

# Up to 400A ZERO SCREW™ Terminal Block

## EF2 Series



**To the tightened world without screws!**

### ■ Features

1. Quick and secure single action positive lock structure
2. Easy operation simplifies maintenance especially in narrow and dimly lit places
3. Easy connection with standard ring terminals
4. Highly reliable connection with unique contact spring structure
5. Wide variety of cable sizes and currents supported  
Applicable : 1.25mm<sup>2</sup> to 200mm<sup>2</sup>  
Rated current : 16A to 400A
6. Easy crimping termination with commercially available JIS crimp tools
7. UL and TÜV certification pending

**JIS C8201-7-1**

### ■ Product Specifications

Product	D30	D60	D150	D250	D400
Rated current	1.25mm <sup>2</sup> =16A 2mm <sup>2</sup> =21A 3.5mm <sup>2</sup> =30A 5.5mm <sup>2</sup> =40A	5.5mm <sup>2</sup> =40A 8mm <sup>2</sup> =50A 14mm <sup>2</sup> =70A	22mm <sup>2</sup> =94A 38mm <sup>2</sup> =132A 60mm <sup>2</sup> =175A	150mm <sup>2</sup> =310A	200mm <sup>2</sup> =400A
Rated voltage	AC / DC 600V			AC 1000V, DC 1500V	
Operating temperature range	-25°C to +105°C (Includes temperature rise due to current flow)				
Storage temperature range	-10°C to +60°C				

Item	Specifications	Conditions
1. Contact resistance	D30, D60 : 1mΩ or less (DC 1A) D150, D250, D400 : 0.1mΩ or less (DC 1A)	Measured at DC 1A
2. Insulation resistance	1000MΩ or more	Measured at DC 500V
3. Withstanding voltage	No flashover or breakdown	D30, D60, D150     Apply AC 2500V for 1 minute.
		D250, D400         Apply AC 5000V for 1 minute.
4. Vibration resistance	No electrical discontinuity of 10μs or more	10 to 500Hz/cycle, half amplitude 0.75mm 3 hours in 3 axial directions
5. Shock resistance	No electrical discontinuity of 10μs or more	Acceleration : 500m/s <sup>2</sup> , duration : 11ms, 6 directions, 5 cycles for each
6. Humidity resistance	Insulation resistance : Minimum of 20MΩ	Left at a temperature of -40±2°C and in humidity of 90 to 95% for 96 hours.
7. Heat and Cold resistance	Insulation resistance : Minimum of 20MΩ	Subjected to -25±3°C for 2 hours. Returned to room temperature for 1 hour. Subjected to 70±3°C for 2hours.
8. Durability	D30, D60 : 1.5mΩ or less D150, D250, D400 : 0.15mΩ or less	50 mating cycles

## Materials / Finish

Component	Materials	Color/Finish	Remarks
Housing	m-PPE	Black	UL94V-0
Lock	PBT	Black/Red/Orange	UL94V-0
Bus bar	Copper	Tin plated	————
Spring	SUS	————	————

## Product Number Structure

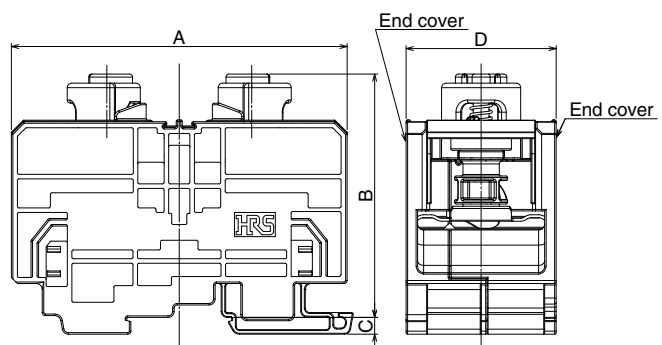
Refer to the chart below when determining the product specifications from the product number.  
Please select from the product numbers listed in this catalog when placing orders.

**EF2 - D 150 - 1 (\*\*)**

① ② ③ ④ ⑤

① Series name : EF2
② Mount type : D = DIN rail mount
③ Current capacity sign : 30, 60, 150, 250, 400
④ Linked quantity (D150 type only)
⑤ Additional product specifications will be identified by the addition of (01), (02)...etc. as needed.

## DIN rail mount type



Unit : mm

Part No.	HRS No.	A	B	C	D	Wire conductor size	Applicable crimp contact	Remarks
EF2-D30-1	142-0103-0	57.6	41.7	5.5	17.5	1.25mm <sup>2</sup> 2mm <sup>2</sup>	R1.25-5 R2-5	
EF2-D30-1 (01)	142-0103-0 01				12.05	3.5mm <sup>2</sup> 5.5mm <sup>2</sup>	R3.5-4 R5.5-4	☆
EF2-D60-1	142-0104-0	63.6	46.35	5.5	21	5.5mm <sup>2</sup> 8mm <sup>2</sup>	R5.5-5 R8-5	
EF2-D60-1 (01)	142-0104-0 01				15.55	14mm <sup>2</sup>	R14-5	☆
EF2-D150-1	142-0100-0	71	53.45	5.5	40.5	22mm <sup>2</sup> 38mm <sup>2</sup> 60mm <sup>2</sup>	R22-8, 10 R38-8, 10 R60-8, 10	
EF2-D250-1	142-0101-0	111	80.45	5.55	49.6	150mm <sup>2</sup>	R150-12, 14	
EF2-D400-1	142-0102-0	111	87.5	5.55	55	200mm <sup>2</sup>	R200-12, 14	

Note 1 : ☆ : End cover unattached version.

◆Applicable tools

Items	Part No.	HRS No.	Remarks
Manual hydraulic type crimp tool	HT111-9H-60	902-1515-2	JIS C 9711 (JIS standard general purpose tool) Recommendation : 9H-60 made by IZUMI Product Company
Manual hydraulic type crimp tool	_____	_____	JIS C 9711 (JIS standard general purpose tool) Recommendation : 5N18 made by IZUMI Product Company
Electric hydraulic type crimp tool	_____	_____	JIS C 9711 (JIS standard general purpose tool) Recommendation : REC-Li14S made by IZUMI Product Company
Electric hydraulic type crimp tool	_____	_____	JIS C 9711 (JIS standard general purpose tool) Recommendation : REC-Li60S made by IZUMI Product Company
Electric hydraulic type crimp tool	_____	_____	JIS C 9711 (JIS standard general purpose tool) Recommendation : REC-Li150 made by IZUMI Product Company
Electric hydraulic type crimp tool	_____	_____	JIS C 9711 (JIS standard general purpose tool) Recommendation : REC-Li325 made by IZUMI Product Company

◆Manual hydraulic type crimp tool



HT111/9H-60

◆Electric hydraulic type crimp tool



REC-Li14S



REC-Li60S



REC-Li150

Note : Please perform regular maintenance on your crimp tool according to its instruction manual.

◆Safety Precautions

<b>⚠ Warning</b>
<ul style="list-style-type: none"> <li>●Do not touch the exposed conductor while it is energized. Failure to follow this warning could result an electric shock and injury. ⚠</li> <li>●The power to be turned off when inserting or extracting the crimp terminal.</li> <li>●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.</li> </ul>
<b>⚠ Caution</b>
<ul style="list-style-type: none"> <li>●Unappropriate crimp terminal may cause degradation of performance and serious accident. Please contact Hirose representative if you have any questions or concerns.</li> </ul>

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