

Adjustable MCCBs

AB-G type adjustable MCCBs up to 250A



Suitable for use in the system where common fault currents

- Interrupting capacity... 16 and 25kA
- Employing a adjustable trip unit
- Current adjustments are made by knobs on the front of the trip unit
- Electric auxiliaries are common use up to 250 amperes

Accessories

Rear connection

Terminal shield

Manual rotary handle

Extensible mounting

Direct mounting

Electrical auxiliaries
 - auxiliary switch
 - alarm switch
 - shunt trip
 - undervoltage trip

Common auxiliaries
 These are frequently used electric accessories for MCCBs. They are designed to be installed easily and to be used in common for all AB-G type breakers up to 250A

Thermal-Magnetic trip units

Insulation barrier

TMU 125

① Knob for adjusting thermal current

② Knob for adjusting Magnetic current (250AF only)

100AF

250AF

Adjustable MCCBs

Ratings 100AF

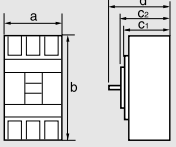


| Frame size | | 100AF | | | | |
|---|------------|---|----------|---------|------|-----|
| Type and Pole | | ABE | | ABS | | |
| | 3-pole | ABE103G | | ABS103G | | |
| | 4-pole | ABE104G | | ABS104G | | |
| Rated current, I _n | | 16, 20, 25, 32, 40, 50, 63, 80, 100A Thermally adjustable : (0.8-0.9-1.0) × I _n | | | | |
| Rated operational voltage, U _e | | AC : 600V | | | | |
| | | DC : 250V | | | | |
| Rated insulation voltage, U _i | | 690V | | | | |
| Rated impulse withstand voltage, U _{imp} | | 6kV | | | | |
| Rated short-circuit breaking capacity, I _{cu} IEC60947-2(I _{cu}) I _{cs} =75%I _{cu} | AC | 600V | 7.5kA | | 10kA | |
| | | 500/550V | 10kA | | 12kA | |
| | | 480V | 12kA | | 14kA | |
| | | 440/460V | 14kA | | 22kA | |
| | | 380/415V | 16kA | | 25kA | |
| | | 220/240V | 35kA | | 50kA | |
| | DC | 250V | 10kA | | 14kA | |
| | | 125V | - | | - | |
| Protective function | | Overload, Short-circuit | | | | |
| Type of trip unit | | Thermal-Magnetic | | | | |
| Magnetic trip range | | 10 × I _n (fixed) | | | | |
| Endurance | Mechanical | 20000 operations | | | | |
| | Electrical | 10000 operations | | | | |
| Connection | Standard | Front connection | | | | |
| | Optional | Rear connection | | | | |
| Mounting | | Standard Screw fixing | | | | |
| Dimensions(mm) | | Pole | 3p | 4p | 3p | 4p |
| | | a | 90 | 120 | 90 | 120 |
| | | b | 140 | | 140 | |
| | | c1 * | 79 | | 79 | |
| | | c2 * | 86 | | 86 | |
| | | d | 115 | | 115 | |
| | | Weight, kg | Standard | 1.2 | 1.5 | 1.2 |
| Certification | CE marking | ○ | | ○ | | |
| | KEMA | ○ | | ○ | | |

* Depth by door cut size : C1 for large cut, C2 for small cut

250AF

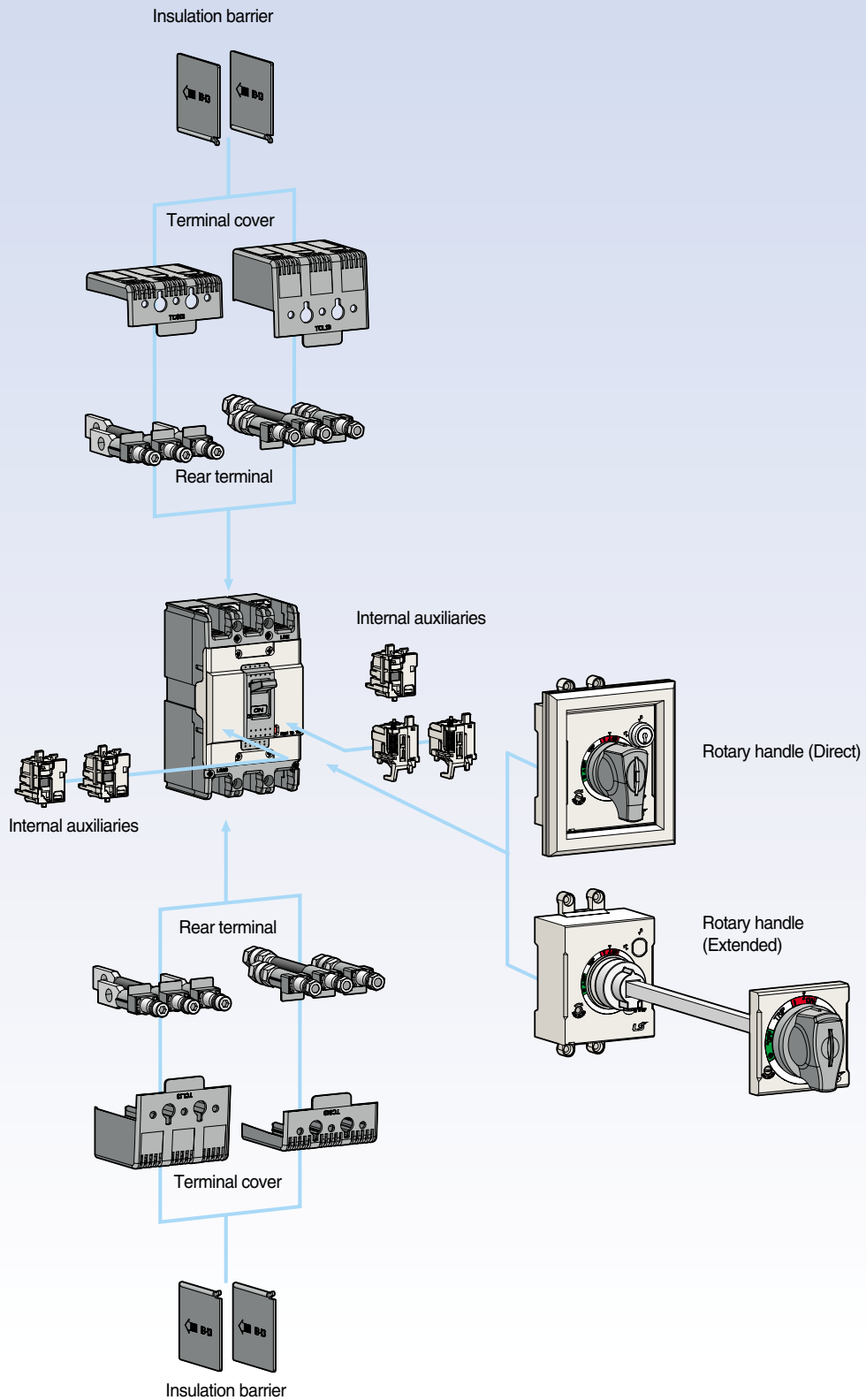


| Frame size | | 250AF | | | |
|---|------------|---|-------|---------|-----|
| Type and Pole | | ABE | | ABS | |
| | 3-pole | ABE203G | | ABS203G | |
| | 4-pole | ABE204G | | ABS204G | |
| Rated current, I _n | | 125,160,200,250A Thermally adjustable : (0.8-0.9-1.0) × I _n | | | |
| Rated operational voltage, U _e | | AC : 600V | | | |
| | | DC : 250V | | | |
| Rated insulation voltage, U _i | | 690V | | | |
| Rated impulse withstand voltage, U _{imp} | | 6kV | | | |
| Rated short-circuit breaking capacity, I _{cu} IEC60947-2(I _{cu}) I _{cs} =75%I _{cu} | AC | 600V | 7.5kA | 10kA | |
| | | 500/550V | 10kA | 12kA | |
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| | | 380/415V | 16kA | 25kA | |
| | | 220/240V | 35kA | 50kA | |
| | DC | 250V | 10kA | 14kA | |
| | | 125V | - | - | |
| Protective function | | Overload, Short-circuit | | | |
| Type of trip unit | | Thermal-Magnetic | | | |
| Magnetic trip range | | (5, 6, 7, 8, 9, 10) × I _n | | | |
| Endurance | Mechanical | 10000 operations | | | |
| | Electrical | 5000 operations | | | |
| Connection | Standard | Front connection | | | |
| | Optional | Rear connection | | | |
| Mounting | | Standard Screw fixing | | | |
| Dimensions(mm)  | Pole | 3p | 4p | 3p | 4p |
| | a | 105 | 140 | 105 | 140 |
| | b | 165 | | 165 | |
| | c1 * | 79 | | 79 | |
| | c2 * | 86 | | 86 | |
| | d | 116 | | 116 | |
| | Weight, kg | Standard | 1.7 | 2.1 | 1.7 |
| Certification | CE marking | ○ | | ○ | |
| | KEMA | ○ | | ○ | |

* Depth by door cut size : C1 for large cut, C2 for small cut

Adjustable MCCBs

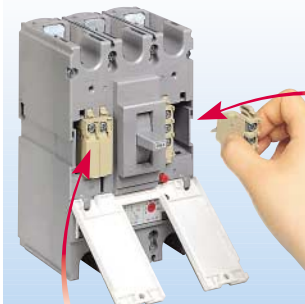
Accessories



Internal accessories

Auxiliary switch, Alarm switch Shunt trip, Undervoltage trip

Common use for AB-G type breakers up to 250Amp.



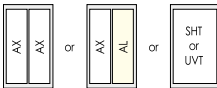
Right-hand seat

Left-hand seat

Maximum possibilities

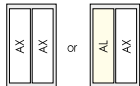
Left-hand seat

Option of connecting 2AX or AX+AL or SHT or UVT

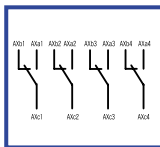


Right-hand seat

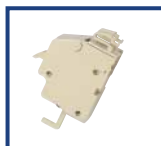
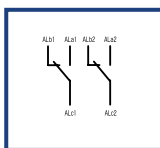
Option of connecting 2AX or AL+AX



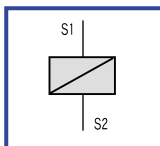
Auxiliary switch, AX



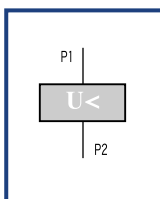
Alarm switch, AL



Shunt trip, SHT



Under voltage trip, UVT



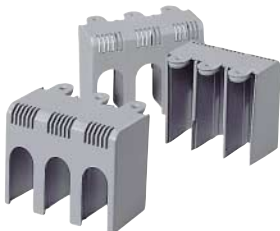
Model

| | |
|-------------------|--|
| | Auxiliary switch, AX |
| | Signals the contact position of the breaker - opening by manual or fault - closing Consists of one change over switch per unit |
| AX1G250 | 1 auxiliary switch (1NO+NC) |
| | Alarm switch, AL |
| | Signals the contact position of the breaker - tripping by manual or fault - not operated by normal opening or closing of a breaker Consists of one change over switch |
| AL1G250 | 1 alarm switch (1NO+NC) |
| | Shunt trip, SHT |
| | Trips the breaker when any AC(DC) voltage between 85(75) and 110(125)% of nominal control voltage is applied. This unit is fitted into the left-hand seat of a handle. |
| ST12CG250 | For 12V AC/DC common use |
| ST24CG250 | For 24V AC/DC common use |
| ST48CG250 | For 48V AC/DC common use |
| ST60CG250 | For 60V AC/DC common use |
| ST100CG250 | For 100~125VAC / 100~110VDC |
| ST200CG250 | For 200~240VAC / 200~220VDC |
| ST250CG250 | For 250V AC/DC common use |
| ST380AG250 | For 380~450V AC |
| ST440AG250 | For 440~480V AC |
| ST500AG250 | For 500~550V AC |
| ST125DG250 | For 125V DC |
| ST240DG250 | For 240V DC |
| | Under voltage trip, UVT |
| | Trips the breaker when control voltage disappears or falls. This unit is fitted into the left-hand seat of a handle. |
| UV24CG250 | For 24V AC/DC common use |
| UV48CG250 | For 48V AC/DC common use |
| UV100CG250 | For 100~110V AC/DC common use |
| UV200CG250 | For 200~220V AC/DC common use |
| UV380AG250 | For 380~440V AC |
| UV440AG250 | For 440~480V AC |

Adjustable MCCBs

External accessories

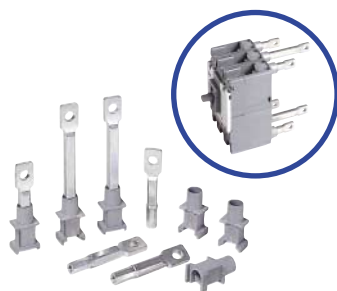
Insulation barriers Terminal shields Rear connection kits



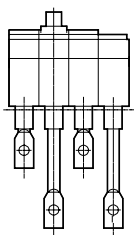
Terminal shield



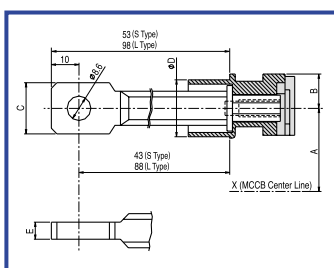
Insulation barriers



Rear connection kits



Bar type



Model

| Model | Insulation barriers |
|----------------|--|
| | <p>These are partitions for the insulation between the phases.</p> <p>Barriers for the line side of the breaker are supplied as standard.</p> <p>Barriers for the load side are optional.</p> <p>Common use for all AB-G type breakers up to 250Amp.</p> |
| IBG250 | One(1) barrier |
| Model | Terminal shields |
| | <p>These are applied to the line/load side of the breaker to prevent accidental contact with live parts.</p> <p>Different by breaker dimensions.</p> <p>Use 3pole shield for 2pole breakers</p> |
| TB-13T | Long type shield for 3-p, 100AF |
| TB-14T | Long type shield for 4-p, 100AF |
| TBS-13T | Short type shield for 3-p, 100AF |
| TBS-14T | Short type shield for 4-p, 100AF |
| TB-23T | Long type shield for 3-p, 250AF |
| TB-24T | Long type shield for 4-p, 250AF |
| TBS-23T | Short type shield for 3-p, 250AF |
| TBS-24T | Short type shield for 4-p, 250AF |
| Model | Rear connection kits ... Bar type |
| X-103 | one set for 3-p, 100AF |
| X-104 | one set for 4-p, 100AF |
| X-203 | one set for 3-p, 250AF |
| X-204 | one set for 4-p, 250AF |

Manual rotary handles



Direct mounting type



Extensible mounting type

Model

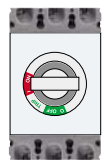
| Direct mounting | |
|---------------------|------------------------------------|
| | <i>Applicable for 100AF</i> |
| D-30S | Vertical type |
| D-30L | Horizontal (ON in left-hand) type |
| D-30R | Horizontal (ON in right-hand) type |
| | <i>Applicable for 250AF</i> |
| D-60S | Vertical type |
| D-60L | Horizontal (ON in left-hand) type |
| D-60R | Horizontal (ON in right-hand) type |
| Extensible mounting | |
| | <i>Applicable for 100AF</i> |
| E-30S | Vertical type |
| E-30L | Horizontal (ON in left-hand) type |
| E-30R | Horizontal (ON in right-hand) type |
| | <i>Applicable for 250AF</i> |
| E-60S | Vertical type |
| E-60L | Horizontal (ON in right-hand) type |
| E-60R | Horizontal (ON in right-hand) type |



Vertical type



Horizontal type
ON in right-hand



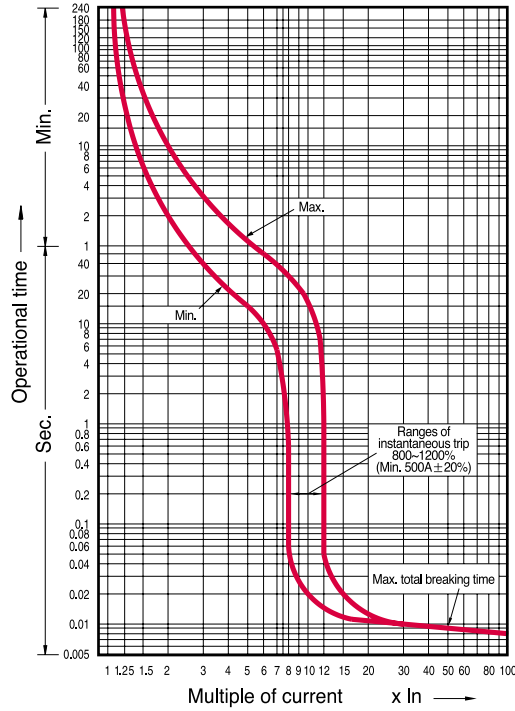
Horizontal type
ON in left-hand

Adjustable MCCBs

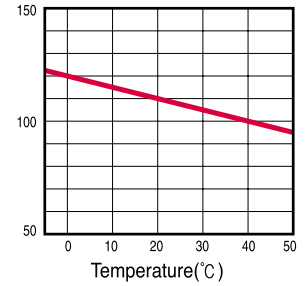
Operating curves

- ABE103G
- ABE104G
- ABS103G
- ABS104G

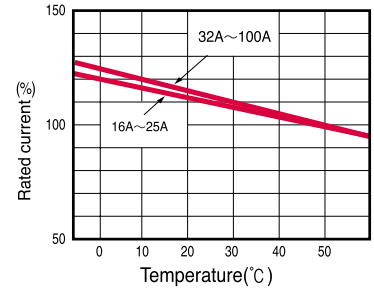
Operating curves



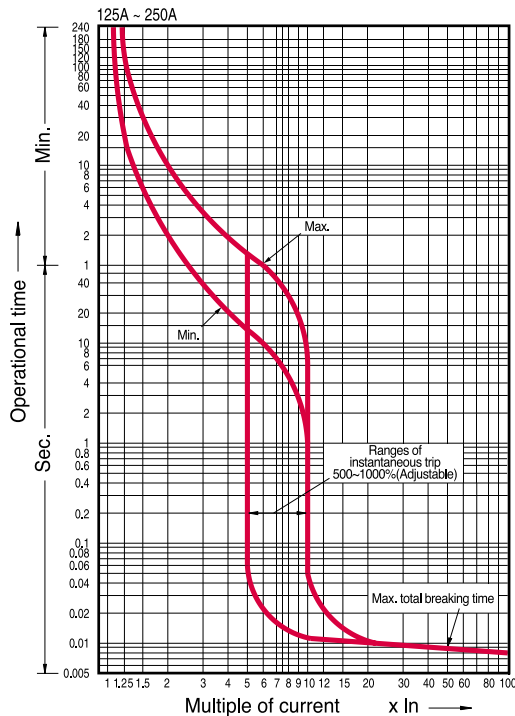
Compensation curves



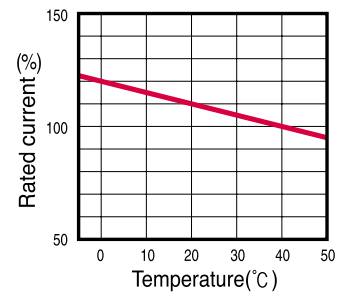
at 50°C



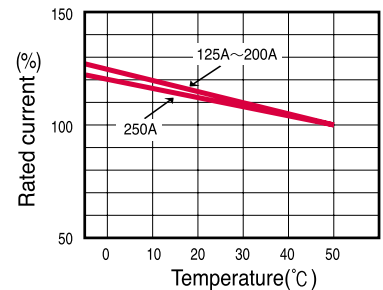
Operating curves



Compensation curves

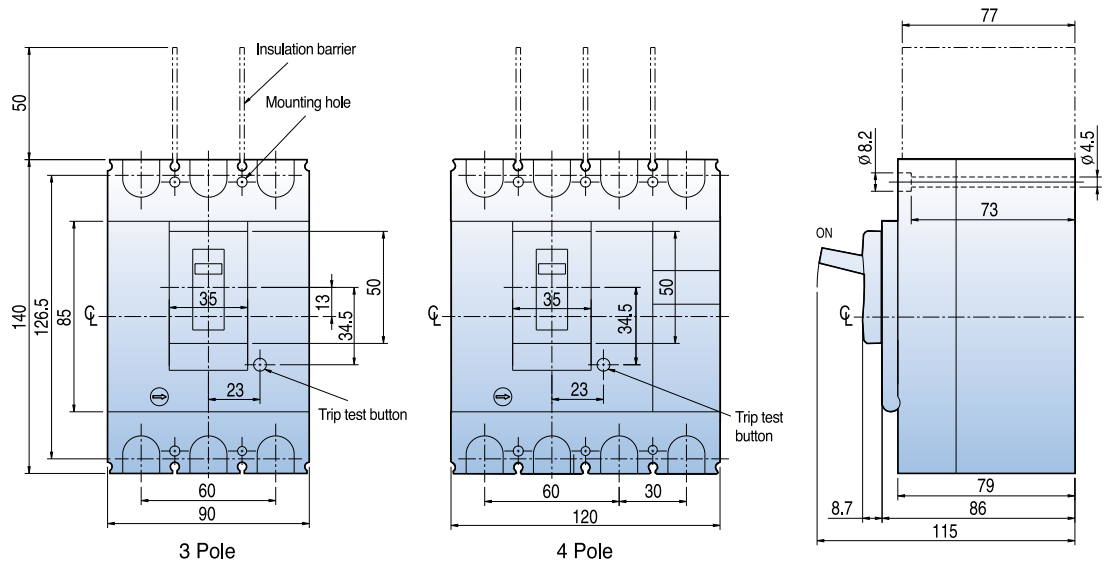


125A~250A at 50°C

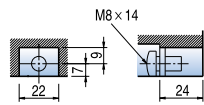


Dimensions

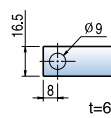
- ABE103G
- ABE104G
- ABS103G
- ABS104G



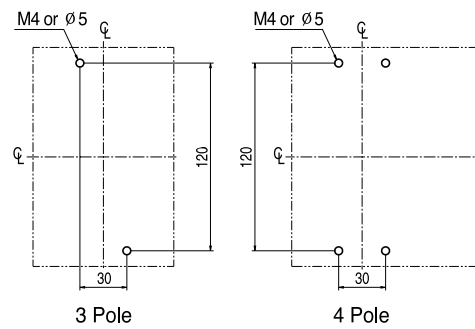
Detailed terminal



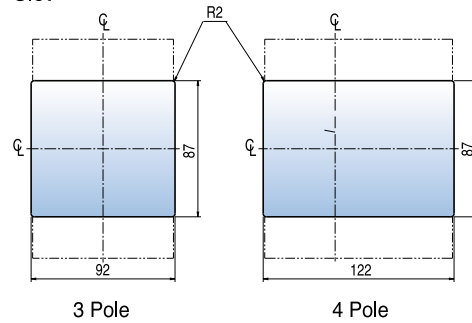
Hole size of a conductor



Mounting



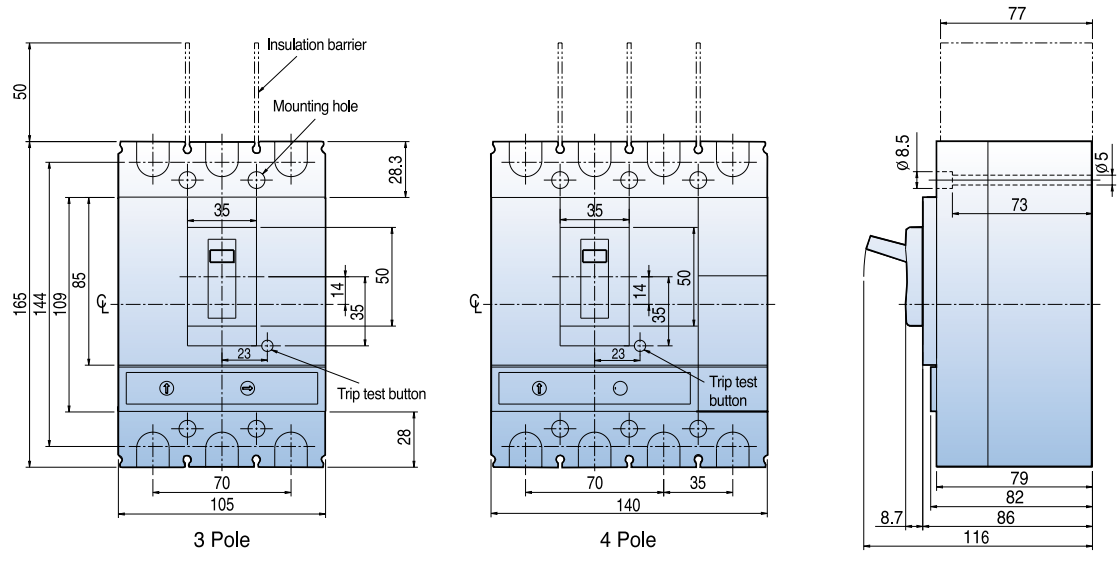
Slot



Adjustable MCCBs

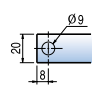
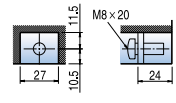
Dimensions

- ABE203G
- ABE204G
- ABS203G
- ABS204G

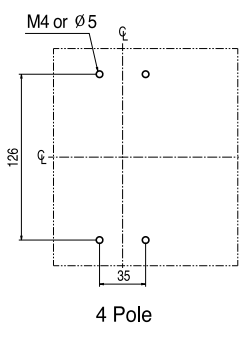
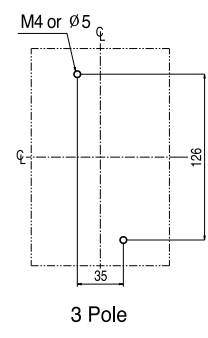


Detailed terminal

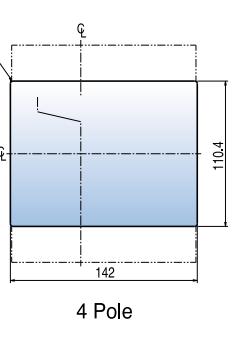
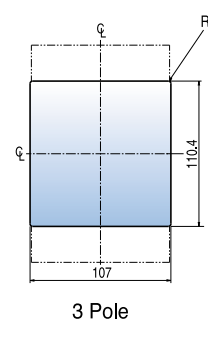
Hole size of a conductor



Mounting



Slot



Memo

Leading Innovation, Creating Tomorrow 



Safety Instructions

- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact qualified service technician when you need maintenance. Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.

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LS Industrial Systems Co., Ltd.

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■ HEAD OFFICE

LS Tower, 1026-6 Hokyeh 1dong, Dongan-gu, Anyang,
Kyonggi-Do, 431-848, Korea

Tel. (82-2)2034-4887, 4873, 4918, 4148

Fax. (82-2)2034-4648

■ CHEONG-JU PLANT

Cheong-Ju Plant #1, Song Jung Dong, Hung Duk Ku,
Cheong Ju, 361-720, Korea

■ Global Network

• LS Industrial Systems (Middle East) FZE >> Dubai, U.A.E.

Address: LOB 19 JAFZA VIEW TOWER Room 205, Jebel Ali Freezone P.O. Box 114216, Dubai, United Arab Emirates
Tel: 971-4-886 5360 Fax: 971-4-886-5361 e-mail: hwyim@lsis.biz

• Dalian LS Industrial Systems Co., Ltd. >> Dalian, China

Address: No.15, Liaohexi 3-Road, Economic and Technical Development zone, Dalian 116600, China
Tel: 86-411-8273-7777 Fax: 86-411-8730-7560 e-mail: lixk@lsis.com.cn

• LS Industrial Systems (Wuxi) Co., Ltd. >> Wuxi, China

Address: 102-A, National High & New Tech Industrial Development Area, Wuxi, Jiangsu, 214028, P.R.China
Tel: 86-510-8534-6666 Fax: 86-510-522-4078 e-mail: xuhg@lsis.com.cn

• LS-VINA Industrial Systems Co., Ltd. >> Hanoi, Vietnam

Address: Nguyen Khe - Dong Anh - Ha Noi - Viet Nam
Tel: 84-4-882-0222 Fax: 84-4-882-0220 e-mail: srjo@lsisvina.com

• LS-VINA Industrial Systems Co., Ltd. >> Hochiminh, Vietnam

Address: 41 Nguyen Thi Minh Khai Str. Yoco Bldg 4th Floor, Hochiminh City, Vietnam
Tel: 84-8-3822-7941 Fax: 84-8-3822-7942 e-mail: sbpark@lsisvina.com

• LS Industrial Systems Tokyo Office >> Tokyo, Japan

Address: 16FL, Higashi-Kan, Akasaka Twin Tower 17-22, 2-chome, Akasaka, Minato-ku Tokyo 107-8470, Japan
Tel: 81-3-3582-9128 Fax: 81-3-3582-2667 e-mail: jschuna@lsis.biz

• LS Industrial Systems Shanghai Office >> Shanghai, China

Address: Room E-G, 12th Floor Huamin Empire Plaza, No.726, West Yan'an Road Shanghai 200050, P.R. China
Tel: 86-21-5237-9977 (609) Fax: 89-21-5237-7191 e-mail: jinhk@lsis.com.cn

• LS Industrial Systems Beijing Office >> Beijing, China

Address: B-Tower 17FL Beijing Global Trade Center B/D. No.36, BeiSanHuanDong-Lu, DongCheng-District,
Beijing 100013, P.R. China
Tel: 86-10-5825-6025,7 Fax: 86-10-5825-6026 e-mail: cuixiaorong@lsis.com.cn

• LS Industrial Systems Guangzhou Office >> Guangzhou, China

Address: Room 1403,14F,New Poly Tower,2 Zhongshan Liu Road,Guangzhou, P.R. China
Tel: 86-20-8326-6764 Fax: 86-20-8326-6287 e-mail: linsz@lsis.biz

• LS Industrial Systems Chengdu Office >> Chengdu, China

Address: Room 1701 17Floor, huanminhanjun international Building, No1 Fuxing Road Chengdu, 610041, P.R. China
Tel: 86-28-8670-3101 Fax: 86-28-8670-3203 e-mail: yanggf@lsis.com.cn

• LS Industrial Systems Qingdao Office >> Qingdao, China

Address: 7B40,Haixin Guangchang Shenye Building B, No.9, Shandong Road Qingdao 26600, P.R. China
Tel: 86-532-8501-6568 Fax: 86-532-583-3793 e-mail: lirj@lsis.com.cn

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