

## DATA SHEET: TEMBREAK 2 S1600-SE MCCB

Código Larce 4P: 0403014009

MCCB Electrical Characteristics to IEC 60947-2, EN 60947-2, JIS C 8201-2-1 ANN. 1, AS/NZS 3947-2, NEMA AB-1

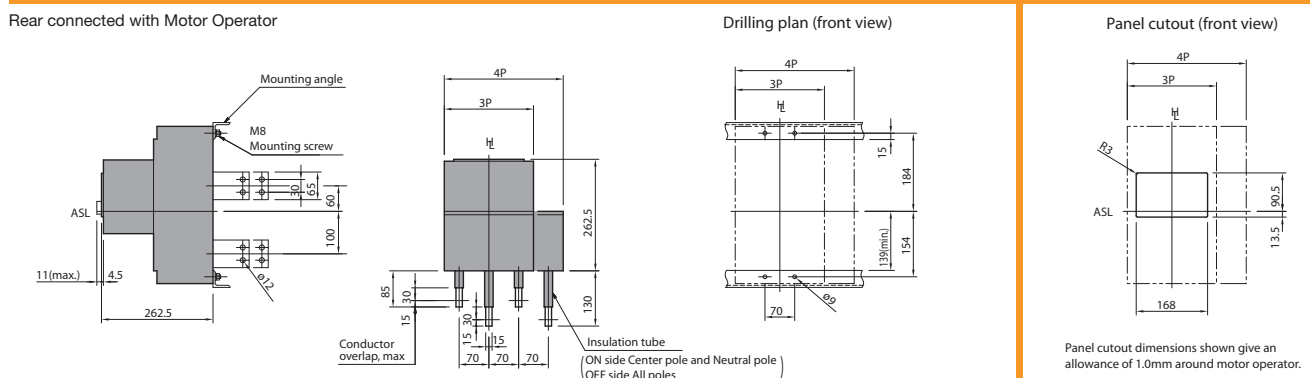
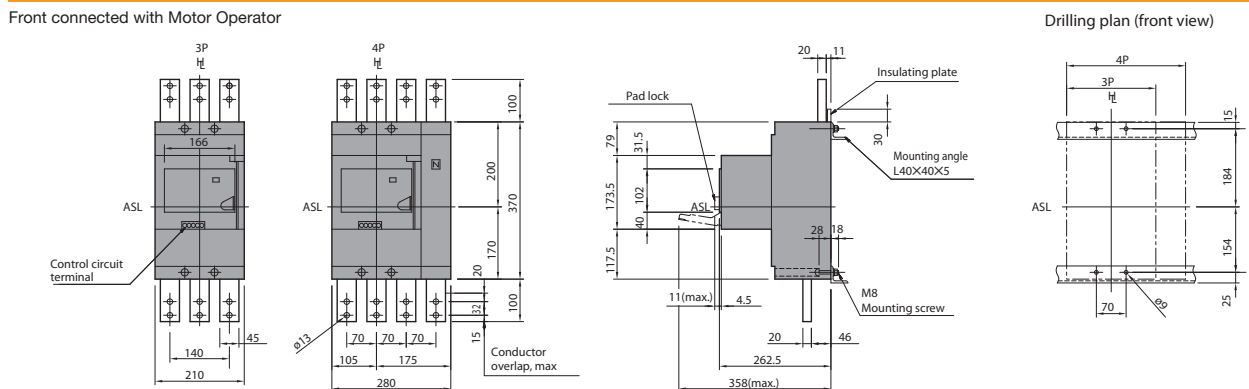
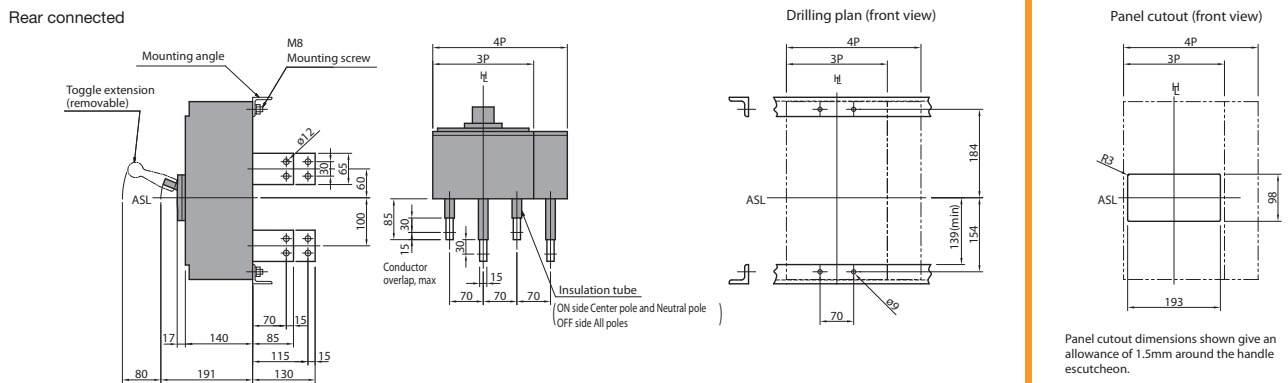
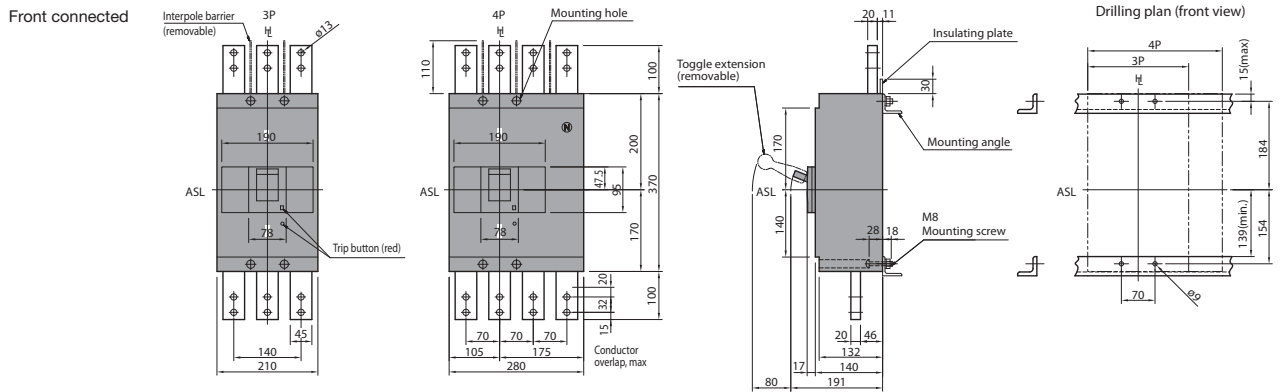
| Frame reference                                  | Quantity                 | Unit             | Condition                                                              | TB2 1600                                     |
|--------------------------------------------------|--------------------------|------------------|------------------------------------------------------------------------|----------------------------------------------|
| Max In (A) of Frame                              |                          |                  |                                                                        | 1600                                         |
| Model                                            |                          |                  |                                                                        | S1600                                        |
| Number of Poles                                  |                          |                  |                                                                        | 3, 4                                         |
| Type                                             |                          |                  |                                                                        | SE                                           |
| Nominal current ratings                          |                          |                  |                                                                        |                                              |
|                                                  | $I_n$                    | (A)              | 50°C                                                                   | 1600                                         |
| Electrical characteristics                       |                          |                  |                                                                        |                                              |
| Rated operational voltage                        | $U_e$                    | (V)              | AC 50/60 Hz<br>DC                                                      | 690<br>-                                     |
| Rated insulation voltage                         | $U_i$                    | (V)              |                                                                        | 800                                          |
| Rated impulse withstand voltage                  | $U_{imp}$                | (kV)             |                                                                        | 8                                            |
| Ultimate breaking capacity<br>(IEC, JIS, AS/NZS) | $I_{cu}$                 | (kA)             | 690V AC<br>525V AC<br>440V AC<br>400/415V AC<br>220/240V AC<br>250V DC | 20 <sup>①</sup><br>30<br>45<br>50<br>85<br>- |
| Service breaking capacity<br>(IEC, JIS, AS/NZS)  | $I_{cs}$                 | (kA)             | 690V AC<br>525V AC<br>440V AC<br>400/415V AC<br>220/240V AC<br>250V DC | 15 <sup>①</sup><br>23<br>34<br>38<br>65<br>- |
| Rated breaking capacity (NEMA)                   |                          | (kA)             | 480V AC<br>240V AC                                                     | 30<br>85                                     |
| Rated short-time withstand current               | $I_{cw}$                 | (kA)             | 0.3 Seconds                                                            | 20                                           |
| Protection                                       |                          |                  |                                                                        |                                              |
| Adjustable thermal, adjustable magnetic          |                          |                  |                                                                        | ■                                            |
| Fixed thermal, fixed magnetic                    |                          |                  |                                                                        |                                              |
| Microprocessor                                   |                          |                  |                                                                        |                                              |
| Utilisation category                             |                          |                  |                                                                        | B                                            |
| Installation                                     |                          |                  |                                                                        |                                              |
| Front connection (FC)                            |                          |                  |                                                                        | -                                            |
| Extension bar (FB)                               |                          |                  |                                                                        | •                                            |
| Cable clamp (FW)                                 |                          |                  |                                                                        | -                                            |
| Rear connection (RC)                             |                          |                  |                                                                        | ■                                            |
| Plug-in (PM)                                     |                          |                  |                                                                        | -                                            |
| DIN rail mounting (DA)                           |                          |                  |                                                                        | -                                            |
| Dimensions                                       | height<br>width          | (mm)<br>(mm)     | 3 pole<br>4 pole                                                       | 370<br>210<br>280                            |
| Weight                                           | depth<br>weight          | (mm)<br>(kg)     | 3 pole<br>4 pole                                                       | 140<br>27.0<br>35.0                          |
| Operation                                        |                          |                  |                                                                        |                                              |
| Direct Opening Action                            |                          |                  |                                                                        | ■                                            |
| Toggle operation                                 |                          |                  |                                                                        | ■                                            |
| Door mounted (HS) / Breaker mounted handle (HB)  |                          |                  |                                                                        | •                                            |
| Motor operation (MC)                             |                          |                  |                                                                        | •                                            |
| Endurance                                        | Electrical<br>Mechanical | cycles<br>cycles | 690V AC                                                                | 2,000<br>5,000                               |

① MCCB cannot be used in IT systems at this voltage

## DATA SHEET: TEMBREAK 2 S1600-SE MCCB

### Outline Dimensions S1600-SE

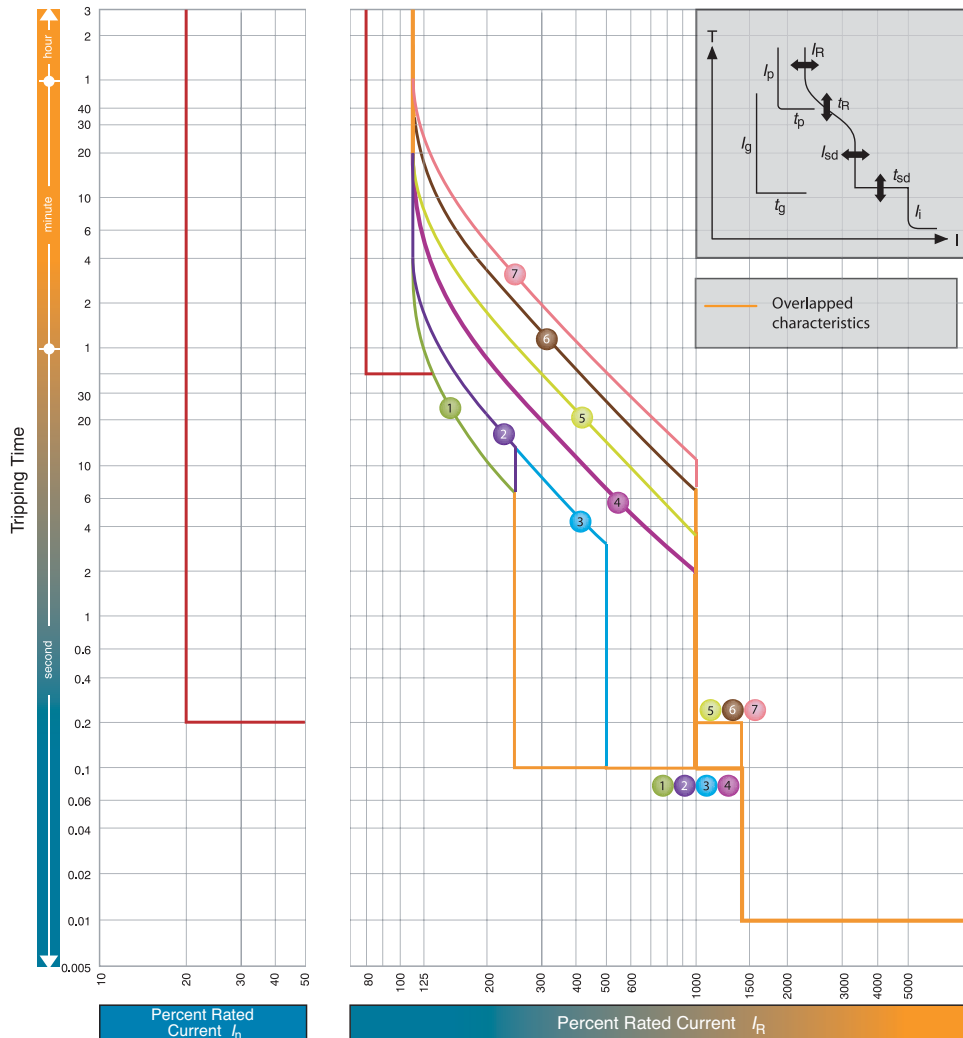
ASL: Arrangement Standard Line H: Handle Frame Centre Line



## DATA SHEET: TEMBREAK 2 S1600-SE MCCB

### Time/Current Characteristic Curves

S1600-SE



$$I_n = 1600A$$

|          |               | $I_R$ (A)           |         |                      |     |     |      |                 |     |      |     |          |     |
|----------|---------------|---------------------|---------|----------------------|-----|-----|------|-----------------|-----|------|-----|----------|-----|
|          |               | LTD Pick-up current | $I_R$   | $x/I_n$              | 0.4 | 0.5 | 0.63 | 0.8             | 0.9 | 0.95 | 1.0 |          |     |
|          |               | Characteristics     |         | No.                  | 1   | 2   | 3    | 4               | 5   | 6    | 7   |          |     |
| Standard | LT            | $t_R$               | (s)     |                      | 11  | 21  | 21   | 5               | 10  | 19   | 29  |          |     |
|          | ST            | $I_{sd}$            | $x/I_R$ | at 200% x $I_R$      |     |     |      | at 600% x $I_R$ |     |      |     |          |     |
|          |               | $t_{sd}$            | (s)     | 2.5                  |     | 5   |      | 10              |     |      |     |          |     |
|          |               | INST                | $I_i$   | $x/I_R$              | 0.1 |     |      |                 |     |      |     |          | 0.2 |
|          |               |                     |         | 14(Max: 12 x $I_n$ ) |     |     |      |                 |     |      |     | Note (1) |     |
| Option   | PTA           | $I_p$               | $x/I_R$ | 0.8                  |     |     |      |                 |     |      |     |          |     |
|          |               | $t_p$               | (s)     | 40                   |     |     |      |                 |     |      |     |          |     |
|          | GF<br>Note(3) | $I_g$               | $x/I_n$ | 0.2                  |     |     |      |                 |     |      |     |          |     |
|          |               | $t_g$               | (s)     | 0.2                  |     |     |      |                 |     |      |     |          |     |
|          | NP            | $I_N$               | $x/I_R$ | 1.0/0.5              |     |     |      |                 |     |      |     | Note(2)  |     |
|          |               | $t_N$               | (s)     | $t_N=t_R$            |     |     |      |                 |     |      |     |          |     |

Note

(1)  $I_i$  max. =  $12 \times I_n$ . (2)  $1.0 \times I_R$  or  $0.5 \times I_R$  can be selected. Characteristic of neutral protection ( $t_N$  vs.  $I_N$ ) is identical to characteristic of phase protection ( $t_R$  vs.  $I_R$ ). (3) When you specify GF on MCCBs with 3 poles the terminal block is automatically fitted to connect with the external neutral CT for 3 phases 4 wires system.