



EC™

PEM eConnect™ FASTENERS



PEM eConnect™ fastening technology provides superior electrical connection solutions.

NEW!

ECCB™ PEM eConnect™ Contact Bushing for use in aluminum and copper busbars.

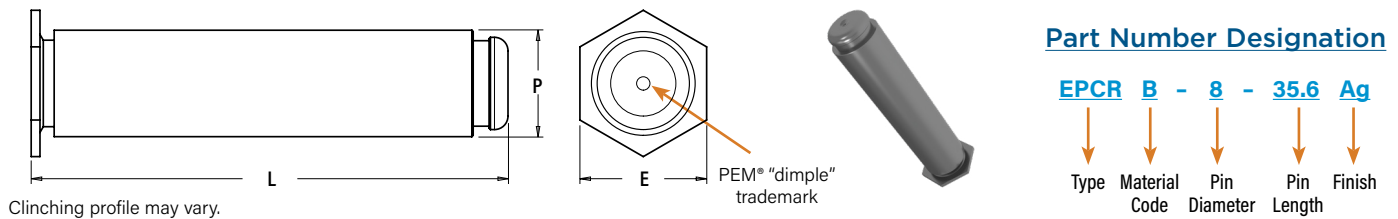


PEM eConnect™ Fastening Technology provides repeatable, consistent electrical joints and superior installation in applications that demand superior performance from internal components.

- Quick, Secure Automated Installation
- Use PEM eConnect™ fastening technology with our line of fully automated installation systems for an efficient, cost-saving total system solution
- No hot spots or poor conductivity
- Joint has an electrical resistance of less than 100 μΩ
- Range of captivation options
- Unmatched PEM® Quality
- PEM® products' time-tested, proven performance makes them the go-to choice for electrical connection solutions

Fastener drawings and models are available at www.pemnet.com. Custom sizes are available on special order. [Contact us](#) for more information.

EPCRB™ PEM eConnect™ Self-Clinching Pin

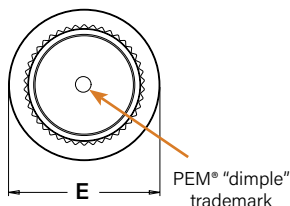
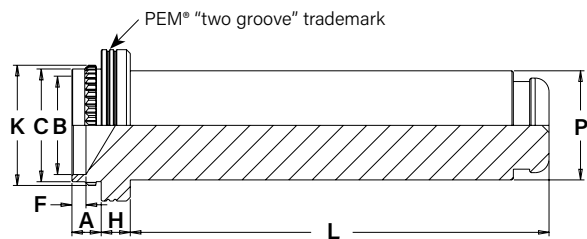


Type	Pin Dia. Code	Pin Length Code	Sheet Thickness		Hole Size in Sheet +.002" / +0.05mm		E Nom.		L ±.012" / ± 0.3mm		P ±.004" / ±0.1mm		Min. Dist. Hole C/L to Edge ⁽¹⁾	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
EPCRB	8	35.6	.079 - .158	2 - 4	.389	8.1	.375	9.53	1.402	35.6	.315	8	.374	9.5

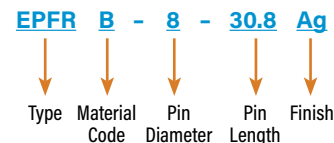
(1) For more information on proximity to bends and distance to other clinch hardware, see [PEM® Tech Sheet C/L To Edge](#).

Custom sizes are available on special order. [Contact us](#) for more information.

EPFRB™ PEM eConnect™ Broaching Pin



Part Number Designation



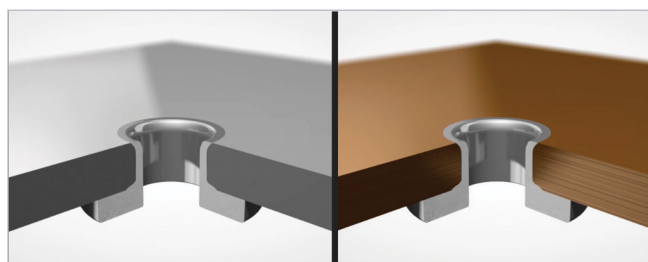
Type	Pin Dia. Code	Pin Length Code	Sheet Thickness		Hole Size in Sheet +.002" / +0.05mm		A Max.		B ±.003" / ±0.08mm		C Max.		E ±.005" / ±0.13mm		F ±.010" / ±0.25mm		H ±.0029" / ±0.07mm		K ±.003" / ±0.08mm		L ±.007" / ±0.18mm		P ±.002" / ±0.05mm		Min. Dist. Hole C/L to Edge (1) +.005" / -.001" +.013 / -.003mm	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
EPFRB	8	30.8	.049-.065	1.24-1.65	.335	8.5	.058	2.18	.284	7.21	.329	8.35	.437	11.09	.037	0.93	.084	2.13	.350	8.89	1.209	30.8	.315	8	.346	8.8

(1) For more information on proximity to bends and distance to other clinch hardware, see [PEM® Tech Sheet C/L To Edge](#).

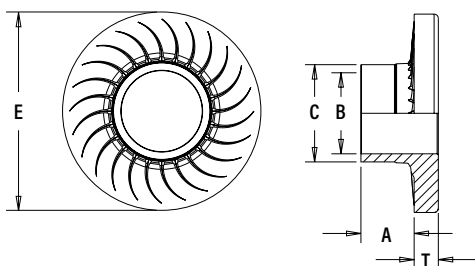
ECCB™ PEM eConnect™ Contact Bushing

NEW - PEM® ECCB™ Contact Bushing:

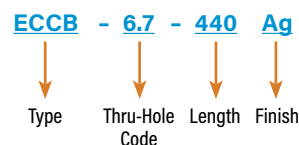
- Designed for installation into straight punched holes without additional surface preparation.
- Breaks aluminum and copper oxide layers on busbars for low resistance connections.
- Combined broach and flare install ensures consistent mechanical and electrical connections.
- For use in panels with sheet hardness HRB 50 / HB 82 or less.



ECCB™ contact bushing is suitable for aluminum and copper busbars



Part Number Designation



Type	Thru-Hole Code	L Length Code	A (Shank) Max.		B Thru-Hole Dia. ±.004" / ±0.1mm		Rec. Sheet Thickness +.003" / +0.08mm		Hole Size In Sheet +.003" / +0.08mm		Pilot C Max.		E ±.010" / ±0.25mm		T ±.010" / ±0.25mm		Min. Dist. Hole C/L to Edge (1)	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
ECCB	6.7	440	.173	4.4	.265	6.7	.158	4	.325	8.25	.315	8	.646	16.4	.079	2	.325	8.25

(1) For more information on proximity to bends and distance to other clinch hardware, see [PEM® Tech Sheet C/L To Edge](#).

Material And Finish Specifications

Type	Fastener Material		Standard Finishes		For Use In		
	Free Machining Brass	C14415 (K81) Copper	Matte Electroplated Silver per ASTM B700, Type II, Grade A ⁽¹⁾	Electro-Plated Tin ASTM B545, Class A with Clear Preservative Coating, Annealed ⁽²⁾	Sheet Hardness HRB 44 / HB 80 or less ⁽³⁾	Sheet Hardness HRB 50 / HB 82 or less ⁽³⁾	PC Board
EPCRB	▪		▪		▪		
EPFRB	▪		▪				▪
ECCB		▪	▪	▪		▪	
Part Number Code for Finishes			Ag	ET			

(1) See PEM [Technical Support](#) section of our web site for related plating standards and specifications.

(2) Optimal solderability life noted on packaging.

(3) HRB - Hardness Rockwell "B" Scale. HB - Hardness Brinell.

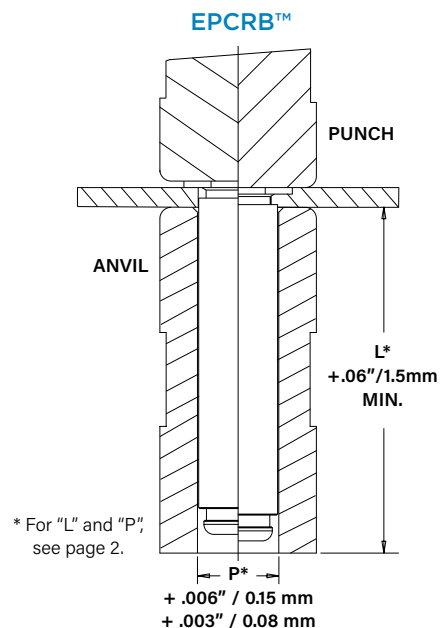
Installation

EPCRB™ Self-clinching Pin

1. Prepare properly sized mounting hole in sheet. Do not perform any secondary operations such as deburring.
2. Insert pin through mounting hole (punch side) of sheet and into anvil hole.
3. With punch and anvil surfaces parallel, apply squeezing force to embed the head of the pin flush in the sheet.

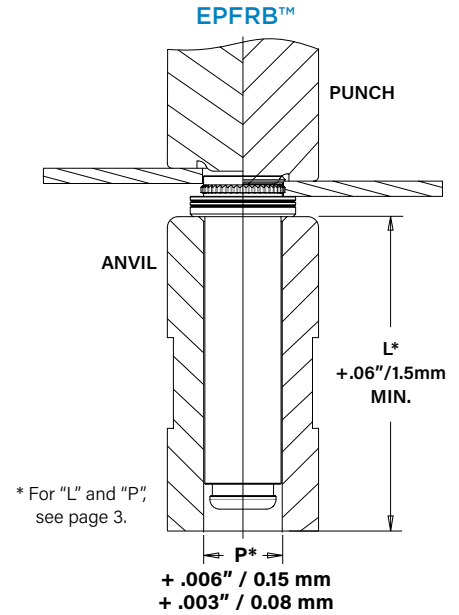
Installation Tooling

Type	HAEGER® Part Number		PEMSERTER® Part Number	
	Anvil	Punch	Anvil	Punch
EPCRB	15875-1	H-108-0020L	8026712	975200048



EPFRB™ Broaching Pin

1. Prepare properly sized mounting hole in board.
2. Place fastener into the anvil hole and place the mounting hole over the shank of the fastener.
3. Using a punch flaring tool and a recessed anvil, apply squeezing force until the shoulder of the fastener contacts the board. As the fastener seats itself in the proper position, the punch tool will flare the extended portion of the shank outward to complete the installation. The combination of broaching and flaring provides high pushout performance.

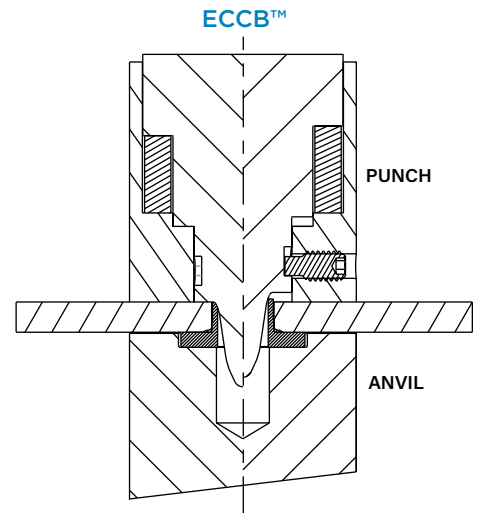
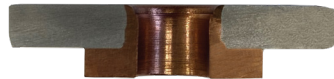


Installation Tooling

Type	HAEGER® Part Number		PEMSERTER® Part Number	
	Anvil	Punch	Anvil	Punch
EPFRB	15875-1	15875-2	8026712	8026681

ECCB™ Contact Bushing

1. Prepare properly sized mounting hole in sheet. Do not perform any secondary operations such as deburring.
2. Place the shank of the fastener into the mounting hole.
3. With punch and anvil surfaces parallel, apply squeezing force to flare the shank of the fastener.



Installation Tooling

Type	Anvil Dimensions			HAEGER® Part Number		PEMSERTER® Part Number	
	A	B	C	Anvil	Punch	Anvil	Punch
ECCB	1.18" / 3mm	0.98" / 2.5mm	.040" / 1mm	H-192	H-191	8026985	8026982

Installation Notes

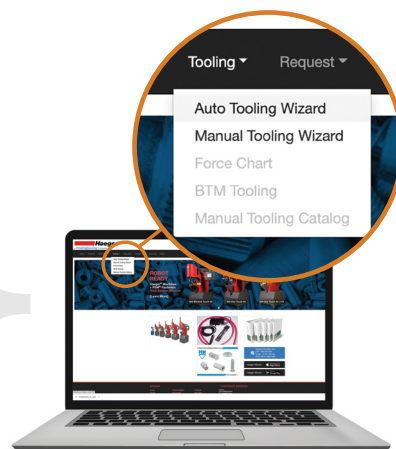
- For best results we recommend using a HAEGER® or PEMSERTER® machine for installation of PEM® self-clinching fasteners. See our [website](#) for more information.
- Visit the [Animation Library](#) on our website to view the installation process.

For Additional HAEGER® and PEMSERTER® Tooling Information / Part Numbers

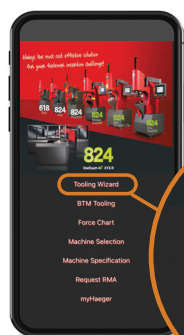


HAEGER® MANUAL TOOLING CATALOG

HAEGER® AUTO TOOLING CATALOG



Go to haeger.com to access the Auto and Manual Tooling Wizards



Or download the HAEGER WIZZARD Phone App

OneTouch 4e XYZ-R
Tooling Wizard
BTM Tooling



PEMSERTER® MANUAL TOOLING CATALOG

PEMSERTER® AUTO TOOLING CATALOG

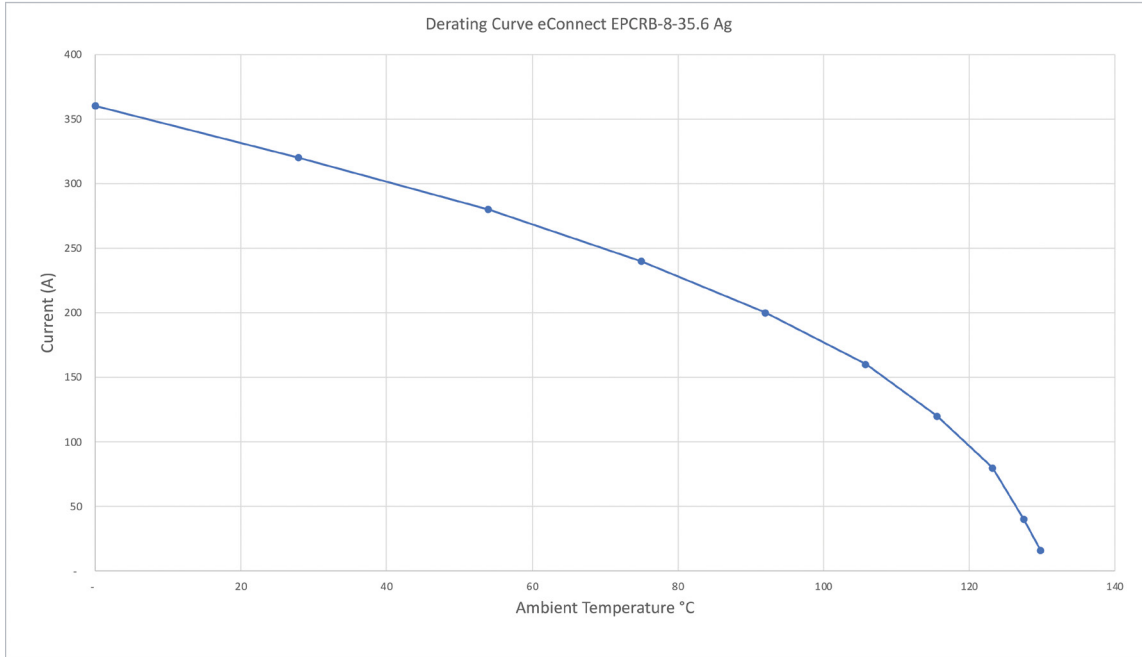
Performance Data⁽¹⁾

PEM eConnect™ Pins

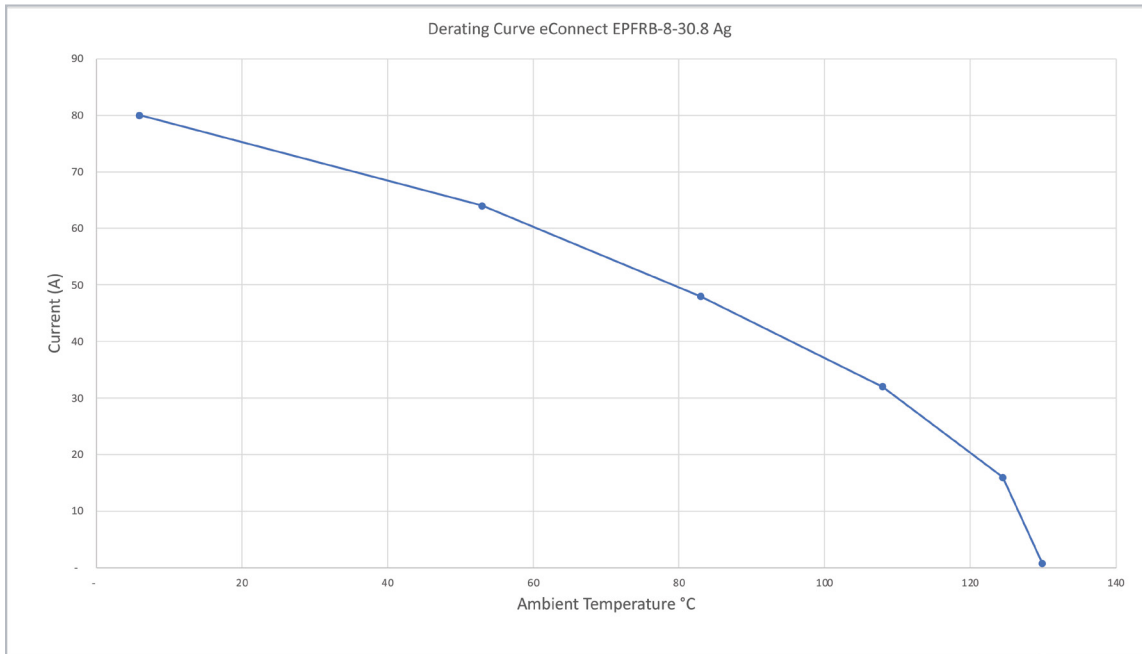
Type	Test Sheet Material							
	C110 Copper HRB 44				FR-4 Fiberglass			
	Installation		Pushout		Installation		Pushout	
	(lbs.)	(kN)	(lbs.)	(kN)	(lbs.)	(kN)	(lbs.)	(N)
EPCRB	5845	26	900	4	—	—	—	—
EPFRB	—	—	—	—	1710	76	169	750

(1) Published installation forces are for general reference. Actual set-up and confirmation of complete installation should be made by observing proper seating of fastener as described in the installation steps. Other performance values reported are averages when all proper installation parameters and procedures are followed. Variations in mounting hole size, sheet material, and installation procedure may affect performance. Performance testing this product in your application is recommended. We will be happy to provide technical assistance and/or samples for this purpose.

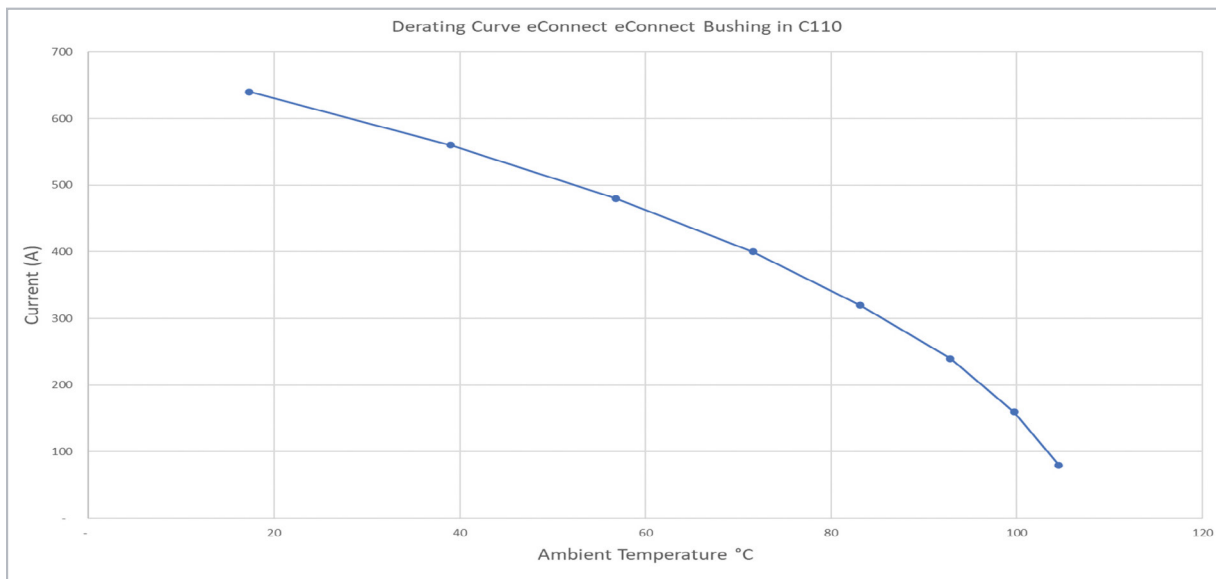
EPCRB™ Self Clinching Pin Derating Curve



EPFRB™ Broaching Pin Derating Curve



ECCB™ Contact Bushing Derating Curve



All PEM® products meet our stringent quality standards. If you require additional industry or other specific [quality certifications](#), special procedures and/or part numbers are required. Please contact your local sales office or representative for further information.

Regulatory [compliance information](#) is available in Technical Support section of our website. Specifications subject to change without notice. See our website for the most current version of this bulletin.



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