Btu Calculation

How BTU is calculated?

Step1 - Region Coefficients

Mediterranean:445

Eastern Anatolia: 308

Aegean: 423

Southeast Anatolia: 462

Central Anatolia: 346

Black Sea: 385

Marmara: 385

Step2 – Place To Be Used

Result2 = Home = Region Coefficients

Result2 = Office = (Region Coefficients + Region Coefficients 10%)

Result2 = Shop = (Region Coefficients + Region Coefficients 20%)

Step3 – Height

Result3 = (Result2/3) * Height

Step4 - Square Meters

Result4 = Result3 * Square Meters

Step5 - Number of Persons

Result5 = Number of Persons * 600

Step6 – Lighting Power

Result6 = If the lighting power is over 500W, 3,412 btu/h is added for every 1W.

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Step7
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$$Result7 = Result4 + Result5 + Result6$$

Step8 - Sun Intensity

Result8 = It Gets Sun = (Result7 - Result7 10%)

Result8 = Sun is Normal (Result7)

Result8 = Not Getting Sun (Result7 + Result7 10%)

Step9 – Insulation

Result9 = Well Insulated = (Result7 - Result7 10%)

Result9 = Normal Insulated = (Result7)

Result9 = Poorly Insulated = (Result7 + Result7 10%)

Step10

$$Result10 = Result7 + (Result8) + (Result9)$$

Step11 - Btu To Be Recommended

Result10 BTU

Btu Calculation Example

Features

Aegean Region , office , 4 meters high, 25 square meters, 2 person, $520\underline{W}$ the lighting power, not getting sun and Well Insulated.

Step1 - Region Coefficients

Aegean: 423

Step2 – Place To Be Used

Result2 = Office =
$$(423 + 423 \%10) = 465,3$$

Step3 – Height

Result3 =
$$(465,3/3) * 4 = 620,4$$

Step4 - Square Meters

Result4 =
$$620,4*20 = 12.408$$

Step5 - Number of Persons

Result5 =
$$2 * 600 = 1200$$

Step6 – Lighting Power

Result6 = If the lighting power is over 500W, 3,412 btu/h is added for every 1W.

Result6 =
$$(520-500)*3,412 = 68,24$$

Step7

Result7 =
$$12.408 + 1200 + 68,24 = 13.676,24$$

Step8 - Sun Intensity

Result8 = Not Getting Sun (
$$13.676,24 + 13.676,24 \% 10$$
) = $+15.043,864$

Step9 – Insulation

Result9 = Well Insulated =
$$(13.676,24 - 13.676,24 \% 10) = -15.043,864$$

Step10

Result
$$10 = 13.676,24 + (+15.043,864) + (-15.043,864)$$

Step11 - Btu To Be Recommended

Since air conditioners have btu rates of 9000 Btu, 12000 Btu, 18000 Btu, 24000 Btu, 36000 Btu, 48000 Btu, etc., we need to offer 18000 Btu to the buyer.

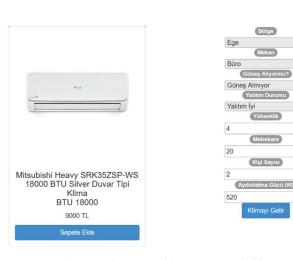


Figure 1. Air conditioner and btu recommended by my site

Site Images

User Panel



Figure 2 Sign up and login screen

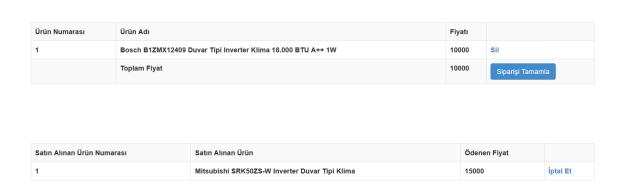


Figure 3 My Cart and My Orders screen

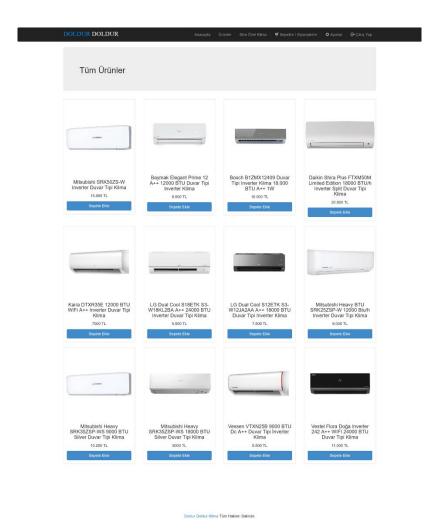


Figure 4 Products Screen

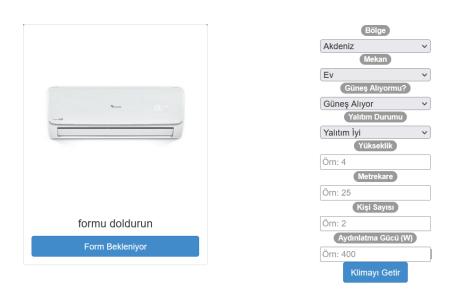


Figure 5 Btu calculation screen

Şifrenizi Sıfırlayın

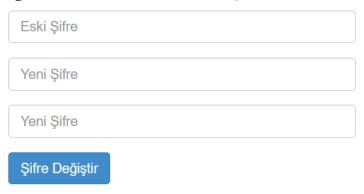


Figure 6 Password change screen

Admin Panel

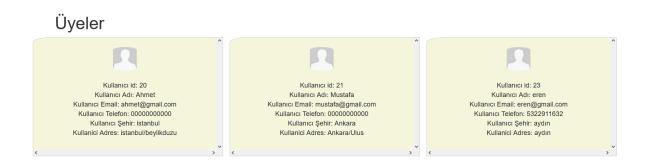


Figure 7 Member Information Screen

Alınan Siparişler



Figure 8 Received orders screen

Database



Figure 9 Members registered in the database

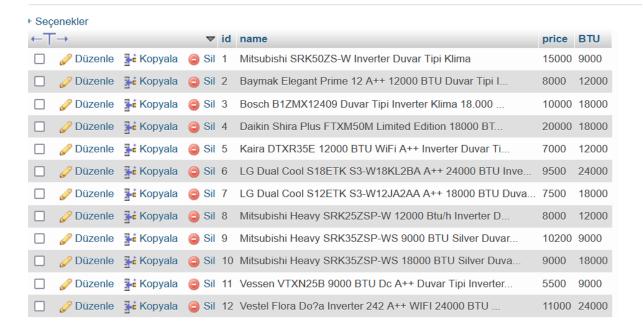


Figure 10 Air conditioners registered in the database

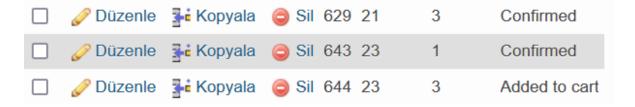


Figure 11 Purchased products registered in the database and added to the cart