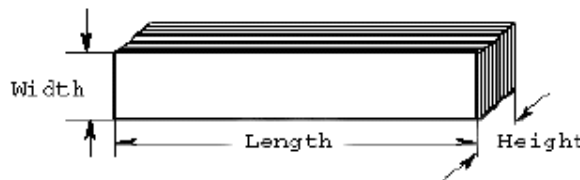


**POWERLITE®** forms are made by stacking iron-based Metglas® amorphous alloy 2605SA1 ribbons or laminations. The laminations are ld together by an adhesive rated for a continuous operating temperature of 155°C. The amorphous alloy itself has a higher continuous operating temperature. These forms offer a unique combination of high saturation induction (1.56 T), high permeability and low core loss.

**POWERLITE®** forms can be used in medium frequency (<20 kHz) and high power (300 to 500 kW) inverters. These have core losses lower than those of 3% or 6% Si steels.

**Properties Metglas Alloy 2605SA1**

Typical ribbon thickness (µm) 23	Saturation Induction (T) 1.56
Density (g/cm <sup>3</sup> ) 7.18	Electrical Resistivity (µΩ•cm) 1307
Thermal expansion Coef. (ppm/°C) 7.6	Curie Temperature (°C) 399
Crystallization Temperature (°C) 508	Continuous Operating Temperature (°C) 155



**FORM Dimensions**

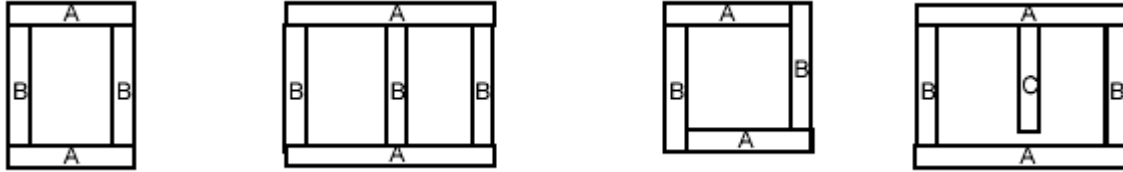
	Min, mm	Max, mm	Tolerance, mm
Length, L	50	300	± 0.5
Width, W	20	50	± 0.5
Height, H	10	100	± 0.2

**Stacking factor** = 89 ± 2%

**Cross-sectional area of the form** = W x H x 0.89/100 cm<sup>2</sup>

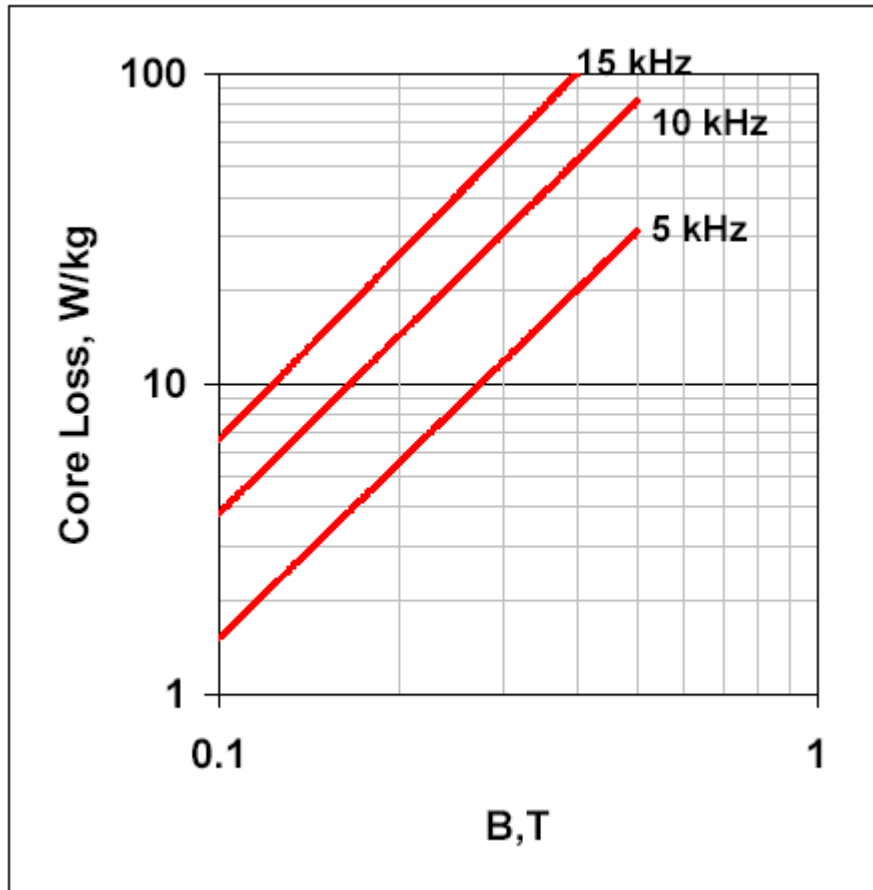
**Mass of the form** = L x W x H x 0.89 x 7.18 / (1000 x 1000) kg

The forms can be configured into various shapes such as shown below schematically. These special shapes allow for multiple near-zero gaps with reduction in fringe flux and hence, core loss.



**Core Loss (Preliminary data)**

The final shape influences the actual core loss. The butt joint in the final shape is expected to increase the total core loss.



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