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JAPANESE INDUSTRIAL STANDARD

Terminal blocks for industrial and similar use

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In the event of any doubt arising,
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Terminal blocks for industrial and similar use C 2811-1995

1. Scope This Japanese Industrial Standard specifies terminal blocks for industrial and similar use, to be used for electric circuit of not more than a.c. 600 V (frequency 50 Hz or 60 Hz) or d.c. 600 V (hereafter referred to as "terminal blocks").

Above-mentioned terminal block means an assembly of conductive metal fittings having wire connecting part and insulator to hold them for the purpose of connection, branch or relaying of wires, mainly used for interior of electric control apparatus, control board, switch board or the like.

Remarks 1. For the following terminal blocks, however, this Standard does not apply.

(1) Article having switching function, disconnecting function or fuse.

(2) Article exclusively used for electronic equipment or communication apparatus.

(3) Article for the purpose to connect aluminium wire.

(4) Article of special construction to be used for a specific apparatus or device.

2. The standards cited in this Standard are given in Attached Table 1.

3. The International Standards corresponding to this Standard are given below.

IEC 947-1 (1988) Low-voltage switchgear and controlgear
Part 1: General rules

IEC 947-7-1 (1989) Low-voltage switchgear and controlgear
Part 7: Ancillary equipment
Section One - Terminal blocks for copper conductors

2. Definitions For the purpose of this Standard, the following principal definitions apply:

(1) screw type terminal block Generic name of terminal block of such construction that screws are used for wire connection. There are screw terminal block, stud terminal block, clamp terminal block and push tightening terminal block, according to the shape of wire connecting part.

(2) screw terminal block A terminal block of such construction that the connection is made by tightening wire or crimp-style terminal with lower face of terminal screw head, directly or through washer, etc.

(3) stud terminal block A terminal block of such construction that the connection is made by tightening wire or crimp-style terminal with nuts screwed in the stud which is fixed to conductive metal fittings or insulator, directly or through washers, etc.

(4) clamp terminal block A terminal block of such construction that the wire is inserted between a conductive metal fitting and clamp, and tightened with pushing force of the clamp to perform the connection.

(5) push tightening terminal block A terminal block of such construction that the wire is inserted into a hollow cylindrical conductive metal fitting and tightened with end of screw screwed in the conductive metal fitting directly or through a strap metal to perform connection.

(6) tab terminal block A terminal block so constructed that the connection is made by using flat quick-connect terminal.

(7) lug terminal block A terminal block having lugs, to which connection is made by soldering.

(8) wrapping terminal block A terminal block having pins, on which wires are wrapped to perform the connection.

(9) screwless type terminal block A terminal block of such construction that the wire is inserted between the conductive metal fitting and the spring, and connected by means of the pressure of the spring directly or through a strap metal.

(10) rated insulation voltage The voltage taken as the basis of insulation design of terminal block, which satisfies the required insulation distance and withstand voltage.

(11) rated applicable wire The maximum size (expressed in sectional area mm^2 or diameter mm) of wire which can be connected to the terminal block, and satisfies the thermal, mechanical and electrical performances.

3. Standard service condition The standard service conditions shall be as prescribed below, and terminal blocks shall be used under these conditions, unless otherwise specified. Provided that the atmospheric condition does not cause freezing or dew formation of terminal.

(1) Ambient temperature: -5°C to 40°C

(2) Relative humidity: 45 % to 85 %

(3) Altitude: 2000 m or below

4. Classification Terminal blocks are classified as given in Table 1, according to the shape of wire connecting part.