



ALTO ENERGY

THE UK DISTRIBUTOR FOR IVT HEAT PUMPS



GROUND SOURCE
HEAT PUMPS



AIR SOURCE
HEAT PUMPS



UNDERFLOOR
HEATING

Welcome to Alto Energy

THE UK DISTRIBUTOR FOR IVT HEAT PUMPS

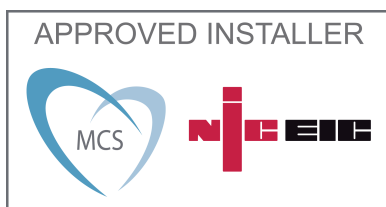
Alto Energy is a specialist supplier of Heat Pumps & Underfloor Heating.

Alto Energy is the exclusive UK distributor and support agent for IVT Heat Pumps. IVT is a Swedish manufacturer of Heat Pumps, and is a Bosch-owned company. When you choose IVT, you choose decades of Swedish engineering experience combined with the global presence and reputation of the Bosch brand, a combination which has made the IVT Heat Pump the most popular and widely installed Ground Source Heat Pump in the UK.

As well as being the UK distributor for IVT Heat Pumps, Alto Energy is also an approved supplier and service provider for Mitsubishi and Samsung Air Source Heat Pumps, as well as an approved system house and supplier for Emmeti Underfloor Heating.

Accreditations

We take the quality of our products and services very seriously. This is reflected in the accreditations we have obtained in order to ensure that we are 100% compliant with all of the relevant industry standards.



MCS

The Microgeneration Certification Scheme (MCS) demonstrates the quality of products and competence of installers in the renewable technology sector. Alto Energy provides MCS registration on all heat pump products we specify and supply, enabling access to Government grants and incentives, including the Renewable Heat Incentive.



HIES

The Home Insulation & Energy Systems Contractors Scheme (HIES) is a Consumer Protection organisation. Any products installed by HIES Members must be fit for purpose, installed professionally and come with comprehensive guarantees which are underwritten with specialist insurance providing consumers with a high level of protection and peace of mind.



EPVS

The Energy Performance Validation Scheme (EPVS) is a certification standard that certifies the processes used by installers to ensure energy saving estimates for home energy products are accurate and valid.



REFCOM

As a company that installs, maintains or services heat pump equipment, Alto Energy holds an F-Gas certificate with Refcom.



GSHPA

The Ground Source Heat Pump Association (GSHPA) encourages the growth and development of the Ground Source Heat Pump industry in the UK. Alto Energy sits on the Association's Technical Panel.

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OUR STORY

Alto Energy was formed at the start of 2017 by a group of industry experts with extensive experience in specifying and supplying Heat Pumps for the UK domestic housing sector. Our clear vision was to use this experience to mould a company that meets the specific demands and needs of our customers.

Operating from our headquarters in Oxfordshire, the company started with an elite team of 13 highly-skilled professionals with a combined experience of over 100 years working with Heat Pumps and Underfloor Heating products.

From the very beginning, Alto Energy was determined to use its experience to make it as easy as possible for installers, developers and self-builders to access the many benefits of Heat Pump technology. Our technical department strives to lead the industry by example on compliance with the complex industry standards, in order to ensure that all the installations we commission are of the highest quality and efficiency, and crucially gain access to the Government grants and incentives available on these technologies.

A defining principle of our business is the investment in our staff; we only use our own employed engineers, all of whom hold the full range of qualifications required to commission, maintain and service Heat Pump systems. Our skilled staff are our strongest asset, enabling us to provide our customers with the peace of mind that their Heat Pump system is expertly designed to meet the demands of their specific property, and continue to operate as efficiently as possible for years to come.

With our knowledge of the industry and its standards, our product expertise in the Heat Pumps we supply, and the unrivalled skill of our design and engineering staff, Alto Energy is the perfect partner for your Heat Pump and Underfloor Heating projects.



IVT Ground Source Heat Pumps

IVT GREENLINE

IVT Greenline HE is the latest generation of the famous Greenline product family. With a large range of outputs, both single phase and three phase, between 6 - 17kW, there is sure to be an IVT Greenline HE Ground Source Heat Pump suitable for your project.

Continuing the theme of flexibility, the Greenline HE range is available in 2 models: the C-model which comes with a 185 litre built-in hot water store; and the E-model installed alongside a separate IVT hot water tank, better suited for larger domestic hot water requirements.

The IVT Greenline HE range is capable of delivering high flow temperatures of up to 65°C, which means that you can completely replace your existing boiler, even in older properties with a higher heat demand.



IVT Greenline HE Technical Data

Model	C6	C7/E7	C9/E9	C11/E11	E14	E17
Electrical Supply	Single	Single	Single	Single	Three	Three
Energy Class – Heating	A+	A+	A+	A++	A+	A+
Energy Class – Hot Water	B	B	B	B	-	-
Heating Output (Bo/W35) [kW]	5.0	6.6	8.7	10.2	14.8	16.4
SCOP @ W35	4.08	3.70	3.87	4.34	3.77	4.12



IVT GEO

IVT GEO is a Ground Source Heat Pump with ground-breaking technology that reduces your heating costs.

The key feature of the IVT GEO range is its scalability. The IVT GEO range has been manufactured in eight different output sizes, with the capability of cascading up to six units together. This allows Alto Energy to put together a solution that fits the exact needs of any commercial or large domestic project.

Within the IVT GEO range, four units are manufactured with an upright chassis, and four with a horizontal chassis. Furthermore, connections into the unit are available from several directions, enabling a cleaner, easier installation.



IVT GEO Technical Data

Model	G222	G228	G238	G248	G254	G264	G272	G280
Electrical Supply	Three	Three	Three	Three	Three	Three	Three	Three
Energy Class	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
Heating Output (Bo/W35) [kW]	23.0	29.0	39.0	47.0	55.0	64.0	73.0	81.0
SCOP @ W35	5.62	5.61	5.48	5.27	5.54	5.39	5.33	5.30



IVT Air Source Heat Pumps

IVT AirX

The IVT AirX is a whole new generation of Air Source Heat Pump which sets new standards in terms of efficiency levels. Behind the impressive performance, there are several clever innovations along with five new registered patents.

The IVT AirX is one of the first Air Source Heat Pumps with speed control, which means the low-power compressor automatically adjusts heat production for your home's heating demand.

In fact, the IVT AirX is so efficient that the saving in many cases can be compared to that of ground source heating.



IVT AirX Technical Data

Model	50	70	90	130	170
Electrical Supply	Single	Single	Single	Single	Three
Energy Class – Heating	A++	A++	A++	A++	A++
Heating Output (Bo/W35) [kW]	5.0	7.0	9.0	13.0	17.0
SCOP @ W35	4.40	3.37	4.58	4.68	4.54



IVT Cylinders

IVT buffer cylinders and domestic hot water cylinders are designed specifically to work alongside IVT Heat Pumps, and are available in a range of sizes to suit your project.

Heating buffer cylinders are available in 42, 100, 300 and 500 litre capacity. Domestic hot water cylinders are available in 300 and 500 litre models, which compliments the 185 litre integrated-tank options available across the IVT Heat Pump range.

The DS300 – the most popular IVT cylinder – is a high-efficiency double mantle cylinder capable of delivering 280 litres of hot water. The FW504 is a 500 litre thermal store with high efficiency coils through which mains cold water is instantaneously heated.



IVT Cylinders Technical Data

Model	BC42	BC100	BC300	BC500	DS300	FW504
Type	Buffer	Buffer	Buffer	Buffer	DHW	DHW
Volume	42	100	300	500	286	500
Width / Diameter [mm]	390	400	600	700	695	700
Height [mm]	701	1570	1610	1680	1700	1700



Air Source Heat Pumps

MITSUBISHI ECODAN

The Mitsubishi Ecodan has been long-established as one of the most reliable and consistently high-performing Air Source Heat Pumps in the UK market.

From small flats to large detached houses; from an office block to a school, the range of Ecodan Air Source Heat Pumps offer an alternative choice to traditional heating systems.

Using proven inverter driven heat pump technology to deliver effective, low carbon heating and hot water, Mitsubishi Electric's award winning Ecodan systems provide a simple, renewable solution that deliver significant efficiency savings against fossil fuels.



Mitsubishi Ecodan Technical Data

Model	W50	W85	W112	W140	W140
Electrical Supply	Single	Single	Single	Single	Three
Energy Class	A++	A++	A++	A++	A++
Heating Output (nominal) [kW]	4.8	8.3	11.0	14.0	14.0
SCOP @ W35	4.03	4.35	4.34	3.87	3.87



Accredited Installer



SAMSUNG EHS

The Samsung EHS Gen5 is the latest generation in Samsung's successful range of MCS accredited Air Source Heat Pumps. Quickly becoming the go-to Air Source Heat Pump, when ordered through Alto Energy, the Samsung EHS Gen5 comes with excellent technical support combined with a competitive price. The sophisticated Samsung control system provides the flexibility for this heat pump to be used on both small and large scale installations.

Samsung, as one of the most recognised brands in the world, have a deserved reputation for innovation and quality. Innovations such as commissioning information designed around a specific type of installation and an extremely lightweight chassis mean that installation and commissioning is amongst the easiest ever seen from an Air Source Heat Pump.



Samsung EHS Gen5 Technical Data

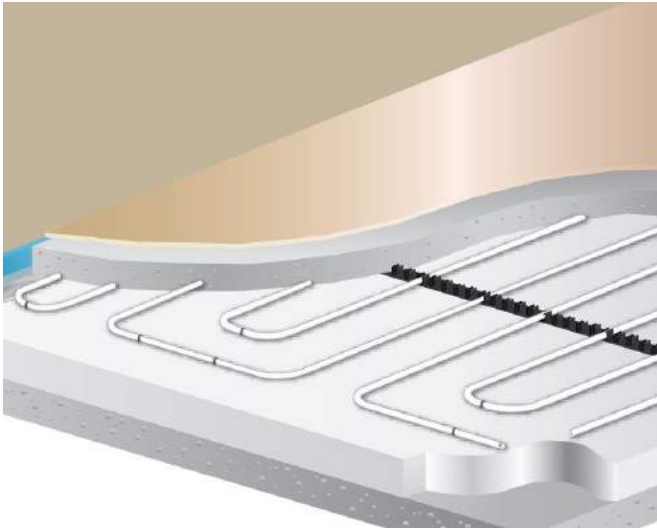
Model	AE050	AE090	AE120	AE160
Electrical Supply	Single	Single	Single	Single
Heating Output (Bo/W35) [kW]	5.0	9.0	12.0	16.0
SCOP @ W35	4.51	4.41	4.45	4.48



Underfloor Heating

EMMETI

Alto Energy offer a range of Underfloor Heating systems which are compatible with Heat Pumps, Biomass and traditional Boiler systems. Alto Energy works in partnership with Emmeti UK to provide a premium Underfloor Heating package. All Emmeti products are made to the highest international standards, complying with EN and ISO requirements and all products carry a guarantee and manufacturer's warranty compliant with BEAMA Underfloor Heating terms.



SCREED UNDERFLOOR HEATING

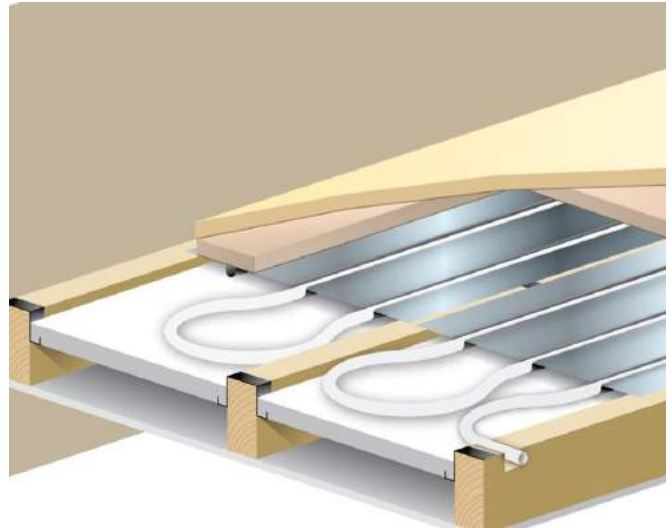
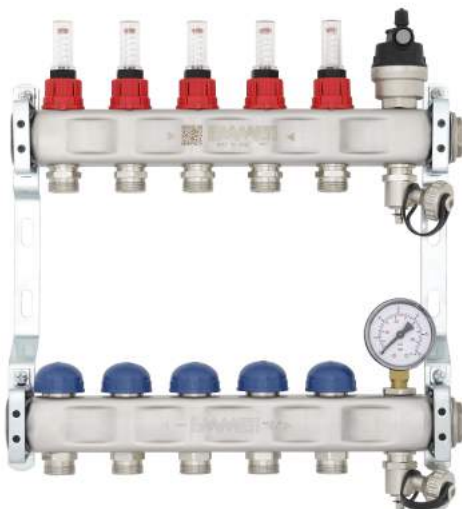


PLATE UNDERFLOOR HEATING

Our expert designers have years of experience designing Underfloor Heating systems alongside Ground and Air Source Heat Pump systems. Underfloor heating, with its lower flow temperatures, allows for a more efficient heating system. This in turn enables even greater grant payments under the Government's Renewable Heat Incentive when installed alongside a Heat Pump system, as well as even greater efficiency savings.





INSTALLER

Incorporate Heat Pumps Into Your Product Portfolio

Alto Energy's business model has been tailored around working with trade partners. We offer a complete design, specification, technical support and commissioning service to all of our trade install partners. This enables you to confidently deliver Ground Source Heat Pumps, Air Source Heat Pumps and Underfloor Heating systems to your customers, knowing that all the designs, equipment and aftercare support services are taken care of.



DEVELOPER & SPECIFIER

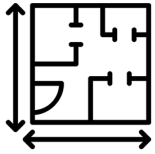
Achieve Building Regulations With Ease

Ground Source Heat Pumps, Air Source Heat Pumps and Underfloor Heating deliver significant carbon savings, making compliance with Building Regulations more straightforward. Not only that, but these technologies have a proven record of improving the desirability of a new home by delivering low running costs and a beautiful living environment for your customers.

Working With Alto Energy

WHY BECOME AN ALTO ENERGY PARTNER

With a business model moulded around the needs of trade and developer partners, these are the services we provide on every single Heat Pump project:



DESIGN

Alto Energy has a team of expert in-house designers who have years of experience designing Heat Pump and Underfloor Heating systems. We ensure compliance with the MCS regulations, and also provide all necessary guidance for Building Regulations and SAP inputs.



SUPPLY

Alto Energy supplies the best products on the market through our partnerships with leading manufacturers. We have a skilled logistics team who will work alongside your project manager to ensure all of the equipment is delivered at a time that best suits you and your project.



TECHNICAL SUPPORT

Our high quality support team is dedicated to providing training and technical support throughout the installation process. Our experience has shown us that the combination of our technical support experts with skilled and experienced partners results in the highest-quality, most efficient installations.



COMMISSION & HANDOVER

Alto Energy has a team of fully-qualified in-house Heat Pump engineers who have years of experience commissioning and servicing Heat Pumps. Alto Energy commissions every single Heat Pump system it supplies through each partner to ensure the highest quality standards. Every Heat Pump designed, supplied and commissioned by Alto Energy includes comprehensive manufacturer warranties on the equipment, in addition to Alto Energy taking responsibility for the design of the Heat Pump.

MCS Umbrella Scheme

The Microgeneration Certification Scheme ("MCS") is the UK heat pump industry quality standard, and provides the pathway to access Government funding such as the renewable heat incentive, as well as a pathway to Building Control approval. For sole traders, or businesses for whom heat pump installations represents a small proportion of their usual business, obtaining MCS certification represents a significant investment in time and responsibility.

Alto Energy is accredited under MCS with accreditation number NIC5693, enabling us to provide genuine added value for our clients. Under our MCS umbrella scheme, Alto Energy takes responsibility for the design and sizing of the Heat Pump system, and provides a commissioning and MCS registration service.

This service will enable an MCS certificate to be registered for each Heat Pump project, providing the customer with access to numerous benefits, the most significant of which is the Renewable Heat Incentive, which rewards customers with annual payments for the renewable heat generated by the Heat Pump.





SELF-BUILDER

The Perfect Heating System For Your Dream Home

When designing your dream home, it is important to incorporate a heating system that fits the lifestyle you want. Choose Ground Source Heat Pump or Air Source Heat Pump technology alongside an Underfloor Heating system in order to achieve luxurious and environmentally-friendly warmth all year round to keep your dream home heated just the way you want it.



HOMEOWNER

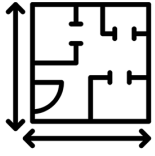
Providing The Highest Level of Service

Are you looking to install a highly efficient Heat Pump or Underfloor Heating system into your home? Or have you already got a Heat Pump, and are looking for a partner to maintain your equipment and provide you with a range a warranty options? Look no further than Alto Energy.

Working With Alto Energy

WHY CHOOSE ALTO ENERGY AS YOUR PROJECT PARTNER

Alto Energy works with a number of skilled trade partners throughout the country who have a long track record of high quality Heat Pump installations. Alto Energy will work with you to guide you through each step of the process:



DESIGN

Alto Energy has a team of expert in-house designers who have years of experience designing Heat Pump and Underfloor Heating systems. We ensure compliance with the MCS regulations, and work with your installer to make sure that the Heat Pump and emitter designs are compatible with your property.



SUPPLY

Alto Energy supplies the best products on the market through our partnerships with leading manufacturers. We have a skilled logistics team who will work alongside your installation partner to ensure all of the equipment is delivered at a time that best suits you and your project.



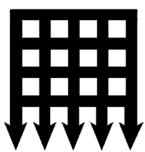
TECHNICAL SUPPORT

Our high quality technical support provides technical support throughout the installation process. Our experience has shown us that the combination of our technical support experts with skilled and experienced installation partners results in the highest-quality, most efficient installations. If you already have your own installer, we provide training courses at our Head Office and Demonstration Centre in Oxfordshire.



COMMISSION & HANDOVER

Alto Energy has a team of fully-qualified in-house Heat Pump engineers who have years of experience commissioning and servicing Heat Pumps. Alto Energy commissions every single Heat Pump system it supplies to ensure the highest quality standards. Every Heat Pump designed, supplied and commissioned by Alto Energy includes comprehensive manufacturer warranties on the equipment, in addition to Alto Energy taking responsibility for the design of the Heat Pump.



GOVERNMENT INCENTIVE

Alto Energy is fully compliant with all of the required industry standards, including the Microgeneration Certification Scheme (MCS). This will enable an MCS certificate to be registered for each Heat Pump project, providing you with access to numerous benefits, the most significant of which is the Renewable Heat Incentive, which rewards customers with quarterly payments for the renewable heat generated by the Heat Pump.



SERVICE & WARRANTY

Alto Energy provides a range of service and warranty plans to give you added peace of mind that your Heat Pump will remain in good working order and continue to operate as efficiently as possible.

The Benefits of Heat Pumps & Underfloor Heating

Whether you choose Ground Source or Air Source Heat Pumps, there are a number of benefits from adopting Heat Pump technology.

SAVE ON YOUR HEATING BILLS

Heat Pumps operate using electricity, however for each unit of electricity consumed, over 3 units of heat are delivered. This is possible due to the fact that heat energy is simply being moved from one place (the ground or air) to another (the home). This is far more efficient than creating heat energy, which is typically what happens in a traditional combustion boiler. In this case, only 0.75 units of heat are delivered for each unit of fuel consumed.



This means that the cost per unit of heat delivered is significantly lower for Heat Pumps compared to fossil fuels. In fact, Heat Pumps typically deliver savings in excess of 40% versus traditional oil, LPG and direct electric heating.

GOVERNMENT GRANTS

The Domestic Renewable Heat Incentive (RHI) is a government financial incentive to encourage a switch to renewable heating systems. If you join and comply with the scheme rules, you'll receive quarterly payments for seven years. It's a way to help the UK reduce its carbon emissions.

By working with Alto Energy, you're working with a company who is registered with all of the necessary industry standards, including the Microgeneration Certification Scheme (MCS). This ensures your access to the RHI subject to the other eligibility criteria. Our skilled experts can give you a detailed insight into how you might benefit from the scheme.

RELIABLE HEATING

Heat Pumps provide a consistent and reliable form of heating and hot water. By utilising well-understood refrigeration technology, Heat Pumps have a proven track record of delivering heat reliably over a long period of time. Many early adopters of heat pumps, whose installations were carried out in the early 2000's, continue to benefit from continuous, reliable heating from their Heat Pumps.



IVT Ground Source Heat Pump - Case Study

Key Project Details

Installation Date:

September 2017

Property Type:

Barn Conversion

Product Installed:

IVT Greenline C6

Distribution System:

Underfloor Heating

RHI Returns:

Lifetime RHI - £12,591



Barn conversion project with an IVT Greenline HE Ground Source Heat Pump providing a complete heating and hot water solution.

Herefordshire resident Mr Day called upon the experience and expertise of Alto Energy to design, supply and commission a 6kW IVT Greenline HE Ground Source Heat Pump for his barn conversion project. Good insulation levels; underfloor heating throughout; and plenty of land in which to dig trenches were all significant factors in his decision to choose Ground Source Heat Pump technology.

IVT is a Swedish manufacturer owned by the Bosch Group, with decades of experience manufacturing the very highest quality heat pumps throughout Europe. Their Greenline range is the most widely installed range of Ground Source Heat Pumps in the UK.

The IVT Ground Source Heat Pump supplies all of the heating and domestic hot water required in the property, all year around, meaning there is no need for any kind of fossil fuel boiler. This was a crucial factor in Mr Day's decision to install a Ground Source Heat Pump. He also cited the elimination of any carbon monoxide risk, no requirement for flues, and the general low maintenance afforded by heat pumps as further reasons behind his decision.

In addition to the very low running costs of the Ground Source Heat Pump, Mr Day will also receive approximately £13,000 in grant payments over the next seven years from the Renewable Heat Incentive. This Government incentive scheme rewards homeowners and self-builders for reducing their carbon dioxide emissions by investing in renewable heating technology.



Customer Q & A

What benefits do you feel your renewable energy system has afforded you?

"No buying of fossil fuels
No carbon monoxide risks
No drafts in building for flues
Easy monitoring with smart meter"

How have you found living with your system?

"Extremely easy to operate, fully automatic"

What has the service been like from Alto Energy?

"Very good service"

Would you recommend Alto Energy to others?

"Yes"

Alto Energy Service & Warranty

Alto Energy has a nationwide team of world-class Heat Pump engineers. All of our engineers are multi-trade, and can boast years of experience with a whole range of heat pump systems.

Heat pumps are inherently reliable, however as ever with mechanical equipment things can go wrong. At Alto Energy we have the skills and expertise required to get your heat pump up and running again.

TECHNICAL SUPPORT

Alto Energy provides technical support to all of our partners throughout the installation process, as well as free telephone support to homeowners throughout the duration of the warranty period. Furthermore, customers have the option to extend their warranty with one of our IVT PLUS plans, all of which include unlimited telephone technical support.

SERVICE

To keep your Heat Pump operating efficiently it's important to regularly service it. We provide nationwide coverage and offer service and maintenance on all of the Heat Pump brands that we supply:



IVT PLUS

Alto Energy has secured a commercial arrangement with a specialist engineering insurance partner, Arctic. Based in Sweden, Arctic have been a long standing partner of IVT, and so we are delighted to be able to partner with them ourselves to offer insurance-backed extended warranties to IVT customers in the UK. Our extended warranties can be incorporated into an Alto Energy Service Plan.



Alto Energy is authorised and regulated under the Financial Conduct Authority ("FCA") scheme with Firm Registration Number ("FRN") 782934 to carry out the regulated activities of non-investment insurance contracts and credit broking. For more information about our Extended Warranty and Service Plans please visit our website www.altoenergy.co.uk/ivtplus

Customer Satisfaction

CHRIS FROM YORKSHIRE

"As an installer, I find the Alto Energy team offer me all the necessary support I need for my air and ground source installations including underfloor. They are very good at communicating and willing to discuss and advise on all aspects of the project. Parts are delivered promptly and on mutually agreed dates. We work as a partnership on projects and after sales support is available. I would recommend them to anyone."



ADRIAN FROM NOTTINGHAMSHIRE

"Very professional and were keen to provide all the information along with flexibility when design queries were raised"

TOM FROM SOMERSET

"Alto Energy is a very professionally run company with very knowledgeable engineers. I could not rate them more highly."

LEE FROM BEDFORDSHIRE

"Night and day difference to another company I used previously. Engineer was very knowledgeable and I feel very confident my heat pump is working both efficiently and correctly now."

IAN FROM HAMPSHIRE

"Reassuringly knowledgeable and prepared to go the extra mile."

ROGER FROM WEST MIDLANDS

"Great knowledge and experience, friendly and business like approach. Thank you."



*based on 426 responses from customers rating their overall experience with Alto Energy out of 10



SAMSUNG **EMMETI**



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