

CALCULATING HEAT DISSIPATION FOR ACS250 DRIVES

Description:

The question of what values to use for heat dissipation for sizing an enclosure containing ACS250 drives comes up with no table values listed with Watts Loss or BTU values by drive rating. It seems at first that it cannot be found in any available documents.

Where to find the answer and how to calculate:

The answer can be found in the ACS250 User's Manual on page 16 of the Rev A document.

[http://www05.abb.com/global/scot/scot239.nsf/veritydisplay/fea346585cdefd6e85257c2000796a02/\\$file/3AUA0000137830_Rev_A.pdf](http://www05.abb.com/global/scot/scot239.nsf/veritydisplay/fea346585cdefd6e85257c2000796a02/$file/3AUA0000137830_Rev_A.pdf)

There it states:

Typical drive heat losses are 3% of operating load conditions.

Example:

What would be the Watts Loss for an ACS250-01U-02A3-1?

Since the drive is rated for .5 HP we can get its rating in Watts by:

$$.5 \times 746 = 373 \text{ Watts}$$

Typical heat losses would then be 3 % of that.

$$373 \times .03 = 11.2 \text{ Watts}$$

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