

FUJI ED & C TIMES

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Modified Products

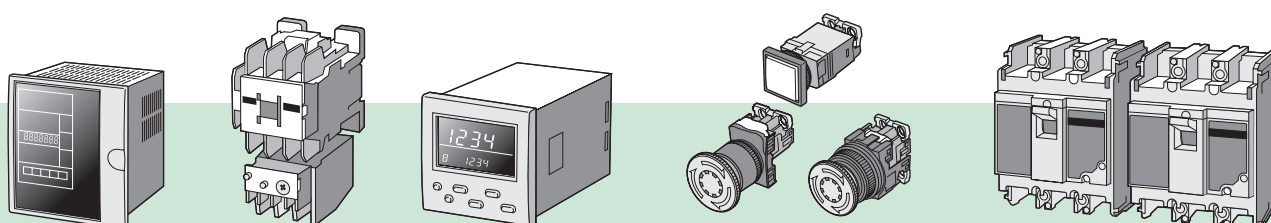
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New BW series MCCBs



SC-E series magnetic contactors

Ring terminal connection types

Ring terminal type added to meet diverse wiring methods



■ Features

- The new type allows wiring with ring crimp terminals in addition to the conventional straight wiring connection. Types SC-E02P to SC-E2SP also enable straight wiring connection.
- A new slide-type terminal cover is easy to mount and remove. Up to two ring crimp terminals can be connected from the upper terminal part.
- Three module designs with widths of 43mm (up to 25A), 54mm (up to 50A), and 67mm (up to 80A) provide an ideal combination with manual motor starters for ring terminal connection.
- UL, CSA (cUL) approval is pending.



■ Types and ratings

• Magnetic contactors

Operating coil	Max. motor capacity (kW)		Rated operational current (A)			Rated thermal current (A)	Aux. contact arrangement	Type
	3-phase AC-3		3-phase AC-3		3-phase AC-1			
	200V	380V	200V	380V	200V	380V		
	240V	440V	240V	440V	240V	440V		
AC operated	2.2	4	9	9	20	20	20	SC-E02P
	3	5.5	12	12	20	20	20	SC-E03P
	4	7.5	18	18	25	25	25	SC-E04P
	5.5	11	25	25	32	32	32	SC-E05P
	7.5	15	32	32	50	50	50	SC-E1P
	11	18.5	40	40	60	60	60	SC-E2P
	15	22	50	50	65	65	65	SC-E2SP
	18.5	30	68	65	100	100	100	SC-E3P
	22	40	80	80	105	105	105	SC-E4P
DC operated	2.2	4	9	9	20	20	20	SC-E02P/G
	3	5.5	12	12	20	20	20	SC-E03P/G
	4	7.5	18	18	25	25	25	SC-E04P/G
	5.5	11	25	25	32	32	32	SC-E05P/G
	7.5	15	32	32	50	50	50	SC-E1P/G
	11	18.5	40	40	60	60	60	SC-E2P/G
	15	22	50	50	65	65	65	SC-E2SP/G
	18.5	30	68	65	100	100	100	SC-E3P/G
	22	40	80	80	105	105	105	SC-E4P/G

• Thermal overload relays

Applicable contactor Non-reversing	Type	Auxiliary contact arrangement	Trip category (JIS) Resistive load AC-1	No. of heater elements
SC-E02P, E02P/G SC-E03P, E03P/G SC-E04P, E04P/G SC-E05P, E05P/G	TK-E02	1NO+1NC	10A	3
SC-E1P, E1P/G SC-E2P, E2P/G SC-E2SP, E2SP/G	TK-N2/T	1NO+1NC	10A	3
SC-E3P, E3P/G SC-E4P, E4P/G	TK-N3/T	1NO+1NC	10A	3

BM3 series reversing manual motor starters

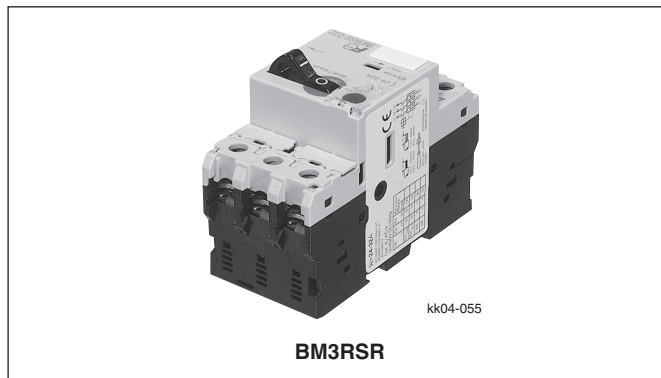
Ring terminal connection types

32AF type with ring terminal connection added



■ Features

- Similar to FUJI MCCBs, the new type allows easy mounting and removal of the terminal cover, and up to two ring crimp terminals can be connected from the upper terminal part.
- Straight wiring connection is also possible in addition to ring terminal connection.
- The BM3RSR (0.16 to 32A rocker handle types) and BM3RHR (0.16 to 32A rotary handle types) are available.
- All optional accessories for standard manual motor starters can be mounted.
- The series conforms to IEC, UL and JIS standards, as do the standard manual motor starters.
- Crimp terminal insulation and a long terminal cover conforming to UL508 type E and F standards are available. (Purchased separately.)



■ Types and ratings

• 32AF standard breaking capacity, rocker handle types

Max. motor capacity and full-load current 3-phase *1				Rated current *2 In (A)	Thermal current setting range Ie (A)	Instantaneous trip current (A)	Rated breaking capacity Icu (kA)		Type
200-240V AC (kW)	(A)	380-440V AC (kW)	(A)				240V AC	415V AC	
—	—	0.02	0.1	0.16	0.1–0.16	2.1	100	100	BM3RSR-P16
0.03	0.24	0.06	0.21	0.25	0.16–0.25	3.3	100	100	BM3RSR-P25
0.06	0.37	0.1	0.34	0.4	0.25–0.4	5.2	100	100	BM3RSR-P40
0.06	0.37	0.12	0.41	0.63	0.4–0.63	8.2	100	100	BM3RSR-P63
0.1	0.68	0.2	0.7	1	0.63–1	13	100	100	BM3RSR-001
0.2	1.3	0.4	1.2	1.6	1–1.6	20.8	100	100	BM3RSR-1P6
0.4	2.3	0.75	1.8	2.5	1.6–2.5	32.5	100	100	BM3RSR-2P5
0.75	3.6	1.5	3.1	4	2.5–4	52	100	100	BM3RSR-004
1.5	6.1	2.2	4.6	6.3	4–6.3	81.9	100	100	BM3RSR-6P3
2.2	9.2	3.7	7.5	10	6.3–10	130	100	100	BM3RSR010
2.2	9.2	5.5	11	13	9–13	169	100	50	BM3RSR-013
3.7	15	7.5	15	16	11–16	208	100	25	BM3RSR-016
3.7	15	7.5	15	20	14–20	260	50	25	BM3RSR-020
5.5	22.5	11	21	25	19–25	325	50	25	BM3RSR-025
7.5	29	15	28	32	24–32	416	50	25	BM3RSR-032

Notes: *1 Motor full-load currents are based on FUJI's standard type totally-enclosed induction motors.

*2 Max. thermal current setting value

• 32AF high breaking capacity, rocker handle types

Max. motor capacity and full-load current 3-phase *1				Rated current *2 In (A)	Thermal current setting range Ie (A)	Instantaneous trip current (A)	Rated breaking capacity Icu (kA)		Type
200-240V AC (kW) (A)		380-440V AC (kW) (A)					240V AC	415V AC	
—	—	0.02	0.1	0.16	0.1–0.16	2.1	100	100	BM3RHR-P16
0.03	0.24	0.06	0.21	0.25	0.16–0.25	3.3	100	100	BM3RHR-P25
0.06	0.37	0.1	0.34	0.4	0.25–0.4	5.2	100	100	BM3RHR-P40
0.06	0.37	0.12	0.41	0.63	0.4–0.63	8.2	100	100	BM3RHR-P63
0.1	0.68	0.2	0.7	1	0.63–1	13	100	100	BM3RHR-001
0.2	1.3	0.4	1.2	1.6	1–1.6	20.8	100	100	BM3RHR-1P6
0.4	2.3	0.75	1.8	2.5	1.6–2.5	32.5	100	100	BM3RHR-2P5
0.75	3.6	1.5	3.1	4	2.5–4	52	100	100	BM3RHR-004
1.5	6.1	2.2	4.6	6.3	4–6.3	81.9	100	100	BM3RHR-6P3
2.2	9.2	3.7	7.5	10	6.3–10	130	100	100	BM3RHR-010
2.2	9.2	5.5	11	13	9–13	169	100	100	BM3RHR-013
3.7	15	7.5	15	16	11–16	208	100	50	BM3RHR-016
3.7	15	7.5	15	20	14–20	260	100	50	BM3RHR-020
5.5	22.5	11	21	25	19–25	325	100	50	BM3RHR-025
7.5	29	15	28	32	24–32	416	100	50	BM3RHR-032

Notes: ^{*1} Motor full-load currents are based on FUJI's standard type totally-enclosed induction motors.

^{*2} Max. thermal current setting value

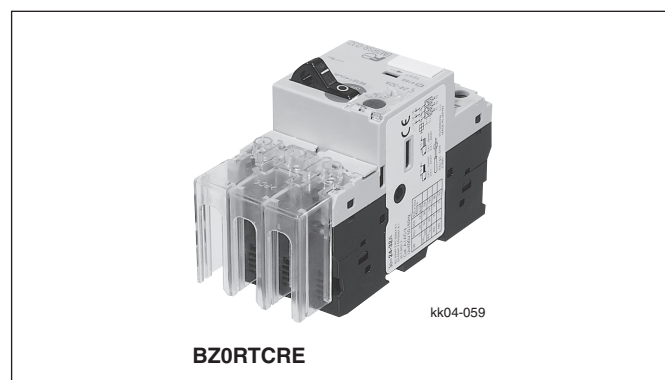
■ Wirings

	Wire size (mm ²)	Ring crimp terminal Max. width (mm)	Terminal screw	Tightening torque (N · m)
Line side	1 to 8	11 (R1.25-4 to R8-4)	M4	2
Load side	1 to 8	11 (R1.25-4 to R8-4)	M4	2

■ Optional accessory

Long terminal cover

- Mountable to manual motor starters with ring crimp terminals
- Prevents exposure between crimp terminals and finger contact
- Mountable to both power supply and load sides
- Straight wiring connection is also possible in addition to ring terminal connection.
- When mounted on the power supply side and combined with the optional BZ0TKUAB short-circuit alarm contact block, the configuration conforms to UL508 type E and F standards.
- Internal and external devices can be mounted.
- Transparent resin material allows visual confirmation of connection status.



New BW series Molded case circuit breakers

New frame sizes 160 and 250AF added



BW253S0

Types and ratings

Frame		100A			160A			
Pole		3	2	3	2	3	2	3
Type		BW103E0	BW102S0	BW103S0	BW162E0	BW163E0	BW162J0	BW163J0
Rated current (A)		15, 20, 25, 30 40, 50, 60, 75 80, 100	15, 20, 25, 30 40, 50, 60, 75 80, 100	15, 20, 25, 30 40, 50, 60, 75 80, 100	100, 125, 150, 160		100, 125, 150, 160	
Rated insulation voltage	(V AC)	690	690	690	690		690	
	(V DC)	250	250	250	250		250	
Rated interrupting capacity (kA)	600V AC	—	—	—	—		—	
	500V AC	5/3	10/3	10/3	5/3		8/4	
	IEC60947-2 440V AC	10/5	20/5	20/5	15/8		20/10	
	EN60947-2 415V AC	15/8	30/8	30/8	18/9		25/13	
	(Icu/Ics)	15/8	30/15	30/15	18/9		25/13	
	380V AC	18/9	30/15	30/15	18/9		25/13	
	230V AC	25/13	50/25	100/50	25/13		50/25	
	250V DC	5/3	5/3	10/5	5/3		20/10	
Dimensions (mm)		a	75	50	75	105		105
		b	130	130	130	165		165
		c	60	60	60	60		60
		d	81	81	81	86		86
Mass (kg)		0.78	0.6	0.78	1.36	1.56	1.36	1.56
Tripping device		Thermal-magnetic						

Frame		160A		250A					
Pole		2	3	2	3	2	3	2	3
Type		BW162S0	BW163S0	BW252E0	BW253E0	BW252J0	BW253J0	BW252S0	BW253S0
Rated current (A)		100, 125, 150, 160		175, 200, 225, 250		175, 200, 225, 250		175, 200, 225, 250	
Rated insulation voltage	(V AC)	690		690		690		690	
	(V DC)	250		250		250		250	
Rated interrupting capacity (kA)	600V AC	—		—		—		—	
	500V AC	10/5		5/3		8/4		10/5	
	IEC60947-2 440V AC	25/13		15/8		20/10		25/13	
	EN60947-2 415V AC	36/18		18/9		25/13		36/18	
	(Icu/Ics)	36/18		18/9		25/13		36/18	
	380V AC	36/18		18/9		25/13		36/18	
	230V AC	85/43		25/13		50/15		85/43	
	250V DC	30/15		5/3		20/10		30/15	
Dimensions (mm)		a	105	105	105	105	105	105	105
		b	165	165	165	165	165	165	165
		c	60	60	60	60	60	60	60
		d	86	86	86	86	86	86	86
Mass (kg)		1.36	1.56	1.36	1.56	1.36	1.56	1.36	1.56
Tripping device		Thermal-magnetic							

UL approved low-voltage control power transformers CU4, CU5

UL506, UL1446 approved

■ Features

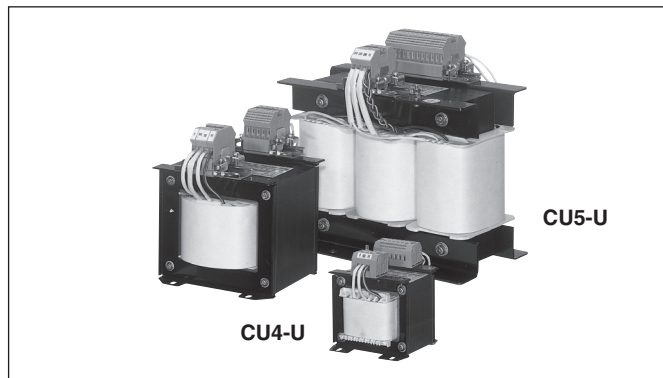
- Approval received for UL506 (Specialty Transformer) and UL1446 (System of Insulating Materials — General)
UL506: File No. E243896
UL1446: File No. E243895
- All products have UL, c-UL, and CE marking.
- A wide product range is available.

Single-phase

Capacity: 100VA to 5kVA
Primary voltage: 380/400/415/440/460/480V and 200/210/220/230/240V
Secondary voltage: 200/208/220/230/240V and 100/110/115/120V

Three-phase

Capacity: 5kVA to 30kVA
Primary voltage: 380/400/415/440/460/480V and 200/208/220/230/240V
Secondary voltage: 200/220V



■ Types and ratings

Type	Single-phase transformer CU4-U	Three-phase transformer CU5-U
Capacity	100VA, 200VA, 300VA, 500VA, 750VA 1kVA, 1.5kVA, 2kVA, 3kVA, 5kVA	5kVA, 7.5kVA, 10kVA, 15kVA, 20kVA, 25kVA, 30kVA
Frequency	50/60Hz	50/60Hz
Primary voltage	200/210/220/230/240V 380/400/415/440/460/480V	200/208/220/230/240V 380/400/415/440/460/480V
Secondary voltage	100/110/115/120V 200/208/220/230/240V	200/220V
Insulation class	100 to 200VA A Class 300VA to 3kVA B Class 5kVA H Class	H Class
Degree of protection	IP00	IP00
Shield	Electrostatic shield	Electrostatic shield
Connection and terminal layout Example		

■ Dimensions, mm

• Single-phase

Fig. 1

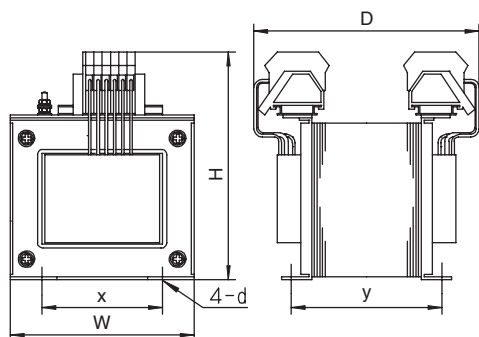
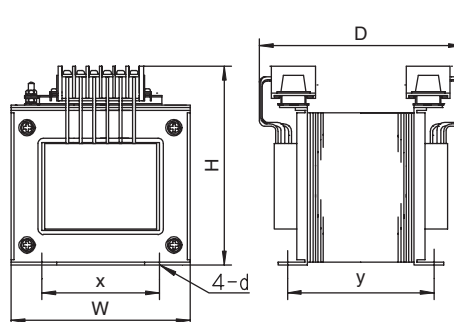


Fig. 2



Type	Rated capacity	Insulation class	Dimensions (mm)							Mass (kg)
			Fig. No.	W	D	H	x	y	d	
CU410-A	100VA	A	Fig. 1	90	120	120	62	68	4.5×9	2.2
CU420-A	200VA	A		100	135	125	69	90	4.5×9	3.6
CU430-B	300VA	B		135	120	160	88	70	6×10	5.3
CU450-B	500VA	B		135	180	180	88	110	6×10	9.2
CU475-B	750VA	B		160	180	195	110	109	8×12	12
CU4A1-B	1kVA	B		160	190	195	110	119	8×12	14
CU4AY-B	1.5kVA	B		185	190	220	115	116	8×12	19
CU4A2-B	2kVA	B	185	230	220	115	144	8×12	24	
CU4A3-B	3kVA	B	Fig. 2	230	260	260	130	160	8×12	39
CU4A5-H	5kVA	H		250	310	290	180	180	10×15	51

• Three-phase

Fig. 3

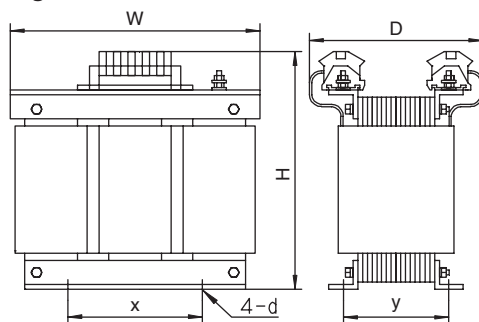
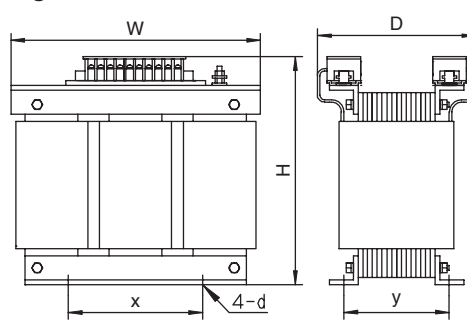


Fig. 4



Type	Rated capacity	Insulation class	Dimensions (mm)							Mass (kg)
			Fig. No.	W	D	H	x	y	Mounting hole d	
CU5A5-H	5kVA	H	Fig. 3	330	210	330	160	138	10×15	46
CU5A7-H	7.5kVA	H		400	250	380	200	146	10×15	69
CU5B1-H	10kVA	H	Fig. 4	400	280	400	200	161	10×15	83
CU5BY-H	15kVA	H		450	330	450	200	198	12×18	108
CU5B2-H	20kVA	H		450	340	450	200	208	12×18	119
CU5BR-H	25kVA	H		500	350	490	300	200	14×21	143
CU5B3-H	30kVA	H		500	390	490	300	220	14×21	167

Low-cost, WH7DL isolated DC transducer and WH7DB non-isolated transducer

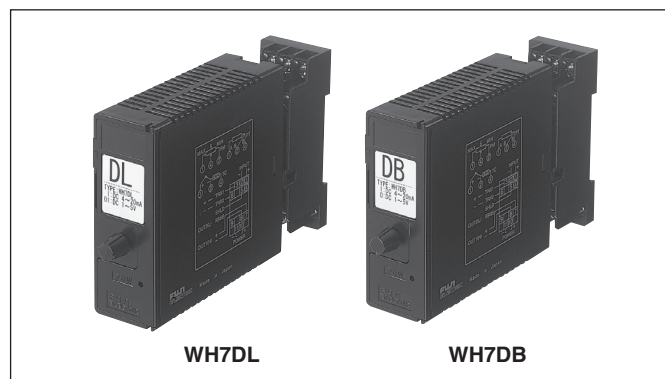
The same performance and appearance as previous types, with a dramatically reduced cost

Isolated DC transducer, WH7DL

■ Features

The WH7DL isolated DC transducer is designed to convert a DC voltage or current values into a DC signal. Input and output circuits are electrically isolated from each other. These transducers are ideal for the amplifying and isolating minute signals that are output from a variety of sensors.

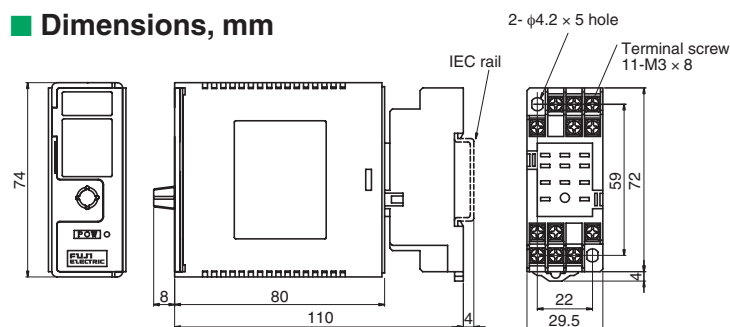
- Auxiliary power supply: 85 to 264V AC, 24V DC, 110V DC
- Dielectric strength: 2000V AC, 1min. and 3-port isolated



■ Types and ratings

Type	WH7DL	
Insulation method	Photocoupler	
Accuracy	±0.2%	
Temperature characteristics	±0.02%/°C	
Response time	0.5s max. (0% to 90%)	
Input signal (Input impedance)	0 to 10mV DC (1MΩ min.), 0 to 100mV DC (1MΩ min.), 0 to 1V DC (1MΩ min.), 0 to 5V DC (1MΩ min.) 0 to 10V DC (1MΩ min.), 1 to 5V DC (1MΩ min.), 4 to 20mA DC (250Ω), 10 to 50mA DC (100Ω)	
Output signal (Load resistance)	Voltage	0 to 10mV DC (10kΩ min.), 0 to 100mV DC (100kΩ min.), 0 to 1V DC (200Ω min.) 0 to 5V DC (1kΩ min), 0 to 10V DC (2kΩ min.), 0 to 5V DC (1kΩ min.)
	Current	0 to 1mA DC (15kΩ max.), 0 to 5mA DC (3kΩ max.), 0 to 10mA DC (1.5kΩ max.), 0 to 16mA DC (900Ω max.) 0 to 20mA DC (750Ω max.), 1 to 5mA DC (3kΩ max.), 2 to 10mA DC (1.5kΩ max.), 4 to 20mA DC (750Ω max.)
Zero adjustment range	Approx. -5% to +5%	
Supan adjustment range	Approx. 95% to 105%	
Insulation resistance	100MΩ or more (500V DC megger)	
Dielectric strength	2000V AC, 1 min. between input and output 2000V AC, 1 min. between input and power supply 2000V AC, 1 min. between output and power supply	
Auxiliary power supply	AC	85 to 264V AC 50/60Hz, approx. 4VA
	DC	24V DC ±10%, approx. 150mA 110V DC ±10%, approx. 35mA
Ambient temperature and humidity	-5 to 55°C, 90% RH or less (no condensation)	

■ Dimensions, mm



Mass: Approx. 150g

Non-isolated transducer, WH7DB

■ Features

The WH7DB transducers (non-isolation type distributor) are designed to use by combining 2-wire type transmitter. The WH7DB supplies DC power to the transmitters on site through signal line and converts 4 to 20mA DC signal generated by the transmitters into input signals suitable for monitoring and control equipment.

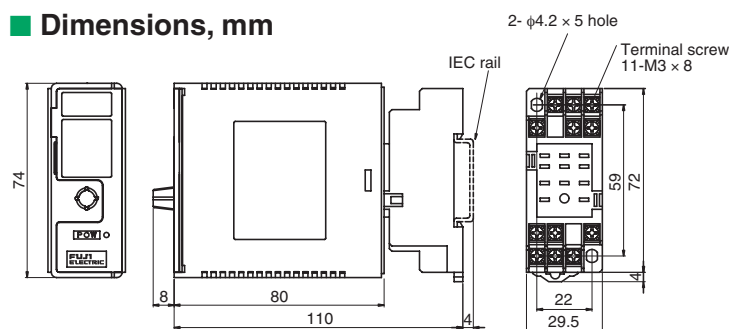
- Auxiliary power supply: 85 to 264V AC, 24V DC, 110V DC
- 2-point output signals can be output.

■ Types and ratings

Type	WH7DB	
Power supply for transmitter	Voltage	24 to 28V DC at no load
	Current	Max. 22mA DC (short-circuit current: approx. 30mA)
	Ripple	0.1V ^{P-P} or less
	Allowable short-circuit time	No limitation
	Tolerance against load fluctuation	2% or less at 0 to 100% load
Accuracy	±0.1%	
Temperature characteristics	±0.003%/°C	
Response time	0.5s max. (0% to 90%)	
Input signal	4 to 20mA DC (Input resistance 250Ω)	
Output signal	Voltage	1 to 5V DC (Input resistance 250Ω)
	Current	4 to 20mA DC
Insulation resistance	100MΩ or more (500V DC megger)	
Dielectric strength	2000V AC, 1 min. between input and power supply	
	2000V AC, 1 min. between output and power supply	
Auxiliary power supply	AC	85 to 264V AC 50/60Hz, approx. 4VA
	DC	24V DC ±10%, approx. 150mA 110V DC ±10%, approx. 35mA
Ambient temperature and humidity	-5 to 55°C, 90% RH or less (no condensation)	

Note: When using only one set of current output as the output signal, be sure to externally short-circuit the other set of output terminals. This short-circuiting is not necessary when using voltage output.

■ Dimensions, mm



Mass: Approx. 150g

RoHS compliant products

Fuji Electric FA will abolish the application of six environmental impact substances (see below) to its products because the use of these substances will be officially banned by the Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive in July 2006.

The six environmental impact substances are lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether).

■ Applicable products

Please refer to the following schedule.


Non-applicable products will also successively adopt environment-friendly parts for any parts that are common to both applicable and non-applicable products.

■ Method of change

The change to RoHS-compliant products will be made sequentially, i.e., new products will replace conventional ones as soon as the conventional ones are no longer in stock.

■ Method of identification

Packages of RoHS compliant products will bear the following mark.

Identification mark on RoHS compliant products	FUJI's RoHS compliant standards	
	Lead and lead compounds	1,000 ppm max.
	Mercury and mercury compounds	1,000 ppm max.
	Cadmium and cadmium compounds	100 ppm max.
	Hexavalent chromium and hexavalent chromium compounds	1,000 ppm max.
	PBB (polybrominated biphenyl)	1,000 ppm max.
	PBDE (polybrominated diphenyl ether)	1,000 ppm max.

Note: Products themselves will not bear the identification mark.

■ Type numbers/Prices

The above change will not involve any changes in type numbers or prices.

Remarks

- 1) No functional changes are planned for products accompanying the RoHS compliance process.
If functional changes in products should occur, however, FUJI will provide individual reports separately.
- 2) Partial color changes in products will be made to comply with the RoHS Directive. FUJI has confirmed that the changes will not have an adverse effect on the performance of the products.
Please understand that some products may incorporate both RoHS compliant parts and RoHS non-compliant parts during the transition period.

■ Magnetic contactors, thermal overload relays and MMSs

Description		Type	Time of enforcement
Magnetic contactors	SC series	SC-03 to 5-1 SC-03/C to 5-1/C SC-N1 to N4 ^{*1}	Jul. 2005 Oct. 2005 Oct. 2005
Thermal overload relays	TR (TK) series	TR (TK)-0N, 5-1N TR (TK)-0N/L, 5-1N/L TR (TK)-N2 to N14	Jul. 2005 Oct. 2005 Oct. 2005
Phase sequence protective relays	For SW-□/2E	QE-20N, 40N	Oct. 2005
Magnetic contactors	SJ series	SJ-0G to 1SG	Oct. 2005
	FC series	FC-0	Jul. 2005
		FC-0S to 4	Oct. 2005
DC magnetic contactors	SB series	SB-2N ^{*2}	Oct. 2005
Optional accessories for contactors	Auxiliary contact block	SZ-A□	Jul. 2005
Optional accessories for thermal overload relays	Base unit for separate mounting	SZ-H	Jul. 2005
	Operation counter	SZ-J	Jul. 2005
	Mechanical interlock unit	SZ-RM	Jul. 2005
	Power connection kit for reversing	SZ-RW	Jul. 2005
DUO series Manual motor starters	32AF	BM3R	Oct. 2005
	63AF	BM3V	Oct. 2005
Magnetic contactors and thermal overload relays	SC-E series	SC-E02 to E4 TK-E02 to E6	Oct. 2005 Oct. 2005

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^{*1} Except SC-N1/SE to N4/SE

^{*2} Except SB-2N/SE

■ Industrial relays, sockets for time delay relays/counters and terminal blocks

Description		Type	Time of enforcement
Industrial relays	SH series	SH-4, SH-5	Jul. 2005
Industrial control relays		HH22, 23, 24	Oct. 2005
Miniature control relays		HH52P, 53P, 54P HH52U, 54U HH52B, 53B, 54B	Enforced Oct. 2005 Oct. 2005
Miniature power relays		HH62	Oct. 2005
Annunciator relay units	Annunciator relays Flicker relays	RV JH13PN	Oct. 2005 Oct. 2005
Card relays	Optional accessory, relay remover	RB104, 105 TY3	Apr. 2005 Enforced
Relay-and-terminal modules		RS4N, 6N RS41, 42 RS4A, 4D, 6A, 6D, 16A, 16D RS16, 16E	Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005
Optional accessories for control relays	Sockets Hold-down springs Cable with crimp terminal or connector Finger protection covers	TP04 TP38, TP311 FX5, FX1B, FX1C RS910□, AUX□ RZ□, FX14X2	Enforced Oct. 2005 Enforced Enforced Enforced
Optional accessories for time delay relays and counters	Sockets	TP48X, 48SB TP88X1, 88X2 TP814X1, 814X2 TP28X-UL TP88 TP814 TP88R2 TP814R2 TP88B TP814B	Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005
Terminal blocks	General purpose Rail mounted Rail mounted With stud terminal	AYBN, AYBS AYHN, TS FD220DB TV LT2E	Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005 Oct. 2005
Testing terminals	For panel mounting Connector terminal-block	TT AU-CW21	Oct. 2005 Oct. 2005

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■ Pushbuttons, selectors, pilot lights, indicators, rotary switches, panel switches

Description		Type	Time of enforcement
Round head pushbuttons, selectors, pilot lights	16mm dia.	AH164, 165 ^{*1}	Oct. 2005
		AH165-2 ^{*1}	Oct. 2005
	22mm dia.	AR22, DR22 ^{*1}	Oct. 2005
		AM22, DM22 ^{*1}	Oct. 2005
	30mm dia.	AR30, DR30 ^{*1}	Oct. 2005
Multi display lights	F series	AP30F, 40F	Oct. 2005
Rotary switches		AC09, 16, 32	Oct. 2005
Cam type control selector switches		RC310	Oct. 2005

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^{*1} Except numerical indicator and buzzer.

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■ Limit switches and proximity switches

Description		Type	Time of enforcement
Limit switches		K244, HK244, WK244	Oct. 2005
		AL, AL-S	Oct. 2005
Proximity switches	Magnetically operated reed switches	PM	Oct. 2005

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■ Molded case circuit breakers

Description			Type	Time of enforcement
MCCBs	S series	2- and 3-pole	SA30C SA50C, SA50RC SA60C, SA60RC	Oct. 2005
			SA100C, SA100RC SA225C, SA225RC SA400C, SA400RC SA603RC SA803RC	Oct. 2005
		4-pole	SA54B SA104R SA204R SA404HA SA604H SA804H	Oct. 2005
		UL489 Listed	SA100CUL, SA100RCUL SA225CUL, SA225RCUL SA400CUL, SA400RCUL SA603RCUL SA803RCUL	Oct. 2005
	E series	2- and 3-pole	EA30AC EA50AC, EA50C EA60C EA100C, EA100AC	Oct. 2005
			EA225C EA400C EA603C EA803C	Oct. 2005
		4-pole	EA104B	Oct. 2005
		For distribution board	EA30FC, EA50FC, EA103FC	Oct. 2005
	H series	UL489 Listed	EA100CUL	Oct. 2005
		With earth leakage alarm	EA53CL, EA103CL	Oct. 2005
			H103R H203R H403R H603R H803R	Oct. 2005

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■ Earth leakage protective relays

Description	Type	Time of enforcement
Earth leakage protective relays	RRD, BRR	Oct. 2005

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■ Accessories for MCCBs and ELCBs

Description		Type	Time of enforcement	
Auxiliary switches	W	BZ6W□, BZ-W□	Oct. 2005	
Alarm switches	K	BZ6K□, BZ-K□	Oct. 2005	
Terminal blocks	A	BZ6■□A, BZ-■□A	Oct. 2005	
Operating handles	N type	BZ6N□C, BZ- N	Oct. 2005	
	V type	BZ6V□C, BZ-V	Oct. 2005	
	G type	BZ-G	Oct. 2005	
Modification kits	Front mounting, rear connection	X	BZ6X□	Oct. 2005
	Flush mounting, rear connection	E	BZ6E□, BZ-E□	Oct. 2005
	Flush mounting, top and bottom connection	Y	BZ6Y□	Oct. 2005
	Plug-in mounting	P	BZ6P□	Oct. 2005
	Handle padlocking device	Q	BZ6L□, BZ-L□	Oct. 2005
	Mechanical interlocking device	M	BZ6M□, BZ-M□	Oct. 2005
	Steel enclosure	C	BZ6C□, BZ-C□	Oct. 2005
	Others			Oct. 2005

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■ Circuit protectors and fuses

Description			Type	Time of enforcement
Circuit protectors	For control circuit, with auxiliary and alarm switches		CP31D, 32D	Oct. 2005
			CP31F, 32F, 33F, CP31T, 32T, 33T	Jul. 2005
	For electronic circuit, with auxiliary and alarm switches		CP31E, 32E, 33E, 34E, CP31V 32V, 33V, 34V	Jul. 2005
	Optional accessories			Jul. 2005
Fuses	Current limiting fuse	Fuse link	BLA	Oct. 2005
		Screw cap	Pa	Oct. 2005
		Base	AFa	Oct. 2005
		Adapter ring	R	Oct. 2005
		Fuse link	FCF	Oct. 2005
		Fuse link	FCX	Oct. 2005
	Super Rapid Fuses		CS1F, 2F, 5F, 8F, 10F, 15F	Oct. 2005
			BLC	Oct. 2005
			CR2L, 2LS, 6L	Oct. 2005

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α -TWIN series MCCBs and ELCBs

Change in shape of terminal covers

• Short type terminal covers

Optional:

BZ6TS10C2, BZ6TS10C3

BZ6TSH10C2, BZ6TSH10C3

Standard provided:

For SA52RCUL, 53RCUL, EA102CUL, 103CUL

For SG53RCUL, EG102CUL, 103CUL

• Long type terminal covers

Optional:

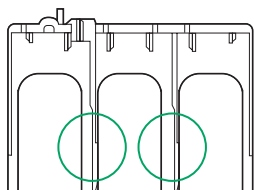
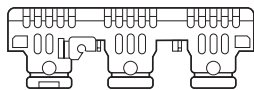
BZ6TB10C2, BZ6TB10C3

BZ6TBH10C2, BZ6TBH10C3

■ Time of modification: October 2004

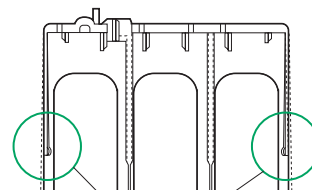
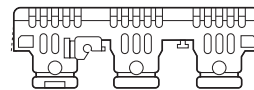
Conventional

Not mountable nor removable on side-by-side installation



New

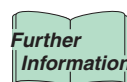
Mountable and removable on side-by-side installation



Convex part for mounting

Solid-state trip type MCCBs 400 to 800AF

	Discontinued	→	Substitute	
			Solid-state trip type	Thermal magnetic trip type
• S series	SA403RE		SA403E	SA403RC□-CE
	SA603RE		SA603E	SA603RC□-CE
	SA803RE		SA803E	SA803RC□-CE
• H series	H403BE		H403E	H403R
	H603BE		H603E	H603R
	H803BE		H803E	H803R



See pages 06/14 and 06/23 of the D & C Catalog 19th Edition.

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- For safe operation, before using the product read the instruction manual or user manual that comes with the product carefully or consult the Fuji sales representative from which you purchased the product.
- Products introduced in this catalog have not been designed or manufactured for such applications in a system or equipment that will affect human bodies or lives.
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- Customers are requested to prepare safety measures when they apply the products introduced in this catalog to such systems or facilities that will affect human lives or cause severe damage to property if the products become faulty.
- For safe operation, wiring should be conducted only by qualified engineers who have sufficient technical knowledge about electrical work or wiring.

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