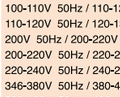
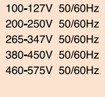
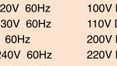
■ Optional accessories

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** (Front-mounting) / **2-pole SZ-AS** (Side-mounting) 	**SZ-J** 	**SZ-Z** 	**SZ-ZM** Front-mounting / **SZ-ZM** Side-mounting 	**SZ-RM** Side-mounting / **SZ-RW** 
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-deley 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 Top-mounting / Side-mounting 	**SZ-SP** 	**SZ-H** 	**SZ-DA** 	**SZ-L** 	**SZ-T✹, T✹** **SZ-W✹T** 	**SZ-B** 	**SZ-✹J, W✹J** **SZ-J✹, JW✹** 	**SZ-DE✹** **SZ-✹DE** 
SC-03 to N3 / SC-N4 to N12	SC-03 to N16	TR-0N to N3	TR-0N to N14	TR-0N to N14	SC-03 to N12 / TR-0N to N3 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) Single-phase 110V	3-phase 200/240V	3-phase 380/440V	Auxiliary contact Standard	With on-off/reset pushbutton Type
0.4	2.5	4	1NO	**SW-03P/3H**
0.5	3.5	5.5	1NO	**SW-0P/3H**
0.5	3.5	5.5	1NO+1NC	**SW-05P/3H**
0.6	4.5	7.5	1NO	**SW-4-0P/3H**
0.8	5.5	11	1NO	**SW-4-1P/3H**
0.8	5.5	11	1NO+1NC	**SW-5-1P/3H**
1.2	7.5	15	2NO+2NC	**SW-N1PB/3H**
1.7	11	18.5	2NO+2NC	**SW-N2PB/3H**
–	15	22	2NO+2NC	**SW-N2SPB/3H**
–	18.5	30	2NO+2NC	**SW-N3PB/3H**
–	22	40	2NO+2NC	**SW-N4PB/3H**
–	30	55	2NO+2NC	**SW-N5PB/3H**
–	37	60	2NO+2NC	**SW-N6PB/3H**
–	55	90	2NO+2NC	**SW-N8PB/3H**
–	65	110	2NO+2NC	**SW-N10PB/3H**

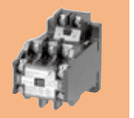
Coil voltage *

• SW-03P to 5-1P, N1PB to N4PB	• SW-N5PB to N10PB	
	AC	DC
24V 50Hz / 24-26V 60Hz	24-25V 50/60Hz	24V
48V 50Hz / 48-52V 60Hz	48-50V 50/60Hz	48V
100V 50Hz / 100-110V 60Hz	100-127V 50/60Hz	100-120V *1
100-110V 50Hz / 110-120V 60Hz	200-250V 50/60Hz	200-240V *2
110-120V 50Hz / 120-130V 60Hz	265-347V 50/60Hz	
200V 50Hz / 200-220V 60Hz	380-450V 50/60Hz	
200-220V 50Hz / 220-240V 60Hz	460-575V 50/60Hz	
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		

* Other coil voltages between 24V and 600V AC are available.
*1 The coil voltage from a DC power supply with single phase full-wave rectification will be 100V to 110V
*2 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) AC-3 3-phase 200/240V	3-phase 380/440V	Operational current (A) AC-1	Auxiliary contact Standard	Non-reversing Open Type
3	2.5	20	1NO, 1NC	**FC-0UL**
3.5	4.5	20	1NO, 1NC	**FC-0SUL**
5.5	5.5	30	1NO+1NC *1	**FC-1UL**
7.5	7.5	30	1NO+1NC *1	**FC-1SUL**
11	11	40	1NO+1NC *1	**FC-2SUL**
15	18.5	60	1NO+1NC *1	**FC-3UL**
18.5	30	80	1NO+1NC *1	**FC-4UL**
1.5	–	8	1NO, 1NC	**FC-0A**
3.0	2.5	20	1NO, 1NC	**FC-0TUL**
3.5	4.5	20	1NO, 1NC	**FC-0STUL**
3.0	2.5	20	1NO, 1NC	**FC-0/GUL**
3.5	4.5	20	1NO, 1NC	**FC-0S/GUL**
3.0	2.5	20	1NO, 1NC	**FC-0/TGUL**
3.5	4.5	20	1NO, 1NC	**FC-0S/TGUL**
1.5	–	8	1NO, 1NC	**FC-0A/G**

Coil voltage *

• FC-0/UL to 4UL	• FC-0/GUL to 0A/G
24V 50Hz / 24-26V 60Hz	24V DC
48V 50Hz / 48-52V 60Hz	48V DC
100V 50Hz / 100-110V 60Hz	60V DC
100-110V 50Hz / 110-120V 60Hz	100V DC
110-120V 50Hz / 120-130V 60Hz	110V DC
200V 50Hz / 200-220V 60Hz	200V DC
200-220V 50Hz / 220-240V 60Hz	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.
*1 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, 8pole	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		60	
	220V AC	30		60	
	440V AC	15		40	
	550V AC	12		40	
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.

e-Front runners

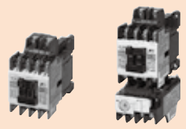
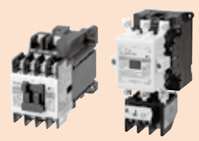
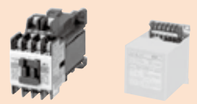
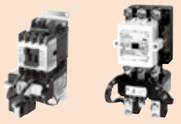
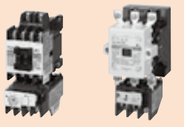
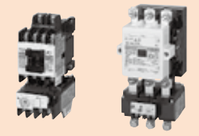
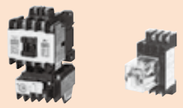
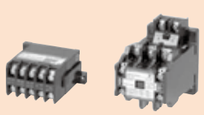
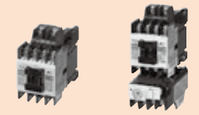
Your Best Choice is FUJI

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 SZ-DE✹ SW-03/G to SW-N14 SZ-N✹/DE	 SC-03/V to SC-N14/VS	 SW-03/3L to SW-N14/3L	 SW-03/3Q to SW-N5/3Q	 SW-03/2E to SW-N14/2E
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 to SW-N14/2E QE-20N	 SC-03 to SC-N16 + SZ-SP✹	 SB-2N to SB-11N	 FC-0 to FC-4 FW-0 to FW-4	 SC-03 to SC-N16 SW-03/3H to SW-N14/3H

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2009-9 FIS AEH112b

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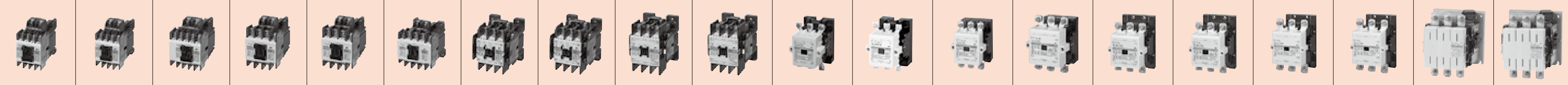
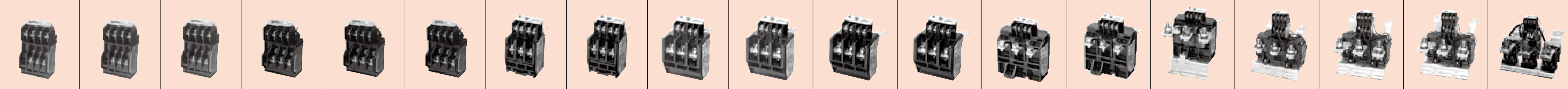
Contactors



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	Contactor	SC-03	SC-0	SC-05	SC-4-0	SC-4-1	SC-5-1	SC-N1	SC-N2	SC-N2S	SC-N3	SC-N4	SC-N5A	SC-N6	SC-N7	SC-N8	SC-N10	SC-N11	SC-N12	SC-N14	SC-N16
	Starter	SW-03/3H	SW-0/3H	SW-05/3H	SW-4-0/3H	SW-4-1/3H	SW-5-1/3H	SW-N1/3H	SW-N2/3H	SW-N2S/3H	SW-N3/3H	SW-N4/3H	SW-N5A/3H	SW-N6/3H	SW-N7/3H	SW-N8/3H	SW-N10/3H	SW-N11/3H	SW-N12/3H	SW-N14/3H	–
Max.motor	200-240V	2.5	3.5	3.5	4.5	5.5	5.5	7.5	11	15	18.5	22	30	37	45	55	65	90	120	180	220
capacity (kW)	380-440V	4	5.5	5.5	7.5	11	11	15	18.5	22	30	40	55	60	75	90	110	160	220	315	440
AC-3	500-550V	4	5.5	5.5	7.5	11	11	15	18.5	25	37	37	55	60	75	130	132	160	250	400	500
IEC 60947-4-1	600-660V	4	5.5	5.5	7.5	7.5	7.5	11	15	22	30	37	55	60	90	132	132	200	300	480	500
Operational	200-240V	11	13	13	18	22	22	32	40	50	65	80	105	125	150	180	220	300	400	600	800
current (A)	380-440V	9	12	12	16	22	22	32	40	50	65	80	105	125	150	180	220	300	400	600	800
	500-550V	7	9	9	13	17	17	24	29	38	60	60	85	90	120	180	200	230	360	600	720
	600-660V	5	7	7	9	9	9	15	19	26	38	44	64	72	103	150	150	230	360	600	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
Durability	Electrical 200V	2	2	2	1.5	1.5	1.5	1.5	1.5	2	2	1	0.8	0.6	1	1	1	1	0.7	0.6	0.3
(□10^6 operations)	400V	1.75	1.75	1.5	1	1	1	1	1	1.5	1.5	0.8	0.7	0.5	0.8	0.8	0.8	0.8	0.6	0.5	0.25
	Mechanical	10	10	10	10	10	10	10	10	5	5	5	5	5	5	5	5	5	5	5	2.5
Switching cycle per hour		1800	1800	1800	1800	1800	1800	1800	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

Thermal Overload Relays



	03	0	05	4-0	4-1	5-1	N1	N2	N2S	N3	N4	N5	N6	N7	N8	N10	N11	N12	N14	N16
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-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-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 18-26 24-36	4-6 5-8 6-9 7-11 9-13 12-18 18-26 24-36 32-42	7-11 9-13 12-18 18-26 24-36 28-40 34-50 45-65	7-11 9-13 12-18 18-26 24-36 28-40 34-50 45-65 48-68 53-80* 65-95* 85-105*	18-26 24-36 28-40 34-50 45-65 53-80	18-26 24-36 28-40 34-50 45-65 53-80 65-95 85-105	45-65 53-80 65-95 85-125 110-160*	45-65 53-80 65-95 85-125 110-160	65-95 85-125 110-160 125-185	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	240-360 300-450 400-600	– – –

		03	0	05	4-0	4-1	5-1	N1	N2	N2S	N3	N4	N5	N6	N7	N8	N10	N11	N12	N14	N16
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	290 x 332 x 327	290 x 332 x 327
W x H x D	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	290 x 463 x 327	–
Standard																					

Notes: * Separate mounting only