



Rated power

Transformer power ratings are expressed in VA. Specifications frequently give the power of the load to be supplied, expressed in watts or kilowatts. At this point the value must be converted into VA, taking account of the power factor of the user and, if necessary, its efficiency (if the value quoted is the effective power output); this means we need to calculate effective power delivery to the load:

$$\text{Power (VA)} = \text{Power (W)} / \cos\theta / n\% \times 100$$

$\cos\theta$ = user power factor

$n\%$ = user percentage efficiency

Power (VA) can also be calculated by multiplying the voltage (V) by the current (I):

$$\text{Single-phase power VA} = V \times I$$

$$\text{Three-phase power VA} = V \times I \times 1.73$$

If the transformer has several secondary windings that are used simultaneously, the total power is the sum of the power values (VA) of each winding.

If the secondary winding is equipped with intermediate taps, in the absence of contrary indications the taps cannot be used simultaneously, and the full power value (VA) will refer to the highest voltage of the winding.

The power (VA) shown on the rating plate of our transformers is referred to continuous duty cycle conditions.