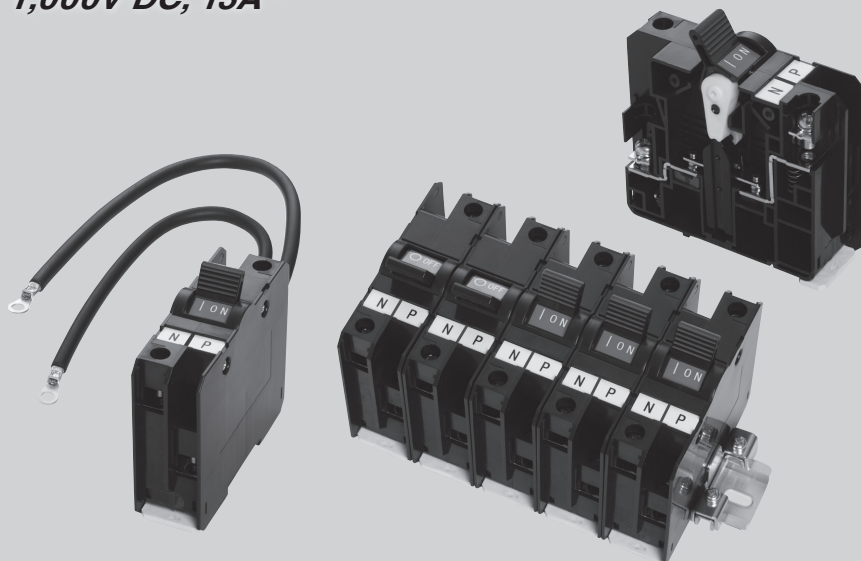




DISCONNECTING TERMINAL BLOCK

SDH TYPE

*Possible to high voltage circuit breaking for
1,000V DC, 13A^{*1}*



FEATURES

Enabling high voltage of 1,000V DC/13 A[†] to be cut off.

The original mechanism (with the built-in magnet and arc-extinguishing grid) enables high-voltage to be cut off.

^{*1} Type of load applied: DC-21B

Rated insulation voltage is 1,500V DC / 1,000V AC

1,500V DC/ 1,000V AC insulation performance is provided.

^{*} Conforming to IEC60947-3

Lever operation system is used.

Through lever operation, smooth and accurate ON/OFF switching is enabled.
Easy-to see ON/OFF indicator is provided.



Quick and easy DIN-rail mounting and removal are enabled by unit.

By operating the stopper, you can remove each unit easily without detaching the fastening bracket.



Finger protection

Finger protection structure on terminal-portion prevents touching live portion even if terminal cover is not attached.



**Erroneous operation prevention cover to ensure safety.
(Sold separately)**

Mounting the erroneous operation prevention cover can prevent unintentional lever operation.



SPECIFICATIONS (RATINGS, PERFORMANCE, STANDARD OPERATING CONDITION)

Applicable standard : IEC 60947-3 (2020) * Equivalent to JIS C 8201-3

Item		Rating		
Rating	Rated Insulation Voltage (Ui)	1,500V DC / 1,000V AC		
	Rated current-carrying capacity (Ith)	40A (Dependent on ambient temperature)		
	Rated impulse withstand voltage	12kV		
	Rated frequency	50 / 60Hz		
	Rated breaking capability (2 pole series)	Type of load applied	Voltage	Current
		DC-21A	1,000V DC	10A
		DC-21A	600V DC	15A
		DC-21B	1,000V DC	13A
	Rated short time withstand current	AC120A (cos ϕ = 0.95), 1 second		
	Rated short circuit making capacity	AC300V, AC170A (peak) (cos ϕ = 0.95), 50ms		
	Mechanical life	10,000 or more (DC-21B : 2000 or more)		
	Electrical life	Type of load applied DC-21A : 1,000 or more / DC-21B : 300		
	Rated applicable wire	5.5 ~ 14mm ²		
Standard operating condition	Terminal screw size	M5		
	Max. number of connections	2 wires / 1 terminal		
	Operating temperature	-25 to 40°C (Current-carrying : 40A or less)		
		-25 to 60°C (Current-carrying : 30A or less)		
		-25 to 70°C (Current-carrying : 20A or less)		
	Storing temperature	-40 ~ +55°C In case when does not exceeding 24 hour : +70°C or more (No freezing)		
	Humidity	85% or less (Storing temperature 40°C) (No freezing)		
	Altitude	2,000 m or less		
	Pollution degree	Pollution degree 3		

HOW TO ORDER**SDH-14-B×10-XD-17**

① ② ③ ④ ⑤ ⑥

No.	Item	Code	Detail
①	Basic type	SDH	—
②	Wire size	14	14mm ² max.
③	Color of unit	B	Black
④	No. of poles	1 to 18	Fasten the units with screws in the mounting holes of the rail at constant intervals depending on the number of units being used. • XD : To be fastened with screws at 200 mm intervals. • KD : To be fastened with screws at 260 mm intervals.
⑤	Assembly arrangement	XD	TXB-D rail type : Punched rail (DIN rail)
		KD	TKB-D rail type : Reinforced punched rail (DIN rail)
⑥	Rail length	4 to 29	To be assembled at the center as standard, regardless of the rail length. * For the rail length, refer to the assembly dimensions on page A151.



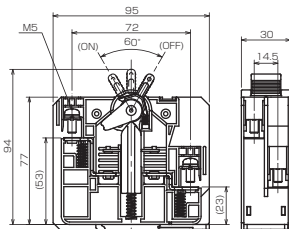
DISCONNECTING TERMINAL BLOCK

SDH TYPE

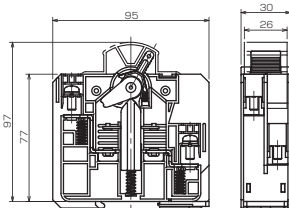
STANDARD PRODUCTS

SDH-14

Wire size: 5.5 to 14mm²



• When the erroneous operation prevention cover (SDH-14-CV) is mounted



●Applicable accessories

Standard marker strip	TUM* marker strip
	10A ABS
Standard rail	TXB (Punched rail)
	TKB (Reinforced punched rail)
End clamp	TXL
Cover	SDH-14-CV (Sold separately)

* PN marker strip is included with SDH-14

●Applicable crimp terminal

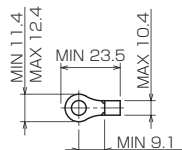


TABLE OF ASSEMBLED DIMENSIONS

TXB-D or TKB-D type

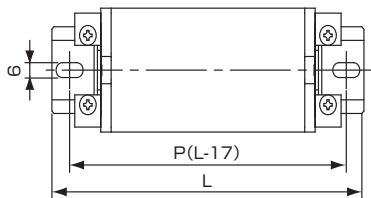
* TXB-F is not applicable.

* Fasten the units with screws in the mounting holes of the rail at constant intervals depending on the number of units being used.

• XD: To be fastened with screws at 200 mm intervals. (6 units)

• KD: To be fastened with screws at 260 mm intervals. (8 units)

* To use a part with a fixed pitch for connection between the units (short-circuit bar, etc.), use caution about the dimension tolerance (30^{+0.5}₋₀ mm per unit).



Pole	P	L	Rail
1	60	77	XD-4 or KD-4
2	80	97	XD-5 or KD-5
3	120	137	XD-7 or KD-7
4	140	157	XD-8 or KD-8
5	180	197	XD-10 or KD-10
6	200	217	XD-11 or KD-11
7	240	257	XD-13 or KD-13
8	280	297	XD-15 or KD-15
9	300	317	XD-16 or KD-16
10	340	357	XD-18 or KD-18
11	360	377	XD-19 or KD-19
12	400	417	XD-21 or KD-21
13	420	437	XD-22 or KD-22

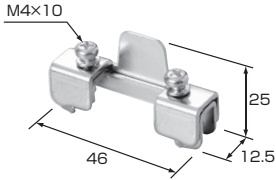
Pole	P	L	Rail
14	460	477	XD-24 or KD-24
15	480	497	XD-25 or KD-25
16	520	537	XD-27 or KD-27
17	540	557	XD-28 or KD-28
18	580	597	XD-30 or KD-30

* For assembling of 18 or more units, contact us separately.

ACCESSORIES

End clamp (Order unit: 50)

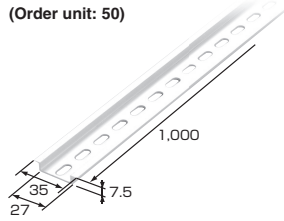
●TXL



Aluminium rail (DIN rail)

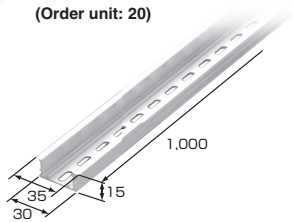
●TXB (Punched rail)

(Order unit: 50)



●TKB (Reinforced punched rail)

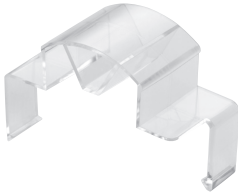
(Order unit: 20)



Protection cover

(Order unit: 50)

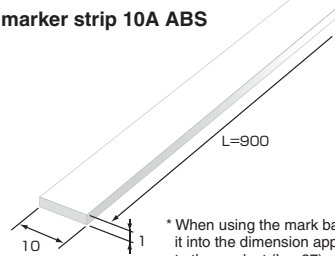
●SDH-14-CV (Sold separately)



Marker strip

(Order unit: 100)

●TUM marker strip 10A ABS



* When using the mark band, cut it into the dimension applicable to the product (L = 27).



SDH TYPE

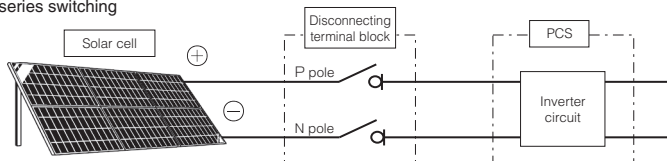
Switching performance and precautions for use

* The maximum cut-off voltage and number of switching operations vary depending on the connecting method (non-grounding or negative grounding).

In case of non-grounding

Switching performance

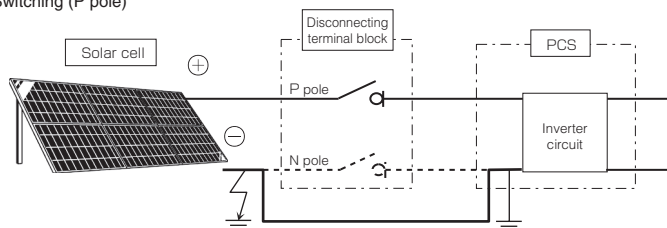
- When the type of load is DC-21A.
(Switching of resistance load ($L/R = 1 \text{ ms}$) including excessive overload; Frequent operations)
- Rated insulation voltage U_i : 1,500 V DC
(Applicable to circuit with 1,000 V DC open-circuit voltage)
- Maximum cut-off voltage/current: 1,000 V DC/10A
DC600V/15A
- Switching frequency: 1000 times
- Switching operation: 2-pole series switching
- Example of connection:



Negative grounding (at occurrence of ground fault)

Switching performance

- Rated insulation voltage U_i : 1,500 V DC
(Applicable to circuit with 1,000 V DC open-circuit voltage)
- Maximum cut-off voltage/current: 750 V DC/10A
- Switching frequency: 100 times
- Switching operation: 1-pole Switching (P pole)
- Example of connection:

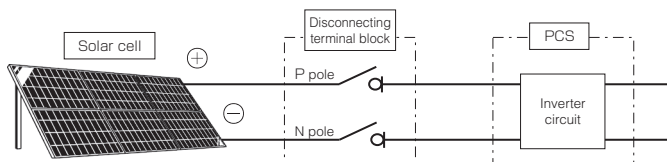


If the switch is opened/closed at occurrence of ground fault, the electric circuit is bypassed from the grounding point, allowing only the P terminal to be opened/closed.

Switching performance under individual conditions

Switching performance (when switching frequency is 100 times)

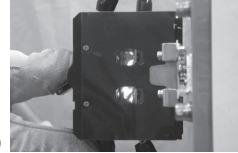
- Operating voltage/current: 1,500 V DC/10 A
- Switching frequency: 100 times
- Switching operation: 2-pole series switching
- Example of connection:



TECHNICAL DATA

Series 4-contact cut-off type

By using the internal structure equivalent to that of cam switches, and through series 4-contact switching operations, the SDH type can reduce damage to the contacts, ensuring high durability.



• Conceptual image
(Internal arc discharge)

With the built-in magnet, arc is extinguished during cut-off.

The SDH type extinguishes arc by using the magnetic field generated by the magnet, so that it can be installed in any direction without being affected by arc.

Indirect manual operation is enabled.

Using the cam switch mechanism for the contacts, the SDH type enables fixed-speed cut-off operation regardless of operation speed.
* Conforming to IEC60947-3 (Equivalent to JIS C 8201-3)

Caution

Precautions for use

- Do not use the product in a condition exceeding the ratings, specifications and characteristic of the product. Failure to observe this instruction causes a fault of the product.
- Do not tap or flick the switch. Failure to observe this instruction may result in damage to the product. The lever must be operated by hand.
- When turning ON the switch, you may hear arc sound. However, turn the lever to the ON position securely without stopping it in the middle of operation.
- Do not apply force in any direction other than the specified operating direction.

Environment for use, storage and transportation

- During storage and transportation of the product, avoid exposure to direct sunlight, and keep the product at normal temperature and normal humidity.
- This product is not waterproof, oil-proof and explosion-proof. Do not use this product in such an environment.
- Avoid use and storage of the product in a place where the product may be exposed to ozone or corrosive gas.
- Use caution when using this product in environment at high temperature or high humidity. Abrupt temperature fluctuations cause condensation, which may result in insulation deterioration, rusting, etc.
- Exercise caution about freezing when the ambient temperature becomes 0°C or lower. Freezing causes adhesion of moving parts and contact failure.

Precautions for mounting, removal and wiring

- If the product falls, product performance may deteriorate. In this case, do not use this product. To use this product, be sure to check appearance, specifications and performance of the product.
- Misconnection may result in unintended operation, abnormal heating and fire.
- When mounting or removing the product, make sure that the product is not alive.
- For wiring of the product, be sure to use applicable cable and crimp terminal, in consideration of applied voltage and current.
- Do not apply excessive pulling stress to the connection cable.
- For a product which mounting pitch is fixed, be sure to observe the specified dimensions.
- Do not remove screws other than the terminal screw. Failure to observe this instruction cause a fault of the product.
- Recommended tightening torque for the terminal screw is 1.2 N-m.
- Do not apply screw lock agent or adhesive to this product. Using such an agent may result in damage to the plastic parts.

Precautions for inspection

- Do not disassemble the product during cleaning. Disassembling the product causes a fault of the product.
- When cleaning this product, do not use a paint thinner, etc. Failure to observe this instruction may result in damage to the lever, unit body, stopper, etc.