

# PRICE LIST 2019-2020

ELECTRICAL DISTRIBUTION  
& CONTROL



# FUJI ELECTRIC'S PRESENCE IN THAILAND



## Fuji Electric (Thailand) Co., Ltd : FET

- Electrical Distribution & Control
- Low voltage, High voltage Inverter
- FA Components PLC, HMI, Servo, Motor
- Instrumentation
- Transmission & Distribution Plant
- Industrial Furnace
- Vending Machine



## Fuji SMBE (Thailand) Co., Ltd : FST

- Manufacturing
- LV IEC 61439 Switchgear (Up to 6300A)
  - MV IEC 62271 Switchgear (7.2 KV & 24KV)
- Operation Start : 2017  
New Factory : 2017  
Employee : 50 persons at Bangplee Industrial Estate, Samutprakarn



## Fuji Tusco Co., Ltd : FTU

- Manufacturing
- Transformer up to 300MVA, 245 KV
- Operation start : 1996  
Fuji join operation : 2013  
Employee over : 500 persons At Bangpu Industrial, Samutprakarn



## Fuji Electric Manufacturing (Thailand) Co., Ltd : FMT

- Manufacturing
- UPS, LV Inverter, HV Inverter, Power Converter
  - Switching power supplies, Vending machine
  - 115 kV GIS
  - Switchboard up to 36kV
- Operation start : 1988  
New Factory : 2013  
Employee over : 700 persons At Pathumthani

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# PRICE LIST 2019-2020

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ELECTRICAL DISTRIBUTION & CONTROL

## ACB DW Series Low Voltage Air Circuit Breaker (ACB)



### Feature

- 2 sizes and 11 types from 1000 AF to 6300 AF of frames are covered.
- Compliant with international standards.
- Abundant main circuit terminal connection systems are available.
- Intelligent control unit
  - Large repertoire is provided from basic type only with over current protection function to enhanced type with measurement and programmable function.
  - The combination with various measuring functions, such as an ammeter, watt-hour meter, harmonic meter as well as with long time delay, short time delay, instantaneous delay, ground fault, and electric leakage is possible.
  - The parameter measurement & operation, data storage, log event recording, alarm output, and communication are possible.
  - The navigation button and LCD display are provided for easy operation.

Without ground fault protection

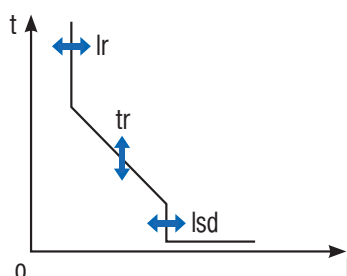
Full-featured & compact ACB.

Ideal for protecting and measuring the power receiving and distribution circuit

| Type          | IC (at 440V) | Poles | In (A) | AF (A) | Type          | Unit Price (THB) |
|---------------|--------------|-------|--------|--------|---------------|------------------|
| Fixed Type    | 65KA         | 3P    | 1000   | 1000   | DW103H1P-20VV | 130,440          |
|               | 65KA         | 3P    | 1250   | 1250   | DW123H1P-20VV | 150,840          |
|               | 65KA         | 3P    | 1600   | 1600   | DW163H1P-20VV | 163,340          |
|               | 65KA         | 3P    | 2000   | 2000   | DW203H1P-20VV | 183,840          |
|               | 65KA         | 3P    | 2500   | 2500   | DW253H1P-20VV | 231,840          |
|               | 65KA         | 3P    | 3200   | 3200   | DW323H1P-20VV | 269,840          |
|               | 65KA         | 3P    | 4000   | 4000   | DW403H1P-20VV | 433,240          |
|               | 100KA        | 3P    | 5000   | 5000   | DW503H1P-20VV | 816,840          |
|               | 100KA        | 3P    | 6300   | 6300   | DW633H1P-20VV | 880,840          |
| Draw out Type | 65KA         | 3P    | 1000   | 1000   | DW103H1Q-20VV | 167,740          |
|               | 65KA         | 3P    | 1250   | 1250   | DW123H1Q-20VV | 185,940          |
|               | 65KA         | 3P    | 1600   | 1600   | DW163H1Q-20VV | 204,340          |
|               | 65KA         | 3P    | 2000   | 2000   | DW203H1Q-20VV | 233,340          |
|               | 65KA         | 3P    | 2500   | 2500   | DW253H1Q-20VV | 296,340          |
|               | 65KA         | 3P    | 3200   | 3200   | DW323H1Q-20VV | 375,840          |
|               | 65KA         | 3P    | 4000   | 4000   | DW403H1Q-20VV | 545,640          |
|               | 100KA        | 3P    | 5000   | 5000   | DW503H1Q-20VV | 1,223,840        |
|               | 100KA        | 3P    | 6300   | 6300   | DW603H1Q-20VV | 1,538,740        |

- Prices are not included VAT
- Prices are subjected to change without notice

### DW with trip unit: Type Micrologic 2.0 (Standard protection)



#### Functions:

- Overload protection
- Short circuit protection
- Long time delay

#### Standard Accessories :

- 4 Auxiliary switch (4 c/o)
- Alarm switch (ADE)
- Door frame
- Padlocking device in withdraw position (Type draw out)
- Chassis (Type draw out)

## ACB DW Series Low Voltage Air Circuit Breaker (ACB)

With ground fault protection

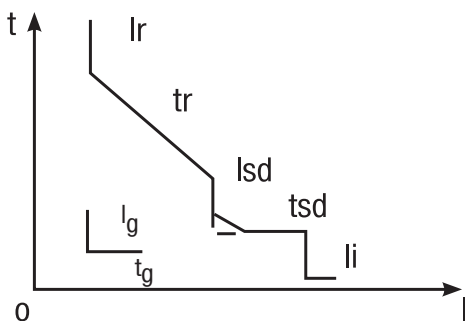
Full-featured & compact ACB.

Ideal for protecting and measuring the power receiving and distribution circuit

| Type          | IC (at 440V) | Poles | In (A) | AI   | Type          | Unit Price (THB) |
|---------------|--------------|-------|--------|------|---------------|------------------|
| Fixed Type    | 65KA         | 3P    | 1000   | 1000 | DW103H1P-6EVV | 216,140          |
|               | 65KA         | 3P    | 1250   | 1250 | DW123H1P-6EVV | 236,540          |
|               | 65KA         | 3P    | 1600   | 1600 | DW163H1P-6EVV | 249,040          |
|               | 65KA         | 3P    | 2000   | 2000 | DW203H1P-6EVV | 269,540          |
|               | 65KA         | 3P    | 2500   | 2500 | DW253H1P-6EVV | 317,540          |
|               | 65KA         | 3P    | 3200   | 3200 | DW323H1P-6EVV | 355,540          |
|               | 65KA         | 3P    | 4000   | 4000 | DW403H1P-6EVV | 518,940          |
|               | 100KA        | 3P    | 5000   | 5000 | DW503HIP-6EVV | 936,340          |
|               | 100KA        | 3P    | 6300   | 6300 | DW633H1P-6EVV | 1,000,340        |
| Draw out Type | 65KA         | 3P    | 1000   | 1000 | DW103H1Q-6EVV | 253,440          |
|               | 65KA         | 3P    | 1250   | 1250 | DW123H1Q-6EVV | 271,640          |
|               | 65KA         | 3P    | 1600   | 1600 | DW163H1Q-6EVV | 290,040          |
|               | 65KA         | 3P    | 2000   | 2000 | DW203H1Q-6EVV | 319,040          |
|               | 65KA         | 3P    | 2500   | 2500 | DW253H1Q-6EVV | 382,040          |
|               | 65KA         | 3P    | 3200   | 3200 | DW323H1Q-6EVV | 461,540          |
|               | 65KA         | 3P    | 4000   | 4000 | DW403H1Q-6EVV | 631,340          |
|               | 100KA        | 3P    | 5000   | 5000 | DW503H1Q-6EVV | 1,343,340        |
|               | 100KA        | 3P    | 6300   | 6300 | DW603H1Q-6EVV | 1,653,200        |

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### DW with trip unit: Type Micrologic6.0E (Ground fault protection)



**Functions:**

- Overload protection
- Short circuit protection
- Long time delay
- Short time delay
- Instaneous protection
- Ground fault protection (Residual type)

**Standard Accessories :**

- Emergency meter 6.0E
- External CT
- External Power Supply 220V AC
- 4 Auxiliary switch (4 c/o)
- Alarm switch (SDE)
- Door frame
- Chassis (Type draw out)
- Padlocking device in withdraw position (Type draw out)



## BW GLOBAL - TWIN Series

### Feature

- Complies with major international standards and certifications. (IEC,JIS,CE,TUV,CCC)
- High performance and compact design breaker by FUJI's ingenious ablation breaking technology.
- Providing better user friendliness by the standardization of internal accessory parts. (32/50/63/100AF, 125/250AF, 400/630/800AF)
- Material description of major components, compliance with RoHS Directive, and lower environmental impact by Cadmium-free contact. (subject to some exceptions.)



### MOLDED CASE CIRCUIT BREAKER <"Global Twin Series">

| FRAME | TYPE            | INTERRUPTING CAPACITY (kA) |        | RATED CURRENT                    | Unit Price (THB) POLES |        |        | ACCESSORIES Unit Price (THB) |       |       |       |
|-------|-----------------|----------------------------|--------|----------------------------------|------------------------|--------|--------|------------------------------|-------|-------|-------|
|       |                 | 230VAC                     | 400VAC |                                  | 2P                     | 3P     | 4P     | AUX. Sw.                     | Alarm | Shunt | UVT   |
| (AF)  |                 |                            |        | (AT)                             |                        |        |        | (W)                          | (K)   | (F)   | (R)   |
| 32    | BW32AAG-△P□     | 2.5                        | 1.5    | 3, 5, 10, 15, 20, 30,32          | 805                    | 1,155  | -      | 720                          | 720   | -     | -     |
|       | BW32SAG-△P□     | 5                          | 2.5    | 3, 5, 10, 15, 20, 30,32          | 1,065                  | 1,530  | -      | 720                          | 720   | 670   | -     |
| 50    | BW50AAG-△P□     | 2.5                        | 1.5    | 5, 10, 15, 20, 30, 32, 40, 50    | 1,020                  | 1,465  | -      | 720                          | 720   | 1,070 | 3,410 |
|       | BW50EAG-△P□     | 5                          | 2.5    | 5, 10, 15, 20, 30, 32, 40, 50    | 1,175                  | 1,685  | -      | 720                          | 720   | 1,070 | 3,410 |
|       | BW50SAG-△P□     | 10                         | 7.5    | 5, 10, 15, 20, 30, 32, 40, 50    | 1,350                  | 1,935  | -      | 720                          | 720   | 1,070 | 3,410 |
|       | BW50RAG-△P□     | 25                         | 10     | 10, 15, 20, 30, 32, 40, 50       | 1,520                  | 2,185  | -      | 720                          | 720   | 1,070 | 3,410 |
|       | BW50HAG-△P□     | 125                        | 65     | 15, 20, 30, 40, 50               | 5,530                  | 6,050  | -      | 820                          | 820   | 1,070 | 3,410 |
| 63    | BW63EAG-△P□     | 5                          | 2.5    | 60, 63                           | 1,290                  | 1,855  | -      | 720                          | 720   | 1,070 | 3,410 |
|       | BW63SAG-△P□     | 10                         | 7.5    | 60, 63                           | 1,485                  | 2,130  | -      | 720                          | 720   | 1,070 | 3,410 |
|       | BW63RAG-△P□     | 25                         | 15     | 60, 63                           | 1,600                  | 2,305  | -      | 720                          | 720   | 1,070 | 3,410 |
| 100   | BW100AAG-△P□    | 5                          | 1.5    | 60, 63, 75, 100                  | 1,290                  | 1,855  | -      | 820                          | 820   | 1,700 | 3,410 |
|       | BW100EAG-△P□    | 25                         | 10     | 50, 60, 63, 75, 100              | 2,280                  | 3,275  | -      | 820                          | 820   | 1,700 | 3,410 |
| 125   | BW125JAG-△P□    | 50                         | 30     | 15,20,30,40,50,60,75,100,125     | 2,975                  | 4,265  | 5,560  | 810                          | 810   | 1,920 | 4,260 |
|       | BW125SAG-△P□-CE | 85                         | 36     | 15,20,30,40,50,60,75,100,125     | 3,475                  | 4,960  | 6,550  | 810                          | 810   | 1,920 | 4,260 |
|       | BW125RAG-△P□    | 100                        | 50     | 15,20,30,40,50,60,75,100,125     | 5,460                  | 7,545  | 9,925  | 810                          | 810   | 1,920 | 4,260 |
|       | BW125HAG-△P□    | 125                        | 65     | 15,20,30,40,50,60,75,100,125     | 6,915                  | 9,555  | -      | 820                          | 820   | 1,920 | 4,260 |
| 160   | BW160EAG-△P□-O  | 36                         | 18     | 125, 150, 160                    | 5,820                  | 6,800  | -      | 940                          | 940   | 1,920 | 4,260 |
|       | BW160JAG-△P□-O  | 50                         | 30     | 125, 150, 160                    | 6,470                  | 8,700  | 11,000 | 940                          | 940   | 1,920 | 4,260 |
|       | BW160SAG-△P□-O  | 85                         | 36     | 125, 150, 160                    | 6,850                  | 9,130  | 11,910 | 940                          | 940   | 1,920 | 4,260 |
|       | BW160RAG-△P□-O  | 100                        | 50     | 125, 150, 160                    | 6,945                  | 9,925  | 12,900 | 940                          | 940   | 1,920 | 4,260 |
| 250   | BW250EAG-△P□    | 36                         | 18     | 175, 200, 225, 250               | 6,115                  | 7,140  | -      | 940                          | 940   | 1,920 | 4,260 |
|       | BW250JAG-△P□    | 50                         | 30     | 175, 200, 225, 250               | 6,790                  | 9,200  | 11,500 | 940                          | 940   | 1,920 | 4,260 |
|       | BW250SAG-△P□    | 85                         | 36     | 175, 200, 225, 250               | 7,000                  | 9,800  | 12,405 | 940                          | 940   | 1,920 | 4,260 |
|       | BW250RAG-△P□    | 100                        | 50     | 175, 200, 225, 250               | 7,940                  | 11,415 | 14,390 | 940                          | 940   | 1,920 | 4,260 |
|       | BW250HAG-△P□    | 125                        | 65     | 125,150, 160, 175, 200, 225, 250 | 8,770                  | 11,985 | -      | 940                          | 940   | 1,920 | 4,260 |
| 400   | BW400EAG-△P□    | 50                         | 30     | 250, 300, 350, 400               | 9,945                  | 14,210 | -      | 1,180                        | 1,180 | 2,340 | 4,260 |
|       | BW400SAG-△P□    | 85                         | 36     | 250, 300, 350, 400               | 10,720                 | 14,800 | -      | 1,180                        | 1,180 | 2,340 | 4,260 |
|       | BW400RAG-△P□    | 100                        | 50     | 250, 300, 350, 400               | 13,265                 | 15,630 | 21,030 | 1,180                        | 1,180 | 2,340 | 4,260 |
|       | BW400HAG-△P□    | 125                        | 70     | 250, 300, 350, 400               | 15,160                 | 18,945 | 25,580 | 1,180                        | 1,180 | 2,340 | 4,260 |
| 630   | BW630EAG-△P□    | 50                         | 36     | 500, 600, 630                    | -                      | 22,825 | -      | 1,180                        | 1,180 | 2,340 | 4,260 |
|       | BW630RAG-△P□    | 100                        | 50     | 500, 600, 630                    | -                      | 24,400 | 32,125 | 1,180                        | 1,180 | 2,340 | 4,260 |
|       | BW630HAG-△P□    | 125                        | 70     | 500, 600, 630                    | -                      | 37,895 | 51,610 | 1,180                        | 1,180 | 2,340 | 4,260 |
| 800   | BW800EAG-△P□    | 50                         | 36     | 700, 800                         | -                      | 37,715 | -      | 1,180                        | 1,180 | 2,340 | 4,260 |
|       | BW800RAG-△P□    | 100                        | 50     | 700, 800                         | -                      | 40,690 | 57,270 | 1,180                        | 1,180 | 2,340 | 4,260 |
|       | BW800HAG-△P□    | 125                        | 70     | 700, 800                         | -                      | 53,055 | 71,620 | 1,180                        | 1,180 | 2,340 | 4,260 |

NOTE : △ = Poles (2P, 3P, 4P) □ = Rated Current (AT)

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## BW GLOBAL - TWIN Series

External Handle (N Type and V Type )



| External Handle model | Used with MCCB model   | Unit Price (THB) |
|-----------------------|--|------------------|
| BZ6N10D               | BW32AAG, BW32EAG, BW32SAG<br>BW50AAG, BW50EAG, BW50SAG, BW50RAG<br>BW63EAG, BW63SAG, BW63RAG<br>BW100AAG, BW100EAG | 1,600            |
| BW9N0CA               | BW125JAG, BW125SAG, BW125RAG   | 2,400            |
| BW9N0GA               | BW160EAG, BW160JAG, BW160SAG,<br>BW160RAG<br>BW250EAG, BW250JAG, BW250SAG,<br>BW250RAG                             | 2,400            |
| BW9N0HA               | BW400EAG, BW400SAG, BW400RAG   | 5,200            |
| BW9N0JA               | BW630EAG, BW630RAG<br>BW800EAG, BW800RAG   | 5,200            |
| BZ6V10D               | BW32AAG, BW32EAG, BW32SAG<br>BW50AAG, BW50EAG, BW50SAG, BW50RAG<br>BW63EAG, BW63SAG, BW63RAG<br>BW100AAG, BW100EAG | 3,165            |
| BW9V0CA               | BW125JAG, BW125SAG, BW125RAG   | 2,785            |
| BW9V0GA               | BW160EAG, BW160JAG, BW160SAG,<br>BW160RAG<br>BW250EAG, BW250JAG, BW250SAG,<br>BW250RAG                             | 2,830            |
| BW9V0HA               | BW400EAG, BW400SAG, BW400RAG   | 2,950            |
| BW9V0JA               | BW630EAG, BW630RAG<br>BW800EAG, BW800RAG   | 2,785            |

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## BX Series

### Molded Case Circuit Breakers



#### Feature

- 3 sizes and 9 frames of MCCB can cover currents rated from 100 A to 1600 A.
- Compliant with international standards.  
IEC60947-2, EN60947-2, JISC8201-2-1, NEMA AB1
- Improved breaking performance because Ics (rated service short-circuit breaking capacity) is the same as Icu (rated ultimate short-circuit breaking capacity).
- Control unit & display unit
  - Abundant lineups are provided from basic type only with over current protection function to enhanced type with power quality control.
  - The combination with various measuring functions, such as an ammeter, watt-hour meter, harmonic meter as well as with long time delay, short time delay, and instantaneous delay is possible.
  - The parameter measurement & operation, data storage, log event recording, alarm output, and communication functions are possible.
- Internal accessories of various rating are prepared. (auxiliary/alarm switch, voltage/under voltage trip, etc.)
- The compact external operating handle and electric control device are also prepared. Possible to change the setting of control unit while attaching a handle

| FRAME<br>(AF) | TYPE                 | INTERRUPTING CAPACITY (kA) |        | RATED CURRENT<br>(AT) | Unit Price (THB)<br>POLES |         | ACCESSORIES Unit Price (THB) |              |              |            |
|---------------|----------------------|----------------------------|--------|-----------------------|---------------------------|---------|------------------------------|--------------|--------------|------------|
|               |                      | 220VAC                     | 440VAC |                       | 3P                        | 4P      | AUX. Sw.<br>(W)              | Alarm<br>(K) | Shunt<br>(F) | UVT<br>(R) |
| 100           | BX100HAG $\Delta$ P  | 100                        | 65     | 100                   | 8,140                     | 11,740  | 1,100                        | 1,100        | 1,700        | 2,500      |
|               | BX100HAE $\Delta$ P  |                            |        |                       | 16,030                    | 23,160  |                              |              |              |            |
| 160           | BX160HAG $\Delta$ P  | 100                        | 65     | 160                   | 11,360                    | 16,400  | 1,100                        | 1,100        | 1,700        | 2,500      |
|               | BX160HAE $\Delta$ P  |                            |        |                       | 16,380                    | 23,400  |                              |              |              |            |
| 250           | BX250HAG $\Delta$ P  | 100                        | 65     | 250                   | 13,320                    | 19,200  | 1,100                        | 1,100        | 1,700        | 2,500      |
|               | BX250RAE $\Delta$ P  | 90                         | 50     |                       | 17,920                    | 25,870  |                              |              |              |            |
|               | BX250HAE $\Delta$ P  | 100                        | 65     |                       | 19,880                    | 28,650  |                              |              |              |            |
| 400           | BX400RAE $\Delta$ P  | 85                         | 42     | 400                   | 21,960                    | 31,670  | 1,100                        | 1,100        | 1,700        | 2,500      |
|               | BX400HAE $\Delta$ P  | 100                        | 65     |                       | 22,460                    | 32,430  |                              |              |              |            |
| 630           | BX630RAE $\Delta$ P  | 85                         | 42     | 630                   | 31,500                    | 45,430  | 1,100                        | 1,100        | 1,700        | 2,500      |
|               | BX630HAE $\Delta$ P  | 100                        | 65     |                       | 34,890                    | 50,350  |                              |              |              |            |
| 800           | BX800RAE $\Delta$ P  | 85                         | 50     | 800                   | 44,670                    | 54,700  | 1,100                        | 1,100        | 4,800        | 4,800      |
|               | BX800HAE $\Delta$ P  | 85                         | 65     |                       | 52,560                    | 59,880  |                              |              |              |            |
| 1000          | BX1000RAE $\Delta$ P | 85                         | 50     | 1000                  | 76,220                    | 85,000  | 1,100                        | 1,100        | 4,800        | 4,800      |
|               | BX1000HAE $\Delta$ P | 85                         | 65     |                       | 83,400                    | 99,180  |                              |              |              |            |
| 1250          | BX1250RAE $\Delta$ P | 85                         | 50     | 1250                  | 88,000                    | 91,420  | 1,100                        | 1,100        | 4,800        | 4,800      |
|               | BX1250HAE $\Delta$ P | 85                         | 65     |                       | 97,220                    | 101,000 |                              |              |              |            |
| 1600          | BX1600RAE $\Delta$ P | 85                         | 50     | 1600                  | 99,880                    | 129,400 | 1,100                        | 1,100        | 4,800        | 4,800      |
|               | BX1600HAE $\Delta$ P | 85                         | 65     |                       | 112,300                   | 145,500 |                              |              |              |            |

NOTE :  $\Delta$  = Poles (3P, 4P) / AT = Adjust Current (0.4-1 In)

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## ELCB EW Series

### Earth Leakage Circuit Breaker



#### Feature

- Complies with the major international standards and certifications. (IEC,JIS,CE,TUV,CCC)
- High performance and compact design breaker by FUJI's ingenious ablation breaking technology.
- Pursuit of user friendliness by standardization of internal accessory parts. (32/50/63/100AF, 125/250AF, 400/630/800AF)
- High workability can be obtained since the removal of ELCB wiring is not required at dielectric test during inspection.
- Contributes to safety and compactness by furnishing new three-phase power supply circuit acts in the event of ground fault even when the loss of one phase occurs in a three-phase system (Required in the revised IEC60947-2).
- Equipped with the newly developed leakage detection circuit, noise surge performance improves even better.
- Material description of major components, compliance with RoHS Directive, and lower environmental impact by Cadmium-free contact. (be subject to some exceptions.)

### FUJI EARTH LEAKAGE CIRCUIT BREAKER

| FRAME<br>(AF) | TYPE          | INTERRUPTING<br>CAPACITY (Ka) |         | RATED<br>CURRENT<br>(AT)                | SENSITIVE<br>CURRENT<br>(mA) | Unit Price (THB)<br>POLES |    |    | ACCESSORIES<br>Unit Price (THB) |              |       |     |
|---------------|---------------|-------------------------------|---------|---|------------------------------|---------------------------|----|----|---------------------------------|--------------|-------|-----|
|               |               | 230 VAC                       | 400 VAC |   |                              | 2P                        | 3P | 4P | AUX.<br>Sw.                     | Alarm<br>Sw. | Shunt | UVT |
|               |               |                               |         |   |                              |                           |    |    | (W)                             | (K)          | (F)   | (R) |
| 32            | EW32AAG-△P□○  | 2.5                           | -       | 5, 10, 15, 20,<br>30, 32                | 15, 30, 100                  | ●                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW32EAG-△P□○  | 2.5                           | 1.5     | 5, 10, 15, 20,<br>30, 32                | 15, 30, 100                  | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW32SAG-△P□○  | 5                             | 2.5     | 3, 5, 10, 15, 20,<br>30,32              | 30, 100/200/500              | -                         | ●  | -  | ●                               | ●            | -     | -   |
| 50            | EW50AAG-△P□○  | 2.5                           | -       | 5, 10, 15, 20, 30,<br>32, 40, 50        | 15, 30, 100                  | ●                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW50EAG-△P□○  | 5                             | 2.5     | 5, 10, 15, 20, 30,<br>32, 40, 50        | 15, 30, 100/200              | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW50SAG-△P□○  | 10                            | 7.5     | 5, 10, 15, 20, 30,<br>32, 40, 50        | 30, 100/200/500              | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW50RAG-△P□○  | 25                            | 10      | 10, 15, 20, 30, 32,<br>40, 50           | 30, 100/200/500              | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW50HAG-△P□○  | 125                           | 65      | 15, 20, 30, 40, 50                      | 30, 100/200/500/1000         | -                         | ●  | -  | ●                               | ●            | -     | -   |
| 60            | EW63EAG-△P□○  | 5                             | 2.5     | 60, 63                                  | 15, 30, 100/200              | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW63SAG-△P□○  | 10                            | 7.5     | 60, 63                                  | 30, 100/200/500              | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW63RAG-△P□○  | 25                            | 10      | 60, 63                                  | 30, 100/200/500              | -                         | ●  | -  | ●                               | ●            | -     | -   |
| 100           | EW100AAG-△P□○ | 5                             | -       | 60, 63, 75, 100                         | 30, 100/200/500              | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW100EAG-△P□○ | 10                            | -       | 50, 60, 63, 75, 100                     | 30, 100/200                  | ●                         | -  | -  | ●                               | ●            | -     | -   |
|               | EW100SAG-△P□○ | 25                            | 10      | 50, 60, 63, 75, 100                     | 30, 100/200/500              | -                         | ●  | -  | ●                               | ●            | -     | -   |
| 125           | EW125JAG-△P□○ | 50                            | 30      | 15, 20, 30, 40, 50,<br>60, 75, 100, 125 | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
|               | EW125SAG-△P□○ | 85                            | 36      | 15, 20, 30, 40, 50,<br>60, 75, 100, 125 | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
|               | EW125RAG-△P□○ | 100                           | 50      | 15, 20, 30, 40, 50,<br>60, 75, 100, 125 | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
|               | EW125HAG-△P□○ | 125                           | 65      | 15, 20, 30, 40, 50,<br>60, 75, 100, 125 | 30, 100/200/500/1000         | -                         | ●  | -  | -                               | -            | -     | -   |

| FRAME<br>(AF) | TYPE          | INTERRUPTING<br>CAPACITY (Ka) |            | RATED<br>CURRENT<br>(AT)             | SENSITIVE<br>CURRENT<br>(mA) | Unit Price (THB)<br>POLES |    |    | ACCESSORIES<br>Unit Price (THB) |              |       |     |
|---------------|---------------|-------------------------------|------------|--------------------------------------|------------------------------|---------------------------|----|----|---------------------------------|--------------|-------|-----|
|               |               | 230<br>VAC                    | 400<br>VAC |                                      |                              | 2P                        | 3P | 4P | AUX.<br>Sw.                     | Alarm<br>Sw. | Shunt | UVT |
|               |               |                               |            |                                      |                              |                           |    |    | (W)                             | (K)          | (F)   | (R) |
| 160           | EW160EAG-△P□○ | 36                            | 18         | 125, 150, 160                        | 30, 100/200/500/1000         | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW160JAG-△P□○ | 50                            | 30         | 125, 150, 160                        | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
|               | EW160SAG-△P□○ | 85                            | 36         | 125, 150, 160                        | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
|               | EW160RAG-△P□○ | 100                           | 50         | 125, 150, 160                        | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
| 250           | EW250EAG-△P□○ | 36                            | 18         | 125, 150, 160, 175, 200,<br>225, 250 | 30, 100/200/500/1000         | -                         | ●  | -  | ●                               | ●            | -     | -   |
|               | EW250JAG-△P□○ | 50                            | 30         | 125, 150, 160, 175, 200,<br>225, 250 | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
|               | EW250SAG-△P□○ | 85                            | 36         | 125, 150, 160, 175, 200,<br>225, 250 | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
|               | EW250RAG-△P□○ | 100                           | 50         | 125, 150, 160, 175, 200,<br>225, 250 | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | -     | -   |
|               | EW250HAG-△P□○ | 125                           | 65         | 125, 150, 160, 175, 200,<br>225, 250 | 30, 100/200/500/1000         | -                         | ●  | -  | -                               | -            | -     | -   |
| 400           | EW400EAG-△P□○ | 50                            | 30         | 250, 300, 350, 400                   | 30, 100/200/500/1000         | -                         | ●  | -  | ●                               | ●            | ●     | ●   |
|               | EW400SAG-△P□○ | 85                            | 36         | 250, 300, 350, 400                   | 30, 100/200/500/1000         | -                         | ●  | -  | ●                               | ●            | ●     | ●   |
|               | EW400RAG-△P□○ | 100                           | 50         | 250, 300, 350, 400                   | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | ●     | ●   |
|               | EW400HAG-△P□○ | 125                           | 70         | 250, 300, 350, 400                   | 30, 100/200/500/1000         | -                         | ●  | ●  | ●                               | ●            | ●     | ●   |
| 600           | EW630EAG-△P□○ | 50                            | 36         | 500, 600, 630                        | 100/200/500/1000             | -                         | ●  | -  | ●                               | ●            | ●     | ●   |
|               | EW630RAG-△P□○ | 100                           | 50         | 500, 600, 630                        | 100/200/500/1000             | -                         | ●  | -  | ●                               | ●            | ●     | ●   |
|               | EW630HAG-△P□○ | 125                           | 70         | 500, 600, 630                        | 100/200/500/1000             | -                         | ●  | -  | ●                               | ●            | ●     | ●   |
| 800           | EW800EAG-△P□○ | 50                            | 36         | 700, 800                             | 100/200/500/1000             | -                         | ●  | -  | ●                               | ●            | ●     | ●   |
|               | EW800RAG-△P□○ | 100                           | 50         | 700, 800                             | 100/200/500/1000             | -                         | ●  | -  | ●                               | ●            | ●     | ●   |
|               | EW800HAG-△P□○ | 125                           | 70         | 700, 800                             | 100/200/500/1000             | -                         | ●  | -  | ●                               | ●            | ●     | ●   |

**NOTE :** △ = Poles (2P, 3P, 4P)

□ = Rated Current (AT)

○ = SENSITIVE CURRENT (mA)

A = 15mA, B = 30mA, C = 100mA, J = 100/300/500/1000mA, K = 100/200mA or 100/200/500mA or 100/200/500/1000mA (Changeover Type)

- If you want price of ELCB, please contact to Fuji Electric (Thailand) Co., Ltd.
- Not available product

- Prices are not included VAT

- Prices are subjected to change without notice



## BE1 Series

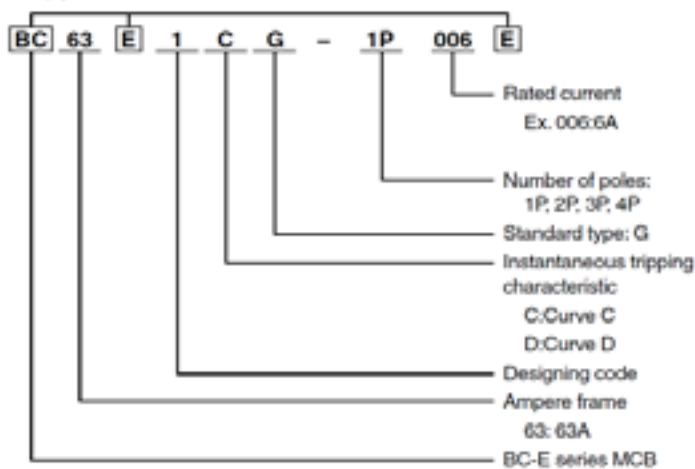
### Miniature Circuit Breakers

#### ■ BE1 Series Miniature Circuit Breaker Standards

#### Application

- Curve C: Illumination distribution system  
Curve D: Industrial distribution system
- Overload and short circuit protection

#### ● Type number nomenclature



#### Standards and Certificates

- IEC 60898-1, GB 10963.1
- CE, CCC

#### Working Condition

- Ambient temperature: -35°C to +70°C
- Altitude: ≤2000m
- Air humidity: ≤95%
- Pollution degree: II
- A place where there should not be significant shock or vibration

#### Product Features

- With short circuit current limiting structure-high breaking capacity of lated short circuit.
- Short-circuit and overload protection
- Screw clamp, shock-proof wiring terminals
- Numerous accessories available
- Modularization-random combination, series mating
- Standard TH35 mm IEC rail mounting

#### Specifications

- Rated voltage: AC230/400V, 50/60Hz
- Rated current: Curve C 1-63A  
Curve D 1-40A
- Mechanical life: 10000 times
- Tripping characteristic: C: 5~10I<sub>n</sub>  
D: 10-14I<sub>n</sub>

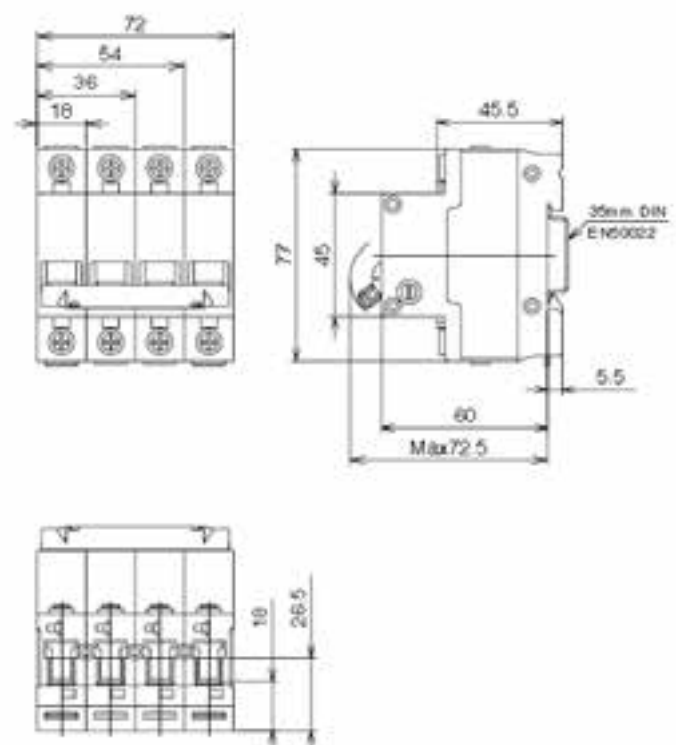
#### ● Breaking capacity

| Tripping Characteristic | Rated current (A) | Rated operational voltage (v) | Rated breaking capacity (kA) |
|-------------------------|-------------------|-------------------------------|------------------------------|
|                         | 1-40              | 230/400                       | 6                            |
| Curve C                 | 50,63             | 230/400                       | 4.5                          |
| Curve D                 | 1-40              | 230/400                       | 4.5                          |

#### ● Wiring Capacity

| Rated current (A) | Wire size (mm <sup>2</sup> ) |
|-------------------|------------------------------|
| I <sub>n</sub> 63 | 25                           |

#### ● Dimensions, mm



## BE1 Series

### Miniature Circuit Breakers

<2Layer Offer “BE1 Series”>



| TYPE          | POLE | Rated breaking capacity (kA) |        | RATED CURRENT (A)                        | Unit Price (THB) |
|---------------|------|------------------------------|--------|--|------------------|
|               |      | 230VAC                       | 400VAC |  |                  |
| BC32E1CN-1P□E | 1P+N | 4.5                          | -      | 6, 10, 16, 20, 25, 32                    | 375              |
| BC63E1CG-1P□E | 1P   | 6                            | 6      | 1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40 | 190              |
| BC63E1CG-1P□E | 1P   | 4.5                          | 4.5    | 50, 60                                   | 190              |
| BC63E1DG-1P□E | 1P   | 4.5                          | 4.5    | 1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40 | 300              |
| BC63E1CG-2P□E | 2P   | 6                            | 6      | 1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40 | 390              |
| BC63E1CG-2P□E | 2P   | 4.5                          | 4.5    | 50, 60                                   | 390              |
| BC63E1DG-2P□E | 2P   | 4.5                          | 4.5    | 1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40 | 390              |
| BC63E1CG-3P□E | 3P   | 6                            | 6      | 1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40 | 635              |
| BC63E1CG-3P□E | 3P   | 4.5                          | 4.5    | 50, 60                                   | 635              |
| BC63E1DG-3P□E | 3P   | 4.5                          | 4.5    | 1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40 | 635              |
| BC63E1CG-4P□E | 4P   | 6                            | 6      | 1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40 | 1,015            |
| BC63E1CG-4P□E | 4P   | 4.5                          | 4.5    | 50, 60                                   | 1,015            |
| BC63E1DG-4P□E | 4P   | 4.5                          | 4.5    | 1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40 | 1,015            |

NOTE : □ = Rated Current (A)

| ACCESSORIES |       |         | Unit Price (THB) |
|-------------|-------|---------|------------------|
| BC9W1SA1-E  | (W)   | Aux, SW | 630              |
| BC9K1SA1-E  | (K)   | Alarm   | 790              |
| BC9FRA1-E   | (F+W) | Shunt   | 2,650            |
| BC9FKA1-E   | (F+K) | Shunt   | 2,650            |

- Prices are not included VAT
- Prices are subjected to change without notice

## CP 30 F Series

### Circuit Protector



#### Feature

- Ultra-slim 17.5 mm per pole width
- Standard types conform to Japanese and major overseas standards IEC/EN (CE), GB (CCC), UL/CSA, KC (South Korea), JIS, PSE (Japan)
- AC/DC compatible (1P and 2P)
- Screw lift-up terminals offer finger protection (1P20 equivalent) structure without terminal cover
- Revised terminal arrangement of auxiliary circuit improves ease of wiring
- Auxiliary/alarm switch (1 NO or 1 NC) can be integrated (1P:1 switch, 2P, 3P:2 switches), standard types provided with terminal cover for auxiliary circuit
- Shunt trip equipped devices also available

| Type       | Poles | Rated Current                            | Unit Price (THB) |
|------------|-------|--|------------------|
| CP30FI-1P□ | 1P    | 0.1,0.3,0.5,1,2,3,5,7,10,15,<br>20,25,30 | 850              |
| CP30FM-1P□ | 1P    | 0.1,0.3,0.5,1,2,3,5,7,10,15,<br>20,25,30 | 850              |
| CP30FS-1P□ | 1P    | 0.1,0.3,0.5,1,2,3,5,7,10,15,<br>20,25,30 | 850              |
| CP30FI-2P□ | 2P    | 0.1,0.3,0.5,1,2,3,5,7,10,15,<br>20,25,30 | 1,830            |
| CP30FM-2P□ | 2P    | 0.1,0.3,0.5,1,2,3,5,7,10,15,<br>20,25,30 | 1,830            |
| CP30FS-2P□ | 2P    | 0.1,0.3,0.5,1,2,3,5,7,10,15,<br>20,25,30 | 1,830            |
| CP30FI-3P□ | 3P    | 0.1,0.3,0.5,1,2,3,5,7,10,15,<br>20,25,30 | 2,790            |

**NOTE :** □ = Rated Current  
P = Poles (1,2,3)  
S = Long time delay  
M = Medium time delay  
I = Instantaneous

### Accessories

| Item                            | Type                 | Unit Price (THB) |
|---------------------------------|----------------------|------------------|
| Terminal cover for aux. circuit | CP-T8 (1 pack=20pcs) | 990              |
| Terminal cover for aux. circuit | CP-T8/1 (1 pack=1pc) | 60               |

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### Add on price

| Item   |                       | Type          | Unit Price (THB) |
|--|-----------------------|---------------|------------------|
| <b>Standard Load</b>                                 | auxiliary switch (NO) | <b>WA</b>     | 265              |
|  | auxiliary switch (NC) | <b>WB</b>     |                  |
|  | alarm switch (NO)     | <b>KA</b>     | 265              |
|  | alarm switch (NC)     | <b>KB</b>     |                  |
| <b>Low level circuit</b>                             | auxiliary switch (NO) | <b>W1A</b>    | 265              |
|  | auxiliary switch (NC) | <b>W1B</b>    |                  |
|  | alarm switch (NO)     | <b>K1A</b>    | 265              |
|  | alarm switch (NC)     | <b>K1B</b>    |                  |
| <b>Combination<br/>Auxiliary switch+alarm switch</b> |                       | <b>WAWA</b>   | 530              |
|  |                       | <b>WAWB</b>   |                  |
|  |                       | <b>WBWB</b>   |                  |
|  |                       | <b>WAKA</b>   | 530              |
|  |                       | <b>WAKB</b>   |                  |
|  |                       | <b>WBKA</b>   | 570              |
|  |                       | <b>WBKB</b>   |                  |
|  |                       | <b>W1AW1A</b> |                  |
|  |                       | <b>W1AW1B</b> |                  |
|  |                       | <b>W1BW1B</b> | 570              |
|  |                       | <b>W1AK1A</b> |                  |
|  |                       | <b>W1AK1B</b> |                  |
|  |                       | <b>W1BK1A</b> |                  |
|  |                       | <b>W1BK1B</b> |                  |
| Inertia delay  |                       | <b>D</b>      | 85               |

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## SW Series

### Magnetic Contactors and Overload Relay

#### Feature

- Can be controlled remotely instead of manual switch.
- Safety in control and maintenance.
- Accuracy
- Motor protection in case lack of phase



| SW Model  | Max motor Capacity (kW) |          | Combination Between | Aux. Con. |    | *Coil Voltage |     |      |      |      | Unit Price (THB) |
|-----------|-------------------------|----------|---------------------|-----------|----|---------------|-----|------|------|------|------------------|
|           | 200-220V                | 380-440V |                     | NO        | NC | 24V           | 48V | 120V | 240V | 400V |                  |
| SW-03/3H  | 2.5                     | 4        | SC-03 + TR- ON/3    | 1         | -  | x             | x   | x    | x    | x    | 1,190            |
| SW-0/3H   | 3.5                     | 5.5      | SC-0 + TR - ON/3    | 1         | -  | x             | x   | x    | x    | x    | 1,400            |
| SW-05/3H  | 3.5                     | 5.5      | SC-05 + TR - ON/3   | 1         | 1  | x             | x   | x    | x    | x    | 1,600            |
| SW-4-0/3H | 4.5                     | 7.5      | SC-4-0 + TR -5-1N/3 | 1         | -  | x             | x   | x    | x    | x    | 1,945            |
| SW-4-1/3H | 5.5                     | 11       | SC-4-1 + TR -5-1N/3 | 1         | -  | x             | x   | x    | x    | x    | 2,115            |
| SW-5-1/3H | 5.5                     | 11       | SC-5-1 + TR -5-1N/3 | 1         | 1  | x             | x   | x    | x    | x    | 2,090            |
| SW-N1/3H  | 7.5                     | 15       | SC-N1 + TR- N2/3    | 2         | 2  | x             | x   | x    | x    | x    | 2,935            |
| SW-N2/3H  | 11                      | 18.5     | SC-N2 + TR- N2/3    | 2         | 2  | x             | x   | x    | x    | x    | 3,440            |
| SW-N2S/3H | 15                      | 22       | SC-N2S + TR- N3/3   | 2         | 2  | x             | x   | x    | x    | x    | 4,475            |
| SW-N3/3H  | 18.5                    | 30       | SC-N3 + TR- N3/3    | 2         | 2  | x             | x   | x    | x    | x    | 5,170            |
| SW-N4/3H  | 22                      | 40       | SC-N4 + TR- N5/3    | 2         | 2  | x             | x   | x    | x    | x    | 7,625            |
| SW-N5A/3H | 30                      | 55       | SC-N5A + TR- N5/3   | 2         | 2  | x             | x   | x    | x    | x    | 8,970            |
| SW-N6/3H  | 37                      | 60       | SC-N6 + TR- N6/3    | 2         | 2  | o             | o   | o    | o    | x    | 11,805           |
| SW-N7/3H  | 45                      | 75       | SC-N7 + TR- N7/3    | 2         | 2  | o             | o   | o    | o    | x    | 16,860           |
| SW-N8/3H  | 55                      | 90       | SC-N8 + TR- N8/3    | 2         | 2  | o             | o   | o    | o    | x    | 19,060           |
| SW-N10/3H | 65                      | 110      | SC-N10 + TR- N10/3  | 2         | 2  | o             | o   | o    | o    | x    | 27,455           |
| SW-N11/3H | 90                      | 160      | SC-N11 + TR- N2/3   | 2         | 2  | o             | o   | o    | o    | x    | 36,520           |
| SW-N12/3H | 120                     | 220      | SC-N12 + TR- N12/3  | 2         | 2  | o             | o   | o    | o    | x    | 49,385           |
| SW-N14/3H | 180                     | 315      | SC-N14 + TR- N14/3  | 2         | 2  | o             | o   | o    | o    | x    | 93,965           |

**NOTE :** \* X : Coil operating voltage AC

O : Coil operating voltage both AC or DC

- Prices are not included VAT

- Prices are subjected to change without notice

## SC Series

### Magnetic Contractor 3 phase



#### Feature

- Electrical life: 2,000,000 operations (SC-N3 or smaller)
- Bifurcated auxiliary contacts for greater reliability
- Compliance with international standards (UL, CSA, IEC, LR, BV, etc)
- Easier to use (structured to enable easy coil replacement)
- High operating reliability due to a super magnet with built-in IC (SC-N6 or larger)  
(Prevents coil burning due to voltage fluctuations and contact fusing due to floppy operation; enables using the same coils for AC/DC, increase the range, reduces switching noise, etc)
- Mirror contacts are a standard feature
- A wide range of options

| SC Model | AC3, IE947-4-1 |          | Rated Operational |          | Auxiliary |    | *Coil Voltage |     |      |      |      | Unit Price (THB) |
|----------|----------------|----------|-------------------|----------|-----------|----|---------------|-----|------|------|------|------------------|
|          | 200-220V       | 380-440V | Current (A)       |          | Contact   |    | 24V           | 48V | 120V | 240V | 400V |                  |
|          |                |          | 200-220V          | 380-440V | NO        | NC |               |     |      |      |      |                  |
| SC-03    | 2.5            | 4        | 11                | 9        | 1         | -  | x             | x   | x    | x    | x    | 650              |
| SC-0     | 3.5            | 5.5      | 13                | 12       | 1         | -  | x             | x   | x    | x    | x    | 720              |
| SC-05    | 3.5            | 5.5      | 13                | 12       | 1         | 1  | x             | x   | x    | x    | x    | 890              |
| SC-4-0   | 4.5            | 7.5      | 18                | 16       | 1         | -  | x             | x   | x    | x    | x    | 1,065            |
| SC-4-1   | 5.5            | 11       | 22                | 22       | 1         | -  | x             | x   | x    | x    | x    | 1,235            |
| SC-5-1   | 5.5            | 11       | 22                | 22       | 1         | 1  | x             | x   | x    | x    | x    | 1,295            |
| SC-N1    | 7.5            | 15       | 32                | 32       | 2         | 2  | x             | x   | x    | x    | x    | 1,875            |
| SC-N2    | 11             | 18.5     | 40                | 40       | 2         | 2  | x             | x   | x    | x    | x    | 2,545            |
| SC-N2S   | 15             | 22       | 50                | 50       | 2         | 2  | x             | x   | x    | x    | x    | 3,125            |
| SC-N3    | 18.5           | 30       | 65                | 65       | 2         | 2  | x             | x   | x    | x    | x    | 3,820            |
| SC-N4    | 22             | 40       | 80                | 80       | 2         | 2  | x             | x   | x    | x    | x    | 5,440            |
| SC-N5A   | 30             | 55       | 105               | 105      | 2         | 2  | x             | x   | x    | x    | x    | 5,720            |
| SC-N6    | 37             | 60       | 125               | 125      | 2         | 2  | o             | o   | o    | o    | x    | 8,455            |
| SC-N7    | 45             | 75       | 150               | 150      | 2         | 2  | o             | o   | o    | o    | x    | 12,160           |
| SC-N8    | 55             | 90       | 180               | 180      | 2         | 2  | o             | o   | o    | o    | x    | 14,010           |
| SC-N10   | 65             | 110      | 220               | 220      | 2         | 2  | o             | o   | o    | o    | x    | 18,875           |
| SC-N11   | 90             | 160      | 300               | 300      | 2         | 2  | o             | o   | o    | o    | x    | 25,115           |
| SC-N12   | 120            | 220      | 400               | 400      | 2         | 2  | o             | o   | o    | o    | x    | 37,285           |
| SC-N14   | 180            | 315      | 600               | 600      | 2         | 2  | o             | o   | o    | o    | x    | 78,965           |
| SC-N16   | 220            | 400      | 800               | 800      | 2         | 2  | o             | o   | o    | o    | x    | 11,4630          |

**NOTE :** \* X : Coil operating voltage AC

O : Coil operating voltage both AC or DC

- Prices are not included VAT

- Prices are subjected to change without notice

## TR Series

### Thermal Overload Relay 3 element



#### Feature

- There is STOP-TEST button to test yourself
- Manual/Auto reset
- Contact with 1NO+1NC

| TR Model  | Used with SC type | Thermal overload Setting range (A)   | Unit Price (THB) |
|-----------|-------------------|--|------------------|
| TR-0N/3   | SC-03             | 0.1-0.15/0.15-0.24/0.24-0.36/0.36-0.54/0.48-0.72<br>/0.64-0.96/0.8-1.2/0.95-1.45/1.4-2.2/1.7-2.6<br>/2.2-3.4/2.8-4.2/4-6/5-8/6-9/7-11                  | 850              |
|           | SC-0/SC-05        | 0.1-0.15/0.15-0.24/0.24-0.36/0.36-0.54/0.48-0.72<br>/0.64-0.96/0.8-1.2/0.95-1.45/1.4-2.2/1.7-2.6<br>/2.2-3.4/2.8-4.2/4-6/5-8/6-9/7-11/9-13             |                  |
| TR-5-1N/3 | SC-4-0            | 0.1-0.15/0.15-0.24/0.24-0.36/0.36-0.54/0.48-0.72<br>/0.64-0.96/0.8-1.2/0.95-1.45/1.4-2.2/1.7-2.6<br>/2.2-3.4/2.8-4.2/4-6/5-8/6-9/7-11/9-13/12-18/16-22 | 880              |
|           | SC-4-1            |  |                  |
|           | SC-5-1            |  |                  |
| TR-N2/3   | SC-N1             | 4-6/5-8/6-9/7-11/9-13/12-18/18-26/24-36  | 1.060            |
|           | SC-N2             | 4-6/5-8/6-9/7-11/9-13/12-18/18-26/24-36/32-42  |                  |
| TR-N3/3   | SC-N2S            | 7-11/9-13/12-18/18-26/24-36/28-40/34-50/45-65  | 1.350            |
|           | SC-N3             | 7-11/9-13/12-18/18-26/24-36/28-40/34-50/45-65/48-68  |                  |
| TR-N5/3   | SC-N4             | 18-26/24-36/28-40/34-50/45-65/53-80  | 3.250            |
|           | SC-N5A            | 18-26/24-36/28-40/34-50/45-65/53-80/65-95/85-105   |                  |
| TR-N6/3   | SC-N6             | 45-65/53-80/65-95/85-125   | 3.350            |
| TR-N7/3   | SC-N7             | 45-65/53-80/65-95/85-125/110-160   | 4.700            |
| TR-N8/3   | SC-N8             | 65-95/85-125/110-160/125-185   | 5.050            |
| TR-N10/3  | SC-N10            | 85-125/110-160/125-185/160-240   | 8.580            |
| TR-N12/3  | SC-N11            | 110-160/125-185/160-240/200-300  | 12.100           |
|           | SC-N12            | 160-240/200-300/240-360/300-450  |                  |
| TR-N14/3  | SC-N14            | 240-360/300-450/400-600  | 15.000           |

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- Prices are subjected to change without notice

## SC Series

Spare Parts for Magnetic Contactors



### Accessories for SC (W)-03 to SC (W)-5-1

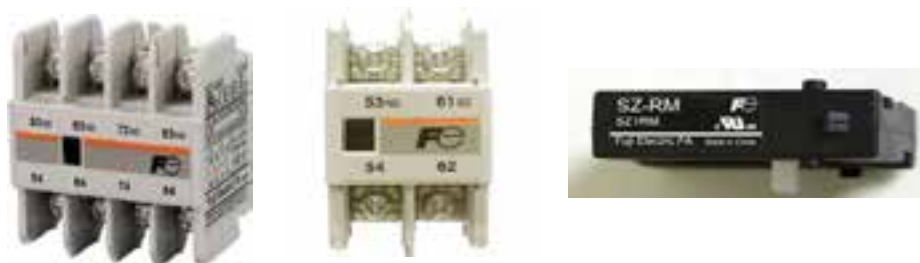
| Used for contactor Type | Unit Price (THB) |               |                |
|-------------------------|------------------|---------------|----------------|
|                         | Coil             | Fixed Contact | Moving Contact |
| SC-03                   | 490              | 60            | 70             |
| SC-03                   | 490              | 60            | 70             |
| SC-05                   | 490              | 60            | 70             |
| SC-4-0                  | 490              | 120           | 130            |
| SC-4-1                  | 490              | 120           | 130            |
| SC-5-1                  | 490              | 120           | 130            |
| SC-N1                   | 690              | 190           | 330            |
| SC-N2                   | 690              | 190           | 520            |
| SC-N2S                  | 770              | 280           | 610            |
| SC-N3                   | 770              | 300           | 630            |
| SC-N4                   | 5,160            | 370           | 820            |
| SC-N5A                  | 5,460            | 400           | 1,120          |
| SC-N6                   | 5,880            | 450           | 1,330          |
| SC-N7                   | 5,880            | 930           | 2,010          |
| SC-N8                   | 6,780            | 1,540         | 3,080          |
| SC-N10                  | 6,780            | 1,540         | 3,080          |
| SC-N11                  | 7,930            | 2,160         | 5,320          |
| SC-N12                  | 7,930            | 2,160         | 5,460          |
| SC-N14                  | 15,820           | 3,620         | 7,400          |

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 - Prices are subjected to change without notice



## SC Series

Optional Unit for Magnetic Contactor (SC - 03 - SC - 5 - 1) and (N1 - N3)



| Optional Unit           |                | Type   | Contact Arrangement | Unit Price (THB) |
|-------------------------|----------------|--------|---------------------|------------------|
| Auxiliary Contact Block | Front Mounting | SZ A11 | 1NO + 1NC           | 305              |
|                         |                | SZ A22 | 2NO + 2NC           | 430              |
|                         | Side Mounting  | SZ AS1 | 1NO + 1NC           | 450              |
|                         |                | SZ AS2 | 1NO + 1NC           | 405              |
| Mechanical Interlock    |                | SZ RM  |                     | 420              |

## SRC and SH series

Industrial Relay 3 phase

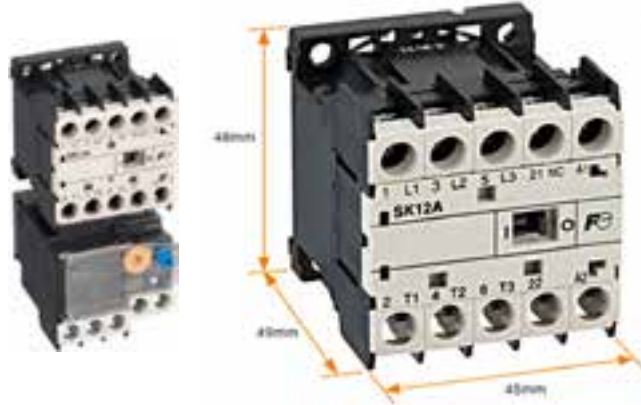


| Industrial Relay Model | Related Thermal Current (A) | Contact Arrangement |    | Rated Voltage (V) | Coil Voltage |      | Unit Price (THB) |
|------------------------|-----------------------------|---------------------|----|-------------------|--------------|------|------------------|
|                        |                             | NO                  | NC |                   | 220V         | 380V |                  |
| SH 4/4                 | 10                          | 2                   | 2  | 550               | X            | X    | 820              |
| SH 4/8                 | 10                          | 4                   | 4  | 550               | X            | X    | 1,200            |
| SH 5/5                 | 10                          | 3                   | 2  | 550               | X            | X    | 1,045            |

- Please do not use auxiliary contact front mounting type and side mounting type at the same time
- Prices are not included VAT
- Prices are subjected to change without notice

## SK Series

### Magnetic Contactors 3 phase



#### Feature

- Motor Control components
- Low voltage equipment up to 600 volts
- Magnetic contactors, Magnetic starters
- Mini-Contactors and Thermal Overload Relays

| SK Model                       | Max Motor Capacity (kW) AC3, IEC947-4-1 |          | Rated Operational Current (A) |          | Auxiliary Contact |    | *Coil Voltage |     |     |      |      |      | Unit Price (THB) |       |
|--------------------------------|---|----------|-------------------------------|----------|-------------------|----|---------------|-----|-----|------|------|------|------------------|-------|
|                                | 200-220V                                | 380-440V | 200-220V                      | 380-440V | NO                | NC | 12V           | 24V | 48V | 120V | 220V | 240V |                  | 380V  |
| <b>SK-06A (AC)</b>             | 1.5                                     | 2.2      | 6                             | 6        | 10                |    | -             | x   | x   | x    | x    | x    | x                | 555   |
| <b>SK-09A (AC)</b>             | 2.2                                     | 4        | 9                             | 9        | 10                |    | -             | x   | x   | x    | x    | x    | x                | 585   |
| <b>SK-12A (AC)</b>             | 3                                       | 5.5      | 12                            | 12       | 10                |    | -             | x   | x   | x    | x    | x    | x                | 645   |
| <b>SK-06G (DC)<br/>(2.4W)</b>  | 1.5                                     | 2.2      | 6                             | 6        | 10                |    | o             | o   | o   | o    | o    | -    | -                | 945   |
| <b>SK-09G (DC)<br/>(2.4 W)</b> | 2.2                                     | 4        | 9                             | 9        | 10                |    | o             | o   | o   | o    | o    | -    | -                | 995   |
| <b>SK-12G (DC)<br/>(2.4 W)</b> | 3                                       | 5.5      | 12                            | 12       | 10                |    | o             | o   | o   | o    | o    | -    | -                | 2,190 |
| <b>SK-06L (DC)<br/>(1.2 W)</b> | 1.5                                     | 2.2      | 6                             | 6        | 10                |    | o             | o   | o   | -    | -    | -    | -                | 990   |
| <b>SK-09L (DC)<br/>(1.2 W)</b> | 2.2                                     | 4        | 9                             | 9        | 10                |    | o             | o   | o   | -    | -    | -    | -                | 1,045 |
| <b>SK-12L (DC)<br/>(1.2 W)</b> | 3                                       | 5.5      | 12                            | 12       | 10                |    | o             | o   | o   | -    | -    | -    | -                | 2,300 |

**NOTE :** \* X : Coil operating voltage AC

o : Coil operating voltage both DC

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## TK Series

Overload and Phase-loss  
Protection Relay 3 element



### Feature

- Accuracy
- Motor protection in case lack of phase
- There is STOP-TEST button to test yourself
- Manual/Auto test

| TR Model | Used with SC type | Thermal overload Setting range (A)  | Unit Price (THB) |
|----------|-------------------|---|------------------|
| TK-12W   | SK-06             | 0.1-0.15/0.13-0.2/0.18-0.27/0.24-0.36/0.3-0.45/<br>0.34-0.52/0.48-0.72/0.64-0.96<br>0.8-1.2/0.95-1.45/1.4-2.1/1.7-2.6/2.2-3.4/2.8-4.2/4-6                           | 850              |
|          | SK-09             | 0.1-0.15/0.13-0.2/0.18-0.27/0.24-0.36/0.3-0.45/<br>0.34-0.52/0.48-0.72/0.64-0.96/0.8-1.2/0.95-1.45/1.4-2.1/<br>1.7-2.6/2.2-3.4/2.8-4.2/4-6/5-7.5/6-9                |                  |
|          | SK-12             | 0.1-0.15/0.13-0.2/0.18-0.27/0.24-0.36/0.3-0.45/<br>0.34-0.52/0.48-0.72/0.64-0.96<br>0.8-1.2/0.95-1.45/1.4-2.1/1.7-2.6/2.2-3.4/2.8-4.2/4-6/<br>5-7.5/6-9/7-10.5/9-13 |                  |

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## CT and PT for Low Voltage

### Feature

The FUJI low-voltage instrument transformers are available as current transformer and potential transformer. These transformers have maximum voltage of 1150V and are suitable for circuits up to 600V. Winding have excellent mechanical thermal and electrical performance since CT's are molded in polyeaster resin and VT's in epoxy resin. They are also moisture proof and have good insulation properties. The laminated iron core is made of oriented silicon steel strip. Both VT's and CT's have a class 1.0 accuracy rating and conform to the requirements of JIS C 1731, JEC 1201 and other standards. Current transformers are available in either through type or primary-winding version



### CURRENT TRANSFORMER

| TYPE  | PRIMARY CURRENT (A) | BURDEN (VA) | ACCURACY CLASS | Unit Price (THB) |
|-------|---------------------|-------------|----------------|------------------|
| CC3L1 | 100, 120, 150, 200  | 5           | 1.0            | 1,365            |
|       | 250, 300, 400       | 5           | 1.0            | 1,365            |
|       | 500, 600, 750       | 5           | 1.0            | 1,705            |
| CC3L2 | 150, 180, 200       | 15          | 1.0            | 1,815            |
|       | 240, 250, 300, 400  | 15          | 1.0            | 1,815            |
|       | 500, 600, 750       | 15          | 1.0            | 2,265            |
| CC3L3 | 150, 180, 200       | 40          | 1.0            | 2,495            |
|       | 240, 250, 300, 400  | 40          | 1.0            | 2,605            |
|       | 500, 600, 750       | 40          | 1.0            | 2,265            |
| CC3P1 | 5, 10, 15, 20, 30   | 5           | 1.0            | 2,265            |
| CC3P2 | 5, 10, 15, 20, 30   | 15          | 1.0            | 3,070            |
| CC3P3 | 5, 10, 15, 20, 30   | 40          | 1.0            | 4,200            |
| CC3M2 | 200, 250, 300       | 15          | 1.0            | 2,730            |
|       | 400, 500,           | 15          | 1.0            | 2,730            |
|       | 600, 750            | 15          | 1.0            | 3,400            |
| CC3M3 | 200, 250            | 40          | 1.0            | 4,765            |
|       | 300, 400, 500       | 40          | 1.0            | 4,765            |
|       | 600, 750, 800       | 40          | 1.0            | 5,105            |
|       | 1000, 1200, 1500    | 40          | 1.0            | 6,345            |
|       | 2000                | 40          | 1.0            | 6,920            |
|       | 2500, 3000          | 40          | 1.0            | 15,860           |
|       | 4000                | 40          | 1.0            | 17,910           |
|       | 5000                | 40          | 1.0            | 58,915           |
|       | 6000                | 40          | 1.0            | 61,180           |



### POTENTIAL TRANSFORMER

| TYPE     | Pri.Volt (V) | Sec. Volt (V) | BURDEN (VA) | Unit Price (THB) |
|----------|--------------|---------------|-------------|------------------|
| CD32N-21 | 220          | 110           | 15          | 9,350            |
| CD32N-41 | 440          | 110           | 15          | 9,350            |
| CD32N-Z1 | 380, 400     | 110           | 15          | 15,885           |
| CD34N-21 | 220          | 110           | 50          | 9,350            |
| CD34N-41 | 440          | 110           | 50          | 9,350            |
| CD34N-Z1 | 380, 400     | 110           | 50          | 15,885           |

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## Metering

### WM8N type wide-angle indicating switchboard instruments

#### Feature

- High accuracy External magnetic fields cannot influence readings.
- Accuracy class:1.5
- Easy-to-read long-scales and pointerindications can easily be read from a distance
- 110x110mm and 80 x80mm front frame sizes
- Auxiliary equipment such as shunt, impedance box and series resistor is available



WM8N type wide-angle indicating switchboard instruments

### F-Type panel instruments



#### F-type panel instruments



#### Feature

- Accuracy class:2.5
- Meter scales are easy to read without error
- Compact design and budget-priced
- Meter accuracy is not affected by panel materials or adjacent currentcarrying conductors
- Complies with requirements of JIS C 1102

## METER

|           | TYPE     | SPEC.       | DIMENSION (mm) |     | DEPTH (mm) | ACCURACY JIS C1102 | Unit Price (THB) |
|-----------|----------|-------------|----------------|-----|------------|--------------------|------------------|
|           |          |             | W              | H   |            |                    |                  |
| AMMETER   | FSN-60   | for AC      | 60             | 60  | 48         | 2.5                | 1,660            |
|           | FMN-60   | for DC      | 60             | 60  | 48         | 2.5                | 2,355            |
|           | FSN-80   | for AC      | 80             | 80  | 48         | 2.5                | 1,850            |
|           | FMN-80   | for DC      | 80             | 80  | 48         | 2.5                | 2,375            |
|           | FSN-100A | for AC      | 100            | 100 | 48         | 2.5                | 2,715            |
|           | FMN-100A | for DC      | 100            | 100 | 48         | 2.5                | 3,035            |
|           | WM8NAR6  | for AC      | 80             | 80  | 124        | 1.5                | 7,320            |
|           | WM8NAM6  | for DC      | 80             | 80  | 124        | 1.5                | 7,830            |
|           | WM8NAR3  | for AC      | 110            | 110 | 111        | 1.5                | 7,320            |
|           | WM8NAM3  | for DC      | 110            | 110 | 111        | 1.5                | 7,830            |
| VOLTMETER | FSN-60   | for AC      | 60             | 60  | 48         | 2.5                | 2,970            |
|           | FMN-60   | for DC      | 60             | 60  | 48         | 2.5                | 2,355            |
|           | FRN-60   | Transducing | 60             | 60  | 48         | 2.5                | 2,700            |
|           | FSN-80   | for AC      | 80             | 80  | 48         | 2.5                | 3,230            |
|           | FMN-80   | for DC      | 80             | 80  | 48         | 2.5                | 2,375            |
|           | FRN-80   | Transducing | 80             | 80  | 48         | 2.5                | 2,870            |
|           | FSN-100A | for AC      | 100            | 100 | 48         | 2.5                | 3,155            |
|           | FMN-100A | for DC      | 100            | 100 | 48         | 2.5                | 2,715            |
|           | FRN-100A | Transducing | 100            | 100 | 48         | 2.5                | 4,550            |
|           | WM8NVR6  | for AC      | 80             | 80  | 124        | 1.5                | 7,320            |
|           | WM8NVM6  | for DC      | 80             | 80  | 124        | 1.5                | 7,830            |
|           | WM8NVR3  | for AC      | 110            | 110 | 111        | 1.5                | 7,320            |
|           | WM8NVM3  | for DC      | 110            | 110 | 111        | 1.5                | 7,830            |

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- Prices are subjected to change without notice

# Switchboard Instruments

## Power line multi-meter WE1MA



### Description

Perform measurement and monitoring for 213 points in 52 categories for 3-phase/3 wire, and 3-phase/4-wire

### Feature

- With one unit, you can measure or monitor the voltage, current, demand current, power, demand power, reactive power, apparent power, power factor, frequency, harmonic effective value (A,V), distortion, harmonic content rate, active energy and reactive energy.
- The unit supports 3-phase/3-wire and 3-phase/4-wire.
- The measurements are displayed using a four-element display: one display on the main monitor and three displays on the sub-monitors along with a bar graph.
- Outputs include four analog circuits, a pulse output, an alarm output and a communications output (according to specification).
- Communications output supports F-MPC Net, Modbus RTU, and RS-485 (according to user specification).
- All models comply with the RoHS Directive (i.e., lead-free).

**Power line multi-meter**

| TYPE                   | MEASUREMENT  | INPUT SPECIFICATION   |                              | UNIT PRICE (THB) |
|------------------------|--|---|------------------------------|------------------|
| <b>WE1MA-EFF11-M11</b> | Current (max. demand, demand, instataneous), power (max. demand, demand, instataneous), voltage, power factor, frequency, reactive power, active energy, reactive energy, harmonic effective value, distortion, and harmonic content rate                | Input circuits<br>Single-phase/2-wire,<br>Single-phase/3-wire,<br>3-phase/3-wire<br>or all common | Input range<br>150V/300V, 5A | <b>30,000</b>    |
| <b>WE1MA-E4B11-M11</b> | Current (max. demand, demand, instataneous), power(max. demand, demand, instataneous), voltage, power factor, frequency, reactive power, apparent power, active energy, reactive energy, harmonic effective value, distortion, and harmonic content rate | 3-phase/4-wire  | 440/3V, 5A                   | <b>30,000</b>    |

- Prices are not included VAT
- Prices are subjected to change without notice

The maximum value (maximum demand current. Others), minimum value can be checked by pressing max/min button.







## Command Switch





### Feature

- The emergency stop pushbuttons employ FUJI's original Trigger Action mechanism.
- They are suitable for emergency stop and safety. This mechanism prevents the contacts from moving until the button is pushed and locked.
- Provided with a Trigger Action mechanism conforming to EN418
- Provided with direct opening action (approved by TUV) conforming to EN60947-5-1 and EN60947-5-5

### Pushbutton Switches 22 mm./30 mm. dia





| Operator            |  | Action type | Contact | Ordering code | Botton Color | Unit Price (THB) |
|---------------------|--|-------------|---------|---------------|--------------|------------------|
| Flush round head    | 22 mm.    | Momentary   | 1NO     | AR22F0R10_    | R,G,W,Y,B    | 300-             |
|                     |  |             | 1NC     | AR22F0R01_    | R,G,W,Y,B    | 300-             |
|                     |  |             | 1NO+1NC | AR22F0R11_    | R,G,W,Y,B    | 410-             |
|                     | 30 mm.    | Momentary   | 1NO     | AR30F0R10_    | R,G,W,Y,B    | 350-             |
|                     |  |             | 1NC     | AR30F0R01_    | R,G,W,Y,B    | 350-             |
|                     |  |             | 1NO+1NC | AR30F0R11_    | R,G,W,Y,B    | 460-             |
| Extended round head | 22 mm.    | Momentary   | 1NO     | AR22E0R10_    | R,G,W,Y,B    | 300-             |
|                     |  |             | 1NC     | AR22E0R01_    | R,G,W,Y,B    | 300-             |
|                     |  |             | 1NO+1NC | AR22E0R11_    | R,G,W,Y,B    | 410-             |
|                     | 30 mm.   | Momentary   | 1NO     | AR30E0R10_    | R,G,W,Y,B    | 350-             |
|                     |  |             | 1NC     | AR30E0R01_    | R,G,W,Y,B    | 350-             |
|                     |  |             | 1NO+1NC | AR30E0R11_    | R,G,W,Y,B    | 460-             |
| Mushroom head       | 22 mm.  | Momentary   | 1NO     | AR22M0R10_    | R,G          | 330-             |
|                     |  |             | 1NC     | AR22M0R01_    | R,G          | 330-             |
|                     |  |             | 1NO+1NC | AR22M0R11_    | R,G          | 440-             |
|                     | 30 mm.  | Momentary   | 1NO     | AR30M0R10_    | R,G          | 370-             |
|                     |  |             | 1NC     | AR30M0R01_    | R,G          | 370-             |
|                     |  |             | 1NO+1NC | AR30M0R11_    | R,G          | 480-             |
| Giant head          | 30 mm.  | Momentary   | 1NO     | AR30B0R10_    | R            | 370-             |
|                     |  |             | 1NC     | AR30B0R01_    | R            | 370-             |
|                     |  |             | 1NO+1NC | AR30B0R11_    | R            | 480-             |

### Emergency stop pushbutton Switches 22mm./30mm. Dia

| Operator         |  | Action type                               | Contact | Ordering code | Botton Color | Unit Price (THB) |
|------------------|--|---|---------|---------------|--------------|------------------|
| Flush round head | 22 mm.  | Push-lock, turn-reset<br>(Head 40mm dia.) | 1NO     | AR22V2R10_    | R,G,W,Y,B    | 1040-            |
|                  |  |   | 1NC     | AR22V2R01_    | R,G,W,Y,B    | 1040-            |
|                  |  |   | 1NO+1NC | AR22V2R11_    | R,G,W,Y,B    | 1,150-           |
|                  | 30 mm.  | Push-lock, turn-reset<br>(Head 40mm dia.) | 1NO     | AR30V2R10_    | R,G,W,Y,B    | 1,100-           |
|                  |  |   | 1NC     | AR30V2R01_    | R,G,W,Y,B    | 1,100-           |
|                  |  |   | 1NO+1NC | AR30V2R11_    | R,G,W,Y,B    | 1,210-           |





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**Illuminated pushbutton Switches 22 mm./30 mm. dia**



| Operator   |  | Action type  | Lamp Voltage                                     | Contact  | Ordering code               | Lens Color                         | Unit Price (THB) |              |           |      |
|--|--|--------------|--|--|-----------------------------|------------------------------------|------------------|--------------|-----------|------|
| <b>Extended round head</b>                               | <b>22mm.</b><br>(Incandescent lamp)<br>Lamp Base : BA9S<br>   | Momentary    | 24V AC/DC<br>(without transformer)               | 1NO  | AR22E0L10E4_                | R.G.W.Y.S                          | 510-             |              |           |      |
|  |  |              |  | 1NC  | AR22E0L01E4_                | R.G.W.Y.S                          | 510-             |              |           |      |
|  |  |              |  | 1NO+1NC  | AR22E0L11E4_                | R.G.W.Y.S                          | 620-             |              |           |      |
|  |  |              | 200-220V AC<br>(with transformer)<br>Lamp : 6.3V | 1NO  | AR22E0L10M4_                | R.G.W.Y.S                          | 770-             |              |           |      |
|  |  |              |  | 1NC  | AR22E0L01M4_                | R.G.W.Y.S                          | 770-             |              |           |      |
|  |  |              |  | 1NO+1NC  | AR22E0L11M4_                | R.G.W.Y.S                          | 880-             |              |           |      |
|  | <b>30mm.</b><br>(Incandescent lamp)<br>Lamp Base : BA9S<br>   | Momentary    | 24V AC/DC<br>(without transformer)               | 1NO  | AR30E0L10E4_                | R.G.W.Y.S                          | 680-             |              |           |      |
|  |  |              |  | 1NC  | AR30E0L01E4_                | R.G.W.Y.S                          | 680-             |              |           |      |
|  |  |              |  | 1NO+1NC  | AR30E0L11E4_                | R.G.W.Y.S                          | 790-             |              |           |      |
|  |  |              | 200-220V AC<br>(with transformer)<br>Lamp : 6.3V | 1NO  | AR30E0L10M4_                | R.G.W.Y.S                          | 940-             |              |           |      |
|  |  |              |  | 1NC  | AR30E0L01M4_                | R.G.W.Y.S                          | 940-             |              |           |      |
|  |  |              |  | 1NO+1NC  | AR30E0L11M4_                | R.G.W.Y.S                          | 1050-            |              |           |      |
| <b>Extended with transparent full guard (24mm. dia.)</b> | <b>22mm.</b><br>(Incandescent lamp)<br>Lamp Base : BA9S<br> | Momentary    | 24V AC/DC<br>(without transformer)               | 1NO  | AR22G4L10E4_                | R.G.W.Y.S                          | 570-             |              |           |      |
|  |  |              |  | 1NC  | AR22G4L01E4_                | R.G.W.Y.S                          | 570-             |              |           |      |
|  |  |              |  | 1NO+1NC  | AR22G4L11E4_                | R.G.W.Y.S                          | 680-             |              |           |      |
|  |  |              | 200-220V AC<br>(with transformer)<br>Lamp : 6.3V | 1NO  | AR22G4L10M4_                | R.G.W.Y.S                          | 910-             |              |           |      |
|  |  |              |  | 1NC  | AR22G4L01M4_                | R.G.W.Y.S                          | 910-             |              |           |      |
|  |  |              |  | 1NO+1NC  | AR22G4L11M4_                | R.G.W.Y.S                          | 1020-            |              |           |      |
|  |  |              | <b>Extended with full guard (24mm dia.)</b>      | <b>30mm.</b><br>(Incandescent lamp)<br>Lamp Base : BA9S<br> | Momentary<br>(Normal guard) | 24V AC/DC<br>(without transformer) | 1NO              | AR30G3L10E4_ | R.G.W.Y.S | 800- |
|  |  |              |  |  |                             |                                    | 1NC              | AR30G3L01E4_ | R.G.W.Y.S | 800- |
|  |  |              |  |  |                             |                                    | 1NO+1NC          | AR30G3L11E4_ | R.G.W.Y.S | 910- |
| 200-220V AC<br>(with transformer)<br>Lamp : 6.3V         | 1NO  | AR30G3L10M4_ |  |  |                             | R.G.W.Y.S                          | 1,160-           |              |           |      |
|  | 1NC  | AR30G3L01M4_ |  |  |                             | R.G.W.Y.S                          | 1,160-           |              |           |      |
|  | 1NO+1NC  | AR30G3L11M4_ |  |  |                             | R.G.W.Y.S                          | 1,270-           |              |           |      |

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### Selector Switches 22mm./30mm. Dia

| Operator |   | Action type               | Contact | Ordering code | Knob Color | Unit Price (THB) |
|----------|---|---------------------------|---------|---------------|------------|------------------|
| Knob     | 22mm.  | 2-position, maintained    | 1NO+1NC | AR22PR-211_   | B          | 460-             |
|          |   | 3-position, maintained    | 1NO+1NC | AR22PR-311_   | B          | 460-             |
|          |   | 3-position, spring return | 2NO+2NC | AR22PR-122_   | B          | 1,100-           |
|          | 30mm.  | 2-position, maintained    | 1NO+1NC | AR30PR-211    | B          | 500-             |
|          |   | 3-position, maintained    | 1NO+1NC | AR30PR-311_   | B          | 500-             |
|          |   | 3-position, spring return | 2NO+2NC | AR30PR-122_   | B          | 1,120-           |
| Lever    | 22mm.  | 2-position, maintained    | 1NO+1NC | AR22WR-211_   | B          | 530-             |
|          |   | 3-position, maintained    | 1NO+1NC | AR22WR-311_   | B          | 530-             |
|          | 30mm.  | 2-position, maintained    | 1NO+1NC | AR30WR-211_   | B          | 660-             |
|          |   | 3-position, maintained    | 1NO+1NC | AR30WR-311_   | B          | 660-             |

### Illuminated Selector Switches 22mm./30mm. dia.

| Operator |   | Action type            | Lamp Voltage                      | Contact | Ordering code | Lens Color | Unit Price (THB) |
|----------|---|------------------------|-----------------------------------|---------|---------------|------------|------------------|
| Knob     | 22mm.<br>(Incandescent lamp)<br>Lamp Base : BA9S<br> | 2-position, maintained | 200-220V AC<br>(with transformer) | 1NO+1NC | AR22PL-211M4_ | R.G        | 1,320-           |
|          |   | 3-position, maintained | Lamp : 6.3V                       | 1NO+1NC | AR22PL-311M4_ | R.G        | 1,320-           |
|          | 30mm.<br>(Incandescent lamp)<br>Lamp Base : BA9S<br> | 2-position, maintained | 200-220V AC<br>(with transformer) | 1NO+1NC | AR30PL-211M4_ | R.G        | 1,490-           |
|          |   | 3-position, maintained | Lamp : 6.3V                       | 1NO+1NC | AR30PL-311M4_ | R.G        | 1,490-           |

### Key Switches 22mm./30mm. Dia

| Operator     |   | Action type            | Contact | Ordering code | Key removable position | Unit Price (THB) |
|--------------|---|------------------------|---------|---------------|------------------------|------------------|
| Cylinder key | 22mm.  | 2-position, maintained | 1NO+1NC | AR22JR-2A11A  | Left                   | 840-             |
|              |   | 3-position, maintained | 1NO+1NC | AR22JR-3A11A  | Left                   | 840-             |
|              | 30mm.  | 2-position, maintained | 1NO+1NC | AR30JR-2A11A  | Left                   | 880-             |
|              |   | 3-position, maintained | 1NO+1NC | AR30JR-3A11A  | Left                   | 880-             |

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**Pilot light 22mm./30mm. Dia**

| Operator                                   |  | Lamp Base                    | Lamp Voltage                       | Ordering code | Lens Color  | Unit Price (THB) |
|--|--|------------------------------|------------------------------------|---------------|-------------|------------------|
| <b>Dome</b>                                | <b>22mm.</b><br>(Incandescent lamp)<br>   | <b>BA9S</b>                  | 24V AC/DC<br>(without transformer) | DR22D0L-E4_   | A,R,G,W,Y,S | 260-             |
|  |  | <b>BA9S</b><br>(Lamp : 6.3V) | 200-220V AC<br>(with transformer)  | DR22D0L-M4_   | A,R,G,W,Y,S | 550-             |
|  | <b>30mm.</b><br>(Incandescent lamp)<br>   | <b>BA9S</b>                  | 24V AC/DC<br>(without transformer) | DR30D0L-E4_   | A,R,G,W,Y,S | 300-             |
|  |  | <b>BA9S</b><br>(Lamp : 6.3V) | 200-220V AC<br>(with transformer)  | DR30D0L-M4_   | A,R,G,W,Y,S | 580-             |
| <b>Faceted</b>                             | <b>30mm.</b><br>(Incandescent lamp)<br> | <b>BA9S</b><br>(Lamp : 6.3V) | 200-220V AC<br>(with transformer)  | DR30K0L-M4_   | A,R,G,W,Y,S | 610-             |
| <b>Flush square<br/>(Transparent lens)</b> | <b>22mm.</b><br>(Incandescent lamp)<br> | <b>BA9S</b><br>(Lamp : 6.3V) | 200-220V AC<br>(with transformer)  | DR22F4M-M4_   | A,R,G,W,Y,S | 580-             |
| <b>Extended square</b>                     | <b>22mm.</b><br>(Incandescent lamp)<br> | <b>BA9S</b><br>(Lamp : 6.3V) | 200-220V AC<br>(with transformer)  | DR22E3M-M4_   | A,R,G,W,Y,S | 560-             |

**Accessories for AR22 Series, AR30 Series**

| Operator             | Specifications  | Contact   | Ordering code | Body Color | Unit Price (THB) |      |
|----------------------|---|-----------|---------------|------------|------------------|------|
| <b>Contact Block</b> |  | AC15 : 6A | 1NO           | AR9B290    | Blue             | 110- |
|                      |  | AC15 : 6A | 1NC           | AR9B291    | Red              | 110- |

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## HH-C Series

### Industrial Control Relay

#### Feature

- The products have obtained the CCC certification and can satisfy the market demands
- Standard products have been approved by UL, CSA and TUV
- The series products are equipped with an operating indicator (LED), ensuring a clear glance of work status
- The products are environmentally friendly and conformed to regulations on pollution control of electronic information product



HH52P-LC



HH53P-LC



HH54P-LC



#### INDUSTRIAL CONTROL RELAY <2 Layer Offer “HH-C Series”>

| DESCRIPTION                 |        | TYPE            | Poles | “Operating indicator” | Current | Unit Price (THB) |
|-----------------------------|--------|-----------------|-------|-----------------------|---------|------------------|
| Standard<br>(Coil AC or DC) | Single | HH52P-C AC110V  | 2PDT  | not equipped          | 5A      | 190              |
|                             |        | HH52P-C AC200V  | 2PDT  | not equipped          | 5A      | 190              |
|                             |        | HH52P-C DC24V   | 2PDT  | not equipped          | 5A      | 190              |
|                             |        | HH52P-C DC48V   | 2PDT  | not equipped          | 5A      | 190              |
|                             |        | HH53P-C AC110V  | 3PDT  | not equipped          | 5A      | 205              |
|                             |        | HH53P-C AC200V  | 3PDT  | not equipped          | 5A      | 205              |
|                             |        | HH53P-C DC24V   | 3PDT  | not equipped          | 5A      | 205              |
|                             |        | HH53P-C DC48V   | 3PDT  | not equipped          | 5A      | 205              |
|                             |        | HH54P-C AC110V  | 4PDT  | not equipped          | 3A      | 220              |
|                             |        | HH54P-C AC200V  | 4PDT  | not equipped          | 3A      | 220              |
|                             |        | HH54P-C DC24V   | 4PDT  | not equipped          | 3A      | 220              |
|                             |        | HH54P-C DC48V   | 4PDT  | not equipped          | 3A      | 220              |
| With LED<br>(Coil AC or DC) | Single | HH52P-LC AC110V | 2PDT  | equipped              | 5A      | 220              |
|                             |        | HH52P-LC AC200V | 2PDT  | equipped              | 5A      | 220              |
|                             |        | HH52P-LC DC24V  | 2PDT  | equipped              | 5A      | 220              |
|                             |        | HH52P-LC DC48V  | 2PDT  | equipped              | 5A      | 220              |
|                             |        | HH53P-LC AC110V | 3PDT  | equipped              | 5A      | 235              |
|                             |        | HH53P-LC AC200V | 3PDT  | equipped              | 5A      | 235              |
|                             |        | HH53P-LC DC24V  | 3PDT  | equipped              | 5A      | 235              |
|                             |        | HH53P-LC DC48V  | 3PDT  | equipped              | 5A      | 235              |
|                             |        | HH54P-LC AC110V | 4PDT  | equipped              | 3A      | 250              |
|                             |        | HH54P-LC AC200V | 4PDT  | equipped              | 3A      | 250              |
|                             |        | HH54P-LC DC24V  | 4PDT  | equipped              | 3A      | 250              |
|                             |        | HH54P-LC DC48V  | 4PDT  | equipped              | 3A      | 250              |

| DESCRIPTION | TYPE       | Used with | “Finger Protection” | Unit Price (THB) |
|-------------|------------|-----------|---------------------|------------------|
| Socket      | TP58X1-EC  | For 2P    | Include             | 200              |
|             | TP511X1-EC | For 3P    | Include             | 200              |
|             | TP514X1-EC | For 4P    | Include             | 230              |
|             | TP58X1-C   | For 2P    | not Include         | 190              |
|             | TP511X1-C  | For 3P    | not Include         | 190              |
|             | TP514X1-C  | For 4P    | not Include         | 215              |

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## HH Series

### Industrial Control Relay

#### Feature

- 3.5 and 7 Amp. Contacts
- Reliable operation, long service life
- Solder, PC board, wire wrap and screw terminal socket
- Barried contacts for opposite polarity available
- Approved by UL, CSA and TUV
- 2PDT, 3PDT and 4PDT
- High dielectric strength
- AC or DC coils
- Dust proof enclosures

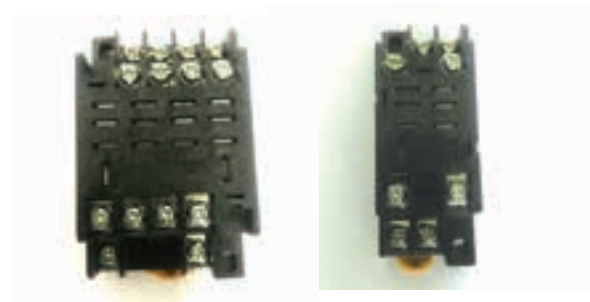


#### INDUSTRIAL CONTROL RELAY (HH52, 53, 54)

| Description  |                             |      | Type       | Unit Price (THB) | Type      | Unit Price (THB) |
|--|-----------------------------|------|------------|------------------|-----------|------------------|
| Standard<br>(Coil AC<br>or DC)                             | Single                      | 2PDT | HH52P      | 500              | HH52S     | 670              |
|  |                             | 3PDT | HH53P      | 500              | HH53S     | 670              |
|  |                             | 4PDT | HH54P      | 580              | HH54S     | 670              |
|  | Bifurcated<br>(gold-plated) | 2PDT | HH52PW     | 525              | HH52SW    | 780              |
|  |                             | 4PDT | HH54PW     | 605              | HH54SW    | 780              |
|  |                             |      |            |                  |           |                  |
| With LED<br>(Coil AC<br>or DC)                             | Single                      | 2PDT | HH52P-L    | 520              |           |                  |
|  |                             | 3PDT | HH53P-L    | 520              |           |                  |
|  |                             | 4PDT | HH54P-L    | 600              |           |                  |
|  | Bifurcated<br>(gold-plated) | 2PDT | HH52PW-L   | 540              |           |                  |
|  |                             | 4PDT | HH54PW-L   | 620              |           |                  |
|  |                             |      |            |                  |           |                  |
| With surge<br>suppression<br>diode<br>(Coil DC)            | Single                      | 2PDT | HH52P-F    | 530              | HH52S-F   | 700              |
|  |                             | 3PDT | HH53P-F    | 530              | HH53S-F   | 700              |
|  |                             | 4PDT | HH54P-F    | 610              | HH54S-F   | 700              |
|  | Bifurcated<br>(gold-plated) | 2PDT | HH52PW-F   | 550              | HH52SW-F  | 750              |
|  |                             | 4PDT | HH54PW-F   | 630              | HH54SW-F  | 750              |
|  |                             |      |            |                  |           |                  |
| With surge<br>suppression<br>diode<br>and LED<br>(Coil DC) | Single                      | 2PDT | HH52P-FL   | 580              |           |                  |
|  |                             | 3PDT | HH53P-FL   | 580              |           |                  |
|  |                             | 4PDT | HH54P-FL   | 660              |           |                  |
|  | Bifurcated<br>(gold-plated) | 2PDT | HH52PW-FL  | 600              |           |                  |
|  |                             | 4PDT | HH54PW-FL  | 680              |           |                  |
|  |                             |      |            |                  |           |                  |
| With surge<br>suppression CR<br>(Coil AC)                  | Single                      | 2PDT | HH52P-CR   | 550              |           |                  |
|  |                             | 3PDT | HH53P-CR   | 550              | HH53S-CR  | 720              |
|  |                             | 4PDT | HH54P-CR   | 630              |           |                  |
|  | Bifurcated<br>(gold-plated) | 2PDT | HH52PW-CR  | 570              | HH52SW-CR | 960              |
|  |                             | 4PDT | HH54PW-CR  | 670              |           |                  |
|  |                             |      |            |                  |           |                  |
| With surge<br>suppression CR<br>and LED<br>(Coil AC)       | Single                      | 2PDT | HH52P-CRL  | 600              |           |                  |
|  |                             | 3PDT | HH53P-CRL  | 600              |           |                  |
|  |                             | 4PDT | HH54P-CRL  | 680              |           |                  |
|  | Bifurcated<br>(gold-plated) | 2PDT | HH52PW-CRL | 620              |           |                  |
|  |                             | 4PDT | HH54PW-CRL | 780              |           |                  |
|  |                             |      |            |                  |           |                  |
| Magnetically held  | Single                      | 2PDT | HH52P-R    | 650              | HH52S-R   | 950              |
|  | Bifurcated                  | 2PDT | HH52PW-R   | 835              | HH52SW-R  | 950              |

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**Socket for Relay (HH 52, 53, 54)**

| Description                                      | Used With | Type    | Unit Price (THB) |
|--|-----------|---------|------------------|
| <b>Soldering</b>                                 | HH52P     | TP58    | 40               |
|  | HH53P     | TP511   | 105              |
|  | HH54P     | TP514   | 65               |
| <b>PC board</b>                                  | HH52P     | TP58B   | 80               |
|  | HH53P     | TP511B  | 105              |
|  | HH54P     | TP514B  | 60               |
| <b>Rail mounting<br/>screw terminal<br/>M3.5</b> | HH52P     | TP58X2  | 220              |
|  | HH53P     | TP511X2 | 255              |
|  | HH54P     | TP514X2 | 285              |

**Note :**  
**Standard coil voltage :**

| AC                  | DC          |
|---------------------|-------------|
| 6V AC 50/60Hz       | 6V DC       |
| 12V AC 50/60Hz      | 12V DC      |
| 24V AC 50/60Hz      | 24V DC      |
| 48V AC 50/60Hz      | 48V DC      |
| 100-110V AC 50/60Hz | 100-110V DC |
| 110-120V AC 50/60Hz |             |
| 200-220V AC 50/60Hz |             |
| 220-240V AC 50/60Hz |             |

- NOTE :** F : with surge suppression device (DC)  
 FL : with surge suppression device and indicator(DC)  
 CR : with surge suppression device (AC)  
 CRL : with surge suppression device and indicator (AC)

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# Time Relay MS 4S Series

## Super Timer



### Feature

- Direct-reading time scale and compact body MS4S Super Timer MS4S series Super Timers feature and easy setting and direct-reading system of four time scale.
- MS4SM timer is multimode operation type and MS4SC timers are on-delay operation type.

### Multifunction time / On-delay time (MS4SM,MS4SA,MS4SC)

| Type Timer   | Ordering code | Input Voltage | Operation        | Contact                                    | Timing range                     | Unit Price (THB) |
|--------------|---------------|---------------|------------------|--|----------------------------------|------------------|
| <b>MS4SM</b> | MS4SM-AP      | 100-240VAC    | On-delay         | Timed : 2PDT 5A (11 pin)                   | Total 16 ranges                  | 1,475            |
|              | MS4SM-CE      | 24VAC/DC      | Flicker          |  | 0.005-0.6s, 0.1-1.2s             |                  |
|              | MS4SM-DL      | 48-127VDC     | One-shot         |  | 0.25-3S, 0.05-6s                 |                  |
|              |               |               | Signal-off delay |  | 0.5-6(s, min, h)1-12 (s, min, h) |                  |
| <b>MS4SA</b> | MS4SA-AP      | 100-240VAC    | On-delay         | Timed : 2PDT 5A                            | 2.5-30 (s, min, h)               | 1,365            |
|              | MS4SA-CE      | 24VAC/DC      |                  |  |                                  |                  |
|              | MS4SA-DL      | 48-127VDC     |                  |  |                                  |                  |
| <b>MS4SC</b> | MS4SC-AP      | 100-240VAC    | On-delay         | Time delay SPDT With Instantaneous SPDT 5A | 5-60 (s, min, h)                 | 1,595            |
|              | MS4SC-CE      | 24VAC/DC      |                  |  |                                  |                  |
|              | MS4SC-DL      | 48-127VDC     |                  |  |                                  |                  |

### Off-delay and Star-Delta timers

| Type Timer   | Ordering code | Input Voltage | Operation        | Contact                                 | Timing range  | Unit Price (THB) |
|--------------|---------------|---------------|------------------|---|---|------------------|
| <b>MS4SF</b> | MS4SF-AP      | 100-240VAC    | OFF-delay        | Timed : 2PDT 5A                         | 0.05-0.6 (s, min)                                     | 2,265            |
|              | MS4SF-CE      | 24VAC/DC      |                  |   | 0.1-1.2 (s, min)                                      |                  |
|              | MS4SF-DL      | 48-127VDC     |                  |   | 0.5-6 (s, min)  |                  |
|              | MS4SF-AP-*R   | 100-240VAC    |                  | Timed : 2PDT 5A With Inst. Reset : SPDT | 1-12 (s, min)   | 2,265            |
|              | MS4SF-CE-*R   | 24VAC/DC      |                  |   |   |                  |
|              | MS4SF-DL-*R   | 48-127VDC     |                  |   |   |                  |
| <b>MS4SY</b> | MS4SY-AP      | 100-240 VAC   | Star-delta timer |   | Star Starting time<br>0.5-6s, 1-12s<br>5-60s, 10-120s | 2,210            |



### Socket and adaptor

| Type            | Description  | Unit Price (THB) |
|-----------------|--|------------------|
| <b>TX4</b>      | Flush mount adaptor (used with flush mount socket) | 115              |
| <b>TP411SBA</b> | Flush mount socket 11 pin for MS4Sm timers         | 230              |
| <b>TP48SB</b>   | Flush mount socket 8 pin for MS4S timers           | 250              |
| <b>TP411X</b>   | Socket for surface mounting 11 PIN for timer MS4SM | 200              |
| <b>TP48X</b>    | Socket for surface mounting 8 PIN for timer MS4S   | 200              |

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## AFaC series

### Low Voltage Fuse



#### Feature

- These fuses have a high interrupting capacity of 100kA at 600 V AC or DC and are suitable for power and control circuits.
- The fuse is a plug-in type, and it can easily be replaced by removing a screw cap
- Rated current : 3-400 Amps

| Model                 | Rated Current       | Interrupting Capacity (kA) | Unit price (THB) |
|-----------------------|---------------------|----------------------------|------------------|
| <b>AFaC-3 to 30</b>   | 3-30                | 100                        | 1,350            |
| <b>AFaC-40 to 60</b>  | 40-60               | 100                        | 1,850            |
| <b>AFaC-75 to 100</b> | 75-100              | 100                        | 2,850            |
| <b>AFaC-150</b>       | 125-200             | 50                         | 6,500            |
| <b>CG-30</b>          | Cover used for AFaC |                            | 160              |



#### Spare components of AFaC

| Fuse-link      | Rated Current (A) | Interrupting Capacity (kA) | Unit Price (THB) |
|----------------|-------------------|----------------------------|------------------|
| <b>BLA-003</b> | 3                 | 100                        | 120              |
| <b>BLA-005</b> | 5                 | 100                        | 120              |
| <b>BLA-010</b> | 10                | 100                        | 120              |
| <b>BLA-015</b> | 15                | 100                        | 120              |
| <b>BLA-020</b> | 20                | 100                        | 120              |
| <b>BLA-030</b> | 30                | 100                        | 120              |
| <b>BLA-040</b> | 40                | 100                        | 190              |
| <b>BLA-060</b> | 60                | 100                        | 190              |
| <b>BLA-075</b> | 75                | 100                        | 300              |
| <b>BLA-100</b> | 100               | 100                        | 300              |
| <b>BLA-125</b> | 125               | 50                         | 390              |
| <b>BLA-150</b> | 150               | 50                         | 400              |
| <b>BLA-200</b> | 200               | 50                         | 440              |

- Prices are not included VAT
- Prices are subjected to change without notice

\*If you used Rated Current 300,400 Amps, please contact to Fuji Electric (Thailand) Co., Ltd.

## F-MPC Series

F-MPC 60B Series

Protection Relay

F-MPC 04 Series

Monitoring System



F-MPC 60B



F-MPC 04



### Feature

- This is multifunction relay which brings functions of protection, measuring, monitoring transmission.
- It can protect many protection factors by itself. (detail below)
- Even when internal fault occur, it will prevent a miss-trip by The internal CPU, duplication of analog circuit, AND output treatment.
- It always monitor internal movement by itself.
- It can be coordinated with higher network system by RS485,MODBUS, Analog output 4-20mA.

| Description              | Type Number | Specification                | Unit Price (THB) |
|--------------------------|-------------|------------------------------|------------------|
| <b>F-MPC60B</b>          | UM43FG-E5AK | Power Receiving 50G/51G      | 123,600          |
| <b>F-MPC60B</b>          | UM42F-E5A   | Power Receiving 67DG         | 144,200          |
| <b>F-MPC60B</b>          | UM-42C-E5A  | Feeder 67DG                  | 123,600          |
| <b>F-MPC30</b>           | UM5ACG-H5R  | Feeder                       | 57,925           |
| <b>F-MPC30</b>           | UM45MG-H5R  | Motor Feeder                 | 61,660           |
| <b>F-MPC04</b>           | UM04-ARA4   | RS485 3ph4Wire/3ph3Wire      | 98,570           |
| <b>F-MPC04P</b>          | UM02-AR4    | 3ph4W                        | 105,465          |
| <b>F-MPC04S</b>          | UM03-ARA3   | 3ph3W                        | 5,840            |
| <b>CT-BOX</b>            | UM01X-0     | CT 2nd 7.34mA                | 23,890           |
|                          | UM04X-1     | CT 2nd 1A                    | 23,890           |
|                          | UM04X-5     | CT 2nd 5A                    | 23,890           |
| <b>Cable for CT-BOX</b>  | AUX014-201  | 1m                           | 4,020            |
|                          | AUX014-202  | 2m                           | 4,530            |
|                          | AUX014-203  | 3m                           | 5,335            |
| <b>TERMINAL RELAY</b>    | RS16-DE04H  |                              | 7,210            |
| <b>DISPLAY TERMINAL</b>  | UM02X-S     |                              | 20,600           |
| <b>CONNECTION TABLE</b>  | UM02X-C005  | 0.5m                         | 5,150            |
|                          | UM02X-050   | 5m                           | 10,300           |
| <b>CT MICRO</b>          | CC2A81-0057 |                              | 2,790            |
| <b>CT ROUND</b>          | CC2C74-1001 | CT 100/1A 36mm <sup>2</sup>  | 8,450            |
|                          | CC2C74-2001 | CT 200/1A 36mm <sup>2</sup>  | 8,450            |
|                          | CC2C74-4001 | CT 400/1A 36mm <sup>2</sup>  | 8,450            |
|                          | CC2C76-8001 | CT 800/1A 60mm <sup>2</sup>  | 11,230           |
|                          | CC2C76-12X1 | CT 1200/1A 60mm <sup>2</sup> | 11,230           |
| <b>CT SQUARE</b>         | CC2N72-1001 | CT100/1A                     | 7,730            |
|                          | CC2N72-2001 | CT200/1A                     | 7,730            |
|                          | CC2N73-4001 | CT400/1A                     | 8,450            |
|                          | CC2N73-5005 | CT500/5A                     | 9,790            |
| <b>POWER SUPPLY UNIT</b> | UM2P-A1E    |                              | 23,690           |

- Prices are not included VAT

- Prices are subjected to change without notice

## VT and CT For 7.2 kV



### Description

Fuji epoxy resin molded type CT and VT, feature excellent water-and damp-proof characteristics. There is no danger of insulation deterioration.

Their good thermal and mechanical performance make them suitable for a wide range of applications. While the initial cost of VT and CT are very reasonable.




### Features

- Accuracy: Class 1.0
- No corona is produced.
- FUJI's advanced manufacturing techniques eliminate cracking of molded enclosure.
- VT is provided with a current-limiting fuse to give a large interrupting capacity


### H.V. Distribution Equipment Instrument transformers

#### • Types and ratings CT 3.45/6.9 kV

| Illustration  | Max. Voltage (kV)        | Primary/Secondary current | Type                | Withstand current (kA/1s) | Unit Price (THB) |
|---|--------------------------|---------------------------|---------------------|---------------------------|------------------|
|  <p><b>RC15-6C</b></p> | 6.9<br>(3.45 common use) | (A)                       |                     |                           |                  |
|   |                          | 5/5                       | <b>RC15-6 C/5</b>   | 0.2                       | 6.750            |
|   |                          | 10/5                      | <b>RC15-6 C/10</b>  | 0.4                       | 6.750            |
|   |                          | 15/5                      | <b>RC15-6 C/15</b>  | 0.6                       | 6.750            |
|   |                          | 20/5                      | <b>RC15-6 C/20</b>  | 0.8                       | 6.750            |
|   |                          | 30/5                      | <b>RC15-6 C/30</b>  | 1.2                       | 6.750            |
|   |                          | 40/5                      | <b>RC15-6 C/40</b>  | 1.6                       | 6.750            |
|   |                          | 50/5                      | <b>RC15-6 C/50</b>  | 2                         | 6.750            |
|   |                          | 60/5                      | <b>RC15-6 C/60</b>  | 2.4                       | 6.750            |
|   |                          | 75/5                      | <b>RC15-6 C/75</b>  | 3                         | 6.750            |
|   |                          | 100/5                     | <b>RC15-6 C/100</b> | 4                         | 6.750            |
|   |                          | 150/5                     | <b>RC15-6 C/150</b> | 6                         | 6.900            |
|   |                          | 200/5                     | <b>RC15-6 C/200</b> | 8                         | 6.900            |
|   |                          | 300/5                     | <b>RC15-6 C/300</b> | 12                        | 6.900            |
|   |                          | 400/5                     | <b>RC15-6 C/400</b> | 16                        | 8.850            |
|   |                          | 500/5                     | <b>RC15-6 C/500</b> | 20                        | 8.850            |
| 600/5   | <b>RC15-6 C/600</b>      | 24                        | 8.850               |                           |                  |
| 750/5   | <b>RC15-6 C/750</b>      | 30                        | 8.850               |                           |                  |

- Rated overcurrent constant (n) :  
n > 10 (at burden 10 VA) / n > 5 (at burden 20 VA)
- Rated burden : 40 VA
- Accuracy class 1.0  
Insulation level with stand voltage (AC 1min)  
Primary : 22kV, Secondary : 2kV  
Basic-impulse insulation level : 60kV (full wave)

#### • Types and ratings VT 3300V- 33000V

| Illustration   | Primary / Secondary Voltage (V) | Rated burden (VA) | Type                 | Unit Price (THB) |
|--|---------------------------------|-------------------|----------------------|------------------|
|  <p><b>CP-624 NPE12</b></p> | 3300/110                        | 50                | <b>NPE12-3FA/50</b>  | 18,750           |
|  | 6600/110                        | 50                | <b>NPE12-6FA/50</b>  | 18,750           |
|  | 3300/110                        | 100               | <b>NPE12-3FA/100</b> | 21,900           |
|  | 6600/110                        | 100               | <b>NPE12-6FA/100</b> | 22,950           |
|  | 3300/110                        | 200               | <b>PEC2-3FA/200</b>  | 29,850           |
|  | 6600/110                        | 200               | <b>PEC2-6FA/200</b>  | 30,750           |

- Accuracy class 1.0
- Insulation level
 

|                       |                       |                       |                     |
|-----------------------|-----------------------|-----------------------|---------------------|
| NPE12-3FA<br>PEC2-3FA | } BIL 45kV*2, 16kV AC | NPE12-6FA<br>PEC2-6FA | } BIL 60kV, 22kV AC |
|-----------------------|-----------------------|-----------------------|---------------------|

- Prices are not included VAT
- Prices are subjected to change without notice

## QHA Series

### Protection Relay



High-Voltage Power Receiving and Distribution Protective Relay  
 Full model change for static protective relay!  
 Digital system makes it possible to set detailed operation



#### Feature

- Stable protective characteristics achieved through use of digital calculation type
- High reliability achieved through constant monitoring of internal circuit and automatic inspection of output circuit
- Possible to check the operation condition through values such as setting value, operating value, input current value and error code shown on the LED indicator of the front face panel
- Easy setting
- Possible to open and close from either right or left by switching the open/close type cover
- Mounting compatibility with “QH” series

|                     | TYPE        | Tripping System          | Unit Price (THB) |
|---------------------|-------------|--------------------------|------------------|
| Over Current Relay  | QHA-OC1-ENP | Shunt Trip               | 12,700           |
| Over Voltage Relay  | QHA-OV1-ENP | Shunt Trip               | 17,800           |
| Under Voltage Relay | QHA-UV1-ENP | Shunt Trip               | 18,300           |
| Directional         | QHA-DG3-ENP | Shunt/Current trip ( R ) | 41,700           |
| Ground Fault Relay  | QHA-DG4-ENP | Shunt/Current trip ( F ) | 41,700           |
| Ground Fault Relay  | QHA-GR3-ENP | Shunt/Current trip       | 15,300           |

- Prices are not included VAT
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## VCB HS Series

### VACUUM CIRCUIT BREAKER

3.6 kv - 36 kv



#### Feature

- Compact, light-mass design

Vacuum circuit breakers have a small switching stroke as compared with other types of circuit breakers, so their breaking unit is small in size. To take full advantage of this feature, the operating mechanism has been designed to reduce the size and mass of the circuit breakers.

- Spring closing system The vacuum circuit breakers use a motor-spring stored-energy mechanism (rapid auto-reclosing type) to provide stabilized electrical and mechanical characteristics and to reduce the closing operating current.

### VACUUM CIRCUIT BREAKER

| TYPE   | Rated Voltage 7.2/3.6kV           | Rated Interrupting Current (kA) | Rated Current (A) |
|--------|-----------------------------------|---------------------------------|-------------------|
| HS2006 | <input type="checkbox"/> -06Mf-E  | 20                              | 630               |
| HS2006 | <input type="checkbox"/> -12Mf-E  | 20                              | 1250              |
| HS2006 | <input type="checkbox"/> -20Mf-E  | 20                              | 2000              |
| HS2506 | <input type="checkbox"/> -06Mf-E  | 25                              | 630               |
| HS2506 | <input type="checkbox"/> -12Mf-E  | 25                              | 1250              |
| HS2506 | <input type="checkbox"/> -20Mf-E  | 25                              | 2000              |
| HS3106 | <input type="checkbox"/> -12Mf-E  | 31.5                            | 1250              |
| HS3106 | <input type="checkbox"/> -20Mf-E  | 31.5                            | 2000              |
| HS3106 | <input type="checkbox"/> -30Mf-E  | 31.5                            | 3000              |
| HS4006 | <input type="checkbox"/> -12Mf-E  | 40                              | 1250              |
| HS4006 | <input type="checkbox"/> -20Mf-E  | 40                              | 2000              |
| HS4006 | <input type="checkbox"/> -30Mf-E  | 40                              | 3000              |
| HS4006 | <input type="checkbox"/> -40Mf-N  | 40                              | 4000              |
| HS5006 | <input type="checkbox"/> -12Mf-NA | 50                              | 1250              |
| HS5006 | <input type="checkbox"/> -20Mf-NA | 50                              | 2000              |
| HS5006 | <input type="checkbox"/> -30Mf-N  | 50                              | 3000              |

| TYPE   | Rated Voltage 24kV               | Rated Interrupting Current (kA) | Rated Current (A) |
|--------|----------------------------------|---------------------------------|-------------------|
| HS1220 | <input type="checkbox"/> -06Mf-K | 12.5                            | 600               |
| HS1220 | <input type="checkbox"/> -12Mf-K | 12.5                            | 1200              |
| HS1620 | <input type="checkbox"/> -06Mf-E | 16                              | 600               |
| HS1620 | <input type="checkbox"/> -12Mf-E | 16                              | 1250              |
| HS2520 | <input type="checkbox"/> -06Mf-E | 25                              | 630               |
| HS2520 | <input type="checkbox"/> -12Mf-E | 25                              | 1250              |
| HS2520 | <input type="checkbox"/> -20Mf-E | 25                              | 2000              |
| HS4020 | <input type="checkbox"/> -12Mf-N | 40                              | 1250              |
| HS4020 | <input type="checkbox"/> -20Mf-N | 40                              | 2000              |
| HS4020 | <input type="checkbox"/> -30Mf-N | 40                              | 3000              |

**NOTE :**  : Type of Installation

P : Fixed type

X : Draw-out type with cradle for JEM1425 Class CW

Y : Draw-out type with cradle and shutter for JEM1425 MW, PW

\* If you want price of VCB please contact to Fuji Electric (Thailand) Co.,Ltd.

### VMC HN Series

Vacuum Magnetic Contactors  
Product Range 3.6 to 6.6kV.  
Standard IEC, JEC, BS  
Rated Currents 200A-400A  
For Control MV Motor

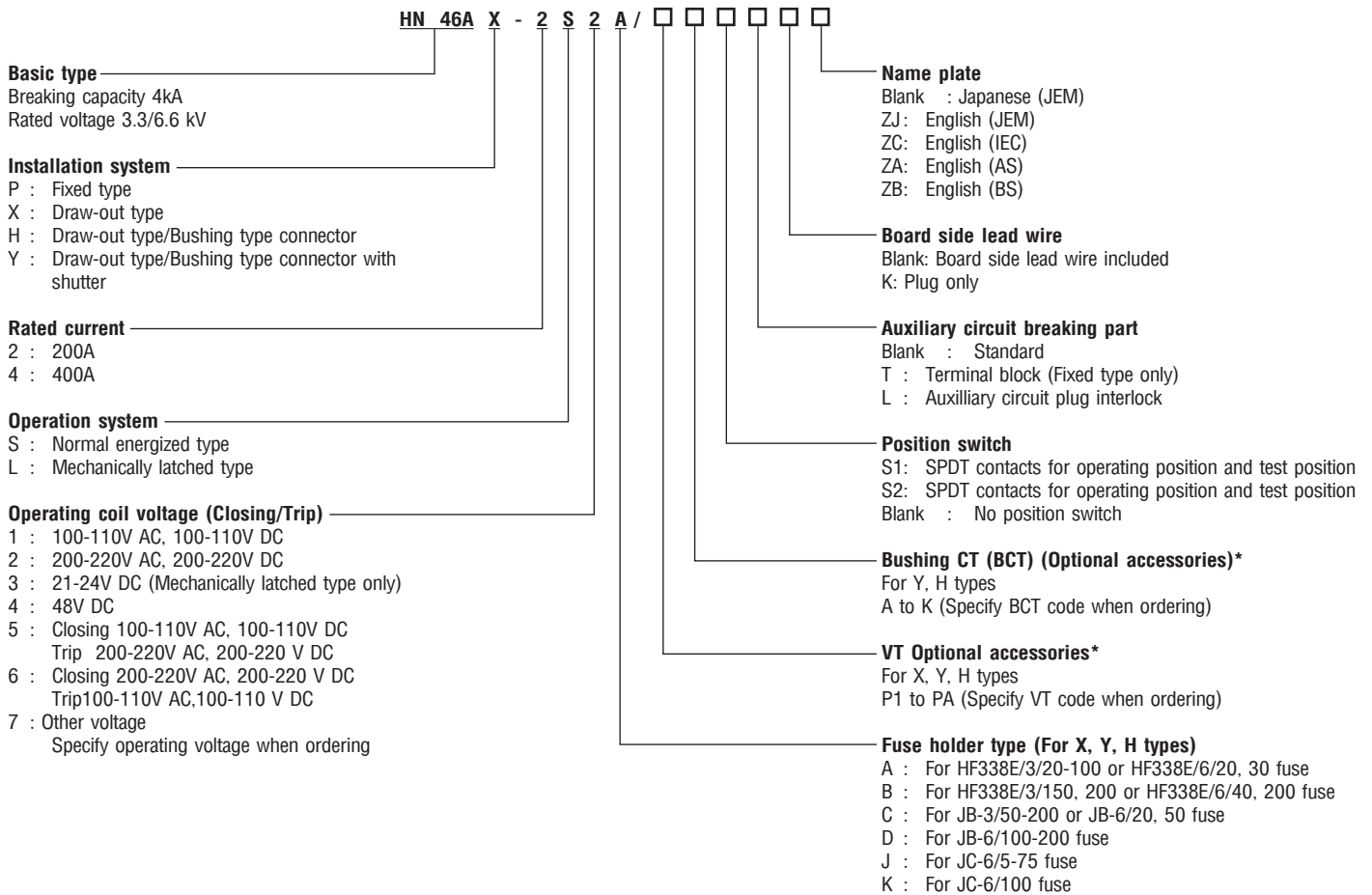


#### Feature

The Super Magnet

- Holding currents are minimized with an IC-Controlled closing circuit. This is a cost-effective feature
- Both AC and DC power supply operation possible
- The Super Magnet holds without chattering even when the line control voltage drops
- The Super Magnet's wide range of operating voltages allows it to be used in countries throughout the world Shared insulating frame for 3kV and 6kV contactors
- HN type vacuum magnetic contactors have a special insulating frame. The dimensions of the frame are the same for both 3kV and 6 kV models, which facilitates switchgear design
- Advanced vacuum interrupter
- A high performance interrupter minimizes surges due to closing and breaking, which makes special surge precaution unnecessary

#### Types number nomenclature

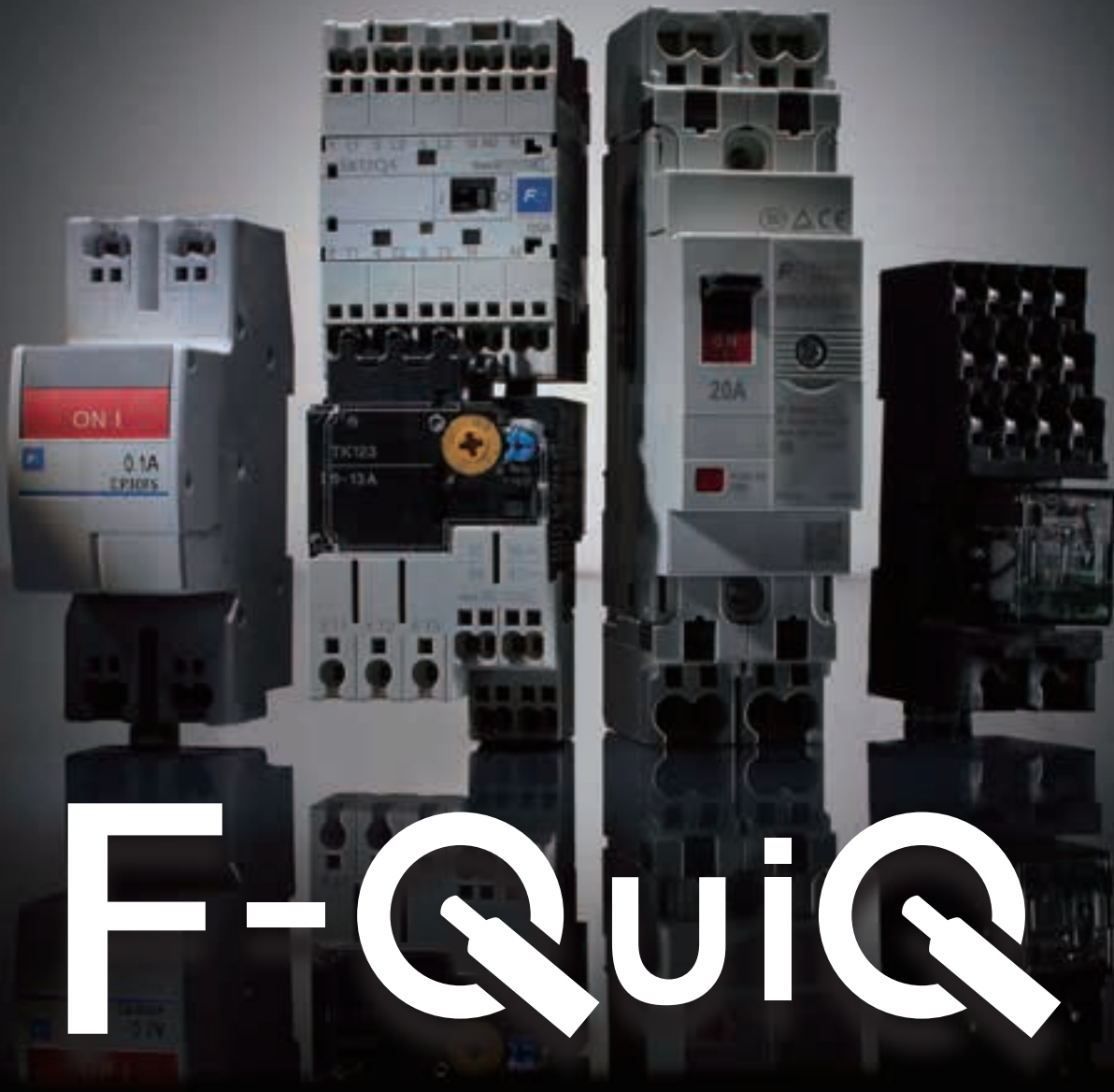


\* If you want price of VCB please contact to Fuji Electric (Thailand) Co.,Ltd.

## อุปกรณ์ประหยัดต้นทุน

# เทอร์มินอลบล็อกแบบสปริง (Spring Type Terminal Block)

ลดระยะเวลาการเดินสายไฟ  
ก้าวสู่มาตรฐานของ Control Panel ในปี 2019



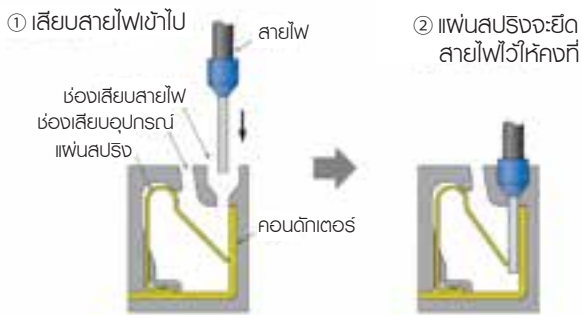
# F-Quick

**FE** Fuji Electric (Thailand) Co., Ltd.

## จุดเด่นของเทอร์มินัลแบบสปริง

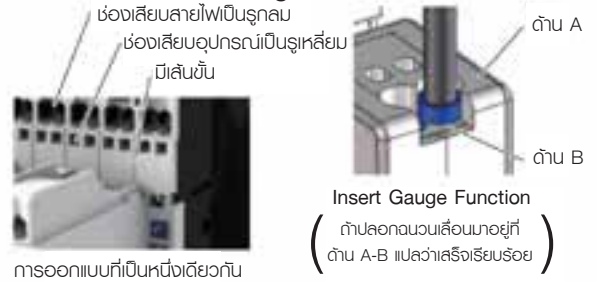
### ใช้งานง่าย!

- ใช้รูปแบบ Push-In ทำให้เดินสายเสร็จในขั้นตอนเดียว



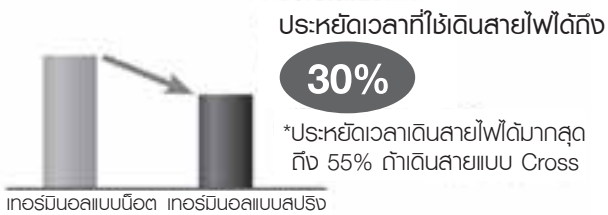
### เข้าใจง่าย!

- ออกแบบโดยเน้นความเข้าใจง่าย
- ตรวจสอบด้วยสายตาได้ว่าการติดตั้งสำเร็จหรือไม่ด้วยระบบ Insert Gauge Function



### ประหยัดเวลาและต้นทุน!

- ประหยัดเวลาและต้นทุนในการเดินสายไฟและตรวจสอบ



### ไม่ต้องอาศัยทักษะ!

- ไม่ต้องใช้เทคนิคการควบคุมการขันน็อต/บิดน็อต
- ประหยัดเวลาในการสอนผู้ใช้งาน

## รายการสินค้าที่ใช้เทอร์มินอลบล็อกแบบสปริง (สินค้าวางจำหน่ายปี 2019)



เซอร์ทิเบรกเกอร์สำหรับเดินสายไฟ / Earth Leakage Circuit Breaker (ELCB)

Circuit protector

Manual motor starter

Magnetic Contactor / electromagnetic switch

รีเลย์ / Socket สำหรับจับเวลา

\*บริษัทขอสงวนสิทธิ์ในการเปลี่ยนแปลงเงื่อนไขหรือ ยกเลิกได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า

# เบรกเกอร์ชนิด ปลั๊ก-อิน บัสบาร์ทวิน ปลั๊ก BV • EV สำหรับ ระบบจ่ายกำลังไฟฟ้า ระยะห่าง 70 มิลลิเมตร ประหยัดและปลอดภัยมากยิ่งขึ้น!



## ลดส่วนประกอบของสายไฟ

Reduced Wiring components

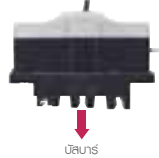


**เบรกเกอร์ชนิด ปลีก-อิน**  
**บัสบาร์ทวิน ปลีก BV\* EV ระยะห่าง 70 มิลลิเมตร**  
**สะดวกในการนำไปใช้งานมากขึ้น!**

**NEW**

**เพิ่มประสิทธิภาพด้านความปลอดภัย**

ปรับปรุงในเรื่องความปลอดภัย  
 ชนิด ปลีก-อิน ภาระจะลดลง  
 ลดภาระการติดตั้ง 50% ของโหลด ชนิด ปลีก-อิน  
 เป็น 400-630AF แทนที่ต้องใช้ ปลีก-อิน ขนาดใหญ่



**NEW!**  
 ลดภาระการติดตั้ง 50%  
 ของโหลด ชนิด ปลีก-อิน



**ลดระยะเวลาในการติดตั้ง**

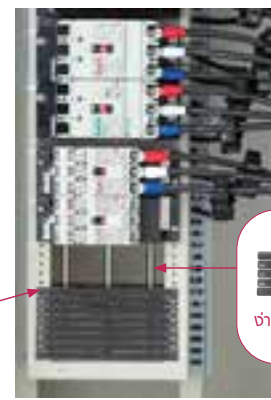
แผงปิดช่องว่างที่ไม่ต้องขันน็อต  
 เพียงติดตั้งด้วยตัว กด-ล็อก ที่ปิดช่องว่างโดยไปใช้สกรู  
 ทำให้ร่นเวลาในการต่อใช้งานและไม่มีสกรูตกหล่น



1 สามารถที่จะแยกออก ขึ้นต่อก็ได้!

blank cover

**NEW!**  
 มีความปลอดภัยโดย  
 ไปใช้สกรูทำจากโลหะ!  
 ตัวกด-ล็อก  
 สามารถใส่แผงปิดช่องว่าง  
 เพียงแค่กดเท่านั้น



ช่องต่อการแยกบัสบาร์

สามารถติดตั้งแทนผลิตภัณฑ์เดิม  
 ได้อย่างสมบูรณ์แบบ

**ผลิตภัณฑ์ที่เกี่ยวข้อง**

**ปลีกเบรกเกอร์บัสบาร์**

ชุด TWIN Plug BV  
 บอร์ดจำหน่ายเซิร์ฟเวอร์ขนาด 30 มม  
 ประเภทสนาม



ประเภทการบล็อกสูง



ประเภทการบล็อกต่ำ

**เบรกเกอร์ประเภทซีโอก็เกิด**

ชุด G - TWIN λ (lambda)  
 ประเภทปลีกอินสำหรับเซิร์ฟเวอร์แบบกระจาย





**Coming Soon**

Medium-Voltage Power-Receiving

# F-MPC60G Series

## Improved Visibility and Operability via Color LCD Completely Compliant with the IEC Standards

### Adoption of Color LCD

Improves visibility and operability. Operating status displayed in color.

Compared with previous model

| Previous (F-MPC60B)                      | F-MPC60G     |
|--|--------------|
| <p>Frequency<br/>Current<br/>Voltage</p> | <p>Meter</p> |

Until now screens needed to be switched. **Display on one screen**

Clear visibility via color LCD!



**Color LCD achieves various displays (eg.)**

### Equipped with Waveform Recording Function for System Failure

Incorporated a function for recording failure waveforms during protective operation or failure. Thanks to calendar and clock functions (NEW), possible to finding, investigating and/or countermeasures any cause of failure.



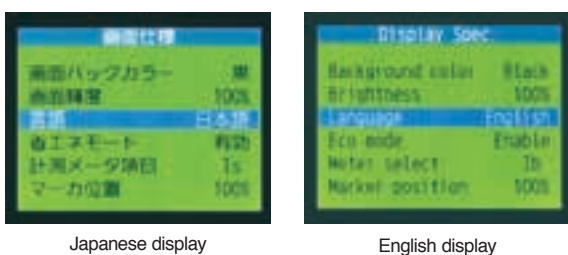
### Includes a Vector Display Function

Possible to check the state of phase angle and/or of wiring connection when installation or maintenance.



### Supports Display Language Switching

English and Japanese display are available by switching.

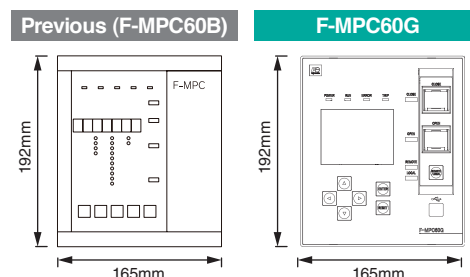


Japanese display

English display

### Maintains Compatibility with Old and New Models

Succeed to some function of previous models such as same dimension, same terminal block, communication and CPU duplication, you can use this model without any adjustment of configurations.



Fuji Electric (Thailand) Co., Ltd.

KPNE1708

### Protecting elements

| Unit            | Grounding method     | Basic type       | Protection |                       |                 |                  |     |                        |                                   |       |                               |     |                               |        |       |        |       |                   |               |                           |                          |
|-----------------|----------------------|------------------|------------|-----------------------|-----------------|------------------|-----|------------------------|-----------------------------------|-------|-------------------------------|-----|-------------------------------|--------|-------|--------|-------|-------------------|---------------|---------------------------|--------------------------|
|                 |                      |                  | 50         | 51 Inverse time limit | 51DT Time limit | 51DT2 Time limit | 50G | 51G Inverse time limit | OCGA Zero-phase current pre-alarm | 67 DG | 67DG/51G Selection Time limit | DGA | DGA/OCGA Selection Time limit | 64 OVG | 27 UV | 27 UV2 | 59 OV | 47 Phase reversal | 46 Open-phase | OCA Overcurrent pre-alarm | VR Voltage establishment |
| Power receiving | Ungrounded           | UM62FP<br>UM62FQ | ●          | ●                     | ●               | ●                |     |                        |                                   | ●     |                               | ●   | ●                             | ●      | ●     | ●      | ●     | ●                 | ●             | ●                         |                          |
| Feeder          | Ungrounded           | UM62CP<br>UM62CQ | ●          | ●                     | ●               | ●                |     |                        |                                   | ●     |                               | ●   |                               | ●      | ●     | ●      | ●     | ●                 | ●             | ●                         |                          |
| Power receiving | Resistance grounding | UM63FN           | ●          | ●                     | ●               | ●                | ●   | ●                      | ●                                 | ●     | ●                             | ●   |                               | ●      | ●     | ●      | ●     | ●                 | ●             | ●                         |                          |
| Busbar          |                      | UM62BN           |            |                       |                 |                  |     |                        |                                   |       |                               |     |                               | ●      | ●     | ●      | ●     |                   |               |                           | ●                        |

Note 1) The feeder unit 67DG can be used in combination with a power receiving or busbar unit. (MN signal)

### General Specifications

| Item                     | Specification   |  |
|--------------------------|---|--|
| Control power supply     | 100 V DC (80 to 143 V DC), 100 V AC (85 V to 132 V AC)  |  |
| Power consumption        | DC input 15 W, AC input 20 VA or less   |  |
| Dropout tolerance        | 20 ms (Continuous operation)  |  |
| Rated frequency          | 50/60 Hz (Setting selection)  |  |
| DC input                 | Rated   | Primary: 10 to 7500 A AC (Step: 5 to 100 A [5A], 110 to 1000 A [10 A], 1050 to 7500 A [50 A])<br>Secondary: 5 A / 1 A AC (Specified at the time of ordering)                 |
|                          | Withstand capability  | Continuous: 4-fold (20 A / 4 A), Short time: 40-fold (200 A / 40 A), 1 s interval  |
|                          | Rated load  | 1.0 VA or less   |
| Voltage input            | Rated   | Primary: 210 to 110000 V AC (Step 10 V)<br>Secondary: 100, 110, 120 V AC (Step 10 V)   |
|                          | Overvoltage tolerance   | Short time: 150 V × 1.25 times 187.5 V 10 s  |
|                          | Rated load  | 1.0 VA or less   |
| Zero-phase voltage input | Rated   | EVT tertiary: 110 V / 190 V AC (Setting switchable)<br>ZVT (Exclusive product): Primary side 3810 V (Type: ZPD-1 or ZPD-2)   |
|                          | Overvoltage tolerance   | Short time: 190 V × 1.5 times 285 V 5 s  |
| Zero-phase current       | Load  | 1.0 VA or less   |
|                          | CT rating   | 5 A / 1 A AC Specified at the time of ordering (Same time as phase current)<br>Settable to tertiary CT primary rated 5 to 400 A (Step: 5 to 100 A [5A], 110 to 400 A [10 A]) |
|                          | Withstand capability  | Continuous: 4-fold (20 A / 4 A), Short time: 40-fold (200 A / 40 A), 1 s interval  |
|                          | Load  | 1.0 VA or less   |
| ZCT rating               | 200 mA / 1.5 mA AC (JEC-1201 items)   |  |
| Structure                | Front IP40, back IP20, terminal wiring IP10   |  |
| Ambient temperature      | Working guarantee: -10°C to 60°C (No condensation or freezing) Note*<br>Characteristic guarantee: 0 to 40°C   |  |
| Working atmosphere       | No corrosive gas or excessive dust.   |  |
| Altitude                 | 2000 m or less  |  |
| Mass                     | 1.7 kg  |  |
| Conformed standard       | JEC-2500-2010: Protective relays for electrical power systems<br>JEC-2501-2010: Electromagnetic compatibility test for the protective relay<br>JEC-2518-2015: Digital overcurrent relay<br>IEC-60255 Series:<br>Measuring relays and protection equipment |  |

Note (1) When using Protection 27 (UV) via a control power supply, AC power supply at a time other than instantaneous operation (operation time 0 s setting), use in combination with an uninterruptible power supply or an F-MPC use AC power supply (Type: UM2P-A1 optional).

Note (2) EVT/ZVT selection is possible via connection terminal switching. Furthermore, an EVT rated voltage of 110 V / 190 V is configurable.

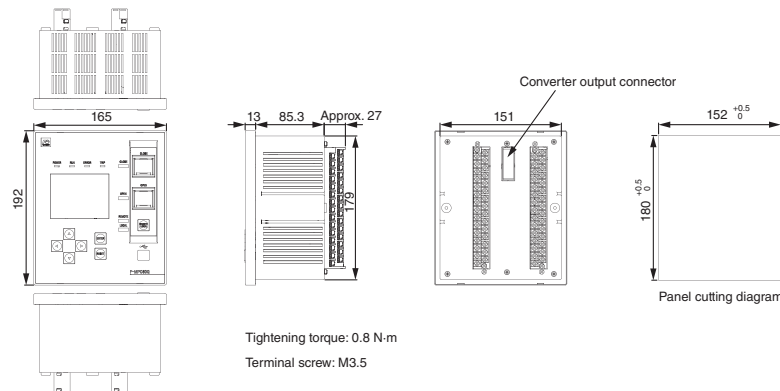
Note\* The working guarantee temperature is the temperature that guarantees operation within 2 times the guarantee precision value at JEC characteristic guarantee temperature and within influence precision of the JIS temperature.

### Protective relay specification

| Item                                  | Voltage/current operation value setting range  | Operation time (timer) setting range  | Characteristic                   |   |
|---------------------------------------|--|---|----------------------------------|---|
|                                       |  |   | Operation value                  | Operation time  |
| 50 (instantaneous)                    | CT secondary rated current 1.0 to 16.0 times, LOCK   | (Fixed)   | ±5%                              | 40 ms or less   |
| 51DT (short time limit)               | CT secondary rated current 0.2 to 16.0 times, LOCK   | 0, 0.05 to 5.00 s   | ±5%                              | ±5% (lower limit ±50 ms)  |
| 51DT2 (short time limit)              | CT secondary rated current 20 to 1000%, LOCK   | 0, 0.05 to 10.00 s  | ±5%                              | ±5% (lower limit ±50 ms)  |
| 51 (inverse time limit)               | CT secondary rated current 20 to 240%, LOCK  | Time magnification 0.2 to 20.0 times  | ±5%                              | Setting value 300%: ±12%<br>Setting value 500%: ±7%<br>Setting value 1000%: ±5% |
| OCA (overcurrent pre-alarm)           | 10 to 100% rated, LOCK   | 10 to 200 s   | ±10%                             | ±5%   |
| 50G (instantaneous, short time limit) | 0.1 to 8.0 times rated, LOCK   | 0.0 to 180.0 s  | ±5%                              | ±5% (lower limit ±50 ms)  |
| 51G (Inverse time limit selection)    | 0.02 to 1.00 times rated, LOCK   | Time magnification 0.5 to 50.0 times  | ±5%                              | Setting value 300%: ±12%<br>Setting value 500%: ±7%<br>Setting value 1000%: ±5% |
|                                       | 0.02 to 1.00 times rated, LOCK   | 0.10 to 600.00 s  | ±5%                              | ±5%   |
| OCGA (zero-phase current pre-alarm)   | 51G operating current setting value 50 to 100%, LOCK   | 0.10 to 600.00 s  | ±10%                             | ±5%   |
| 59 (OV)                               | VT secondary: 110 to 150 V, LOCK   | 0.0 to 60.0 s   | ±5%                              | ±5%   |
| 27 (UV)                               | VT secondary: 20 to 100 V<br>52a coordination on20-on100 V, LOCK   | 0.0 to 60.0 s   | ±5%                              | ±5%   |
| 27-2 (UV2)                            | VT secondary: 20 to 100 V, LOCK  | 0.0 to 60.0 s   | ±5%                              | ±5%   |
| 64 (OVG)                              | 2.5 to 40.0% rated, LOCK   | 0.0 to 120.0 s  | Note 1                           | ±5%   |
| 67DG                                  | Zero-phase voltage: 2.5 to 40.0% rated<br>Zero-phase current: 0.02 to 1.00 times rated<br>Maximum sensitivity phase angle: 0° (fixed)<br>Operation phase angle range: ±80° | 0.10 to 600.00 s  | Note 1<br>±5%<br>±12.5°          | ±5%   |
|                                       | 67DG / 51G   | Zero-phase voltage: 2.5 to 40.0% rated<br>Zero-phase current: 0.10 to 1.00 A / 1.0 to 10.0 A rated<br>Maximum sensitivity phase angle: 20, 30, 45, 60°<br>Operation phase angle range: ±80° | Note 1<br>±10%<br>±12.5°         | ±5%   |
| DGA                                   | Zero-phase voltage: 2.5 to 40.0% rated<br>Zero-phase current: DG operating current setting value 50 to 100%, LOCK<br>Maximum sensitivity phase angle: Same as DG           | 0.10 to 600.00 s  | Note 1<br>±10%<br>±12.5°         | ±5%   |
| DGA/OCGA                              | Zero-phase voltage: 2.5 to 40.0% rated<br>Zero-phase current: DG operating current setting value 50 to 100%, LOCK<br>Maximum sensitivity phase angle: Same as DG           | 0.10 to 600.00 s  | Note 1<br>±10%<br>±12.5°         | ±5%   |
| Open-phase                            | —  | —   | Unbalance rate 50 to 80% or more | 2 s ±1 s  |
| Phase reversal                        | —  | —   | —                                | 0.5 s or less   |
| VR (voltage establishment)            | VT secondary: 10 to 110 V, LOCK  | 0.10 to 60.00 s   | ±5%                              | ±5%   |

Note (1) At time of EVT combination (Not including EVT tolerance): Equivalent to JEC-2511 5 V class (Formula:  $2.3\% + \{(\text{Setting value}) / (\text{Voltage setting value})\} \times 0.16\} \times 2$ ) ZVT combination time: ±25%

### Dimensions (mm)



## Sales / Technical support data

### Product selection App.

- MMS and MCCBs Selection App. (Open) To selection the over-current protection devices for the motor starter circuit.
- CTT Selection App. (SC●SK) (Open) To calculate the contact life expectancy for each load condition.



available for smart phone ➤



MS Scale



MCLifeCurve\_SC



MCLifeCurve\_SK

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<http://www.th.fujielectric.com>



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