#### Magnetic contactors FC series

#### ■ Description

FUJI FC series contactors are designed for use in consumer products and light industrial machinery and equipment. They are recommended for applications which call for economy, easy handling and reliability.

Typical applications include air conditioners, show cases, industrial washing machines, heaters, pumps, fans, compressors, dryers and vending machines. They are available in sizes ranging from FC-0UL to 4UL and up to 30kW at 440 Volts AC.

#### ■ Features

- Small size, light weight
- Budget priced
- Long service life
   Electrical life expectancy: 250,000
   operations. Good for 7 years service if
   they are operated 100 times a day.
- Scrubbing action
   The contacts are self-cleaning by a scrubbing action during operation and are made of a silver alloy.
- Highly reliable operating coil Pick-up voltage
   75% of rated voltage
- Self-lifting terminals Easy to wire

# ■ Construction FC-0UL, 0SUL

- Their small size permits them to be mounted in positions where space is limited and they can be mounted in a variety of directions.
- The standard terminals are screw-type. Printed board type and tab terminals are also available.



Screw type FC-0UL 0SUL





Tab terminal type Printed boad type FC-0TUL FC-0A







FC-0UL

The contact section is housed inside

enclosed. The dust-tight construction

keeps contact performance at a high

level and results in a long trouble-free

the molded frame and is totally

FC-1UL

■ Ordering information Specify the following:

- 1. Ordering code
- 2. Operating coil voltage code
- Auxiliary contact arrangement: In the case of type FC-0UL, 0A and 0TUL, specify the contact arrangement.

# service life.

FC-1UL to 4UL

- FUJI self-lifting terminals make connection work simple.
- Their free floating design results in quiet operation and eliminates chattering and bouncing.
- The magnetic yokes have been given a rust preventing treatment.
- Coil power consumption is low.

#### ■ Types and ratings (IEC60947-4-1)

Motor ca (kW) AC 3-phase	C-3	Operation current (3-phase	A) AC-3	Operational current (A) AC-1	Auxil conta	,	Non-reversing Open	ı
200V 240V	380V 440V	200V 240V	380V 440V	*2	NO	NC	Туре	Ordering code
3 3.5 3.5 5.5 7.5 11	2.5 2.5 4.5 4.5 5.5 7.5 11 18.5	12 12 15 15 20 27 40 52	6 10 10 13 18 26 40	20 20 20 20 30 30 45	1 - 1 - 1 1 1 1	- 1 - 1 1*1 1*1 1*1 1*1	FC-0UL FC-0UL FC-0SUL FC-0SUL FC-1UL FC-1SUL FC-2SUL FC-3UL	SF12B1A-■10 SF12B1A-■01 SF15B1A-■10 SF15B1A-■01 SF20B1A-■11 SF26B1A-■11 SF38B1A-■11 SF50B1A-■11
18.5 1.5 1.5	30 - -	8 8	65 - -	80 8 8	1 -	1*1 - 1	FC-4UL FC-0A FC-0A	SF65B1A-■11 SF08BBA-■10 SF08BBA-■01
3 3 3.5 3.5	2.5 2.5 4.5 4.5	12 12 15 15	6 6 10 10	20 20 20 20 20	1 - 1 -	- 1 - 1	FC-0TUL FC-0TUL FC-0STUL FC-0STUL	SF12B3A-■10 SF12B3A-■01 SF15B3A-■10 SF15B3A-■01
3 3 3.5 3.5	2.5 2.5 4.5 4.5	12 12 15 15	6 6 10 10	20 20 20 20 20	1 - 1 -	- 1 - 1	FC-0/GUL FC-0/GUL FC-0S/GUL FC-0S/GUL	SF12B1G-■10 SF12B1G-■01 SF15B1G-■10 SF15B1G-■01
3 3 3.5 3.5	2.5 2.5 4.5 4.5	12 12 15 15	6 6 10 10	20 20 20 20 20	1 - 1 -	- 1 - 1	FC-0T/GUL FC-0T/GUL FC-0ST/GUL FC-0ST/GUL	SF12B3G-■10 SF12B3G-■01 SF15B3G-■10 SF15B3G-■01
1.5 1.5	_	8 8	_	8 8	1 –	<del>-</del> 1	FC-0A/G FC-0A/G	SF08BBG-■10 SF08BBG-■01

Notes: \*1 Auxiliary contact arrangement 2NO or 2NC is available.

Cable connection: FC-0A: P. C. board

FC-0A: P. C. board FC-0TUL, 0STUL: With flat connection tabs Other types: With screw-type terminals

<sup>\*2</sup> Thermal current (A)

<sup>■:</sup> Coil voltage code, see page 01/82.

## Magnetic Contactors and Starters

## FC and FW series

### ■ Ordering code system

#### Contactor

<u>S F</u>	<u>35</u>	В	1	<u>A</u>	_	<u>E</u>	22
1) 2)	3 4		(5)	6		8	9 10

## Starter

<u>S F</u>	<u>35</u>	В <u>А</u> <u>А</u>	<u>N</u> —	트	22	<u>T B</u>	<u>D</u>
1) 2)	3 4	5 6	7	8	9 10	11)	12

#### ① Product category

Description	Code
Contactor and starter	S

### ② Series category

Description	Code
F series	F

#### **34** Frame size

Frame size	Code	
	3	4
0, 0T	1	2
0A	0	8
0S, 0ST	1	5
1	2	0
1S	2 2 3	6
2S	3	5
3	5	0
4	6	5

### ⑤ Version

Description	Code
Non-reversing, open	
Contactor Standard	1
With tab terminal	†
Starter	
Standard	Α
Non-reversing, enclosed	
Standard	С
With ON-OFF pushbutton (plastic enclosure)	Р
With ON-OFF pushbutton	S
(steel enclosure)	
With ON-OFF pushbutton and	17
lamp (plastic enclosure)	K

### **6** Coil specification

Description	Code
AC operating coil	Α
DC operating coil	G

### <sup>☼</sup> Type of thermal overload relay

Description	No. of element	Code
Standard Quick operating Open-phase protection	2, 3 3 3	N S E

#### ® Coil voltage

### AC coil

•			
Opera 50Hz	ating coil vo	ltage 60Hz	Code
24V 48V 100V 100 110 200V 200	— 110V — 120V — 220V	24 — 26V 48 — 52V 100 — 110V 110 — 120V 120 — 130V 200 — 220V 220 — 240V	E F 1 H K 2 M
220 346 380 415	<ul><li>240V</li><li>380V</li><li>400V</li><li>440V</li></ul>	240 — 260V 380 — 420V 400 — 440V 440 — 480V	P S 4 T

# **90** Auxiliary contact Frame size 0 to 4

Contact arrangement	Code	
anangement	9	100
1NO	1	0
1NC	0	1
2NO	2	0
1NO + 1NC	1	1
2NC	0	2

#### DC coil

Operating coil voltage	Code
24V DC	Е
48V DC	F
60V DC	G
100V DC	1
110V DC	Н
200V DC	2
220V DC	M

### ① Thermal overload relay ampere setting range

Ampere setting range (A)	Code	Ampere setting range (A)	Code	Ampere setting range (A)	Code
0.1 — 0.15 0.15 — 0.24 0.24 — 0.36 0.36 — 0.54	TA TC TE TG	1.4 — 2.2 1.7 — 2.6 2.2 — 3.4	TM TN TP	7 — 11 8 — 16 9 — 13 12 — 18 13 — 20 18 — 26 20 — 26	TV TV TW TX TA*1 TB TC*2
0.48 — 0.72 0.64 — 0.96 0.8 — 1.2 0.95 — 1.45	TH TJ TK TL	2.8 — 4.2 4 — 6 5 — 8 6 — 9	TR TS TT TU	24 — 36 28 — 40 34 — 50 45 — 67	TE TF TG TJ

Note: \*1 For FW-1S: X

\*2 For FW-1S: Y

## <sup>®</sup> No. of heater element

Description	Code
2-element	Blank
3-element	D

### ■ Auxiliary contact ratings (IEC 60947-4-1)

Frame size	Rated thermal current (A)	Voltage (V AC)	Making & breaking capacity (A)	Rated ope current (A Inductive	
0, 0A, 0T 0S	8	110 220 440	40 40 20	4 4 2	8 8 8
1, 1S, 2S 3, 4	10	110 220 440	100 60 60	10 6 6	10 10 10

#### ■ Performance data

Frame size	Making capacity (A)	Breaking capacity (A)	cycles	Life expect (operations Electrical	
0 to 1S		10 × le	600	250,000	1 million
2S to 4		10 × le	600	250,000	1 million

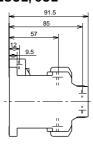
le: Rated operational current

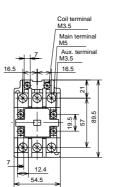
#### ■ Coil ratings

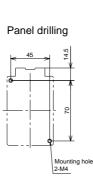
Frame size	Power contract (VA)	onsumption Sealed (VA)	Voltage and frequency *	Wiring	Operating voltage range
0, 0A, 0T, 0S 1, 1S 2S 3 4	23 75 125 125 200	6 11 14 14 14.3	200V 50Hz	A H B	0.75 to 1.1 times rated coil voltage

Notes: \* Other voltages between 24V and 440V AC are available. DC operated type FC-0/G and FC-0T/G are also available. Coil voltage: 24, 48, 60, 100, 120, 200, 210 and 220V DC

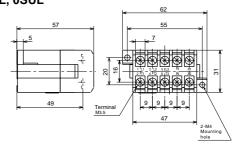






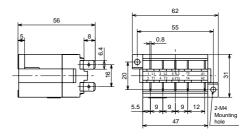


# ■ Dimensions, mm FC-0UL, 0SUL



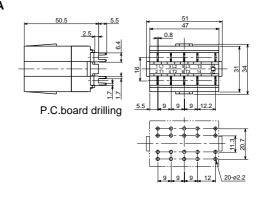
Mass: 160g

#### FC-0TUL, 0ST/UL



Mass: 160g

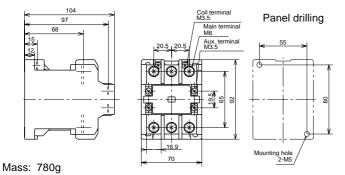
#### FC-0A



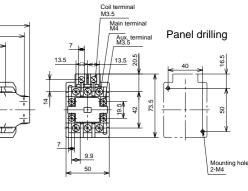
Mass: 140g

# Mass: 470g

#### FC-4UL



FC-1UL, 1SUL



Mass: 320g

# ■ Wiring diagrams FC-0UL, 0A, 0TUL, 0SUL, 0STUL

1NO 1NC

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

