

# EF2 Series

Supports up to 400A, ZERO SCREW™ terminal blocks

Product	400	250	200	150	60	30
Push type	-	-	-	-	EF2-D60B-1	EF2-D30B-1
Twist type	EF2A-D400B-1	EF2A-D250B-1	EF2A-D200B-1	EF2A-D150B-1	-	-
One-sided screw type (Push)	-	-	-	-	EF2-DH60B-1 (Under development)	EF2-DH30B-1 (Under development)
One-sided screw type (Twist)	EF2A-DH400B-1	EF2A-DH250B-1	EF2A-DH200B-1	EF2A-DH150B-1	-	-
Image						
Rated current	400A : 200mm <sup>2</sup> (400MCM)	310A : 150mm <sup>2</sup> (250MCM)	175A : 60mm <sup>2</sup> (AWG#1/0) 240A : 100mm <sup>2</sup> (AWG#4/0)	94A : 22mm <sup>2</sup> (AWG#4) 132A : 38mm <sup>2</sup> (AWG#2) 175A : 60mm <sup>2</sup> (AWG#1/0)	40A : 5.5mm <sup>2</sup> (AWG#10) 50A : 8mm <sup>2</sup> (AWG#8) 70A : 14mm <sup>2</sup> (AWG#6)	16A : 1.25mm <sup>2</sup> (AWG#16) 21A : 2mm <sup>2</sup> (AWG#14) 30A : 3.5mm <sup>2</sup> (AWG#12) 40A : 5.5mm <sup>2</sup> (AWG#10)
Rated voltage	AC 1,000V, DC1,500V			AC / DC 600V		
Withstanding voltage	5000V AC for 1minute			2500 AC for 1minute		
Contact resistance	0.1mΩ max. (1A DC)			1mΩ max. (1A DC)		
Operating temperature	-25 to +105°C (Including the temperature rising by current flow.)					
Durability	50 times					
Environmental standards	RoHS2 compliant					
Compatible terminal	"R200-12(S)" or "R200-14" from Nichifu or JST, or equivalent terminal	"R150-12" or "R150-14" from Nichifu or JST, or equivalent terminal	"R60-10" or "R100-10" from Nichifu or JST, or equivalent terminal	"R22-8", "R22-10", "R38-8", "R38-10", "R60-8" or "R60-10" from Nichifu or JST, or equivalent terminal	"R5.5-6", "R8-5" or "R14-5" from Nichifu or JST, or equivalent terminal	"R1.25-5", "R2-5", "R3.5-4" or "R5.5-4" from Nichifu or JST, or equivalent terminal

**⚠ Terminal thickness is important. Using an inappropriate crimp terminal may result in performance degradation and serious accident. Please make sure to use applicable terminals.**

### Part number configuration

## EF2 - DH150B - 1 (01)

① ② ③ ④ ⑤ ⑥ ⑦

- ① **Series name**  
EF2 : Push type  
EF2A : Twist
- ② **Mount type**  
D : DIN rail mount type
- ③ **Connection type**  
Blank : Single action type  
H : One-sided screw type
- ④ **Current capacity sign**
- ⑤ **Protect design**  
Blank = No protection design  
B = With protection design
- ⑥ **Linked quality**  
(D150 type only)
- ⑦ **Plate**  
Blank = With end plate  
(01) = No end plate

### Crimp terminal conformity table

Current capacity	R1.25	R2	R3.5	R5.5	R8	R14	R22	R38	R60	R100	R150	R200
30	○	○	○	○	×	×	×	×	×	×	×	×
60	×	×	×	○	○	○	×	×	×	×	×	×
150	×	×	×	×	×	×	○	○	○	×	×	×
200	×	×	×	×	×	×	×	×	○	○	×	×
250	×	×	×	×	×	×	×	×	×	×	○	×
400	×	×	×	×	×	×	×	×	×	×	×	○

○ : Usable crimp terminals, × : Unusable crimp terminals

### Safety Precautions

**⚠ Warnings**

- Do not touch the exposed conductor while it is energized. Failure to follow this warning could result an electric shock and injury.
- The power to be turned off when inserting or extracting the crimp terminal.
- After mating the crimp terminal, pull the cable gently to confirm that it will not be disconnected. If it is not mated correctly, the cable will be removed. An incomplete mating will cause disconnection or contact failure which lead significant danger.

\*Please check our Guideline for more details.

ZERO SCREW™ Terminal block (EF2 series) special site →



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The information in this brochure is as of February 2021. Hirose reserves the right to make any adjustments to the information contained herein without notice.



Supports up to 400A, ZERO SCREW terminal blocks **EF2 series**

Next generation terminal block with single action

# ZERO SCREW™

JIS C 8201-7-1  
NECA C 2811 (Old JIS 2811)



HIROSE ELECTRIC CO.,LTD.

# The Zero Screw Solution.

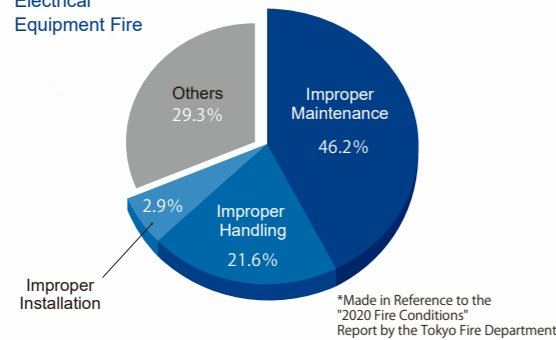
**ZERO SCREW™ terminal block achieves enhanced safety and reduces construction time.**

ZERO SCREW™ terminal block (EF2 Series) can be connected in a single action without screws. Simply insert the ring terminal to connect. Since a highly reliable contact can be maintained over a long time period, maintenance work is also reduced. It is a new choice of terminal block that improves the work quality, construction time and the safety of electrical facilities.

## 1 Reduced Electrical Equipment Fire Risk

Maintains Stable Connection

Major Causes of Electrical Equipment Fire



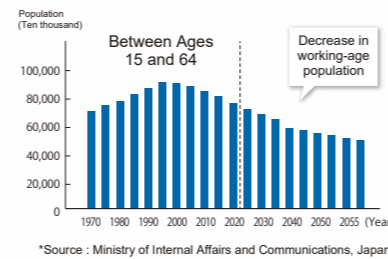
An electrical fire not only endangers the life of building users, it also lowers trust in developers, construction companies and fire source product suppliers. About 70% of the cause of electrical fires is poor handling and lack of maintenance. More specifically, screw looseness can be identified as the cause of these fires. Period maintenance and inspection of screws is required. Even with periodic maintenance, it is difficult to completely prevent an accident. The ZERO SCREW™ terminal block maintains a highly reliable connection for a long time with its unique, screw-less design that reduces fire risk caused by loose screws in electrical equipment to zero.

## 2 Solves the Shortage of Technicians

Simply Insert the Contact to Connect

Screw type terminal blocks cause variations in "screw tightening" and "torque management" by different workers. ZERO SCREW™ terminal block with single insertion achieves stable work quality regardless of workers' ability. Ideal for future staffing where there will be fewer skilled workers.

Data for Changes in the Working-age Population

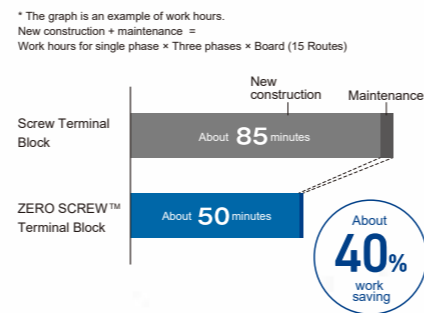


## 3 Shortens Construction Time Drastically

Reduce All Process Related to Screws

With screw type terminal blocks, screwing and unscrewing is required for new construction and torque checking is needed during maintenance. Since the ZERO SCREW™ Terminal Block has no screws, it can reduce the number of work hours by more than 40% compared to a conventional screw terminal block for a dramatic reduction in construction time.

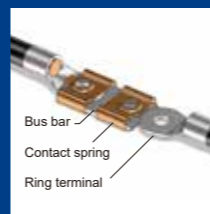
Work Hours Comparison with Screw Terminal Block



**Easy operation**  
Simply insert to Connect. No screws needed.  
Quick and secure single action positive lock design. Unlike a conventional screw terminal block, an operator with less experience can easily maintain stable work quality. Visual confirmation of the insertion status from the top after mating ensures safety.



**Long-term stable connection**  
Highly Reliable Connection with Unique Contact Spring Design  
Unique design presses the ring terminal directly against the busbar for connection, improving contact reliability and maintaining a stable, long-term connection.



**Positive lock**  
Fully Locked State is the Standard Position  
EF2 is always in a locked state when connected. The safety design prevents the ring terminal from coming out unless the bottom is pressed and the ring terminal is removed. This design also prevents workers from forgetting to lock the connector and the ring terminal from falling out.

