

2

Ratings and Specifications

Moulded Case Circuit Breakers

2 Standard series

| Frame size (A) | | | S160-NF | | | | S160-SCF | | | | S160-SCJ | | | | S160-SF | | | | S160-SJ | | | | P160F | | | | | | | | | | | | | |
|------------------------------------|-----------------|------------------|--------------------------------------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|------|--|---|--|
| Type | Number of poles | Rated current, A | 1 | | 2 | | 3 | | 4 | | 3 | | 4 | | 3 | | 4 | | 3 | | 4 | | 3 | | 4 | | 3 | | 4 | | | | | | | |
| Rated breaking capacity, kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IEC 60947-2 AC | | | 690V | | — | | — | | — | | — | | 6/3 | | 6/3 | | 6/6 | | 6/6 | | 6/6 | | 6/6 | | 6/6 | | 6/6 | | 6/6 | | | | | | | |
| $I_{cu}/I_{cs}(Sym)$ | | | 525V | | — | | 7.5/4 | | 7.5/4 | | 7.5/4 | | 7.5/4 | | 10/7.5 | | 10/7.5 | | 18/18 | | 18/18 | | 18/18 | | 18/18 | | 18/18 | | 18/18 | | | | | | | |
| | | | 480V | | — | | 7.5/4 | | 7.5/4 | | 7.5/4 | | 7.5/4 | | 10/7.5 | | 10/7.5 | | 25/22 | | 25/22 | | 25/22 | | 25/22 | | 25/22 | | 25/22 | | | | | | | |
| | | | 440V | | — | | 15/7.5 | | 15/7.5 | | 15/7.5 | | 15/7.5 | | 25/13 | | 25/13 | | 25/25 | | 25/25 | | 25/25 | | 25/25 | | 25/25 | | 25/25 | | | | | | | |
| | | | 415V | | — | | 25/13 | | 25/13 | | 25/13 | | 25/13 | | 40/20 | | 40/20 | | 36/36 | | 36/36 | | 36/36 | | 36/36 | | 36/36 | | 36/36 | | | | | | | |
| | | | 240V | | 25/19 | | 35/18 | | 35/18 | | 35/18 | | 35/18 | | 50/25 | | 50/25 | | 50/50 | | 50/50 | | 50/50 | | 50/50 | | 50/50 | | 50/50 | | | | | | | |
| | | | DC 250V | | — | | 20/10 | | 20/10 | | 20/10 | | 20/10 | | 25/13 | | 25/13 | | 25/19 | | 25/19 | | 25/19 | | 25/19 | | 25/19 | | 25/19 | | | | | | | |
| External dimensions, mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | a | | 35 | | 50 | | 75 | | 100 | | 75 | | 100 | | 75 | | 100 | | 90 | | 120 | | 90 | | 120 | | 90 | | 120 | | | | | |
| | | | b | | 165 | | 130 | | 130 | | 130 | | 130 | | 130 | | 130 | | 130 | | 130 | | 130 | | 130 | | 130 | | 130 | | 130 | | | | | |
| | | | c | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | 68 | | | | | |
| | | | d | | 92 | | 95 | | 95 | | 95 | | 95 | | 95 | | 95 | | 95.5 | | 95.5 | | 95.5 | | 95.5 | | 95.5 | | 95.5 | | 95.5 | | | | | |
| Weight (● marked standard type) kg | | | 0.5 | | 0.6 | | 0.8 | | 1.0 | | 0.8 | | 1.0 | | 0.8 | | 1.0 | | 0.8 | | 1.0 | | 1.0 | | 1.3 | | 1.0 | | 1.3 | | 1.0 | | 1.3 | | | |
| Connections and Mountings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Front-connected | | | Terminal screws (FC) | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | | | |
| | | | With extension bars (FB) | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | ○ ⑤ | | | |
| | | | Cable clamp (FW) | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | | |
| Rear-connected | | | Flat bar studs (RC) | | — | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | | |
| Plug-in (PM) | | | For switchboards (PMB) | | — | | — | | — | | — | | — | | — | | — | | — | | ○ ②③ | | ○ ②③ | | ○ ②③ | | ○ ②③ | | ○ ②③ | | ○ ②③ | | ○ ②③ | | | |
| Draw-out type | | | (DR) | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| DIN rail mount | | | (DA) | | — | | — | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | ○ ④ | | | |
| Overcurrent trip mechanism | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OCR type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thermal magnetic | | | Adjustable thermal (ADJ) | | — | | — | | — | | ● | | — | | — | | ● | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| | | | Fixed thermal (FIX) | | ● | | ● | | ● | | — | | — | | ● | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| Electronic | | | TPOPT | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| | | | TPOP | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| | | | XOU | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| | | | XOS | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| Accessories (optional) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Symbol | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Externally mounted | | | Auxiliary switch (A X) | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| | | | Alarm switch (A L) | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| | | | Shunt trips (S H) | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| Internally mounted | | | Undervoltage trips (U V) | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| | | | Motor operator (M C) | | — | | — | | — | | — | | — | | — | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| Externally mounted | | | External operating handle (H B) | | — | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | |
| | | | Door-mounted (variable depth) (H P) | | — | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| | | | Toggle extension (H A) | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| Mechanical interlock | | | Slide type (M S) | | — | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| | | | Link type (M L) | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| | | | Wire type (M W) | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| Toggle holder | | | (H H) | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| Toggle lock | | | (H L) | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| Terminal cover | | | For front-connected (C F) | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| | | | For rear-connected and plug-in (C R) | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| | | | For cable clamps (C S) | | ● | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | — | | | |
| Terminal block for lead | | | (T F) | | — | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| Door flange | | | (D F) | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| CE marking | | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | | | | |
| Colour of cover | | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | | | | |
| Trip button (Colour) | | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | | | | |
| Suitability for isolation | | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | | | | |
| Reverse connection | | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | | | | |
| Endurance | | | Electrical 415V | | 20,000 | | 10,000 ⑦ | | 10,000 ⑦ | | 10,000 ⑦ | | 10,000 ⑦ | | 10,000 ⑦ | | 10,000 ⑦ | | 10,000 ⑦ | | 30,000 | | 30,000 | | 30,000 | | 30,000 | | 30,000 | | 30,000 | | | | | |
| | | | Mechanical | | 30,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | 50,000 | | 50,000 | | 50,000 | | 50,000 | | 50,000 | | 50,000 | | | | | |

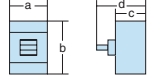
Notes:
 ● : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering. ● : "yes" or "available". — : "no" or "not available".
 ④ : Please order the DIN rail adapter separately. ⑤ : For the extension bars, please place the order separately in parts. ⑦ : 14,000 for less than 125A
 ②③ : A safety trip function is provided. ②③ : Not available for Plug-in
 ⑩ : Adjustable range (I_p)=0.8-0.9-1.0×(I_n) ⑤⑤ : Max. rating 125A at 50°C for Plug-in.
 ③③ : For (I_t) rated current settings (A) please refer to Section 7.
 ③③ : MCCB cannot be used in IT systems at this voltage.

2

Ratings and Specifications

Moulded Case Circuit Breakers

2 Standard series

| Frame size (A) | | | P160N | | | | P160H | | | | P250F | | | | P250N | | | | |
|---|---------------------------|-----------------------------------|-----------|-----------|---------------------------------------|-----------|-----------|-----------|---------------------------------------|-----------|-----------|-----------|---|-----------|-----------|-----------|---|-----------|---|
| Type | | | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | |
| Number of poles | | | | | | | | | | | | | | | | | | | |
| ■ Ratings | | | | | | | | | | | | | | | | | | | |
| Rated current, A | | | 20 | 160 ②⑨ | $I_n=40$ $I_n=100$ $I_n=160$ ③⑤ | | 20 | 160 ②⑨ | $I_n=40$ $I_n=100$ $I_n=160$ ③⑤ | | 50 | 250 | $I_n=40$ $I_n=100$ $I_n=160$ ④④ $I_n=250$ ④⑤ | | 50 | 250 | $I_n=40$ $I_n=100$ $I_n=160$ ④④ $I_n=250$ ④⑤ | | |
| Calibrated at | | | 50°C | — | — | | 50°C | — | — | | 50°C | — | — | | 50°C | — | — | | |
| Rated insulation voltage [U_i] V AC | | | 800 | 800 | 800 | | 800 | 800 | 800 | | 800 | 800 | 800 | | 800 | 800 | 800 | | |
| Rated impulse withstand voltage [U_{imp}] kV | | | 8 | 8 | 8 | | 8 | 8 | 8 | | 8 | 8 | 8 | | 8 | 8 | 8 | | |
| Rated short time withstand current [I_{cw}] kA | | | — | — | — | | — | — | — | | — | — | — | | — | — | — | | |
| Utilization Category | | | A | A | A | | A | A | A | | A | A | A | | A | A | A | | |
| ■ Rated breaking capacity, kA | | | | | | | | | | | | | | | | | | | |
| IEC 60947-2 | AC | 690V | 6/6 | 6/6 ③⑨ | 6/6 | 6/6 ③⑨ | 6/6 | 6/6 ③⑨ | 6/6 | 6/6 ③⑨ | 6/6 | 6/6 ③⑨ | 6/6 | 6/6 ③⑨ | 6/6 | 6/6 ③⑨ | 6/6 | 6/6 ③⑨ | |
| I_{cu}/I_{cs} (sym) | | 525V | 22/18 | 22/18 | 25/18 | 25/18 | 22/22 | 22/22 | 25/25 | 25/25 | 22/22 | 22/22 | 25/25 | 25/25 | 25/25 | 25/25 | 25/25 | 25/25 | |
| | | 480V | 35/22 | 35/22 | 50/22 | 50/22 | 25/22 | 25/22 | 36/36 | 36/36 | 25/22 | 25/22 | 36/36 | 36/36 | 36/25 | 36/25 | 36/25 | 36/25 | |
| | | 440V | 35/35 | 35/35 | 50/35 | 50/35 | 25/25 | 25/25 | 36/36 | 36/36 | 25/25 | 25/25 | 36/36 | 36/36 | 36/36 | 36/36 | 36/36 | 36/36 | |
| | | 415V | 50/50 | 50/50 | 70/50 | 70/50 | 36/36 | 36/36 | 50/50 | 50/50 | 36/36 | 36/36 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | |
| | | 240V | 85/85 | 85/85 | 85/85 | 85/85 | 50/50 | 50/50 | 85/85 | 85/85 | 50/50 | 50/50 | 85/85 | 85/85 | 85/85 | 85/85 | 85/85 | 85/85 | |
| | DC | 250V | 40/40 | — | 40/40 | — | 25/19 | — | — | — | — | — | — | 40/40 | — | — | — | | |
| ■ External dimensions, mm | | | | | | | | | | | | | | | | | | | |
|  | a | | 90 | 120 | 90 | 120 | 90 | 120 | 90 | 120 | 105 | 140 | 105 | 140 | 105 | 140 | 105 | 140 | |
| | b | | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 165 | |
| | c | | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| | d | | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | 95.5 | |
| Weight (● marked standard type) kg | | | 1.0 | 1.3 | 1.0 | 1.3 | 1.0 | 1.3 | 1.0 | 1.3 | 1.5 | 2.0 | 1.5 | 2.0 | 1.5 | 2.0 | 1.5 | 2.0 | |
| ■ Connections and Mountings | | | | | | | | | | | | | | | | | | | |
| Front-connected | Terminal screws (FC) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | With extension bars (FB) | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | ○ ⑤ | |
| | Cable clamp (FW) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Rear-connected | Flat bar studs (RC) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Plug-in (PM) | For switchboards (PMB) | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | |
| | Draw-out type (DR) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| DIN rail mount (DA) | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | ○ ④ | |
| ■ Overcurrent trip mechanism | | | | | | | | | | | | | | | | | | | |
| Thermal magnetic | Adjustable thermal ADJ | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | |
| | Fixed thermal FIX | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Electronic | TPOT | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | |
| | TPOP | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | ● | — | |
| | XOU | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| | XOS | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| ■ Accessories (optional) | | | | | | | | | | | | | | | | | | | |
| Internally mounted | Auxiliary switch A X | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Alarm switch A L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Externally mounted | Shunt trips S H | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Undervoltage trips U V | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Externally mounted | Motor operator M C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | External operating handle | Breaker-mounted H B | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | Door-mounted (variable depth) H P | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Toggle extension H A | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| | Mechanical interlock ⑱ | Slide type M S | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | Link type M L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | Wire type M W | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Toggle holder H H | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Toggle lock H L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Terminal cover | For front-connected C F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| For rear-connected and plug-in C R | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| For cable clamps C S | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Terminal block for lead T F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Door flange D F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| CE marking | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Colour of cover | Grey Blue | | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | |
| Trip button (Colour) | Yes (Red) | | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | |
| Suitability for isolation | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Reverse connection | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Endurance | Electrical | 415V | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | |
| | Mechanical | | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | |

Notes:

- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering. ● : "yes" or "available". — : "no" or "not available". ▲ : Semi-standard.
- ④ : Please order the DIN rail adapter separately. ⑤ : For the extension bars, please place the order separately in parts.
- ⑱ : Mechanical interlocks cannot be applied to draw-out type (DR).
- ②③ : A safety trip function is provided. ②④ : Not available for Plug-in
- ③⑤ : Adjustable range ($I_f=0.8-0.9-1.0 \times I_n$) ③⑤ : Max. rating 125A at 50°C for Plug-in.
- ③⑥ : For (I_n) rated current settings (A) please refer to Section 7. ③⑥ : MCCB cannot be used in IT systems at this voltage.
- ④④ : Max. rating 140A at 50°C for Plug-in.
- ④⑤ : Max. rating 214A at 50°C for Plug-in.

2

Ratings and Specifications

Moulded Case Circuit Breakers

2 Standard series

| Frame size (A) | | | P250H | | | | P400F | | | | P400N | | | | P400H | | | | |
|--|---------------------------|------------------------------------|-----------|-----------|---|-----------|---------------|-----------|------------------------|-----------|---------------|-----------|------------------------|-----------|-----------|-----------|------------------------|-----------|------------------------|
| Type | | | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | |
| Number of poles | | | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | |
| ■ Ratings | | | | | | | | | | | | | | | | | | | |
| Rated current, A | | | 50 | 250 | $I_n=40$ $I_n=100$ $I_n=160$ ④④ $I_n=250$ ④⑤ | | 250 | 400 | $I_n=250$ $I_n=400$ | | 250 | 400 | $I_n=250$ $I_n=400$ | | 250 | 400 | $I_n=250$ $I_n=400$ | | $I_n=250$ $I_n=400$ |
| Calibrated at | | | 50°C | — | — | — | 50°C | — | — | — | — | 50°C | — | — | — | — | 50°C | — | |
| Rated insulation voltage [U_i] V AC | | | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | |
| Rated impulse withstand voltage [U_{imp}] kV | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| Rated short time withstand current [I_{cw}] kA | | | — | — | — | — | 5.0 (0.4sec.) | — | — | — | 5.0 (0.4sec.) | — | — | — | — | — | 5.0 (0.4sec.) | — | |
| Utilization Category | | | A | A | A | A | B | — | — | — | A | B | — | — | — | A | B | | |
| ■ Rated breaking capacity, kA | | | | | | | | | | | | | | | | | | | |
| IEC 60947-2 | AC | 690V | 6/6 | 6/6 | 7/7 | 7/7 | 12/12 | 12/12 | 12/12 | 12/12 | 12/12 | 12/12 | 12/12 | 12/12 | 12/12 | 12/12 | 12/12 | 12/12 | |
| I_{cu}/I_{cs} (sym) | | 525V | 30/25 | 30/25 | 20/20 | 20/20 | 22/22 | 22/22 | 22/22 | 22/22 | 35/35 | 35/35 | 35/35 | 35/35 | 35/35 | 35/35 | 35/35 | 35/35 | |
| | | 480V | 50/25 | 50/25 | 25/25 | 25/25 | 30/30 | 30/30 | 30/30 | 30/30 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | |
| | | 440V | 50/40 | 50/40 | 30/30 | 30/30 | 45/45 | 45/45 | 45/45 | 45/45 | 65/65 | 65/65 | 65/65 | 65/65 | 65/65 | 65/65 | 65/65 | 65/65 | |
| | | 415V | 70/50 | 70/50 | 36/36 | 36/36 | 50/50 | 50/50 | 50/50 | 50/50 | 70/70 | 70/70 | 70/70 | 70/70 | 70/70 | 70/70 | 70/70 | 70/70 | |
| | | 240V | 85/85 | 85/85 | 50/50 | 50/50 | 85/85 | 85/85 | 85/85 | 85/85 | 100/100 | 100/100 | 100/100 | 100/100 | 100/100 | 100/100 | 100/100 | 100/100 | |
| | DC | 250V | 40/40 | — | 25/25 | — | 50/50 | — | — | 50/50 | — | — | — | 50/50 | — | — | — | — | |
| ■ External dimensions, mm | | | | | | | | | | | | | | | | | | | |
| | | | a | 105 | 140 | 105 | 140 | 140 | 185 | 140 | 185 | 140 | 185 | 140 | 185 | 140 | 185 | 140 | 185 |
| | | | b | 165 | 165 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 |
| | | | c | 68 | 68 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | |
| | | | d | 95.5 | 95.5 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | |
| Weight (● marked standard type) kg | | | 1.5 | 2.0 | 1.5 | 2.0 | 5.5 | 7.3 | 5.7 | 7.5 | 5.5 | 7.3 | 5.7 | 7.5 | 5.5 | 7.3 | 5.7 | 7.5 | |
| ■ Connections and Mountings | | | | | | | | | | | | | | | | | | | |
| Front-connected | Terminal screws (FC) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | With extension bars (FB) | ○ ⑤ | ○ ⑤ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Cable clamp (FW) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Rear-connected | Flat bar studs (RC) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Plug-in (PM) | For switchboards (PMB) | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | ○ ②③ | |
| Draw-out type | (DR) | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | |
| DIN rail mount | (DA) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| ■ Overcurrent trip mechanism | | | | | | | | | | | | | | | | | | | |
| OCR type | | | | | | | | | | | | | | | | | | | |
| Thermal magnetic | Adjustable thermal | ADJ | ● | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| | Fixed thermal | FIX | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Electronic | | TPO | — | ● | — | — | ● | — | — | — | ● | — | — | — | — | ● | — | — | |
| | | TPOP | — | ● | — | — | ● | — | — | — | ● | — | — | — | — | ● | — | — | |
| | | XOU | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| | | XOS | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| ■ Accessories (optional) | | | | | | | | | | | | | | | | | | | |
| Symbol | | | | | | | | | | | | | | | | | | | |
| Internally mounted | Auxiliary switch | A X | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Alarm switch | A L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Shunt trips | S H | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Undervoltage trips | U V | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Motor operator | M C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| Externally mounted | External operating handle | Breaker-mounted H B | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | | Door-mounted (variable depth) H P | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Toggle extension | H A | — | — | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Mechanical interlock ⑱ | Slide type M S | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | | Link type M L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | | Wire type M W | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Toggle holder | H H | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Toggle lock | H L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Terminal cover | For front-connected C F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | | For rear-connected and plug-in C R | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | | For cable clamps C S | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Terminal block for lead | T F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Door flange | D F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| CE marking | | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Colour of cover | | | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | Grey Blue | |
| Trip button (Colour) | | | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | |
| Suitability for isolation | | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Reverse connection | | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Endurance | Electrical | 415V | 10,000 | 10,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | |
| | Mechanical | | 30,000 | 30,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | |

- Notes:**
- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.
 - : "yes" or "available". — : "no" or "not available". ▲ : Semi-standard.
 - ⑤ : For the extension bars, please place the order separately in parts.
 - ⑱ : Mechanical interlocks cannot be applied to draw-out type (DR).
 - ②③ : A safety trip function is provided.
 - ③③ : For (I_n) rated current settings (A) please refer to Section 7.
 - ③④ : MCCB cannot be used in IT systems at this voltage.
 - ④④ : Max. rating 140A at 50°C for Plug-in.
 - ④⑤ : Max. rating 214A at 50°C for Plug-in.

2

Ratings and Specifications

Moulded Case Circuit Breakers

2 Standard series

| Frame size (A) | | | P630F | | | | P630N | | | | P630H | | | | | |
|--|---------------------------|------------------------------------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----|-----|-----|--|
| Type | | | | | | | | | | | | | | | | |
| Number of poles | 3 4 | | 3 4 | | 3 4 | | 3 4 | | 3 4 | | 3 4 | | | | | |
| ■ Ratings | | | | | | | | | | | | | | | | |
| Rated current, A | 630 ① | | $I_n=630$ | | 630 ① | | $I_n=630$ | | 630 ① | | $I_n=630$ | | | | | |
| | | | ⊗ | | | | ⊗ | | | | ⊗ | | | | | |
| Calibrated at | 30°C | | — | | 30°C | | — | | 30°C | | — | | | | | |
| Rated insulation voltage [U_i] V AC | 800 | | 800 | | 800 | | 800 | | 800 | | 800 | | | | | |
| Rated impulse withstand voltage [U_{imp}] kV | 8 | | 8 | | 8 | | 8 | | 8 | | 8 | | | | | |
| Rated short time withstand current [I_{cw}] kA | — | | — | | — | | — | | — | | — | | | | | |
| Utilization Category | A | | A | | A | | A | | A | | A | | | | | |
| ■ Rated breaking capacity, kA | | | | | | | | | | | | | | | | |
| IEC 60947-2 | AC | 690V | 7/7 | 7/7 ③ | 12/12 | 12/12 ③ | 12/12 | 12/12 ③ | 12/12 | 12/12 ③ | 12/12 | 12/12 ③ | | | | |
| I_{cu}/I_{cs} (sym) | | 525V | 20/20 | 20/20 | 22/22 | 22/22 | 22/22 | 22/22 | 35/35 | 35/35 | 35/35 | 35/35 | | | | |
| | | 480V | 25/25 | 25/25 | 30/30 | 30/30 | 30/30 | 30/30 | 50/50 | 50/50 | 50/50 | 50/50 | | | | |
| | | 440V | 30/30 | 30/30 | 45/45 | 45/45 | 45/45 | 45/45 | 65/65 | 65/65 | 65/65 | 65/65 | | | | |
| | | 415V | 36/36 | 36/36 | 50/50 | 50/50 | 50/50 | 50/50 | 70/70 | 70/70 | 70/70 | 70/70 | | | | |
| | | 240V | 50/50 | 50/50 | 85/85 | 85/85 | 85/85 | 85/85 | 100/100 | 100/100 | 100/100 | 100/100 | | | | |
| | DC | 250V | 25/25 | — | 50/50 | — | — | — | 50/50 | — | — | — | | | | |
| ■ External dimensions, mm | | | | | | | | | | | | | | | | |
| | | a | 140 | 185 | 140 | 185 | 140 | 185 | 140 | 185 | 140 | 185 | 140 | 185 | | |
| | | b | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | 260 | | |
| | | c | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | | |
| | | d | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 151 | | |
| Weight (● marked standard type) kg | 5.9 | | 7.8 | | 6.0 | | 8.0 | | 5.9 | | 7.8 | | 6.0 | | 8.0 | |
| ■ Connections and Mountings | | | | | | | | | | | | | | | | |
| Front-connected | Terminal screws (FC) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | With extension bars (FB) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | |
| | Cable clamp (FW) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | |
| Rear-connected | Flat bar studs (RC) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | |
| Plug-in (PM) | For switchboards (PMB) | — | ○ ②③ ③② | — | — | ○ ②③ ③② | — | — | — | ○ ②③ ③② | — | — | | | | |
| Draw-out type | (DR) | — | ▲ ③② | — | — | ▲ ③② | — | — | — | ▲ ③② | — | — | | | | |
| DIN rail mount | (DA) | — | — | — | — | — | — | — | — | — | — | — | | | | |
| ■ Overcurrent trip mechanism | OCR type | | | | | | | | | | | | | | | |
| | Thermal magnetic | Adjustable thermal ADJ | ● | — | ● | — | — | — | ● | — | — | — | | | | |
| | | Fixed thermal FIX | — | — | — | — | — | — | — | — | — | — | | | | |
| | Electronic | TPOT | — | ● | — | ● | — | — | — | ● | — | — | | | | |
| | | TPOP | — | ● | — | ● | — | — | — | ● | — | — | | | | |
| | | XOU | — | — | — | — | — | — | — | — | — | — | | | | |
| | | XOS | — | — | — | — | — | — | — | — | — | — | | | | |
| ■ Accessories (optional) | Symbol | | | | | | | | | | | | | | | |
| Internally mounted | Auxiliary switch | A X | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Alarm switch | A L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Shunt trips | S H | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Undervoltage trips | U V | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Motor operator | M C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| Externally mounted | External operating handle | Breaker-mounted H B | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | | Door-mounted (variable depth) H P | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Toggle extension | H A | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Mechanical interlock ⑱ | Slide type M S | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | | Link type M L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | | Wire type M W | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Toggle holder | H H | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Toggle lock | H L | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Terminal cover | For front-connected C F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | | For rear-connected and plug-in C R | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | | For cable clamps C S | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Terminal block for lead | T F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Door flange | D F | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| CE marking | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | | | | |
| Colour of cover | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | | | | |
| Trip button (Colour) | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | | | | |
| Suitability for isolation | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | | | | |
| Reverse connection | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | | | | |
| Endurance | Electrical | 415V | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | | | | |
| | Mechanical | | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | | | | |

Notes:

● : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.

● : "yes" or "available". — : "no" or "not available". ▲ : Semi-standard.

⑱ : Mechanical interlocks cannot be applied to draw-out type (DR).

⑲ : A safety trip function is provided.

⑳ : Max. rating 560A at 50°C

㉑ : Max. rating 546A at 50°C for Plug-in/Draw-out

㉒ : For (I_n) rated current settings (A) please refer to Section 7.

㉓ : MCCB cannot be used in IT systems at this voltage.

2

Ratings and Specifications

Moulded Case Circuit Breakers

2 Standard series

| Frame size (A) | | \$800-CJ | | \$800-NJ | | \$800-NE | | \$800-RJ | | \$800-RE | | \$800-PJ | | \$800-PE | | |
|--------------------------------------|--------------------------------|------------|---------|------------|---------|---------------------------|---------|------------|---------|---------------------------|---------|------------|---------|---------------------------|---------|---------|
| Type | | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | |
| ■ Ratings | | | | | | | | | | | | | | | | |
| Number of poles | | 3 4 | | 3 4 | | 3 4 | | 3 4 | | 3 4 | | 3 4 | | 3 4 | | |
| Rated current, A | | 630 800 | | 630 800 | | $I_n=630$ $I_n=800$ ④⑧ | | 630 800 | | $I_n=630$ $I_n=800$ ④⑧ | | 630 800 | | $I_n=630$ $I_n=800$ ④⑧ | | |
| | | | | | | ③ | | | | ③ | | | | ③ | | |
| ■ Rated breaking capacity, kA | | | | | | | | | | | | | | | | |
| IEC 60947-2 | AC | 690V | 10/10 ③ | 20/20 ③ | 20/20 ③ | 25/20 ③ | 25/20 ③ | 25/20 ③ | 25/20 ③ | 25/20 ③ | 25/20 ③ | 25/20 ③ | 25/20 ③ | 25/20 ③ | 25/20 ③ | |
| $I_{cu}/I_{cs}(sym)$ | | 525V | 15/15 ③ | 30/30 | 30/30 | 30/30 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | |
| | | 480V | 15/15 | 30/30 | 30/30 | 30/30 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | 45/34 | |
| | | 440V | 30/30 | 50/50 | 50/50 | 50/50 | 65/50 | 65/50 | 65/50 | 65/50 | 65/50 | 85/50 | 85/50 | 85/50 | 85/50 | |
| | | 415V | 36/36 | 50/50 | 50/50 | 50/50 | 70/50 | 70/50 | 70/50 | 70/50 | 70/50 | 100/50 | 100/50 | 100/50 | 100/50 | |
| | | 240V | 50/50 | 85/85 | 85/85 | 85/85 | 100/75 | 100/75 | 100/75 | 100/75 | 100/75 | 125/125 | 125/125 | 125/125 | 125/125 | |
| | DC | 250V | 50/50 | 50/50 | — | — | 50/50 | — | — | — | — | 50/50 | — | — | — | |
| ■ External dimensions, mm | | | | | | | | | | | | | | | | |
| | | a | 210 | 280 | 210 | 280 | 210 | 280 | 210 | 280 | 210 | 280 | 210 | 280 | 210 | 280 |
| | | b | 273 | — | 273 | — | 273 | — | 273 | — | 273 | — | 273 | — | 273 | — |
| | | c | 103 | — | 103 | — | 103 | — | 103 | — | 103 | — | 103 | — | 103 | — |
| | | d | 145 | — | 145 | — | 145 | — | 145 | — | 145 | — | 145 | — | 145 | — |
| Weight (● marked standard type) kg | | | 8.5 | 11.5 | 8.5 | 11.5 | 9.1 ①⑥ | 12.3 ①⑦ | 8.5 | 11.5 | 9.1 ①⑥ | 12.3 ①⑦ | 8.5 | 11.5 | 9.1 ①⑥ | 12.3 ①⑦ |
| ■ Connections and Mountings | | | | | | | | | | | | | | | | |
| Front-connected | Terminal screws (FC) | — | | | | | | | | | | | | | | |
| | With extension bars (FB) | ● | | | | | | | | | | | | | | |
| | Cable clamp (FW) | ○ ⑩ | | | | | | | | | | | | | | |
| Rear-connected | Flat bar studs (RC) | ○ | | | | | | | | | | | | | | |
| Plug-in (PM) | For switchboards (PMB) | ○ ②④ | | | | | | | | | | | | | | |
| Draw-out type | (DR) | ▲ | | | | | | | | | | | | | | |
| DIN rail mount | (DA) | — | | | | | | | | | | | | | | |
| ■ Overcurrent trip mechanism | | | | | | | | | | | | | | | | |
| OCR type | | | | | | | | | | | | | | | | |
| Thermal magnetic | Adjustable thermal (ADJ) | ● | | | | | | | | | | | | | | |
| | Fixed thermal (FIX) | — | | | | | | | | | | | | | | |
| Electronic | TPOP | — | | | | | | | | | | | | | | |
| | TPOP | — | | | | | | | | | | | | | | |
| | XOU | ● ⑳ | | | | | | | | | | | | | | |
| | XOS | — | | | | | | | | | | | | | | |
| ■ Accessories (optional) | | | | | | | | | | | | | | | | |
| Symbol | | | | | | | | | | | | | | | | |
| Externally mounted | Auxiliary switch | ● | | | | | | | | | | | | | | |
| | Alarm switch | ● | | | | | | | | | | | | | | |
| | Shunt trips | ● | | | | | | | | | | | | | | |
| Internally mounted | Undervoltage trips | ● | | | | | | | | | | | | | | |
| | Motor operator | ● | | | | | | | | | | | | | | |
| | External operating handle | ● | | | | | | | | | | | | | | |
| | Breaker-mounted | ● | | | | | | | | | | | | | | |
| | Door-mounted (variable depth) | ● | | | | | | | | | | | | | | |
| | Toggle extension | ● | | | | | | | | | | | | | | |
| Mechanical interlock ⑲ | Slide type | ● | | | | | | | | | | | | | | |
| | Link type | ● | | | | | | | | | | | | | | |
| | Wire type | ● | | | | | | | | | | | | | | |
| Toggle holder | (HH) | ● | | | | | | | | | | | | | | |
| Toggle lock | (HL) | ● | | | | | | | | | | | | | | |
| Terminal cover | For front-connected | ● | | | | | | | | | | | | | | |
| | For rear-connected and plug-in | ● | | | | | | | | | | | | | | |
| | For cable clamps | — | | | | | | | | | | | | | | |
| Terminal block for lead | (TF) | ● | | | | | | | | | | | | | | |
| Door flange | (DF) | ● | | | | | | | | | | | | | | |
| CE marking | | Yes | | | | | | | | | | | | | | |
| Colour of cover | | Grey Blue | | | | | | | | | | | | | | |
| Trip button (Colour) | | Yes (Red) | | | | | | | | | | | | | | |
| Suitability for isolation | | Yes | | | | | | | | | | | | | | |
| Reverse connection | | Yes | | | | | | | | | | | | | | |
| Endurance | Electrical | 415V | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| | Mechanical | | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |

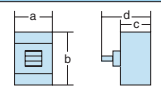
- Notes:**
- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.
 - : "yes" or "available". — : "no" or "not available". ▲ : Semi-standard.
 - ⑩ : 630A only ①⑥ : 8.7kg/630A, 9.1kg/800A ①⑦ : 11.9kg/630A, 12.3kg/800A
 - ⑲ : Mechanical interlocks cannot be applied to draw-out type (DR).
 - ⑳ : Optional preferential alarm or ground fault trip function available on request.
 - ②④ : A safety lock function is provided.
 - ③ : For (I_n) rated current settings (A) please refer to Section 7.
 - ④⑧ : MCCB cannot be used in IT systems at this voltage.
 - ④⑧ : Max. rating 760A at 50°C for Rear/Plug-in/Draw-out.

2

Ratings and Specifications

Moulded Case Circuit Breakers

2 Standard series

| Frame size (A) | | | S1000-SE | | S1000-NE | | S1250-SE | | S1250-NE | | S1250-GE | | S1600-SE | | S1600-NE | | |
|---|--------------------------------|-------------------------------|--------------|-----------|--------------|-----------|----------------------------|-----------|----------------------------|-----------|----------------------------|-----------|---------------|-----------|---------------|-----------|--|
| Type | | | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | |
| Number of poles | | | | | | | | | | | | | | | | | |
| ■ Ratings | | | | | | | | | | | | | | | | | |
| Rated current, A | | | $I_n=1000$ ④ | | $I_n=1000$ ④ | | $I_n=800$ $I_n=1250$ ④① | | $I_n=800$ $I_n=1250$ ④① | | $I_n=800$ $I_n=1250$ ④① | | $I_n=1600$ ④② | | $I_n=1600$ ④② | | |
| | | | ⊗ | | ⊗ | | ⊗ | | ⊗ | | ⊗ | | ⊗ | | ⊗ | | |
| Calibrated at | | | — | | — | | — | | — | | — | | — | | — | | |
| Rated insulation voltage [U_i] V AC | | | 800 | | 800 | | 800 | | 800 | | 800 | | 800 | | 800 | | |
| Rated impulse withstand voltage [U_{imp}] kV | | | 8 | | 8 | | 8 | | 8 | | 8 | | 8 | | 8 | | |
| Rated short time withstand current [I_{cw}] kA | | | — | | — | | 15 (0.3sec.) | | 15 (0.3sec.) | | 15 (0.3sec.) | | 20 (0.3sec.) | | 20 (0.3sec.) | | |
| Utilization Category | | | A | | A | | B | | B | | B | | B | | B | | |
| ■ Rated breaking capacity, kA | | | | | | | | | | | | | | | | | |
| IEC 60947-2 | AC | 690V | 20/15 ⊗ | | 25/20 ⊗ | | 20/15 ⊗ | | 25/20 ⊗ | | 45/34 ⊗ | | 20/15 ⊗ | | 45/34 ⊗ | | |
| I_{cu}/I_{cs} (sym) | | 525V | 30/23 | | 45/34 | | 30/23 | | 45/34 | | 65/50 | | 30/23 | | 65/50 | | |
| | | 480V | 30/23 | | 45/34 | | 30/23 | | 45/34 | | 65/50 | | 30/23 | | 65/50 | | |
| | | 440V | 45/34 | | 65/50 | | 45/34 | | 65/50 | | 85/65 | | 45/34 | | 85/65 | | |
| | | 415V | 50/38 | | 70/50 | | 50/38 | | 70/50 | | 85/65 ⑧ | | 50/38 | | 85/65 ⑧ | | |
| | 240V | 85/65 | | 100/75 | | 85/65 | | 100/75 | | 125/94 | | 85/65 | | 125/94 | | | |
| | DC | 250V | — | | — | | — | | — | | — | | — | | — | | |
| ■ External dimensions, mm | | | | | | | | | | | | | | | | | |
|  | | | a | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | 210 280 | |
| | | | b | 273 | 273 | 370 | 370 | 370 | 370 | 370 | 370 | 370 | 370 | 370 | 370 | 370 | |
| | | | c | 103 | 103 | 120 | 120 | 120 | 120 | 120 | 140 | 140 | 140 | 140 | 140 | 140 | |
| | | | d | 145 | 145 | 171 | 171 | 171 | 171 | 171 | 191 | 191 | 191 | 191 | 191 | 191 | |
| Weight (● marked standard type) kg | | | 11.0 | 14.8 | 11.0 | 14.8 | 19.8 | 25.0 | 19.8 | 25.0 | 19.8 | 25.0 | 27.0 | 35.0 | 27.0 | 35.0 | |
| ■ Connections and Mountings | | | | | | | | | | | | | | | | | |
| Front-connected | Terminal screws | (FC) | — | | — | | — | | — | | — | | — | | — | | |
| | With extension bars | (FB) | ● | | ● | | ● | | ● | | ● | | ○ | | ○ | | |
| | Cable clamp | (FW) | — | | — | | — | | — | | — | | — | | — | | |
| Rear-connected | Flat bar studs | (RC) | ○ | | ○ | | ○ | | ○ | | ○ | | ● | | ● | | |
| Plug-in (PM) | For switchboards | (PMC) | — | | — | | ○ | | ○ | | ○ | | — | | — | | |
| Draw-out type | (DR) | | — | | — | | ▲ | | ▲ | | ▲ | | ○ | | ○ | | |
| DIN rail mount | (DA) | | — | | — | | — | | — | | — | | — | | — | | |
| ■ Overcurrent trip mechanism | | | | | | | | | | | | | | | | | |
| Thermal magnetic | Adjustable thermal | ADJ | — | | — | | — | | — | | — | | — | | — | | |
| | Fixed thermal | FIX | — | | — | | — | | — | | — | | — | | — | | |
| Electronic | | TPOT | — | | — | | — | | — | | — | | — | | — | | |
| | | TPOP | — | | — | | — | | — | | — | | — | | — | | |
| | | XOU | ● ⑩ | | ● ⑩ | | ● ⑩ | | ● ⑩ | | ● ⑩ | | ● ⑩ | | ● ⑩ | | |
| | | XOS | — | | — | | — | | — | | — | | — | | — | | |
| ■ Accessories (optional) | | | | | | | | | | | | | | | | | |
| Internally mounted | Auxiliary switch | A X | ● | | ● | | ● | | ● | | ● | | ● | | ● | | |
| | Alarm switch | A L | ● | | ● | | ● | | ● | | ● | | ● | | ● | | |
| | Shunt trips | S H | ● | | ● | | ● | | ● | | ● | | ● | | ● | | |
| Undervoltage trips | U V | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | |
| | Motor operator | M C | ● | | ● | | ● | | ● | | ● | | ● | | ● | | |
| Externally mounted | External operating handle | Breaker-mounted | H B | | ● | | ▲ | | ▲ | | ▲ | | ▲ | | ▲ | | |
| | | Door-mounted (variable depth) | H P | | ● | | ● | | ● | | ● | | ● | | ● | | |
| Toggle extension | Mechanical interlock ⑱ | H A | ● | | ● ② | | ● ② | | ● ② | | ● ② | | ● ② | | ● ② | | |
| | | Slide type | M S | | ● | | ● | | ● | | ● | | ● | | ● | | |
| | | Link type | M L | | ● | | — | | — | | — | | — | | — | | |
| | | Wire type | M W | | ● | | ● | | ● | | ● | | ● | | ● | | |
| Toggle holder | H H | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | |
| | Toggle lock | H L | ● | | ● | | ● | | ● | | ● | | ● | | ● | | |
| Terminal cover | For front-connected | C F | ● | | ● | | ● | | ● | | ● | | — | | — | | |
| | For rear-connected and plug-in | C R | ● | | ● | | — | | — | | — | | — | | — | | |
| | For cable clamps | C S | — | | — | | — | | — | | — | | — | | — | | |
| Terminal block for lead | T F | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| Door flange | D F | ● | | ● | | ● | | ● | | ● | | ● | | ● | | | |
| CE marking | | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | |
| Colour of cover | | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | Grey Blue | | |
| Trip button (Colour) | | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | Yes (Red) | | |
| Suitability for isolation | | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | |
| Reverse connection | | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | Yes | | |
| Endurance | Electrical | 415V | 4,000 | | 4,000 | | 4,000 | | 4,000 | | 4,000 | | 2,000 | | 2,000 | | |
| | Mechanical | | 10,000 | | 10,000 | | 5,000 | | 5,000 | | 5,000 | | 5,000 | | 5,000 | | |

Notes:

● : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.

● : "yes" or "available". — : "no" or "not available". ▲ : Semi-standard.

② : One is supplied with every five breakers. Please specify if more are required.

⑧ : 100kA/75kA at 400V

⑱ : Mechanical interlocks cannot be applied to draw-out type (DR).

⑩ : Optional preferential alarm or ground fault trip function available on request.

⊗ : For (I_n) rated current settings (A) please refer to Section 7.

⊗ : MCCB cannot be used in IT systems at this voltage.

④ : Max. rating 900A at 50°C

④① : Max. rating 1125A at 50°C for Rear/Plug-in/Draw-out

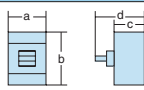
④② : Max. rating 1520A at 50°C for Rear/Draw-out

2

Ratings and Specifications

Moulded Case Circuit Breakers

2 Standard series

| Frame size (A) | | | | | | | | | |
|---|-------------------------------------|---------------------|-----------------|-----------------|---------|---|--|--|--|
| Type | | XS2000NE | XS2500NE | XS3200NE | | | | | |
| Number of poles | | 3 4 | 3 4 | 3 | | | | | |
| ■ Ratings | | | | | | | | | |
| Rated current, A | | $I_n=2000$ | $I_n=2500$ ④③ | $I_n=3200$ | | | | | |
| | | ⊗ | ⊗ | ⊗ | | | | | |
| Calibrated at | | — | — | — | | | | | |
| Rated insulation voltage [U_i] V AC | | 690 | 690 | 690 | | | | | |
| Rated impulse withstand voltage [U_{imp}] kV | | 8 | 8 | 8 | | | | | |
| Rated short time withstand current [I_{cw}] kA | | 42 (0.3sec.) | 42 (0.3sec.) | 38 (0.5sec.) | | | | | |
| Utilization Category | | B | B | B | | | | | |
| ■ Rated breaking capacity, kA | | | | | | | | | |
| IEC 60947-2 AC | | 690V | 45/42 ⊗ | 45/42 ⊗ | 45/42 ⊗ | | | | |
| $I_{cu}/I_{cs}(sym)$ | | 525V | 65/50 | 65/50 | 65/50 | | | | |
| | | 480V | 85/65 | 85/65 | 85/65 | | | | |
| | | 440V | 85/65 | 85/65 | 85/65 | | | | |
| | | 415V | 85/65 ⑧ | 85/65 ⑧ | 85/65 ⑧ | | | | |
| | | 240V | 125/94 | 125/94 | 125/94 | | | | |
| DC | | 250V | — | — | — | | | | |
| ■ External dimensions, mm | | | | | | | | | |
|  | | a | 320 429 | 320 429 | 320 | | | | |
| | | b | 450 | 450 | 450 | | | | |
| | | c | 185 | 185 | 185 | | | | |
| | | d | 245 | 245 | 245 | | | | |
| Weight (● marked standard type) kg | | 54 67 | 64 78.2 | 65 | | | | | |
| ■ Connections and Mountings | | | | | | | | | |
| Front-connected | Terminal screws (FC) | — | — | — | | | | | |
| | With extension bars (FB) | ○ | — | — | | | | | |
| | Cable clamp (FW) | — | — | — | | | | | |
| Rear-connected | Flat bar studs (RC) | ● | ● | ● | | | | | |
| | Plug-in (PM) For switchboards (PMC) | — | — | — | | | | | |
| Draw-out type (DR) | ○ | — | — | — | | | | | |
| DIN rail mount (DA) | — | — | — | — | | | | | |
| ■ Overcurrent trip mechanism OCR type | | | | | | | | | |
| Thermal magnetic | Adjustable thermal (ADJ) | — | — | — | | | | | |
| | Fixed thermal (FIX) | — | — | — | | | | | |
| Electronic | TPOP | — | — | — | | | | | |
| | TPOP | — | — | — | | | | | |
| | XOU | — | — | — | | | | | |
| | XOS | ● ⑳ | ● ⑳ | ● ⑳ | | | | | |
| ■ Accessories (optional) Symbol | | | | | | | | | |
| Internally mounted | Auxiliary switch | A X | ● | ● | ● | | | | |
| | Alarm switch | A L | ● | ● | ● | | | | |
| | Shunt trips | S H | ● | ● | ● | | | | |
| Undervoltage trips | U V | ● ⑱ | ● ⑱ | ● ⑱ | | | | | |
| | Motor operator | M C | ● | ● | ● | | | | |
| Externally mounted | External operating handle | Breaker-mounted | H B | — | — | | | | |
| | Door-mounted (fixed depth) | H E | ● ⑳ XFE | ● ⑳ XFE | ● ⑳ XFE | | | | |
| Toggle extension | H A | ● ① | ● ① | ● ① | | | | | |
| | Mechanical interlock ⑲ | Slide type | M S | ● | ● | ● | | | |
| | | Link type | M L | — | — | — | | | |
| | | Wire type | M W | — | — | — | | | |
| | Toggle holder | H H | ● | ● | ● | | | | |
| | Toggle lock | H L | ● | ● | ● | | | | |
| | Terminal cover | For front-connected | C F | — | — | — | | | |
| For rear-connected and plug-in | | C R | — | — | — | | | | |
| For cable clamps | | C S | — | — | — | | | | |
| Terminal block for lead | T F | ● | ● | ● | | | | | |
| Door flange | D F | ● | ● | ● | | | | | |
| CE marking | Non | Non | Non | Non | | | | | |
| Colour of cover | Grey Blue | Grey Blue | Grey Blue | Grey Blue | | | | | |
| Trip button (Colour) | Yes (Red) | Yes (Red) | Yes (Red) | Yes (Red) | | | | | |
| Suitability for isolation | Non | Non | Non | Non | | | | | |
| Reverse connection | Yes | Yes | Yes | Yes | | | | | |
| Endurance | Electrical | 415V | 500 | 500 | 500 | | | | |
| | Mechanical | | 3,000 | 3,000 | 2,000 | | | | |

- Notes:**
- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.
 - : "yes" or "available". — : "no" or "not available".
 - ① : Supplied as standard.
 - ⑧ : 100kA/75kA at 400V
 - ⑱ : With AC UVVT, the UVVT controller is externally mounted.
 - ⑲ : Mechanical interlocks cannot be applied to draw-out type (DR).
 - ⑳ : Optional preferential alarm or ground fault trip function available on request.
 - ㉔ : Fixed depth, not adjustable.
 - ㉕ : For (I_n) rated current settings (A) please refer to Section 7.
 - ㉖ : MCCB cannot be used in IT systems at this voltage.
 - ㉗ : Max. rating 2250A at 50°C