

# MAGNETIC METALS

## CHARACTERISTICS OF A CORE STACK HAVING A SQUARE CROSS SECTION

- VOLUME AND WEIGHT**
- VOLUME - 11.7 in.<sup>3</sup> - 192 cm.<sup>3</sup>
  - WINDOW AREA - 1.17 in.<sup>2</sup> - 7.57 cm.<sup>2</sup>
  - WT. SUPERA Q 80 - 3.70 lb. - 1680 g.
  - WT. SUPERM "49" - 3.40 lb. - 1543 g.
  - WT. SUPERFLUX - 3.36 lb. - 1524 g.
  - WT. SILICON - 3.12 lb. - 1414 g.

### MAGNETIC DESIGN FORMULAE

Properties of Core Stack with Winding of "N" Turns  
 $B_{max} = \frac{37.3 \times 10^3 \text{ Gausses Per Volt}}{K_1 N}$  at 60 Hertz

$H_o = (.066 \times 10^{-3}) N \text{ Oersteds}$   
 (Gilberts per centimeter) per milliamper of direct current

$L_o = (.665 \times 10^{-8}) K_1 N^2 / \text{ac}$  Henrys

### MAGNETIC PATH DIMENSIONS

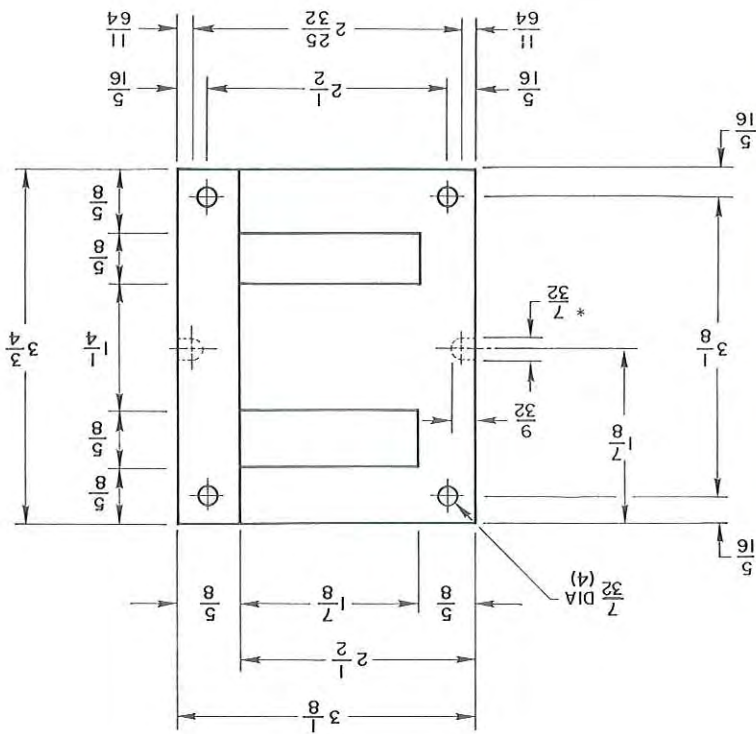
$l = 7.50 \text{ in.}$   
 $A = 1.56 \text{ in.}^2$   
 $19.05 \text{ cm.}$   
 $10.08 \text{ cm.}^2$

### K<sub>1</sub> (STACKING FACTOR)

Thickness Jointed .90  
 Butt .80  
 Interleaved .90  
 one per layer .85  
 .95  
 .90  
 .0185"

## LAMINATION TYPE 125 EI

Part Shown 1/2 Size



\* Available with 7/32" slot as HS125EI. Area used = HS

PERFORMANCE DESIGNATION		MATERIAL TYPE	THICKNESS (Inches)	CATALOG NUMBER	LBS./M PCS.	PCS./LB.
MICROSIL	MICROSIL	Gr. Or. Silicon	.006	125EI3306	14.13	70.8
MICROSIL	MICROSIL	Gr. Or. Silicon	.014	125EI3314	32.98	30.3
MICROSIL	MICROSIL	Non Or. Silicon*	.014	125EI**14	32.98	30.3
MICROSIL	MICROSIL	Non Or. Silicon*	.018	125EI**18	43.57	23.0
MICROSIL	MICROSIL	Non Or. Silicon*	.025	125EI**25	58.87	17.0
MICROSIL	MICROSIL	Non Or. Silicon*	.025	125EI2125	61.68	16.2
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MICROSIL	MICROSIL	Gr. Or. Silicon	.014	125EI3314	32.98	30.3
MICROSIL	MICROSIL	Non Or. Silicon*	.014	125EI**14	32.98	30.3
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\* Customer to designate AISI grade of material desired. \*\* See "How To Order Section" for Code Number.