

Optional accessories

Various optional units allow you to add function quickly and easily in the field.

Auxiliary contact block			Operation counter	Coil surge suppression unit	Main circuit surge suppression unit	Mechanical interlock unit and power connection kit for reversing		
All contacts are bifurcated contacts so that the minimum voltage current is 5V DC, 3mA.			This unit indicates the number of contactor on-off operations to ensure easy maintenance and inspection.	This unit absorbs coil surge voltage due to contactor on-off operation.	This unit prevents misoperation of electronic equipment due to surge voltage generated from motor when contactor is open or closed.	This unit is used to interlock two contactors for reversing.		
4-pole SZ-A	2-pole SZ-A	2-pole SZ-AS	SZ-J	SZ-Z	SZ-ZM	SZ-ZM	SZ-RM	SZ-RW
Front-mounting		Side-mounting			Front-mounting	Side-mounting	Side-mounting	
SC-03 to N3		SC-03 to N16	SC-03 to N3	SC-03 to N4 SC-03/G to SC-N3/G	SC-03 to N3	SC-03 to N3	SC-03 to N3	SC-03 to N3

Coil drive unit for IC output	3-pole parallel connection kit	Base unit for separate mounting	Dial cover	Trip indicator	Terminal cover	Insulation barrier	Live-section cover	Off-delay release unit	
This unit controls on-off operation for contactor by the DC output of electronic equipment.	This kit modifies a 3-pole contactors to a single-pole contactor for resistive load.	This unit is used when thermal relay is required to mount independently.	For protection against the current setting being changed in error.	This unit indicates thermal relay tripping status.	This covers conform to DIN 57106 and VDE 0106 Teil 100.	This unit prevents accidental short-circuits caused by metallic objects falling onto the terminals.	This cover prevents exposure of the live section for increasing safety.	This unit prevents circuit opening due to instantaneous voltage drop.	
SZ-CD	SZ-SP	SZ-H	SZ-DA	SZ-L	SZ-T* SZ-W* SZ-W* SZ-W*	SZ-B	SZ-J, W* SZ-J*, JW*	SZ-DE* SZ-DE	
Top-mounting	Side-mounting								
SC-03 to N3	SC-N4 to N12	SC-03 to N16	TR-0N to N3	TR-0N to N14	SC-03 to N12 SW-03 to N12	TR-N2H, N3H, N6H	SC-N4 to N12 SW-N4 to N12 TR-N6H, N10H, N12H	SC-03 to N12 SW-03 to N12	SC-03/G to N14

Versions

Starters with on-off and reset pushbuttons

- Compact and simple operation – Provided with ON-OFF and reset pushbuttons, hence best suited for direct-on-line starting.
- Superior motor protection – Built-in highly reliable thermal overload relay is designed to give motor complete protection against overcurrent.
- Long service life – Hyperfine silver alloy contacts performance and a long electrical life.



Max. motor capacity (kW)	Auxiliary contact	With on-off/reset pushbutton
Single-phase 110V	200/240V	380/440V
0.4	2.5	4
0.5	3.5	5.5
0.5	3.5	5.5
0.6	4.5	7.5
0.8	5.5	11
0.8	5.5	11
1.2	7.5	15
1.7	11	18.5
–	15	22
–	18.5	30
–	22	40
–	30	55
–	37	60
–	55	90
–	65	110

Coil voltage *	• SW-03P to 5-1P, N1PB to N4PB	• SW-N5PB to N10PB
24V 50Hz / 24-26V 60Hz	AC	DC
48V 50Hz / 48-52V 60Hz	24-25V 50/60Hz	24V
100V 50Hz / 100-110V 60Hz	48-50V 50/60Hz	48V
100-110V 50Hz / 110-120V 60Hz	100-127V 50/60Hz	100-120V **
110-120V 50Hz / 120-130V 60Hz	200-250V 50/60Hz	200-240V **
200V 50Hz / 200-220V 60Hz	265-347V 50/60Hz	
200-220V 50Hz / 220-240V 60Hz	380-450V 50/60Hz	
220-240V 50Hz / 240-260V 60Hz	460-575V 50/60Hz	
346-380V 50Hz / 380-420V 60Hz		
380-400V 50Hz / 400-440V 60Hz		
415-440V 50Hz / 440-480V 60Hz		
480-500V 50Hz / 500-550V 60Hz		

* Other coil voltages between 24V and 600V AC are available.
** The coil voltage from a DC power supply with single phase full-wave rectification will be 100V to 110V
** The coil voltage from a DC power supply with single phase full-wave rectification will be 200V to 220V

Definite purpose contactors and starters

- Small size, light weight
- Budget priced
- Long service life – The contacts are self-cleaning by a scrubbing section during operation and are made of silver alloy.
- Highly reliable operating coil – Pick up voltage 75% of rated voltage
- Self-lifting terminals make it easy to wire.



Motor capacity (kW)	Operational current (A)	Auxiliary contact	Non-reversing Open
AC-3 3-phase 200/240V 380/440V	AC-1	Standard	Type
3	2.5	1NO, 1NC	FC-0UL
3.5	4.5	1NO, 1NC	FC-0SUL
5.5	5.5	1NO+1NC **	FC-1UL
7.5	7.5	1NO+1NC **	FC-1SUL
11	11	1NO+1NC **	FC-2SUL
15	18.5	1NO+1NC **	FC-3UL
18.5	30	1NO+1NC **	FC-4UL
1.5	–	1NO, 1NC	FC-0A
3.0	2.5	1NO, 1NC	FC-0TUL
3.5	4.5	1NO, 1NC	FC-0STUL
3.0	2.5	1NO, 1NC	FC-0GUL
3.5	4.5	1NO, 1NC	FC-0S/GUL
3.0	2.5	1NO, 1NC	FC-0T/GUL
3.5	4.5	1NO, 1NC	FC-0S/TGUL
1.5	–	1NO, 1NC	FC-0A/G

Coil voltage *	• FC-0UL to 4UL	• FC-0GUL to 0A/G
24V 50Hz / 24-26V 60Hz	24V DC	24V DC
48V 50Hz / 48-52V 60Hz	48V DC	48V DC
100V 50Hz / 100-110V 60Hz	60V DC	60V DC
100-110V 50Hz / 110-120V 60Hz	100V DC	100V DC
110-120V 50Hz / 120-130V 60Hz	110V DC	110V DC
200V 50Hz / 200-220V 60Hz	200V DC	200V DC
200-220V 50Hz / 220-240V 60Hz	220V DC	220V DC
220-240V 50Hz / 240-260V 60Hz		
346-380V 50Hz / 380-420V 60Hz		
380-400V 50Hz / 400-440V 60Hz		
415-440V 50Hz / 440-480V 60Hz		

* Other coil voltages between 24V and 440V AC are available.
** Auxiliary contact arrangement 2NO or 2NC is available.

Standard type industrial relay

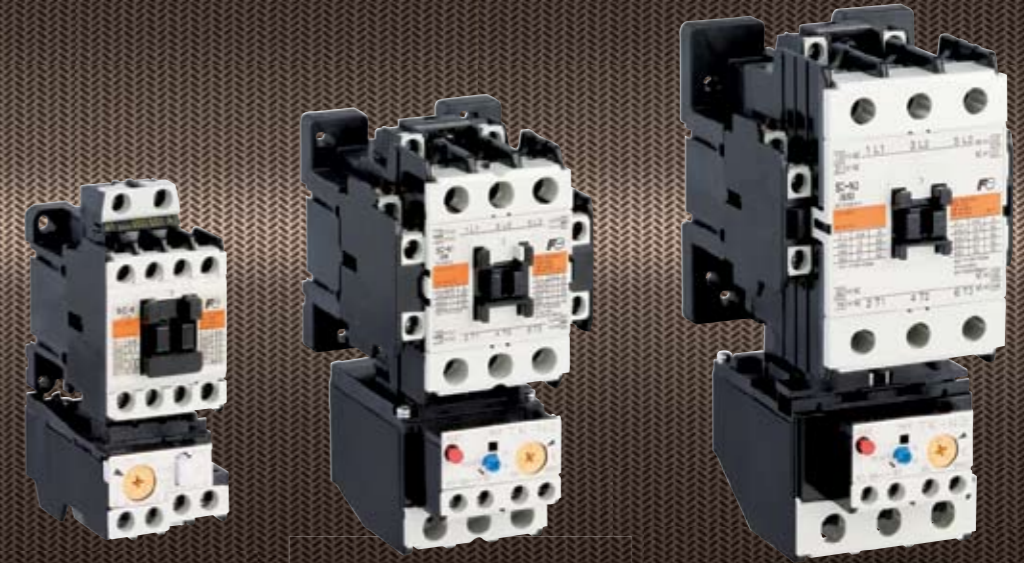
- Employing of bifurcated contact assures an increase of high contact reliability in low-level circuit use (5V, 3mA)
- Variety of optional function units: Auxiliary contact block, off-delay release unit, coil surge suppression unit and operation counter
- Snap-on 35mm rail mounting available
- UL, CSA, TÜV, BV and Lloyd approved



Type	SH-4 4-pole, 8-pole	SH-5 5-pole	SH-4H 4-pole, 8-pole	SH-5H 5-pole
Contact	Bifurcated		Single	
Rated thermal current (A)	10		10	
Make and break capacity (A)	110V AC 60	220V AC 30	440V AC 15	550V AC 12
Rated operational current (A)	Ind.	Res.	Ind.	Res.
110V AC	6	10	6	10
220V AC	3	8	6	10
440V AC	1.5	5	4	10
550V AC	1.2	5	4	10
24V DC	3	5	5	10
48V DC	1.5	3	1.5	5
110V DC	0.55	2.5	0.7	4
220V DC	0.27	1	0.27	1
Coil voltage *	24V 50Hz / 24-26V / 60Hz, 48V 50Hz / 48-52V / 60Hz, 100V 50Hz / 100-110V / 60Hz, 110-120V 50Hz / 120-130V / 60Hz, 200V 50Hz / 200-220V / 60Hz, 220-240V 50Hz / 240-260V / 60Hz, 346-380V 50Hz / 380-420V / 60Hz, 380-400V 50Hz / 400-440V / 60Hz, 415-440V 50Hz / 440-480V / 60Hz, 480-500V 50Hz / 500-550V / 60Hz			
Contact arrangement	4-pole: 4NO, 3NO+1NC, 2NO+2NC, 8-pole: 8NO, 7NO+1NC, 6NO+2NC, 5NO+3NC, 4NO+4NC 5-pole: 5NO, 4NO+1NC, 3NO+2NC, 2NO+3NC, 1NO+4NC, 5NC			

* Other coil voltages between 24V and 600V AC are available.

FUJI Magnetic Contactors and Starters



Fuji Electric FA Components & Systems Co., Ltd.

AEH112b

FUJI's wide variety of contactors and starters offers you a selection of types to satisfy your requirements.





















Standard type contactors and starters	Enclosed type contactors and starters	Reversing contactors and starters	Contactors and starters with SUPER MAGNET (non-standard)	DC-operated contactors and starters
 SC-03 to SC-N16 SW-03 to SW-N14	 SC-03C to SC-N14C SW-03C to SW-N14C	 SC-03RM to SC-N14RM SW-03RM to SW-N14RM	 SC-N1/SE to SC-N4/SE SW-N1/SE to SW-N4/SE	 SC-03/G to SC-N16 SW-03/G to SW-N14
OFF-delay release contactors and starters	Mechanical latch contactors	Starters for heavy starting duty condition	Starters with quick-operating overload relay	Starters with open-phase protective (2E)
 SC-03/G to SC-N14 SW-03/G to SW-N14	 SZ-DE* SZ-N*DE	 SC-03/V to SC-N14/VS	 SW-03/3L to SW-N14/3L	 SW-03/3Q to SW-N5/3Q
Starters with open-phase and phase-sequence protective device	Contactors for single-pole resistance load	SB series DC magnetic contactors	FC and FW economic type contactors and starters	UL and CSA approved Starters and starters
 SW-03/2E	 QE-20N	 SC-03 to SC-N16 + SZ-SP*	 SB-2N to SB-11N	 FC-0 to FC-4 FW-0 to FW-4
 SW-03/2E	 SC-03 to SC-N16 + SZ-SP*	 SB-2N to SB-11N	 FC-0 to FC-4 FW-0 to FW-4	 SC-03 to SC-N16 SW-03/3H to SW-N14/3H

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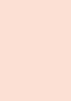
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URL <http://www.fujielectric.co.jp/fcs/eng/>

FUJI Magnetic Contactors and Starters

Your Best Choice is FUJI.

Contactors		03	0	05	4-0	4-1	5-1	N1	N2	N2S	N3	N4	N5	N6	N7	N8	N10	N11	N12	N14	N16	
																						
Type	Contactors Starters	SC-03 SW-03/3H	SC-0 SW-0/3H	SC-05 SW-05/3H	SC-4-0 SW-4-0/3H	SC-4-1 SW-4-1/3H	SC-5-1 SW-5-1/3H	SC-N1 SW-N1/3H	SC-N2 SW-N2/3H	SC-N2S SW-N2S/3H	SC-N3 SW-N3/3H	SC-N4 SW-N4/3H	SC-N5A SW-N5A/3H	SC-N6 SW-N6/3H	SC-N7 SW-N7/3H	SC-N8 SW-N8/3H	SC-N10 SW-N10/3H	SC-N11 SW-N11/3H	SC-N12 SW-N12/3H	SC-N14 SW-N14/3H	SC-N16 -	
Max. motor capacity (kW)	200-240V 380-440V 500-550V IEC 60947-4-1	2.5 4 4 4	3.5 5.5 5.5 5.5	3.5 5.5 5.5 5.5	4.5 7.5 7.5 7.5	5.5 11 11 7.5	5.5 11 11 7.5	7.5 15 15 11	11 18.5 18.5 15	15 22 25 22	18.5 30 37 30	22 40 37 37	30 55 55 55	37 60 60 60	45 75 75 90	55 90 130 132	65 110 132 132	90 160 160 200	120 220 250 300	180 315 400 480	220 440 500 500	
Operational current (A)	200-240V 380-440V 500-550V 600-660V	11 9 7 5	13 12 9 7	13 12 9 7	18 16 13 9	22 22 17 9	22 22 17 9	32 32 24 15	40 40 29 19	50 50 38 26	65 65 60 38	80 80 60 44	105 105 85 64	125 125 90 72	150 150 120 103	180 180 180 150	220 220 200 150	300 300 230 230	400 400 360 360	600 600 600 600	800 800 720 630	
Thermal current (A)		20	20	20	25	32	32	50	60	80	100	135	150	150	200	260	260	350	450	660	800	
Auxiliary contact arrangement		1NO 1NC	1NO 1NC	1NO+1NC 2NO, 2NC	1NO 1NC	1NO 1NC	1NO+1NC, 2NO 2NC, 2NO+2NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC	2NO+2NC 4NO+4NC
Durability (10 ⁶ operations)	Electrical	200V 400V	2 1.75	2 1.75	1.5 1	1.5 1	1.5 1	1.5 1	1.5 1	2 1.5	2 1.5	1 0.8	0.8 0.7	0.6 0.5	1 0.8	1 0.8	1 0.8	1 0.8	1 0.8	0.7 0.6	0.6 0.5	0.3 0.25
	Mechanical		10	10	10	10	10	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
Switching cycle per hour		1800	1800	1800	1800	1800	1800	1800	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

Thermal Overload Relays

																						-	
Standard type		TR-0N/3	TR-0N/3	TR-0N/3	TR-5-1N/3	TR-5-1N/3	TR-5-1N/3	TR-N2/3	TR-N2/3	TR-N3/3	TR-N3/3	TR-N5/3	TR-N5/3	TR-N6/3	TR-N7/3	TR-N8/3	TR-N10/3	TR-N12/3	TR-N12/3	TR-N12/3	TR-N14/3	-	
With open-phase protective device		TK-0N	TK-0N	TK-0N	TK-5-1N	TK-5-1N	TK-5-1N	TK-N2	TK-N2	TK-N3	TK-N3	TK-N5	TK-N5	TK-N6	TK-N7	TK-N8	TK-N10	TK-N12	TK-N12	TK-N12	TK-N14	-	
Setting range (A)		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	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	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	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	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 16-22	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 16-22	4-6 5-8 6-9 7-11 9-13 12-18 16-22	4-6 5-8 6-9 7-11 9-13 12-18 16-22	7-11 9-13 12-18 16-22	7-11 9-13 12-18 16-22	18-26 24-36 28-40 34-50 45-65 53-80	18-26 24-36 28-40 34-50 45-65 53-80	45-65 53-80 65-95 85-105	45-65 53-80 65-95 85-105	65-95 85-125 110-160	65-95 85-125 110-160	85-125 110-160 125-185 160-240	85-125 110-160 125-185 160-240	110-160 125-185 160-240 200-300	110-160 125-185 160-240 200-300	240-360 300-450 400-600	-
Dimensions (mm)	Contactors	43 x 81 x 80	43 x 81 x 80	53 x 81 x 80	53 x 81 x 81	53 x 81 x 81	64 x 81 x 81	74 x 87 x 96	74 x 87 x 96	88 x 110 x 111	88 x 110 x 111	88 x 127 x 117	88 x 127 x 132	100 x 144 x 138	115 x 156 x 140	138 x 209 x 174	138 x 209 x 174	148 x 240 x 195	148 x 240 x 195	148 x 240 x 195	290 x 332 x 327	290 x 332 x 327	
	Starters	44 x 122 x 80	44 x 122 x 80	53 x 122 x 80	53 x 127 x 81	53 x 127 x 81	64 x 127 x 81	74 x 146 x 96	74 x 146 x 96	88 x 177 x 111	88 x 177 x 111	88 x 189 x 117	88 x 189 x 132	100 x 225 x 138	155 x 237 x 140	138 x 305 x 174	138 x 287 x 174	148 x 360 x 195	148 x 360 x 195	148 x 360 x 195	290 x 463 x 327	-	
Standard																							

Notes: * Separate mounting only