

HOME

Save energy with window awnings

By JAMES DULLEY
For The Reporter

DEAR JIM: I have always liked the appearance of window awnings. The salesman told me installing them can also save a lot of energy. Do they really save much energy and what awning choices are best? — WILLIAM B.

DEAR WILLIAM: Installing window awnings can significantly reduce summertime cooling electricity usage. This reduction results from blocking direct radiant heat from the sun through windows. Studies by the University of Minnesota found installing window awnings can reduce cooling energy needs by 21 percent in Phoenix, 17 percent in St. Louis and 24 percent in Boston.

Another advantage of awning energy savings is it is greatest during the hottest hours of the afternoon when the sun is most intense. This reduces the peak electricity load for the utility company's electric generation, so there is less chance of brown-outs and other problems from excessive electricity demand.

There are many window awn-

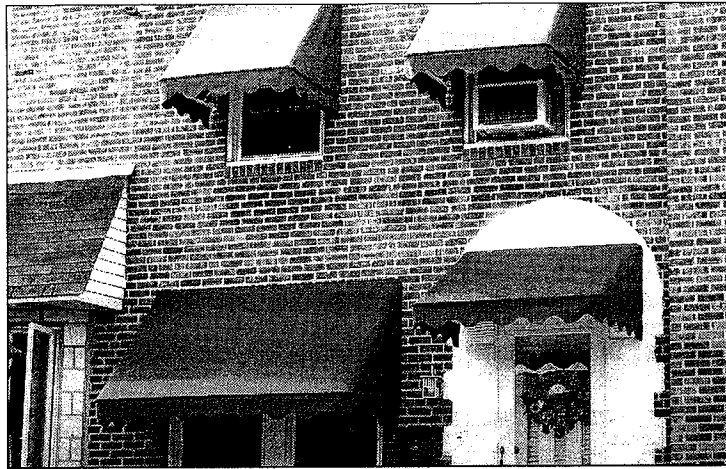


PHOTO BY ARISTOCRAT® AWNINGS BY CRAFT-BILT

FABRIC AWNINGS with sides block sun from the windows throughout the entire day. Notice how it also shades the window air conditioner for greater efficiency.

ing options available. The first decision to make is if you want fixed or adjustable awnings. Both are equally effective to reduce your electricity usage during midafternoon. The advantage of adjustable awnings is the level of shading can be changed throughout the day and seasons.

Adjustable fabric awnings offer better protection from se-

vere weather because some can be lowered to be almost flat over the window opening. They can also be raised to nearly totally expose the window glass. The maximum projection from the wall for an adjustable aluminum awning is fixed by the frame and the down arm length.

Sideless awning designs, called Venetian awnings, are ef-

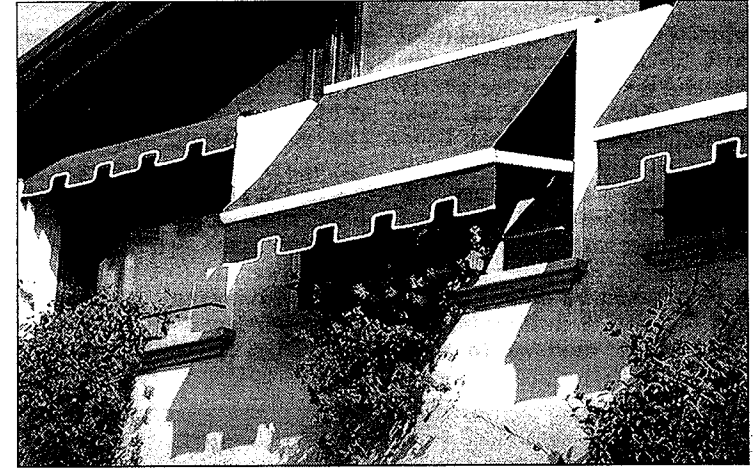


PHOTO BY ARISTOCRAT® AWNINGS BY CRAFT-BILT

THESE FABRIC window awnings can be retracted up against the wall to expose the window glass when more light is needed indoors

fective for true south-facing windows because the most intense sun's rays come from nearly directly overhead. Actually, just a relatively short flat board over the window, such a large roof overhang, is effective at blocking the sun over these windows.

If you also need to block the late afternoon sun at those

south-facing windows, install hood style awnings with sides. For casement windows, hip-style awnings provide clearance for the window sash to swing open outward for natural ventilation.

Proper sizing (projection length from the house wall) of

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AWNINGS

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window awnings is important both for blocking the summer sun and for allowing the winter sun to shine through the windows for free passive solar heating. This is particularly true if you install fixed awnings, instead of adjustable ones, because their shading cannot be changed.

You should be able to calculate the size of awning needed for various windows in your

house. The latitude angle for your area determines how high the sun is in the sky and its angle of incidence on your windows. The sun's height also varies throughout the day and seasons. If you are not a math wiz, just make some test awnings with cardboard to determine the proper size.

The following companies offer window/door awnings: Awntech, (800) 200-5997,

www.awntech.com; Craft-Bilt, (800) 422-8577; www.craft-bilt.com; Durasol Awnings, (888) 387-2765, www.durasol.com; Eastern Awning, (800) 445-4142, www.easternawning.com; and Try-Tech Industries, (866) 337-2381, www.try-tech.com.

DEAR JIM: My house is about 100 years old and there have been many additions over the years. It is inefficient and it

needs an energy audit. Whom can I find to do it that is not just trying to sell me products? — JANET W.

DEAR JANET: You will need to hire someone who is very experienced in the auditing business. Your house, with all its additions, probably consists of many different types of construction materials, insulation, windows, etc.

Check your Yellow Pages

under energy audits. Ask the companies if they sell or do the improvement work themselves. If they do not, they won't have a profit motive in recommending excessive improvements. Also, check with local engineering colleges.

Send inquiries to James Dulleey, *The Reporter*, 6906 Royalgreen Drive, Cincinnati, OH 45244 or visit www.dulley.com.



PHOTO BY ARISTOCRAT® AWNINGS BY CRAFT-BILT

THESE AWNINGS are custom made to perfectly fit the various size and style windows



PHOTO BY ARISTOCRAT® AWNINGS BY CRAFT-BILT

THE UNDERSIDE of these aluminum awnings is coated with a light reflecting material to brighten the room while shading the window