## **Switch-disconnectors for DC600V-1000V**

| Frame size (A)                                   | 160         | 160         | 160         | 250         | 250         | 250         |  |
|--|-------------|-------------|-------------|-------------|-------------|-------------|--|
| Туре   | S160-SDN    | PVS160-SNL  | PVS160-SNH  | S250-SDN    | PVS250-SNL  | PVS250-SNH  |  |
| Number of poles                                  | 3           | 4           | 4           | 3           | 3 4         | 4           |  |
| Ratings  |             |             |             |             |             |             |  |
| Rated current, A                                 | 160         | 160         | 160         | 250         | 250         | 250         |  |
|  |             |             |             |             |             |             |  |
|  |             |             |             |             |             |             |  |
| Rated insulation voltage $(U_i)$ V               | 690         | 800         | 1000        | 800         | 800         | 1000        |  |
| Rated operational voltage V DC                   | 600         | 800         | 1000        | 600         | 750 800     | 1000        |  |
| Rated short time withstand current, kA           | 2 (0.3sec.) | 3 (0.3sec.) |  |
| Rated impulse withstand voltage $(U_{imp})$ kV   | 8           | 8           | 8           | 8           | 8           | 8           |  |
| Performance                                      | -           | -           | -           | -           | -           | -           |  |
| Utilization category 19 DC                       | DC-22A      | DC-22A      | DC-22A      | DC-22A      | DC-22A      | DC-22A      |  |
| JIS C 8201-3 IEC 60947-3                         |             |             |             |             |             |             |  |
| ■External dimensions, mm                         |             |             |             |             |             |             |  |
| aaa  | 75          | 140         | 140         | 105         | 105 140     | 140         |  |
| b  | 130+50 ⑦    | 165+55×2 ⑦  | 165+55×2 ⑦  | 165+55 ①    | 165+55×2 ⑦  | 165+55×2 ⑦  |  |
|  | 68          | 68          | 68          | 68          | 68          | 68          |  |
| d  | 95          | 95          | 95          | 95          | 95          | 95          |  |
| Weight (● marked standard type) kg               | 0.8         | 1.9         | 1.9         | 1.5         | 1.5 1.9     | 1.9         |  |
| <b>■</b> Connections and Mountings               |             |             |             |             |             |             |  |
| Front-connected (FC) Terminal screws             | •           | •           | •           | •           | •           | •           |  |
| With extension bars                              | ○(BAR)      | ○(BAR)      | ○(BAR)      | ○(BAR)      | O(BAR)      | ○(BAR)      |  |
| Rear-connected (RC) Flat bar studs               | 0           | 0           | 0           | 0           | 0           | 0           |  |
| Plug-in (PM) For switchboards                    |             | _           |             |             |             |             |  |
| For distribution boards                          |             |             |             |             |             |             |  |
| Draw-out type (DR)                               |             |             |             |             |             |             |  |
| TemPlug70 (PG)                                   |             |             |             |             |             |             |  |
| TemPlug45B (PG4)                                 |             |             |             |             |             |             |  |
| DIN rail mount                                   | <u>010</u>  |             |             |             |             |             |  |
| Clip-in chassis mount                            |             |             |             |             |             |             |  |
| ■Accessories (optional) Symbol                   |             |             |             | -           | _           |             |  |
| Auxiliary switch A X  Alarm switch A L           | •           | •           | •           | •           | •           | •           |  |
| 4)   | •           |             |             |             |             | •           |  |
| Shunt trips S H Undervoltage trips U V           |             |             |             |             |             |             |  |
| Undervoltage trips U V  Motor operator M C       |             |             |             |             |             |             |  |
| External operating Breaker-mounted HB            | •           |             |             |             |             |             |  |
| handle Door-mounted (variable depth) H P         | •           |             |             |             |             |             |  |
| Toggle extension H A                             |             |             |             |             |             |             |  |
| Mechanical interlock Slide type M.S.             | =           | _           |             |             | _           |             |  |
| Rear-connected type M B                          |             |             |             |             | _           |             |  |
|  |             |             |             |             |             |             |  |
| Link type M L Wire type MW Toggle holder H H     |             |             |             |             | _           |             |  |
| Toggle holder H H                                | •           | •           | •           | •           | •           | •           |  |
| Toggle lock H L                                  | •           | •           | •           | •           | •           | •           |  |
| Terminal cover For front-connected C F           | • (12)      | •           | • 8         | <b>●</b> 12 | • (8)       | • ®         |  |
| For rear-connected and plug-in C R               | <b>●</b> 12 | •           | • 8         | • (2)       | • 8         | • 8         |  |
| Interpole barrier B A                            | ● (3)       | •           | _           | ● (3)       | _           | =           |  |
| Terminal block for lead T F                      | •           | •           | •           | •           | •           | •           |  |
| Door flange D F                                  | •           | •           | •           | •           | •           | •           |  |
| ■Standard specifications                         |             | -           | -           |             |             |             |  |
| Colour of cover                                  | Grey        | Grey        | Grey        | Grey        | Grey        | Grey        |  |
| Trip button (Colour)                             | Yes (Red)   |  |
| Handle position indication (ON: Red, OFF: Green) | Yes         | Yes         | Yes         | Yes         | Yes         | Yes         |  |
| Suitability for isolation                        | Yes         | Yes         | Yes         | Yes         | Yes         | Yes         |  |
| Reverse connection                               | Yes         | Yes         | Yes         | Yes         | Yes         | Yes         |  |
| Notes:   |             |             |             |             |             |             |  |

- 🌒 : Standard. This configuration used unless otherwise specified. 🔾 : Optional standard. Specify when ordering. 🌒 : "yes" or "available". : "no" or "not available".
- 1): Connect 3poles or 4poles in series.
- ®: Two terminal covers are supplied as standard. Be sure to install the terminal covers on Line side (ON side) and Load side (OFF side).
- $\ensuremath{\textcircled{\scriptsize 1}}$  : Provided with DIN rail adaptor.
- ② : Be sure to install the terminal covers on Line side (ON side) that is supplied as standard.
   ③ : Possible to fit on load side (option).
   ② : + means the dimension of the terminal cover. See outline dimensions for details.
   ④ : The time constant (L/R) of the circuit should be less than 2.0ms nearby rated current.

## **Switch-disconnectors for DC600V-1000V**

| Frame size (A)  | 400         | 400         | 800              | 800          | <br> |  |
|---|-------------|-------------|------------------|--------------|------|--|
| Type  | PVS400-NNL  | PVS400-NNH  | PVS800-NNL       | PVS800-NNH   |      |  |
| Number of poles   | 3 4         | 4           | 3 4              | 4            |      |  |
| Ratings   | 3  4        | -           | 3  4             | -            | <br> |  |
| Rated current, A  | 400         | 400         | 630              | 630          | <br> |  |
| hated current, A  | 400         | 400         | 800              | 800          |      |  |
|   |             |             | 800              | 800          |      |  |
|   |             |             |                  |              |      |  |
| Rated insulation voltage ( <i>U</i> <sub>i</sub> ) V  | 800 1150    | 1150        | 800 1150         | 1150         |      |  |
| Rated operational voltage V DC  | 750 800     | 1000        | 750 800          | 1000         |      |  |
| Rated short time withstand current, kA  | 5 (0.3sec.) | 5 (0.3sec.) | 10 (0.3sec.)     | 10 (0.3sec.) | <br> |  |
| Rated impulse withstand voltage [U <sub>imp</sub> ] kV  | 8           | 8           | 8                | 8            | <br> |  |
| Performance   | 0           | <u> </u>    | <u> </u>         |              |      |  |
| Utilization category ① 19 DC  | DC-22A      | DC-22A      | DC-22A           | DC-22A       | <br> |  |
| JIS C 8201-3 IEC 60947-3  | DO-ZZA      | DO-22A      | DO-ZZA           | DO-ZZZA      | <br> |  |
| ■ External dimensions, mm   |             |             |                  |              | <br> |  |
|   | 140 185     | 185         | 210 280          | 280          | <br> |  |
| <u>a</u> <u>d</u> <u>c</u> <u>a</u>   | 260         | 260         | 273              | 273          | <br> |  |
| <u>b</u>  | 103         | 103         | 103              | 103          | <br> |  |
|   |             |             |                  |              | <br> |  |
| Mainte (® mandred to the dead | 145         | 145         | 145              | 145          | <br> |  |
| Weight (● marked standard type) kg  | 4.2 5.6     | 5.6         | 8.5 11.5         | 11.5         | <br> |  |
| Connections and Mountings   |             |             |                  |              |      |  |
| Front-connected (FC) Terminal screws  | <u>•</u>    | <u>•</u>    |                  |              | <br> |  |
| With extension bars   | O(BAR)      | O(BAR)      | •                | <u> </u>     | <br> |  |
| Rear-connected (RC) Flat bar studs  | 0           | <u> </u>    | <u> </u>         | <u> </u>     | <br> |  |
| Plug-in (PM) For switchboards   |             |             |                  |              | <br> |  |
| For distribution boards   |             |             |                  |              | <br> |  |
| Draw-out type (DR)  |             |             |                  |              |      |  |
| TemPlug70 (PG)  | _           |             |                  |              | <br> |  |
| TemPlug45B (PG4)  | _           |             |                  |              | <br> |  |
| DIN rail mount  | _           |             |                  |              | <br> |  |
| Clip-in chassis mount   | _           |             |                  |              | <br> |  |
| Accessories (optional) Symbol   |             |             |                  |              | <br> |  |
| Auxiliary switch A X  | •           | •           | •                |              |      |  |
| Alarm switch A L  | •           | •           | •                |              |      |  |
| Shunt trips S H   | •           |             | •                |              |      |  |
| Undervoltage trips U V  | •           | •           | •                |              |      |  |
| Motor operator M C  | •           | •           | •                | •            | <br> |  |
| External operating Breaker-mounted H B  | •           | •           | •                | •            | <br> |  |
| handle Door-mounted (variable depth) H P  | •           | •           | •                | •            | <br> |  |
| Toggle extension H A  |             |             | •                | •            |      |  |
| Mechanical interlock Slide type M S   |             |             |                  |              |      |  |
| Rear-connected type MB  | _           |             |                  |              |      |  |
| Link type M L   |             |             |                  |              |      |  |
| Link type M L Wire type MW Toggle holder H H  | _           | =           | =                | _            |      |  |
| ¥ Toggle holder H H   |             |             |                  |              | <br> |  |
| Toggle lock H L   | •           | •           | •                | •            |      |  |
| Terminal cover For front-connected C F  | •           | •           | •                | •            | <br> |  |
| For rear-connected and plug-in C R  | •           | •           | •                | •            |      |  |
| Interpole barrier B A   | • 9         | <b>9</b>    | ● 20 <b>●</b> 10 | ● ⑩          | <br> |  |
| Terminal block for lead T F   | •           | •           | •                | •            |      |  |
| Door flange D F   | _           | _           | _                |              | <br> |  |
| ■Standard specifications  | -           | -           | -                | -            | <br> |  |
| Colour of cover   | Grey        | Grey        | Grey             | Grey         | <br> |  |
| Trip button (Colour)  | Yes (Red)   | Yes (Red)   | Yes (Red)        | Yes (Red)    | <br> |  |
| Handle position indication (ON: Red, OFF: Green)  | Yes         | Yes         | Yes              | Yes          | <br> |  |
| Suitability for isolation   | Yes         | Yes         | Yes              | Yes          | <br> |  |
| Reverse connection  | Yes         | Yes         | Yes              | Yes          | <br> |  |
| Notes:  |             |             |                  | ·            | <br> |  |

- 🌒 : Standard. This configuration used unless otherwise specified. 🔾 : Optional standard. Specify when ordering. 🌒 : "yes" or "available". : "no" or "not available".
- 9 : For front connection, both line and load side interpole barriers are supplied as standard. For rear connection, line side interpole barriers are supplied as standard.
- ① : For front connection, 5pcs line side interpole barriers and 3pcs load side interpole barriers are supplied as standard. For rear connection, 5pcs line side interpole barriers are
- supplied as standard.

  19: The time constant (L/R) of the circuit should be less than 2.0ms nearby rated current.

  20: For front connection, 4pcs line side interpole barriers and 2pcs load side interpole barriers are supplied as standard. For rear connection, 4pcs line side interpole barriers are