

AE Series Bolted Circuit Breakers and Enclosures

Explosionproof, Dust-Ignitionproof, Watertight

2- and 3-Pole, Non-Interchangeable Trip. Bolted Enclosure Type.

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D

Class II, Division 1 and 2, Groups E, F, G

Class III

NEMA 4, 4X

Application

- Explosionproof circuit breaker enclosures are used where hazardous materials are handled or stored.
- These units are used for overload and short circuit protection, control of lighting and power circuits.

Features

- Precision machined flame path between box and cover.
- Bolt on stainless steel slotted mounting feet.
- Stainless steel, captive Quad-Lead® cover bolts are standard (disengaged in 1-1/2 turns).
- Ground lug package and installation instructions for termination of ground wire enclosed.
- External operating handle with stops for limiting handle travel.
- Breaker operators can be locked in the ON or OFF position (up to 3 padlocks).
- External flange maximizes internal space.
- Standard outlets top and bottom for line and load wiring.
- Plugged 1/2" outlets top and bottom for breather and drain.
- Breakers mounted on a galvanized steel removable pan.
- Enclosures are designed to accept GE®, Square D®, and Cutler-Hammer † circuit breakers.
- O-ring gasket insures watertight integrity.

Standard Materials

- Bodies and covers: copperfree (4/10 of 1% max.) aluminum
- Cover bolts, hinges, breaker and operator shafts: stainless steel
- Hinges: stainless steel
- O-ring: neoprene

Standard Finishes

- Bodies and covers: gray epoxy powder coat inside and outside standard

Options

Must be listed in alphanumeric sequence at the end of the catalog number.

- Auxiliary switch (1NC, 1NO), add suffix —**AS1**.
- Auxiliary switch (2NC, 2NO), add suffix —**AS2**.
- Breather, NEMA 4X (includes outlet and installation), add suffix —**BR**.
- Drain, NEMA 4X (includes outlet and installation), add suffix —**DN**.
- External grounding stud, add suffix —**EGS**.
- Plastic nameplate, 2" x 4", 1/8" black letters on white surface, 3 lines max, specify legend, add suffix —**NP**.
- Shunt trip (specify voltage), add suffix —**ST**.
- Under voltage release (specify voltage), add suffix —**UV**.
- For +50 °C (+122 °F) breaker rating, add suffix —**V**.

NEC/CEC Certifications and Compliances

- UL Standard: UL 1203
- UL Classified: E84577
- CSA Standard: C22.2 No. 0, C22.2 No. 4, C22.2 No. 5, C22.2 No. 25, C22.2 No. 30
- CSA Certified (800A Max): 1324917



► GE is a registered trademark of General Electric Company.

■ Square D is a registered trademark of Schneider Electric.

† Cutler-Hammer is a registered trademark of Eaton Corporation.

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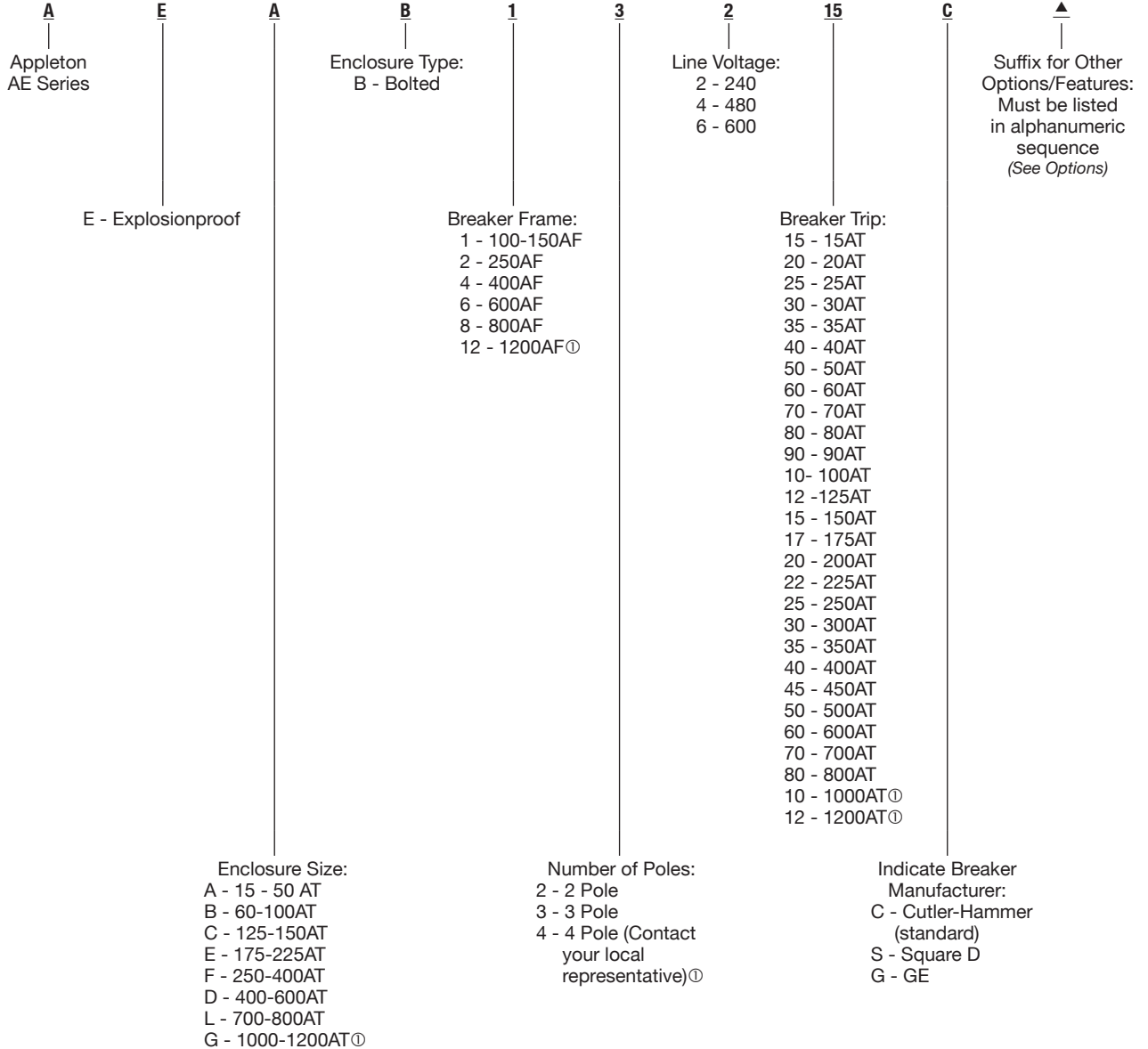
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NEMA 4, 4X

Catalog Numbering Guide



DISTRIBUTION EQUIPMENT - NEC/CEC EXPLOSIONPROOF CIRCUIT BREAKERS



^① UL Classified. NEC Certification only.

[▲] To complete the catalog number please add the appropriate suffix for other options/features. These suffixes can be found in the modifications table in this section.

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Circuit Breaker Interrupting Ratings (Symmetrical RMS Amps)

| Breaker Type | 240 Vac | 480 Vac | 600 Vac |
|------------------------|---------|---------|---------|
| Cutler-Hammer † | | | |
| EHD | 18,000 | 14,000 | — |
| FD | 65,000 | 35,000 | 18,000 |
| HFD | 100,000 | 65,000 | 25,000 |
| JD | 65,000 | 35,000 | 18,000 |
| HJD | 100,000 | 65,000 | 25,000 |
| KD | 65,000 | 35,000 | 25,000 |
| HKD | 100,000 | 65,000 | 35,000 |
| LD | 65,000 | 35,000 | 22,000 |
| HLD | 100,000 | 65,000 | 35,000 |
| MDL | 65,000 | 50,000 | 25,000 |
| HMDL | 100,000 | 65,000 | 35,000 |
| ND | 65,000 | 50,000 | 25,000 |
| HND | 100,000 | 65,000 | 35,000 |
| GE ▶ | | | |
| TED | 18,000 | 18,000 | 14,000 |
| THED | 65,000 | 25,000 | 18,000 |
| TFK | 25,000 | 22,000 | 18,000 |
| THFK | 65,000 | 25,000 | 18,000 |
| TJK4 | 42,000 | 30,000 | 22,000 |
| THJK4 | 65,000 | 35,000 | 25,000 |
| TJK6 | 42,000 | 30,000 | 22,000 |
| THJK6 | 65,000 | 35,000 | 25,000 |
| TKM8 | 42,000 | 30,000 | 22,000 |
| THKM8 | 65,000 | 35,000 | 25,000 |
| TKM12 | 42,000 | 30,000 | 22,000 |
| THKM12 | 65,000 | 35,000 | 25,000 |

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| Breaker Frame Size | Breaker Type/ Interrupting Capacity ① | Volts | Amp Rating | Catalog Numbers ② ▲ | | Standard Conduit Outlets (Inches) |
|--------------------|--|----------------------|------------|---------------------|------------|-----------------------------------|
| | | | | 2-Pole | 3-Pole | |
| 100 | EHD 18,000 AIC @ 240 Vac | 480 Vac, 125/250 Vdc | 15 | AEAB12215C | AEAB13215C | 1-1/2 |
| | | | 20 | AEAB12220C | AEAB13220C | |
| | | | 25 | AEAB12225C | AEAB13225C | |
| | | | 30 | AEAB12230C | AEAB13230C | |
| | | | 35 | AEAB12235C | AEAB13235C | |
| | | | 40 | AEAB12240C | AEAB13240C | 2 |
| | | | 50 | AEAB12250C | AEAB13250C | |
| | | | 60 | AEAB12260C | AEAB13260C | |
| | | | 70 | AEAB12270C | AEAB13270C | |
| | | | 80 | AEAB12280C | AEAB13280C | |
| 150 | FD 65,000 AIC @ 240 Vac | 600 Vac, 125/250 Vdc | 125 | AECB12212C | AECB13212C | 2-1/2 |
| | | | 150 | AECB12215C | AECB13215C | |
| 100 | EHD 14,000 AIC @ 480 Vac | 480 Vac, 125/250 Vdc | 15 | AEAB12415C | AEAB13415C | 1-1/2 |
| | | | 20 | AEAB12420C | AEAB13420C | |
| | | | 25 | AEAB12425C | AEAB13425C | |
| | | | 30 | AEAB12430C | AEAB13430C | |
| | | | 35 | AEAB12435C | AEAB13435C | |
| | | | 40 | AEAB12440C | AEAB13440C | 2 |
| | | | 50 | AEAB12450C | AEAB13450C | |
| | | | 60 | AEAB12460C | AEAB13460C | |
| | | | 70 | AEAB12470C | AEAB13470C | |
| | | | 80 | AEAB12480C | AEAB13480C | |
| 150 | FD 35,000 AIC @ 480 Vac | 600 Vac, 125/250 Vdc | 125 | AECB12412C | AECB13412C | 2-1/2 |
| | | | 150 | AECB12415C | AECB13415C | |
| 150 | FD 18,000 AIC @ 600 Vac | 600 Vac, 125/250 Vdc | 15 | AEAB12615C | AEAB13615C | 1-1/2 |
| | | | 20 | AEAB12620C | AEAB13620C | |
| | | | 25 | AEAB12625C | AEAB13625C | |
| | | | 30 | AEAB12630C | AEAB13630C | |
| | | | 35 | AEAB12635C | AEAB13635C | |
| | | | 40 | AEAB12640C | AEAB13640C | 2 |
| | | | 50 | AEAB12650C | AEAB13650C | |
| | | | 60 | AEAB12660C | AEAB13660C | |
| | | | 70 | AEAB12670C | AEAB13670C | |
| | | | 80 | AEAB12680C | AEAB13680C | |
| 150 | | | 90 | AEAB12690C | AEAB13690C | 2 |
| | | | 100 | AEAB12610C | AEAB13610C | |
| | | | 125 | AECB12612C | AECB13612C | |
| 150 | | | 150 | AECB12615C | AECB13615C | 2-1/2 |

① For higher interrupting capacities, contact your local representative.

② Cutler-Hammer breaker provided as standard. For GE breaker change **C** to **G**; For Square D breaker change **C** to **S**.

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| Breaker Frame Size | Breaker Type/ Interrupting Capacity ② | Volts | Amp Rating | Catalog Numbers ③ ▲ | | Standard Conduit Outlets (Inches) |
|--------------------|--|-------------------------|------------|--|-------------------------|-----------------------------------|
| | | | | 2-Pole | 3-Pole | |
| 250 | JD 18,000 AIC @ 600 Vac JD 35,000 AIC @ 480 Vac | 600 Vac, 125/250 Vdc | 70 | AEEB22670C | AEEB23670C | 3 |
| | | | 90 | AEEB22690C | AEEB23690C | |
| | | | 100 | AEEB22610C | AEEB23610C | |
| | | | 125 | AEEB22612C | AEEB23612C | |
| | | | 175 | AEEB22617C | AEEB23617C | |
| | | | 200 | AEEB22620C | AEEB23620C | |
| | | | 225 | AEEB22622C | AEEB23622C | |
| 400 | KD 25,000 AIC @ 600 Vac KD 35,000 AIC @ 480 Vac | 600 Vac, 125/250 Vdc | 250 | AEFB22625C | AEFB23625C | 3 |
| | | | 125 | AEFB42612C | AEFB43612C | |
| | | | 175 | AEFB42617C | AEFB43617C | |
| | | | 200 | AEFB42620C | AEFB43620C | |
| | | | 225 | AEFB42622C | AEFB43622C | |
| | | | 250 | AEFB42625C | AEFB43625C | |
| | | | 300 | AEFB42630C | AEFB43630C | |
| | | | 350 | AEFB42635C | AEFB43635C | |
| | | | 400 | AEFB42640C | AEFB43640C | |
| | | | 600 | LD 25,000 AIC @ 600 Vac LD 35,000 AIC @ 480 Vac | 600 Vac, 125/250 Vdc | |
| 500 | AEDB62650C | AEDB63650C | | | | |
| 600 | AEDB62660C | AEDB63660C | | | | |
| 800 | MDL 25,000 AIC @ 600 Vac MDL 50,000 AIC @ 480 Vac | 600 Vac, 125/250 Vdc | 300 | AELB82630C | AELB83630C | (2) 4 |
| | | | 350 | AELB82635C | AELB83635C | |
| | | | 400 | AELB82640C | AELB83640C | |
| | | | 450 | AELB82645C | AELB83645C | |
| | | | 500 | AELB82650C | AELB83650C | |
| | | | 600 | AELB82660C | AELB83660C | |
| | | | 700 | AELB82670C | AELB83670C | |
| | | | 800 | AELB82680C | AELB83680C | |
| 1200 | MDL 25,000 AIC @ 600 Vac MDL 50,000 AIC @ 480 Vac | 600 Vac, 125/250 Vdc | 600 | AEGB122660C ① | AEGB123660C ① | (2) 4 |
| | | | 800 | AEGB122680C ① | AEGB123680C ① | |
| | | | 1000 | AEGB122610C ① | AEGB123610C ① | |
| | | | 1200 | AEGB122612C ① | AEGB123612C ① | |

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Dimensions in Millimeters (Inches)

Diagram 1—Enclosure Layout for 50 - 250 Amp (Sizes: A - B - C - E)

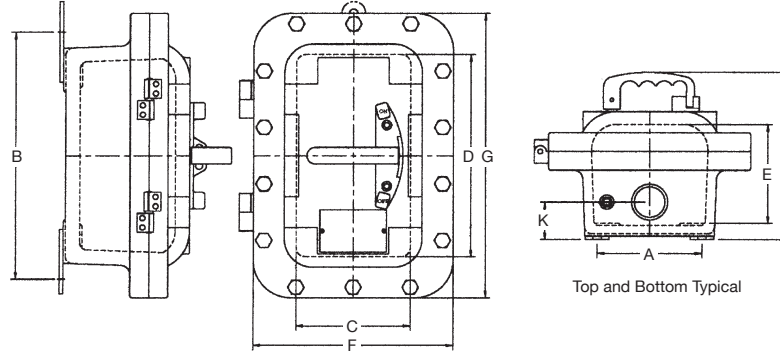
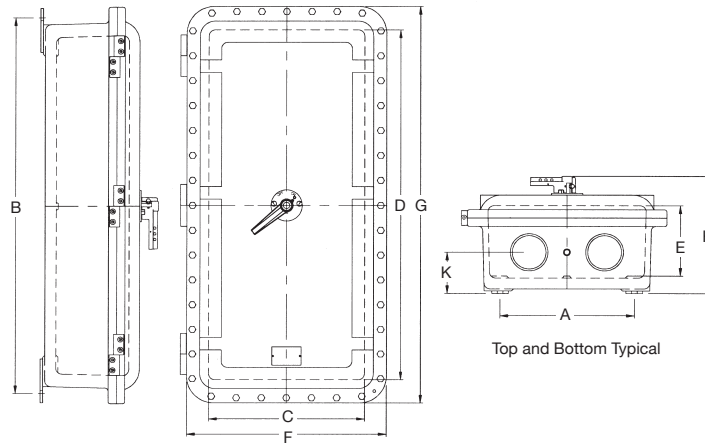


Diagram 2—Enclosure Layout for 400 - 600 Amp (Sizes: F - D)



Enclosure Only

| Enclosure Size | Catalog Number | Dia. Number | Dimensions in Millimeters (Inches) | | | | | | | | Outlet Size (in) | Number of Outlets | Dimension mm (in) | Approximate Weight kgs (lbs) |
|----------------|----------------|-------------|------------------------------------|-------------------|------------------|-------------------|-----------------|--------------------|-------------------|------------------|------------------|-------------------|-------------------|------------------------------|
| | | | Mounting | | Inside | | | Outside | | | | | | |
| | | | A | B | C | D | E | F | G | H | | | K | |
| A | AEAB | 1 | 139.7 (5.50) | 333.5 (13.13) | 155.7 (6.13) | 273.0 (10.75) | 133.3 (5.25) | 266.7 (10.5) | 384.3 (15.3) | 165.1 (6.5) | 1-1/2 | 2 | 50.8 (2.00) | 17.24 (38) |
| B | AEBB | 1 | 152.4 (6.00) | 457.2 (18.00) | 165.1 (6.50) | 406.4 (16.00) | 139.7 (5.50) | 279.4 (11.00) | 502.7 (20.5) | 168.4 (6.63) | 2 | 2 | 58.6 (2.31) | 25.85 (57) |
| C | AECB | 1 | 260.3 (10.25) | 574.8 (22.63) | 289.0 (11.38) | 508.0 (20.00) | 162.0 (6.38) | 408.94 (16.1) | 622.3 (24.5) | 206.5 (8.13) | 2-1/2 | 2 | 88.9 (3.50) | 47.17 (104) |
| E | AEEB | 1 | 215.9 (8.50) | 689.1 (27.13) | 285.7 (11.25) | 758.9 (29.88) | 183.8 (7.63) | 400.05 (15.75) | 746.25 (29.38) | 239.77 (9.44) | 3 | 2 | 101.6 (4.00) | 65.77 (145) |
| F | AEFB | 2 | 241.3 (9.50) | 692.1 (27.25) | 285.7 (11.25) | 758.9 (29.88) | 204.7 (8.06) | 416.05 (16.381) | 889.0 (35.00) | 257.3 (10.13) | 3 | 4 | 106.4 (4.19) | 77.11 (170) |
| D | AEDB | 2 | 409.7 (16.13) | 1035.0 (40.75) | 457.2 (18.00) | 1079.5 (42.50) | 193.8 (7.63) | 457.2 (18.00) | 520.7 (42.5) | 250.95 (9.88) | 4 | 4 | 109.4 (4.31) | 103.42 (228) |

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Dimensions in Millimeters (Inches)

Diagram 3—Enclosure Layout for 800 Amp (Size: L)

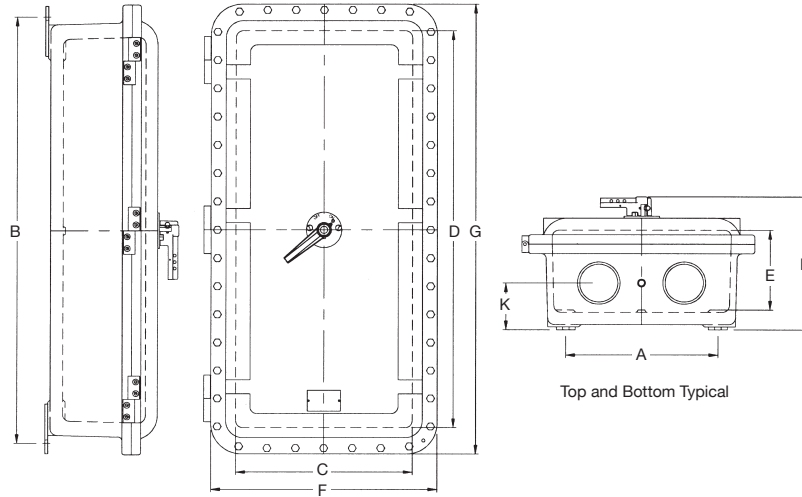
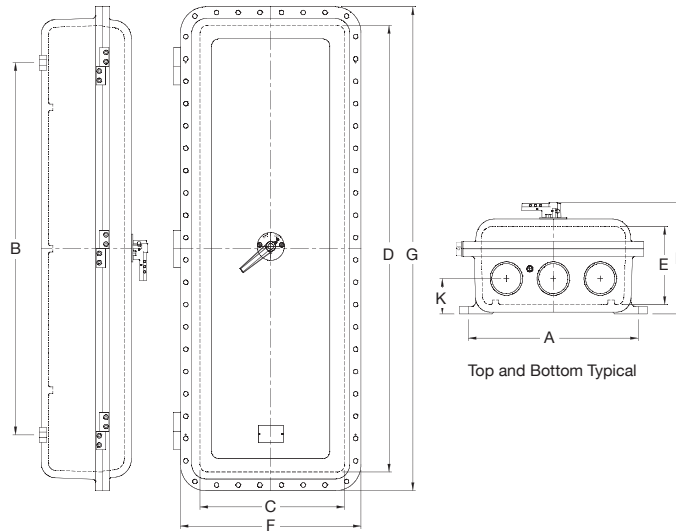


Diagram 4—Enclosure Layout for 1200 Amp (Size: G)



Enclosure Only

| Enclosure Size | Catalog Number | Dia. Number | Dimensions in Millimeters (Inches) | | | | | | | | | | Outlet Size (in) | Number of Outlets | Dimension mm (in) K | Approximate Weight kgs (lbs) |
|----------------|----------------|-------------|------------------------------------|-------------------|------------------|-------------------|------------------|-------------------|--------------------|-------------------|---|---|------------------|-------------------|---------------------|------------------------------|
| | | | Mounting | | Inside | | | | Outside | | | | | | | |
| | | | A | B | C | D | E | F | G | H | | | | | | |
| L | AELB | 3 | 406.4 (16.00) | 1152.6 (45.38) | 473.2 (18.63) | 1073.1 (42.25) | 215.9 (8.50) | 606.55 (23.88) | 1216.15 (47.88) | 287.27 (11.31) | 4 | 4 | 127.0 (5.00) | 190.06 (419) | | |
| G ^① | AEGB | 4 | 543.1 (21.38) | 1270.0 (50.00) | 508.0 (20.00) | 1524.0 (60.00) | 254.0 (10.00) | 635.0 (25.00) | 1651 (65.00) | 317.5 (12.5) | 4 | 6 | 111.2 (4.38) | 257.19 (567) | | |

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