

AGW iPhone app user guide



AGW iPhone app user guide

Contents

Getting started	3
Calculator	4
– Calculation tools	4
– Toolbar	16
Contact	21
Links	22
About Us	23
Need more information or help?	24

AGW iPhone app user guide

Getting started – app layout

The app has 4 main sections:

Calculator, Contact, Links & About Us



Calculator



Contact



Links

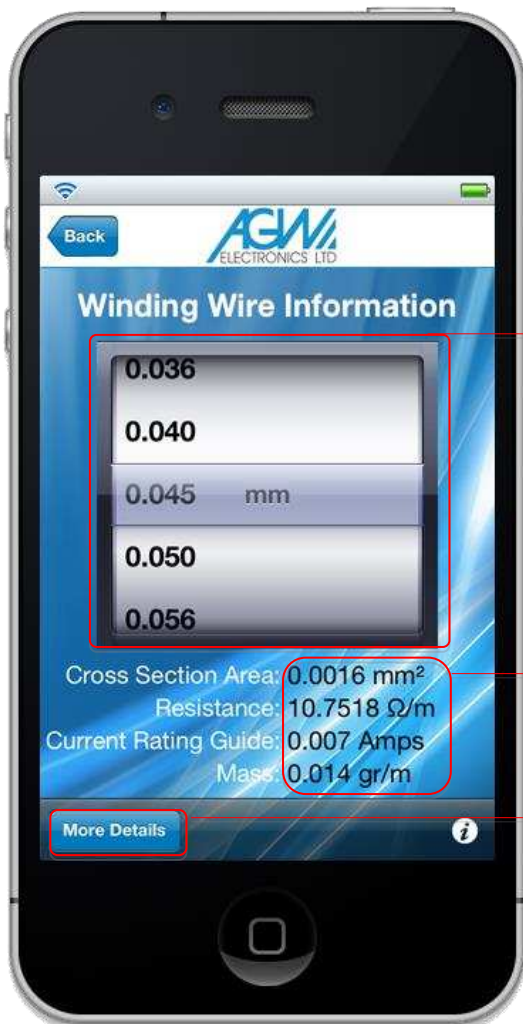
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AGW iPhone app user guide

Calculator – calculation tools (1 of 12)

Winding wire information: Choose a wire diameter and find its cross section area, resistance, current rating, mass per length, insulation details and winding data.



1) Select the wire size in mm, by scrolling the display.

2) Information about the selected wire will be automatically displayed.

3) Wire insulation and winding information can be displayed by touching “More Details”.

4) Select either grade one or two insulation, by touching the appropriate button.



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Calculator – calculation tools (2 of 12)

Wire conversion AWG/SWG to metric: Choose a wire's AWG or SWG to find the equivalent metric diameter.



1) Select the AWG or SWG converted mode by touching the appropriate button.

2) Select the wire gauge number by scrolling.

3) The wire size will be automatically displayed.

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Calculator – calculation tools (3 of 12)

Skin depth and optimum conductor size: Enter the frequency and current to find the optimal wire or copper strip size to suit the conditions.

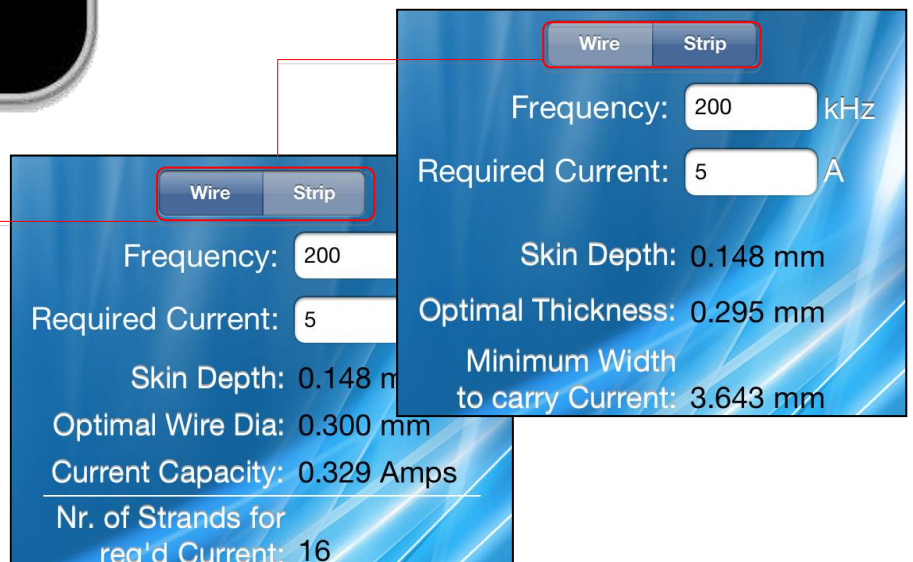


1) Enter the frequency in kHz.

2) Enter the current in Amps.

3) Click to clear the calculator.

4) Select wire or strip calculator mode by touching the button.



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Calculator – calculation tools (4 of 12)

Inductor self-capacitance calculator: Enter capacitance value at the suitable frequencies to find the inductor's self capacitance.



1) Enter capacitance 1 in pF.

2) Enter capacitance 2 in pF.

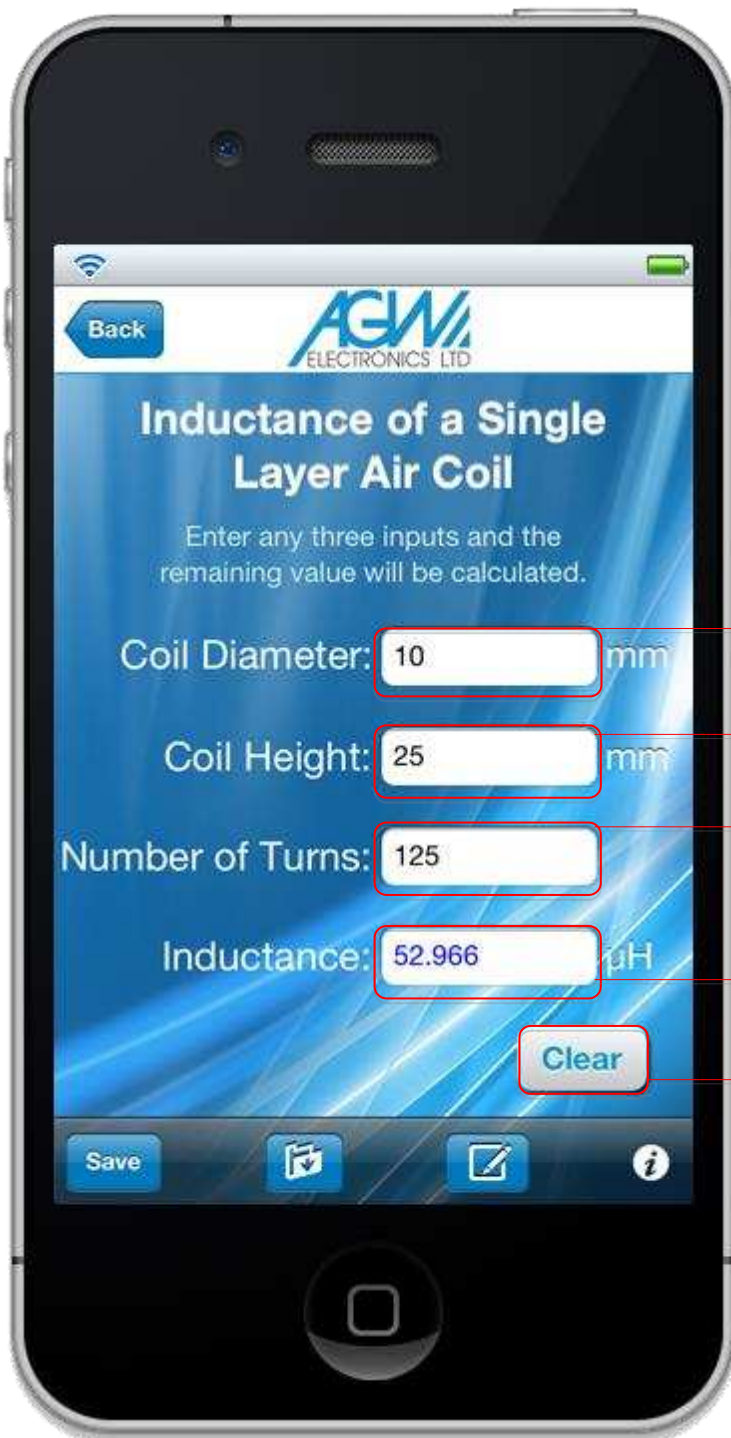
3) The inductor self-capacitance will be displayed.

4) Click to clear the calculator.

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Calculator – calculation tools (5 of 12)

Inductance of a single layer air coil: The figure of any one of the four values of coil diameter, coil height, number of turns and inductance will be given, by entering the other three.



1) Enter the coil diameter value in mm.

2) Enter the coil height value in mm.

3) Enter the number of turns.

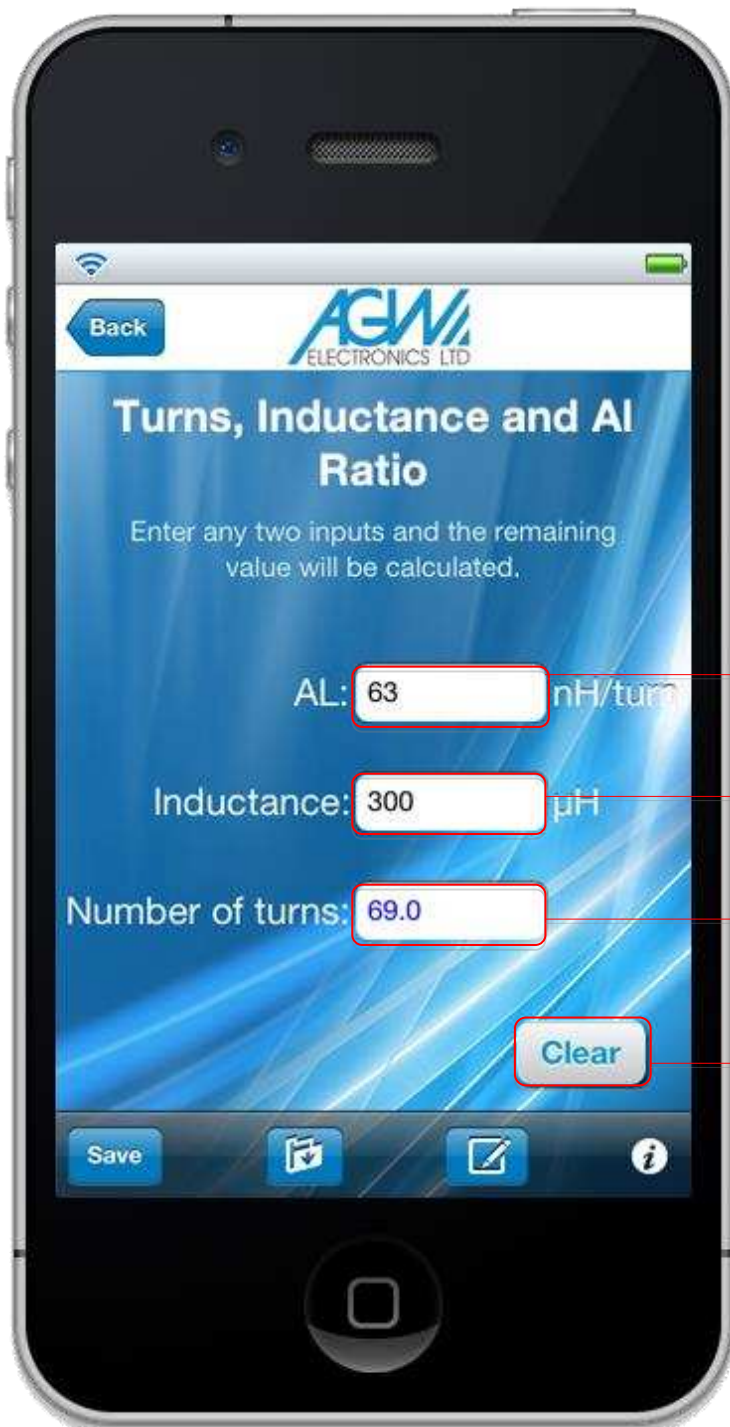
4) The inductance value will be given automatically, in blue color font.

5) Click to clear the calculator.

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Calculator – calculation tools (6 of 12)

Turns, Inductance and AL ratio: The figure of any one of the three values of AL, inductance and number of turns will be given, by entering the other two.



1) Enter the AL value in nH/turn.

2) Enter the inductance value, in μH.

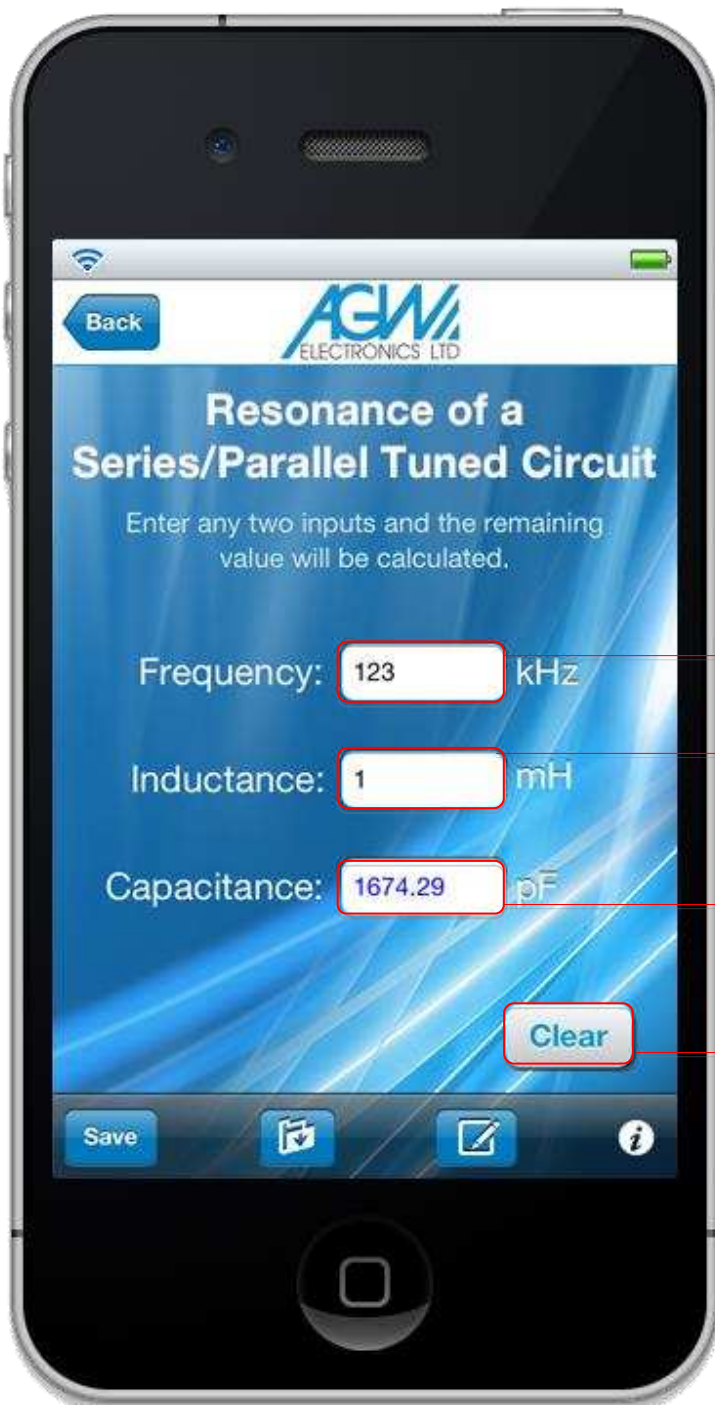
3) The number of turns will be given automatically, in blue color font.

4) Click to clear the calculator.

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Calculator – calculation tools (7 of 12)

Resonate of a series/parallel tuned circuit: The figure of any one of the three values of frequency, inductance and capacitance will be given, by entering the other two.



1) Enter the frequency value in kHz.

2) Enter the inductance value in mH.

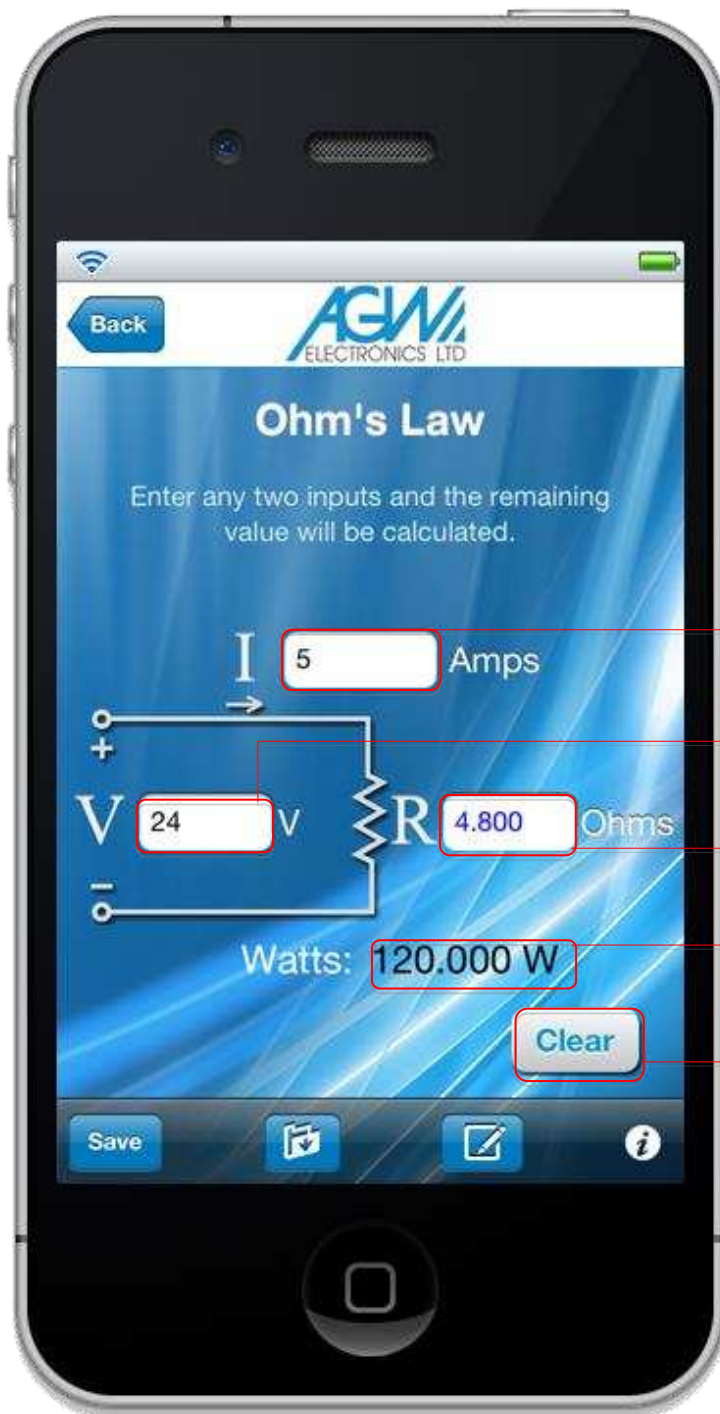
3) The capacitance will be given automatically, in blue color font.

4) Click to clear the calculator.

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Calculator – calculation tools (8 of 12)

Ohm's Law: The figure of any one of the three values of current (I), potential different (V) and resistance (R) will be given, by entering the other two. The power, in Watts, will also be displayed.



1) Enter the current in Amps.

2) Enter the potential different in volts.

3) The resistance value will be given automatically, in blue color font.

4) The power, in Watts, will be display.

5) Click to clear the calculator.

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Calculator – calculation tools (9 of 12)

Inductive and Capacitive Reactance: The inductive reactance will be calculated by entering the frequency and the inductance value. Likewise, the capacitive reactance will be calculated by entering the frequency and the capacitance value.



1) Enter the frequency value in kHz.

2) Enter any one of the values inductance or capacitance in order to calculate the inductive or capacitive reactance, respectively.

3) The reactance value will be displayed.

AGW iPhone app user guide

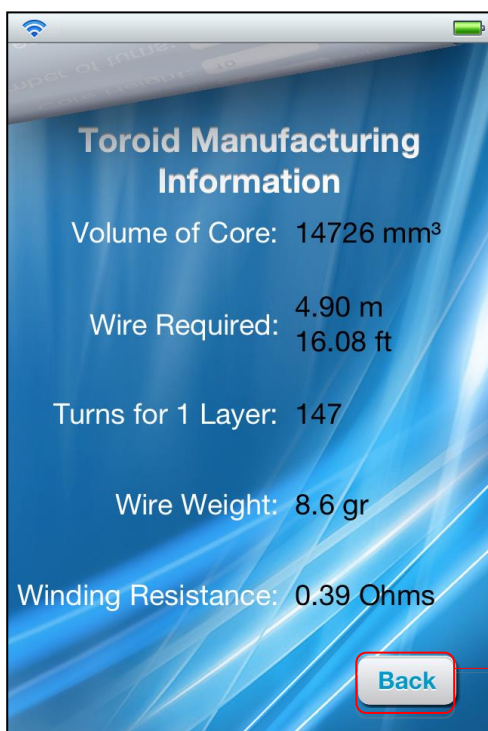
Calculator – calculation tools (10 of 12)

Toroid manufacturing information: Enter the physical attributes of a toroid style coil; core size, number of turns, wire diameter and the manufacturing and design information about the completed coil will be given.

1) Fill all the entry fields on the screen.

2) Click to go to the result page. The button is disabled, until all the input fields are filled.

4) Click to clear the calculator.

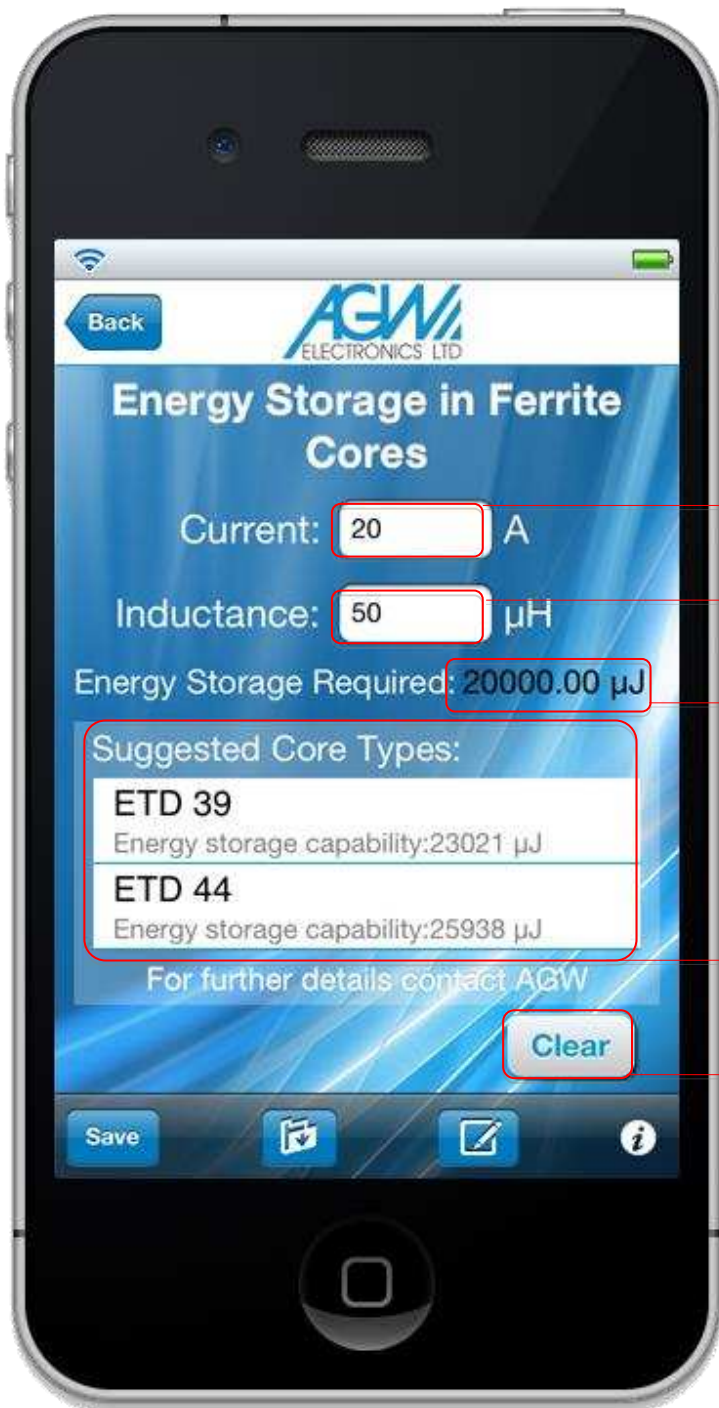


3) Click to return to the main screen.

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Calculator – calculation tools (11 of 12)

Energy storage in ferrite cores: Enter the current and inductance required from the inductor to get the ferrite core style and size that has the necessary energy storage capability.



1) Enter the required current in Amps.

2) Enter the required inductance in μH.

3) The required energy storage will be displayed.

4) The ferrite core types, that have the necessary energy storage capability, will be suggested.

5) Click to clear the calculator.

AGW iPhone app user guide

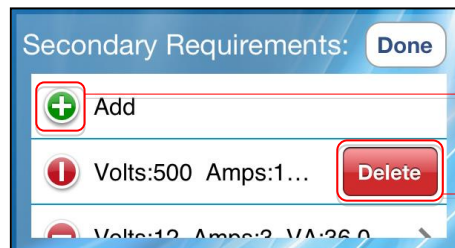
Calculator – calculation tools (12 of 12)

Mains transformer design: Enter the desired transformer's input voltage, lamination capability, output requirements and get a guide to the lamination size, stack height, winding size and number of turns that meet the requirement.



1) Enter the primary volts value and choose the frequency and the magnetising force in Teslar.

2) Click Edit to add, update or delete the secondary requirements entries.

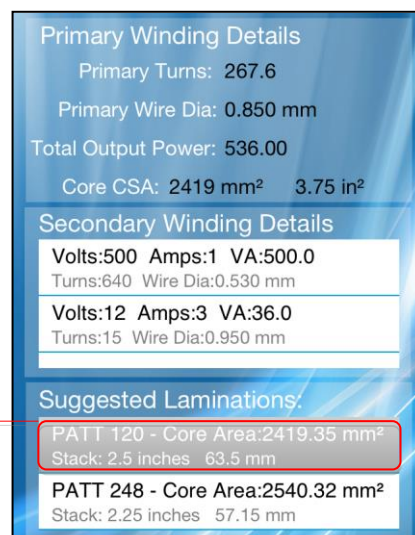


3) Click to add a secondary entry.

4) Click to delete an entry.

5) Click to go to the result page. The button is disabled, until the primary volts field is filled and at least one secondary entry is inserted.

6) Choose one of the two suggested transformers patterns and the turns will be adjusted to suit the selected pattern.



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Calculator – toolbar

For each tool, there is a toolbar at the bottom of the screen. For the first and second tool, the toolbar provides access to the instruction section only. For the third to twelfth tool, the toolbar provides extra functions including the calculation storage, the calculation restore, the composition of an email with the calculation results and the access to the instruction section for the tool.



Click to store the calculation.

Click to restore a saved calculation.

Click to compose an email with the calculation's results.

Click to read the help instructions for the tool.



Initially, the save and compose buttons are disabled until all the inputs fields are filled.

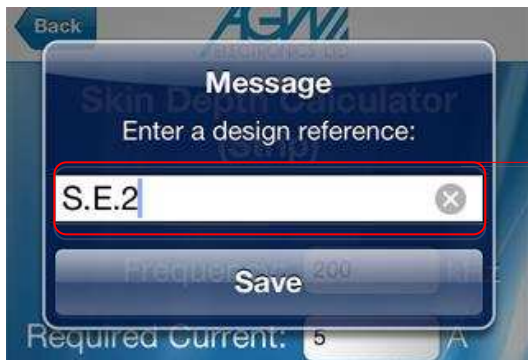
AGW iPhone app user guide

Calculator – toolbar (store a calculation)



1) Click to store the calculation.

A dialog box will appear, to enter a design reference.



2) Enter a design reference. The default value for blank entry is "Unknown Name".

If the calculation has already been stored, then a dialog box will appear with the option to replace the existing record.



Click to replace the existing calculation.

Click to cancel the saving.

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Calculator – toolbar (restore or delete a saved calculation)

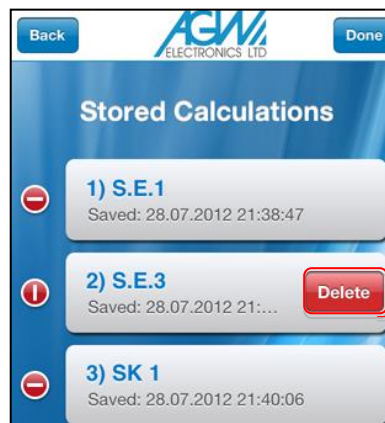


1) Click to restore a saved calculation.

A list of the stored calculations will appear. Each row contains the design reference and the storage date.



2) Click edit in order to be able to delete a stored calculation.



Click to delete the stored calculation.

3) Choose one of the stored calculations and the field of the calculation tool will be reset with the stored values.

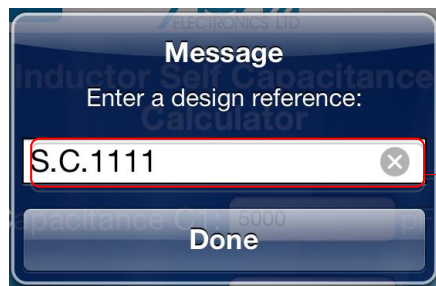
AGW iPhone app user guide

Calculator – toolbar (compose email)



1) Click to compose an email with the calculation's results.

A dialog box will appear, to enter a design reference.



2) Enter a design reference. The default value for blank entry is "Unknown Name".

The email body will be generated, including the title and the reference number of the tool, along with the input values and results of the calculation.



3) Add a recipient and click send to send the email.

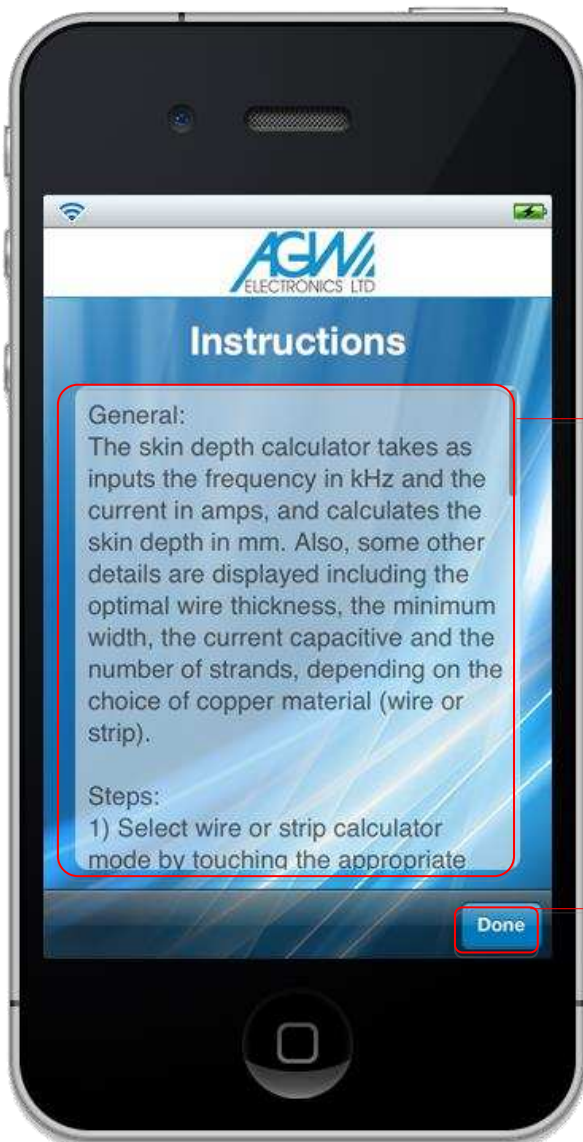
AGW iPhone app user guide

Calculator – toolbar (instruction section)



1) Click to read the help instructions for the tool.

A screen will be displayed, including helpful instructions for the tool.



2) Read helpful details and instructions about the tool by scrolling.

3) Click done to return to the calculation tool.

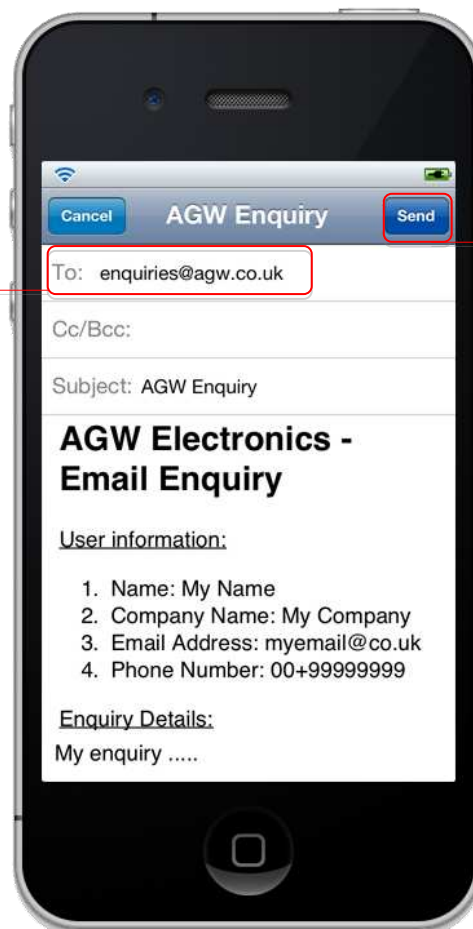
AGW iPhone app user guide

Contact – send enquiry



1) Complete the enquiry form by filling the name, company name, email address, phone number and enquiry details.

2) Then click submit, the email will be generated and appear in a new screen.



3) Click to send the enquiry.

The email will be sent to the AGW's enquiry service.

AGW iPhone app user guide

Links

The Links section provides links to the websites of relevant ferrite core, iron powder core, bobbin and wire manufacturers and suppliers.



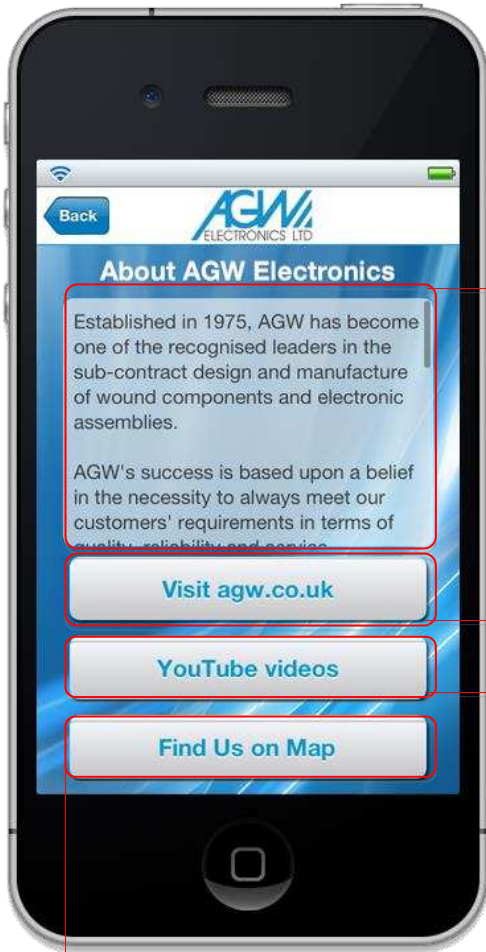
1) Scroll through the list of websites.

2) Choose a row and the website page will be displayed. "Supported page orientation"

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About Us

The About Us section contains information about the company AGW Electronics, a link to visit AGW’s website, a link to AGW’s YouTube video channel and a link to the position of the company on the map.



1) Scroll to read about the company.

2) Click to visit AGW’s website.



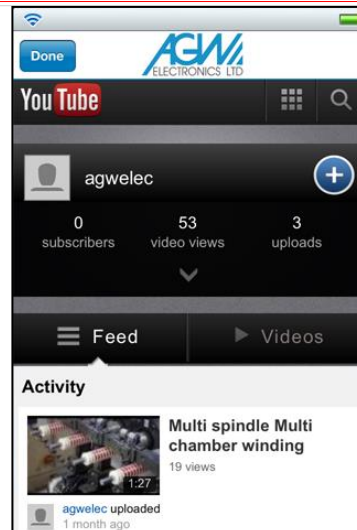
“Supported page orientation”

3) Click to visit AGW’s YouTube video channel.

4) Click to see the position of company on the map.



“Supported page orientation”



“Supported page orientation”

AGW iPhone app user guide

Need more information or help?

Should you require further assistance or information about the AGW iPhone app, please contact our Customer Services on:

Email: enquiries@agw.co.uk

Telephone: +44 (0) 1246 473086

Fax.: +44 (0) 1246 280082