-0/2E SW-4-1/2E SW-5-1/2E
TR-N2/3 TR-N2H/3*	TR35BDW-□ TR35BDH-□	TK-N2 TK-N2H*	TR35BEW-□ TR35BEH-□	4-6, 5-8, 6-9, 7-11, 9-13, 12-18 18-26, 24-36, 32-42	Manual/auto	SW-N1/3H SW-N2/3H	SW-N1/2E SW-N2/2E
TR-N3/3 TR-N3H/3*	TR65BDW-□ TR65BDH-□	TK-N3 TK-N3H*	TR65BEW-□ TR65BEH-□	7-11, 9-13, 12-18, 18-26, 24-36 28-40, 34-50, 45-65, 48-68	Manual/auto	SW-N2S/3H SW-N3/3H	SW-N2S/2E SW-N3/2E
TR-N5/3	TR93BDW-□	TK-N5	TR93BEW-□	7-11, 9-13, 12-18, 18-26, 24-36, 28-40 34-50, 45-65, 53-80, 65-95	Manual/auto	SW-N4/3H SW-N5/3H	SW-N4/2E SW-N5/2E
TR-N6/3 TR-N6H/3*	TR1CBDW-□ TR1CBDH-□	TK-N6 TK-N6H*	TR1CBEW-□ TR1CBEH-□	45-65, 53-80, 65-95, 85-125	Manual/auto	SW-N6/3H	SW-N6/2E
TR-N7/3	TR1FBDW-□	TK-N7	TR1FBEW-□	45-65, 53-80, 65-95, 85-125, 110-160	Manual/auto	SW-N7/3H	SW-N7/2E
TR-N8/3	TR1JBDW-□	TK-N8	TR1JBEW-□	53-80, 65-95, 85-125, 110-160, 125-185	Manual/auto	SW-N8/3H	SW-N8/2E
TR-N10/3 TR-N10H/3*	TR2CBDW-□ TR2CBDH-□	TK-10N TK-10NH*	TR2CBEW-□ TR2CBEH-□	85-125, 110-160, 125-185, 160-240	Manual/auto	SW-N10/3H	SW-N10/2E
TR-N12/3 TR-N12H/3*	TR4ABDW-□ TR4ABDH-□	TK-12N TK-12NH*	TR4ABEW-□ TR4ABEH-□	110-160, 125-185, 160-240, 200-300, 240-360, 300-450	Manual/auto	SW-N11/3H SW-N12/3H	SW-N11/2E SW-N12/2E
TR-N14/3 TR-N14H/3*	TR6ABDW-□ TR6ABDH-□	TK-14N TK-14NH*	TR6ABEW-□ TR6ABEH-□	240-360, 300-450, 400-600	Manual/auto	SW-N14/3H	SW-N14/2E

Notes: □ Enter the thermal overload relay ampere setting range code

- \*Separate mounting type
- Auxiliary contact: 1NO+1NC
- UL recognized

• Max. setting ranges of these starters are as follows.

Starter	Max. setting range	Starter	Max. setting range
SW-03	5-8A	SW-N1	24-36A
SW-N2S	45-65A	SW-N4	53-80A

### ● Auxiliary contact ratings

#### Contactors

Frame size	Continuous current (A)	AC	Make/Break (A)	DC	Make/Break (A)
SC-03 to N14	10	120V 240V 480V 600V	60/6 30/3 15/1.5 12/1.2	125V 250V	0.55/0.55 0.27/0.27

### Thermal overload relays

Frame	Continuous current (A)	AC	Make/Break (A)	DC	Make/Break (A)
TR-0N/3 to 5-1N/3 TK-0N to 5-1N	2.5	120V 240V 480V 600V	15/1.5 7.5/0.75 3.75/0.375 3/0.3	125V 250V	0.22A/0.22 0.11A/0.11
TR-N2/3 to N14/3 TK-N2 to N14	5	120V 240V 480V 600V	30/3 15/1.5 7.5/0.75 6/0.6	125V 250V	0.22A/0.22 0.11A/0.11

### ● Thermal overload relays

#### Ampere setting ranges and codes

Ampere setting range (A)	Code	Ampere setting range (A)	Code	Ampere setting range (A)	Code
0.1 - 0.15	A	4 - 6	S	65 - 95	M
0.13 - 0.2	B	5 - 8	T	85 - 105	I
0.15 - 0.24	C	6 - 9	U	85 - 125	N
0.2 - 0.3	D	7 - 11	V	110 - 160	P
0.24 - 0.36	E	9 - 13	W	125 - 185	R
0.3 - 0.45	F	12 - 18	X	160 - 240	S
0.36 - 0.54	G	16 - 22	Q	200 - 300	T
0.48 - 0.72	H	18 - 26	B	240 - 360	U
0.64 - 0.96	J	24 - 36	E	300 - 450	V
0.8 - 1.2	K	28 - 40	F	400 - 600	W
0.95 - 1.45	L	32 - 42	I		
1.4 - 2.2	M	34 - 50	G		
1.7 - 2.6	N	45 - 65	J		
2.2 - 3.4	P	48 - 68	O		
2.8 - 4.2	R	53 - 80	L		

### ● Dimensions

See page 01/34 for standard contactor and starter.

See page 01/43 for reversing contactor and starter.

See page 01/50 for DC operated contactor.

See page 01/103 for thermal overload relay.

**DC contactor SB series UL** [File No. E42419], **CSA** [File No. LR20479]

Type	Ordering code	Main contact arrangement	Current ratings (A)							DC motor control (DC2, class4)		Continuous current (A)	
			Variable-speed motor control										
			2NO (in series)*1		1NC (dynamic brake)*2		2NO (in series)				NO	NC	
110V/240V	440V/500V	110V/240V	440V/500V	110V	240V	440V	500V						
SB-2N/UL	SB351AA- <input type="checkbox"/>	2NO	50	35	75	75	40	35	18	15	50	50	
SB-2NB/UL	SB351AB-21 <input type="checkbox"/>	2NO+1NC											
SB-2N/SEUL	SB351SA- <input type="checkbox"/>	2NO	50	35	75	75	40	35	18	15	50	50	
SB-2NB/SEUL	SB351SB-21 <input type="checkbox"/>	2NO+1NC											
SB-5N/UL	SB851BA- <input type="checkbox"/>	2NO	110	110	165	165	85	85	60	45	110	100	
SB-5NB/UL	SB851BB- <input type="checkbox"/>	2NO+1NC											
SB-6N/UL	SB1C1BA- <input type="checkbox"/>	2NO	140	140	210	210	125	120	80	50	140	100	
SB-6NB/UL	SB1C1BB- <input type="checkbox"/>	2NO+1NC											
SB-10N/UL	SB2A1BA- <input type="checkbox"/>	2NO	240	240	360	360	240	200	120	100	240	160	
SB-10NB/UL	SB2A1BB- <input type="checkbox"/>	2NO+1NC											
SB-11N/UL	SB2K1BA- <input type="checkbox"/>	2NO	320	320	480	480	320	290	200	150	320	200	
SB-11NB/UL	SB2K1BB- <input type="checkbox"/>	2NO+1NC											

Notes: • Enter the coil voltage code in the  mark.  
 • Enter the auxiliary contact arrangement in the  mark.  
 • 22: 2NO+2NC (standard), 33: 3NO+3NC (on request), 44: 4NO+4NC (on request)  
 \*1 NO contacts are capable of making 2 times of listed current ratings.  
 \*2 NC contacts are capable of making 1 time of listed current ratings.  
 • On-load factor is 50%, operating cycle is 600 cycles per hour.  
 • Breaking condition : No voltage

● **Dimensions**

Same as standard type  
See page 01/90.

● **Auxiliary contact ratings**

Rating code	Continuous current (A)	Current ratings (A) Voltage	Make Break	
			A600	10
Q300	10	125V DC 250V DC	0.55 0.27	0.55 0.27

**Optional units UL**[File No. E42419], **CSA** [File No. LR20479]

Description		Type	Ordering code	Used with		
Auxiliary contact block	Front mounting	SZ-A40	SZ1A40 4NO	SC-03 to 5-1 SH-4,5 SC-N1 to N3		
		SZ-A31	SZ1A31 3NO+1NC			
		SZ-A22	SZ1A22 2NO+2NC			
		SZ-A20	SZ1A20 2NO			
		SZ-A11	SZ1A11 1NO+1NC			
		SZ-A02	SZ1A02 2NC			
	Side mounting	SZ-AS1	SZ1AS1 1NO+1NC	SC-03 to N3 SC-N4 to N12		
		SZ-AS2	SZ1AS2 1NO+1NC			
Mechanical interlock unit		SZ-RM	SZ1RM	SC-03 to 5-1 SC-N1 to N3		
Coil surge suppression unit	Varistor	SZ-Z1	SZ1Z1 24 to 48V AC/DC	SC-03 to 5-1 SH-4, 5		
		SZ-Z2	SZ1Z2 100 to 250V AC/DC			
		SZ-Z3	SZ1Z3 380 to 440V AC/DC			
		SZ-Z6*2	SZ1Z6 24 to 48V AC/DC			
		SZ-Z7*2	SZ1Z7 100 to 250V AC/DC			
		SZ-Z31	SZ2Z31 24 to 48V AC/DC		SC-N1 to N3 SC-N1/G to N3/G	
		SZ-Z32	SZ2Z32 100 to 250V AC/DC			
			SZ-Z33	SZ2Z33 380 to 440V AC/DC	SC-N1 to N3	
			SZ-Z41	SZ2Z41 24 to 48V AC	SC-N4	
			SZ-Z42	SZ2Z42 100 to 250V AC		
			SZ-Z43	SZ2Z43 380 to 440V AC		
	CR		SZ-Z4	SZ1Z4 24 to 48V AC/DC	SC-03 to 5-1 SH-4, 5	
			SZ-Z5	SZ1Z5 100 to 250V AC/DC		
			SZ-Z8*2	SZ1Z8 24 to 48V AC/DC		
SZ-Z9*2			SZ1Z9 100 to 250V AC/DC			
			SZ-Z34	SZ2Z34 24 to 48V AC	SC-N1 to N3	
			SZ-Z35	SZ2Z35 100 to 250V AC		
			SZ-Z36	SZ2Z36 24 to 48V DC		SC-N1/G to N3/G
			SZ-Z37	SZ2Z37 100 to 250V DC		
		SZ-Z44	SZ2Z44 24 to 48V AC	SC-N4		
		SZ-Z45	SZ2Z45 100 to 250V AC			


Notes: \*1 Overlapping  
\*2 With LED

Description	Type	Ordering code	Used with	
Main circuit surge suppression unit	SZ-ZM1	SZ1ZM1	SC-03 to 5-1	
	SZ-ZM2	SZ1ZM2	SC-03 to 5-1	
	SZ-ZM3	SZ1ZM3	SC-N1 to N3	
	SZ-ZM4	SZ1ZM4	SC-N1 to N3	
Terminal cover	For contactor and industrial relay	SZ-T1	SZ1T1 SC-03, 0, SH-4	
		SZ-T2	SZ1T2 SC-05, SH-5	
		SZ-T3	SZ1T3 SC-4-0, 4-1	
		SZ-T4	SZ1T4 SC-5-1	
			SZ-T22	SZ2T22 SC-N1, N2
			SZ-T23	SZ2T23 SC-N2S, N3
			SZ-N4T	SZ2N4T SC-N4, N5, SW-N4/3H, N5/3H
			SZ-N6T	SZ2N6T SC-N6, SW-N6/3H
			SZ-N7T	SZ2N7T SC-N7, SW-N7/3H
			SZ-N8T	SZ2N8T SC-N8, N10, SW-N8/3H, N10/3H
			SZ-N11T	SZ2N11T SC-N11, N12, SW-N11/3H, N12/3H
For auxiliary contact block		SZ-WN4T	SZ2WN7T SW-N4/3H, N5/3H	
		SZ-WN6T	SZ2WN7T SW-N6/3H	
		SZ-WN7T	SZ2WN7T SW-N7/3H	
		SZ-WN8T	SZ2WN7T SW-N8/3H	
		SZ-WN10T	SZ2WN7T SW-N10/3H	
		SZ-WN11T	SZ2WN7T SW-N11/3H, N12/3H	
			SZ-T5	SZ1T5 SZ-A40, SZ-A31, SZ-A22
		SZ-T6	SZ1T6 SZ-A20, SZ-A11, SZ-A02	
		SZ-T7	SZ1T7 SZ-AS1, SZ-AS2	
For thermal overload relay		SZ-T10	SZ1T10 SZ-HB	
		SZ-T11	SZ1T11 SZ-HC	
		SZ-T12	TZ1T12 TR-0N/3, TK-0N	
		SZ-T13	TZ1T13 TR-5-1N/3, TK-5-1N	
		SZ-T14	SZ2T14 TR-N2H/3, TK-N2H	
		SZ-T15	SZ2T15 TR-N3H/3, TK-N3H	
		SZ-RN6T	SZ2RN6T TR-N6H/3, TK-N6H	
		SZ-T16	SZ2T16 TR-N2/3, TK-N2	
		SZ-T17	SZ2T17 TR-N3/3, TK-N3	
	Base unit for separate mounting		SZ-HB	TZ1HB TR-0N/3, TK-0N
		SZ-HC	TZ1HC TR-5-1N/3, TK-5-1N	
		SZ-HD	TZ2HD TR-N2/3, TK-N2	
		SZ-HE	TZ2HE TR-N3/3, TK-N3	
Reset release button		SZ-R1	TZ1R1 TR-0N/3, TK-0N, TR-5-1N/3	
		SZ-R2	TZ1R2 TK-5-1N	
		SZ-R3	TZ1R3 TR-N10/3 to N14/3, TK-N10 to N14	
		SZ-R4	TZ2R4 TR-N2/3 to N8/3	
		SZ-R5	TZ2R5 TK-N2 to N8	
		SZ-R6	TZ2R6	
Dial cover	SZ-DA	SZ1DA	TR-0N/3 to N14/3 TK-0N to TK-N14	

# Magnetic Contactors and Starters

## UL and CSA approved

### Definite purpose contactors UL [File No. E42419], CSA [File No. LR20479]

Type	Ordering code		Terminal	Auxiliary contact arrangement	Motor capacity (HP)						Thermal continuous current (A)
					Single-phase		3-phase				
					110V 120V	220V 240V	200V	220V 240V	440V 480V	550V 600V	
FC-0UL FC-0TUL FC-0SUL FC-0STUL	SF12B1A-■10*1 SF12B3A-■10*1 SF15B1A-■10*1 SF15B3A-■10*1	● ● ● ●	Screw Tab Screw Tab	1NO	1/2	1	1	1	—	—	15
FC-1UL FC-1SUL FC-2SUL FC-3UL FC-4UL	SF20B1A-■11*2 SF26B1A-■11*2 SF38B1A-■11*2 SF50B1A-■11*2 SF65B1A-■11*2	● ● ● ● ●	Screw Screw Screw Screw Screw	1NO +1NC	1 2 3 3 5	2 3 5 7.5 10	5 5 10 10 15	5 7.5 10 15 20	7.5 10 15 25 30	7.5 7.5 10 15 25	20 26 35 45 65
FC-0/GUL FC-0T/GUL FC-0S/GUL FC-0ST/GUL	SF12B1G-■10*1 SF12B3G-■10*1 SF15B1G-■10*1 SF15B3G-■10*1	● ● ● ●	Screw Tab Screw Tab	1NO	1/2	1	1	1	—	—	15

Notes: \*1 1NO is standard, 1NC is also available on request. ● Approved ■ Coil voltage code  
\*2 1NO+1NC is standard, 2NO or 2NC is also available on request.

### Auxiliary contact ratings

Type	Rating code	Thermal continuous current (A)	Current ratings (A)								Maximum (VA)	
			120V AC		240V AC		480V AC		600V AC		Make	Break
			Make	Break	Make	Break	Make	Break	Make	Break		
FC-0UL FC-0TUL FC-0SUL FC-0STUL	B300	5	30	3	15	1.5	—	—	—	—	3600	360
FC-1UL FC-1SUL FC-2SUL FC-3UL FC-4UL	A600	10	60	6	30	3	15	1.5	12	1.2	7200	720
FC-0/GUL FC-0T/GUL FC-0S/GUL FC-0ST/GUL	B300	5	30	3	15	1.5	—	—	—	—	3600	360

### Operating coil voltage

FC-0UL, 0TUL, 0SUL, 0STUL, 1UL, FC-1SUL, 2SUL, 3UL, 4UL

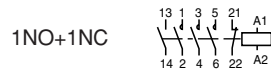
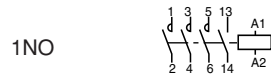
Voltage and frequency	Code
24V 50Hz/24 – 26V 60Hz	E
48V 50Hz/48 – 52V 60Hz	F
100V 50Hz/100 – 110V 60Hz	1
100 – 110V 50Hz/110 – 120V 60Hz	H
110 – 120V 50Hz/120 – 130V 60Hz	K
200V 50Hz/200 – 220V 60Hz	2
200 – 220V 50Hz/220 – 240V 60Hz	M

FC-0/GUL, 0T/GUL  
FC-0S/GUL, 0ST/GUL

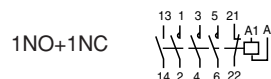
Voltage	Code
24V DC	E
48V DC	F
100V DC	1
110V DC	H
200V DC	2
220V DC	M

### Wiring diagrams

FC-0UL, 0TUL, 0/GUL, 0T/GUL  
FC-0SUL, 0STUL, 0S/GUL, 0ST/GUL



FC-1UL, 1SUL, 2SUL, 3UL, 4UL



### Dimensions, mm

See page 01/92.

**Solid-state contactors SS series UL** [File No. E132864, E142975]

**Single pole type**

● **Main circuit 240V AC, SS101 to SS2001**

Type	<b>SS101-5Z-A3</b> <b>SS101-5Z-A4</b> <b>SS101-3Z-D3</b>	<b>SS201-5Z-A3</b> <b>SS201-5Z-A4</b> <b>SS201-3Z-D3</b>	<b>SS301-5Z-A3</b> <b>SS301-5Z-A4</b> <b>SS301-3Z-D3</b>	<b>SS401-5Z-A3</b> <b>SS401-5Z-A4</b> <b>SS401-3Z-D3</b>	<b>SS501-5Z-A3</b> <b>SS501-5Z-A4</b> <b>SS501-3Z-D3</b>
Ordering code	SS101-5ZA3 SS101-5ZA4 SS101-3ZD3	SS201-5ZA3 SS201-5ZA4 SS201-3ZD3	SS301-5ZA3 SS301-5ZA4 SS301-3ZD3	SS401-5ZA3 SS401-5ZA4 SS401-3ZD3	SS501-5ZA3 SS501-5ZA4 SS501-3ZD3
Rated thermal current(A) *	10	20	30	40	50
Control voltage	A3 : 100V-120V AC, A4 : 200-240V AC, D3 : 5-24V DC				

Type	<b>SS701-1Z-A3</b> <b>SS701-1Z-A4</b> <b>SS701-3Z-D3</b>	<b>SS1001-1Z-A3</b> <b>SS1001-1Z-A4</b> <b>SS1001-3Z-D3</b>	<b>SS1501-1Z-A3</b> <b>SS1501-1Z-A4</b> <b>SS1501-3Z-D3</b>	<b>SS2001-1Z-A3</b> <b>SS2001-1Z-A4</b> <b>SS2001-3Z-D3</b>	
Ordering code	SS701-1ZA3 SS701-1ZA4 SS701-3ZD3	SS1A1-1ZA3 SS1A1-1ZA4 SS1A1-3ZD3	SS1F1-1ZA3 SS1F1-1ZA4 SS1F1-3ZD3	SS1A1-1ZA3 SS1A1-1ZA4 SS1A1-3ZD3	
Rated thermal current(A) *	70	100	150	200	
Control voltage	A3 : 100V-120V AC, A4 : 200-240V AC, D3 : 5-24V DC				

● **Main circuit 480V AC, SS701H to SS2001H**

Type	<b>SS701H-1Z-A3</b> <b>SS701H-1Z-A4</b> <b>SS701H-3Z-D3</b>	<b>SS1001H-1Z-A3</b> <b>SS1001H-1Z-A4</b> <b>SS1001H-3Z-D3</b>	<b>SS1501H-1Z-A3</b> <b>SS1501H-1Z-A4</b> <b>SS1501H-3Z-D3</b>	<b>SS2001H-1Z-A3</b> <b>SS2001H-1Z-A4</b> <b>SS2001H-3Z-D3</b>	
Ordering code	SS701H-1ZA3 SS701H-1ZA4 SS701H-3ZD3	SS1A1H-1ZA3 SS1A1H-1ZA4 SS1A1H-3ZD3	SS1F1H-1ZA3 SS1F1H-1ZA4 SS1F1H-3ZD3	SS1A1H-1ZA3 SS1A1H-1ZA4 SS1A1H-3ZD3	
Rated thermal current(A) *	70	100	150	200	
Control voltage	A3 : 100V-120V AC, A4 : 200-240V AC, D3 : 5-24V DC				

Note: \* The values are maximum ratings that apply at an ambient temperature not exceeding 40°C.

**3-pole type**

● **Main circuit 240V AC**

Contactor 3-pole, 2-element		3-pole, 3-element		Cooling fin to be combined 3-pole, 2-element				Continuous current (A)	Motor ratings 3-phase 220V AC 60Hz	
Basic type	Basic ordering code	Basic type	Basic ordering code	Basic type	Basic ordering code	Basic type	Basic ordering code		Capacity (HP)	Full load current (A)
<b>SS032</b>	SS032	<b>SS033</b>	SS033	—	—	—	—	3	1/2	2
<b>SS082</b>	SS082	<b>SS083</b>	SS083	*	*	*	*	8	3/4	2.9
<b>SS202</b>	SS202	<b>SS203</b>	SS203	<b>SX1-D10</b>	SY1D0	<b>SX1-D10</b>	SY1D0	20	1 1/2	5.2
<b>SS302</b>	SS302	<b>SS303</b>	SS303	<b>SX1-D10</b>	SY1D0	<b>SX1-E12</b>	SY1E2	30	2	5.8
<b>SS402</b>	SS402	<b>SS403</b>	SS403	<b>SX1-D14</b>	SY1D4	<b>SX1-E12</b>	SY1E2	40	3	9.6
<b>SS502</b>	SS502	<b>SS503</b>	SS503	<b>SX1-E12</b>	SY1E2	<b>SX1-E17</b>	SY1E7	50	5	15.2
<b>SS802</b>	SS802	<b>SS803</b>	SS803	<b>SX1-C12</b>	SY1C2	<b>SX1-C12</b>	SY1C2	80	10	28
<b>SS1202</b>	SS1C2	<b>SS1203</b>	SS1C3	<b>SX1-C12</b>	SY1C2	<b>SX1-C12</b>	SY1C2	120	10	28

Note: \* Cooling fin provided

● **Main circuit 480V AC**

Contactor 3-pole, 2-element		3-pole, 3-element		Cooling fin to be combined 3-pole, 2-element				Continuous current (A)	Motor ratings 3-phase 440V AC 60Hz	
Basic type	Basic ordering code	Basic type	Basic ordering code	Basic type	Basic ordering code	Basic type	Basic ordering code		Capacity (HP)	Full load current (A)
<b>SS302H</b>	SS302H	<b>SS303H</b>	SS303H	<b>SX1-E12</b>	SY1E2	<b>SX1-E12</b>	SY1E2	30	—	—
<b>SS502H</b>	SS502H	<b>SS503H</b>	SS503H	<b>SX1-E12</b>	SY1E2	<b>SX1-E17</b>	SY1E7	50	10	17
<b>SS802H</b>	SS802H	<b>SS803H</b>	SS803H	<b>SX1-C12</b>	SY1C2	<b>SX1-C12</b>	SY1C2	80	20	32.5
<b>SS1202H</b>	SS1C2H	<b>SS1203H</b>	SS1C3H	<b>SX1-C12</b>	SY1C2	<b>SX1-C12</b>	SY1C2	120	20	32.5

● **Input voltage**

100–120/200–240V AC  
100–120V AC  
200–240V AC  
12/24V DC  
12–24V DC  
5V DC  
5–24V DC

Note: For details, see page 01/128.