	Project Reference:	Z9A8416Y20		
	Project:	Kendrew A Barracks SLA		
	Document Type/Name:	RDD - Air Source Heat Pump		
	Issuing Co.:	Ridings	Date:	06/11/2023
	Status:	S5	Revision:	C01
	Document Reference:	Z9A8416Y20-RID-XX-KEND00XXXXXX-SP-M-00005000		

Please accept this document as description of RDD item.

Submitted Item Description & Supporting Document(s) References

Description

Air Source Heat Pump for Heating & Peak Lopping as specified.

Plant - ASHP Schedule				
Type Mark	Manufacturer	Model	Fluid F&R Temperature [°C] [Heating]	Total Heating Capacity [kW]
ASHP01	Mitsubishi Electric Corporation	MEHP-IS-G07-0082_80kW	45/40	59.4
ASHP01	Mitsubishi Electric Corporation	MEHP-IS-G07-0082_80kW	45/40	59.4
ASHP01	Mitsubishi Electric Corporation	MEHP-IS-G07-0082_80kW	45/40	59.4

Document References:

Reference:	Title	Revision
Product Quotation	QUO-0006-425793/0	n/a
MECH_MEHP_Product_Information_Sheet	Product Information Sheet	n/a



Wakefield

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Pages: 6	From: Paul Binns
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Date: 28/09/2023 10:34	

Project ref: PRO-53932 Kendrew Barracks A , SLA Block (RVX3) Kendrew Barracks A , SLA Block / PRO-53932
Proposal no: QUO-0006-441689/0 / 0 Please quote this proposal number on all correspondence relating to this proposal
Validity: 30 days from the above date

Dear Matthew,

Thank you for your valued enquiry in respect of the above project. I have pleasure in submitting our proposal as detailed herein. The proposal is subject to the additional proposal information detailed within. I trust the enclosed meets with your current requirements and would like to take this opportunity to draw your attention to a few of the benefits of dealing with Mitsubishi Electric Direct.

Commissioning by Mitsubishi Electric: The Technical Services Department of Mitsubishi Electric provides a comprehensive, underwritten commissioning service at competitive rates. This service will give you peace of mind and will hold us fully accountable for this essential element of the installation process.

Training: All of our air conditioning training courses are CPD approved. We have training facilities in Hatfield, Birmingham, Manchester, Bristol, Reigate and our factory in Livingston, Scotland.

e-Shop: Online ordering is available to all credit account customers across all Mitsubishi Electric product lines. For more information on the finished goods and spares available, please visit: <https://les.mitsubishielectric.co.uk/installers/e-shop>

Please do not hesitate to contact me at the above office should you wish to amend any details or require any further information.

Assuring you of our best attention at all times.

Regards,
Paul Binns

REMINDERS

- This quotation is given by Mitsubishi Electric in good faith based upon information provided by you or your company.
- We have not undertaken a site survey to support this quotation. Whilst we endeavour to factor into our quotation any special site conditions or user requirements which you may have expressly identified to us previously in writing, this quotation is not a project system design and is not a confirmation of project volumetric or yield analysis. We recommend that you assess final product selection and make the final system design based upon your own volumetric or yield analysis and project knowledge, including any project requirements which might impact on that selection.
- Please check carefully any requirement for a Mitsubishi Electric product to integrate with any third party equipment. We are not responsible for integration capability of our products with any third party equipment unless we have expressly confirmed that this integration is approved in the current Mitsubishi Electric product specification or in a current technical bulletin.
- If this quote contains Heating Products. Purchasing and installing customers must pass the relevant Heating Training Course before an order can be placed. Call on 0161 866 6089 to book.
- All quotations containing CAHV, Wizard AHU, QAHV, e-Series, s-MEXT, CRHV and/or Cascade Systems must be accompanied by a Mitsubishi Electric technical proposal. Please contact your Account Manager if you have not received one.

Qty	Model	Description
Lossnay Units		
89	LGH-25RVX3-E (676724-UK)	Lossnay MVHR
3	LGH-100RVS-E (591503-UK)	LGH-100RVS-E Lossnay MVHR sensible only
1 <i>1 No. Controller included for off-site commissioning only</i>	PZ-62DR-EB LOSSNAY (603759-UK)	PZ-62DR-EB LOSSNAY REMOTE CONTROL
Central Control + BMS		
1	AE-200E (276612)	AE-200E CENTRALIZED CONTROLLER
1	PAC-YG82TB-J (284558)	WALL MOUNTED PLASTIC ENCLOSURE FOR AE-200E
2	EW-50E (283551)	Centralised Controller
1	AE-200E BACnet PIN (304776)	AE-200E/EW-50E BACnet PIN LicenseCode
		TOTAL NET

Did you know?

...you can now view price and availability information as well as place orders for products & accessories from our M Series & Mr Slim ranges 24/7 using our new E-Shop site.



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Date: 28/09/2023 10:34

Please click on the link to register:

<https://mitsubishi-electric-eshop.mee.com/>

Terms of Contract

1.1 These Terms and Conditions of Sale shall be incorporated into all contracts of sale made by Mitsubishi Electric Europe B.V., a company registered in the Netherlands and operating through its branch registered in England (Company No. FC019156, Branch No. BR003391) (hereinafter referred to as "Mitsubishi") for the sale of any goods and/or ancillary services related to delivery of the goods (a or the "Contract"). Any printed or other terms or conditions used by the person, firm or company placing the order (hereinafter referred to as the "Customer") are excluded. Mitsubishi shall not be bound by any terms or conditions in the Customer's order. If the Customer's order contains any terms and conditions, then these Terms and Conditions of Sale shall take precedence over such terms and conditions in the Customer's order which shall be deemed deleted without notice.

1.2 Amendment of any Contract can only be made by agreement between the parties and to bind Mitsubishi must be made in writing and signed by an authorised official of Mitsubishi.

2. Quotations and Acceptance of Orders

2.1 No quotation by Mitsubishi shall constitute an offer. Quotations may be withdrawn at any time.

2.2 A Contract shall only be formed upon issue of Mitsubishi's standard acknowledgement of order form.

2.3 Mitsubishi shall not be obliged to accept any order and reserves its entire discretion in this respect.

3. Specification

Goods will be supplied in accordance with Mitsubishi's standard specification for the relevant type. Mitsubishi reserves the right to make such improvements to and modifications of such specification as it or its suppliers think desirable in all circumstances.

4. Packaging

The specification for packaging the goods shall be entirely at the discretion of Mitsubishi who shall have the right to pack all goods in such manner and with such materials and in such quantities as it in its absolute discretion thinks fit and shall not be obliged to comply with any packaging instructions or requests of the Customer.

5. Delivery and Risk

5.1 a) In the case of all UK sales involving delivery within the UK the goods will be delivered by Mitsubishi to the Customer's premises. Goods shall be at the Customer's risk immediately on delivery into the Customer's premises (or into custody on Customer's behalf if sooner) and should be insured by the Customer accordingly.

b) Unless otherwise agreed, in the case of all non-UK sales involving delivery outside the UK the goods will be delivered FOB the premises or port nominated by Mitsubishi. Risk of loss and damage to the goods shall pass to the Customer upon delivery FOB the place nominated by Mitsubishi. The goods shall, once the risk has passed to the Customer in accordance with this Clause, be and remain at the Customer's risk at all times unless and until Mitsubishi has retaken possession of the goods and the Customer shall insure accordingly.

5.2 A delivery schedule should be agreed with Mitsubishi prior to placing the order. While Mitsubishi will endeavour to comply with such or any other agreed time(s) for delivery, Mitsubishi shall not in any circumstances be liable for any failure to do so or any delay in delivery.

5.3 If the Customer fails to accept delivery of the goods on the agreed delivery date, then, except where that failure or delay is caused by Mitsubishi's failure to comply with its obligations under this Contract or a force majeure event, delivery of the goods shall be deemed to have been completed on the agreed delivery date. Mitsubishi may store the goods until re-delivery, in which case the Customer will be liable for all related costs and expenses including but not limited to restocking, storage and insurance.

5.4 Goods shall be signed for on receipt. Any alleged shortages, discrepancies or damage must be notified to Mitsubishi within 15 days of receipt of goods by notice in writing addressed to:

Mitsubishi Electric Europe B.V.
Travellers Lane
HATFIELD
Hertfordshire
AL10 8XB

For the attention of: Credit Dept.

5.5 The Customer agrees not to re-sell outside the UK any goods supplied by Mitsubishi and covered by the Export of Goods (Control) Order 1989 (or any re-enactment thereof) or the Export Administration Act 1979 (as amended) (or any re-enactment thereof) without obtaining all necessary licences thereunder and agrees not to resell such goods in the UK to a purchaser, knowingly or being given reasonable grounds to suspect that the purchaser intends to export such goods without first obtaining such licences or a copy of such licences obtained by the purchaser, and the Customer agrees to impose upon persons purchasing such equipment obligations corresponding to those set out above.

5.6 The Customer shall ensure, and ensure that its directors, employees, agents, representatives, affiliates, group companies, members and any other party acting on its behalf shall comply with all applicable English, Japanese and international laws, statutes, regulations, and codes of conduct, best practice guidance relating to the lawful export of goods and/or services, goods' and/or services' international compliance, security and safety control and all applicable export control rules (together "SEC Practice"). The Customer warrants, represents and undertakes as a condition of its purchase of the goods and/or ancillary services that it shall not deal, transfer, assign or re-sell goods in breach of SEC Practice to any: embargoed country; prohibited Non-Customer (defined at Clause 8.4); a Non-Customer which is developing or otherwise involved in or developed or has otherwise been involved in the manufacture of nuclear weapons; military-use technology; chemical or biological agents (and equipment for spraying of such); a rocket or unmanned

aircraft capable of carrying such; military authority; military institution or similar institution; arms/weapons manufacturer; a Non-Customer on a list of Global: Denied Persons List, Entity List, Unverified List, Specially Designated Global Terrorists, Specially Designated Terrorists; Designated Foreign Terrorist Organisation or Weapons of Mass Destruction Proliferators list; to a Non-Customer suspected of violating the laws and regulations of any target country through unlawful export; a Non-Customer barred from export or otherwise subject to Government sanctions; the category of the Non-Customer (or its end user) fails under the criteria of Japan's Complementary Control, or to a Non-Customer otherwise considered as suspicious or untrustworthy. Breach of this Clause shall be deemed a material breach, whereupon Mitsubishi may terminate the respective Contract with immediate effect by giving written notice to the Customer. The Customer shall indemnify and hold Mitsubishi harmless against any and all claims, losses or damages arising from, or related to, such breach.

6. Property and Risk

6.1 Mitsubishi shall retain title to the goods until it has received payment in full of all sums due in connection with the Contract. For these purposes Mitsubishi has only received a payment when the amount of that payment is irrevocably credited to its bank account.

6.2 The Customer shall store goods owned by Mitsubishi in such a way that they are clearly identifiable as Mitsubishi's property and shall maintain records of such goods identifying them as Mitsubishi's property. All goods supplied by Mitsubishi in the Customer's possession shall be presumed to belong to Mitsubishi (unless the Customer can prove otherwise).

6.3 Until title to the goods has passed to the Customer in accordance with Clause 6.1 Mitsubishi shall be entitled to trace the proceeds of sale of any goods owned by Mitsubishi. Such proceeds shall be held by the Customer on trust for Mitsubishi and at Mitsubishi's request will be paid into a separate bank account.

6.4 Customer will give not less than fourteen (14) days' written notice to Mitsubishi before applying to the Court for appointment of an administrator. Failure to give such notice shall be deemed to be a fundamental breach of the Contract.

6.5 Customer's right to possession of the goods will cease at the earliest of the following dates:

6.5.1 the date of a notice given under Clause 6.4 or the latest date on which such notice should have been given.

6.5.2 the date on which the Customer commits any act or makes any omission which would entitle a receiver to take possession of any asset or would entitle any person to present a petition for winding up or to apply for an administration order in respect of the Customer or any event referred to in Clause 6.6 occurs.

6.6 If the Customer fails to make any payment (whether partial or in full) to Mitsubishi when due, compounds with its creditors, executes an assignment for the benefit of its creditors, commits any act of bankruptcy or, being a company, enters into voluntary or compulsory liquidation or has a receiver, manager, administrator or administrative receiver appointed over all or parts of its assets or takes or suffers any similar action in consequence of a debt or becomes insolvent or if Mitsubishi has reasonable cause to believe that any of these events is likely to occur, Mitsubishi shall have the right, without prejudice to any other remedies:

6.6.1 to enter without prior notice any premises where goods owned by Mitsubishi may be, and to repossess and dispose of any goods owned by it so as to discharge any sums owed to it by the Customer under the Contract or any other agreement;

6.6.2 to require the Customer not to resell or part with possession of any goods owned by Mitsubishi until the Customer has paid in full all sums owed by it to Mitsubishi under the Contract or any other agreement;

6.6.3 to withhold delivery of any undelivered goods and stop any goods in transit;

6.6.4 to amend the payment terms of the Contract at its sole discretion, so as to require of the Customer on five (5) days' notice issued by post or email: to make the immediate payment of all monies owing to Mitsubishi on a date of Mitsubishi's choosing; to pay cash with order; and/or to make payment(s) on any other terms instructed by Mitsubishi; and

6.6.5 to terminate a respective Contract, or any other agreement or accepted order, in part or full, at the sole discretion of Mitsubishi without incurring any liability by giving the Customer no less than seven (7) days' notice by post or email.

6.7 Unless Mitsubishi expressly elects otherwise, any Contract between it and the Customer for the supply of goods shall remain in existence notwithstanding any exercise by Mitsubishi of its rights under Clause 6. The Customer shall be responsible for any costs and expenses incurred by Mitsubishi in exercising its rights under this Clause 6.

6.8 Nothing in this Clause 6 shall give the Customer any right to return the goods. Mitsubishi may sue the Customer for the price when due (without prejudice to its other rights or remedies hereunder) notwithstanding that the property in the goods may not have passed to the Customer.

6.9 The Customer acknowledges that Mitsubishi is the absolute owner of Mitsubishi's "Intellectual Property Rights" (being any patents, inventions, copyright and related rights, trade marks, trade names, rights to goodwill or to sue for passing off, rights in designs, rights in computer software, database rights, rights in confidential information (including know-how), utility models and any other intellectual property rights, in each case whether registered or unregistered and including all applications (or rights to apply) for, and renewals or extensions of, such rights and all similar or equivalent rights or forms of protection which subsist or will subsist now or in the future in any part of the world) and the Customer shall not assert or attempt to assert any rights in relation to Mitsubishi's Intellectual Property Rights. Mitsubishi shall not be liable for claims arising from an infringement of third party Intellectual Property Rights.

6.10 The Customer shall not use or exploit Mitsubishi's Intellectual Property Rights, and in no circumstance shall the Customer reproduce, modify, adapt, merge, translate, disassemble, decompile, recompile or reverse engineer any of Mitsubishi's Intellectual Property Rights or any software embedded in, or forming part of (directly or indirectly) Mitsubishi's goods and/or ancillary services related to delivery of the goods, or create derivative works based on the whole of or any part of the software or incorporate the

software into any other software program not provided by Mitsubishi, and the Customer undertakes to only use any such software in the operation of the goods and/or ancillary services related to delivery of the goods.

increased costs or any other losses or any expenses incurred by the Customer, however arising in any way in connection with, or contemplation of, the Contract or the goods and/or ancillary services related to delivery of the goods.

6.11 The Customer shall indemnify Mitsubishi and keep Mitsubishi indemnified from and against all claims, damage, losses, costs (including all reasonable legal costs), expenses, demands or liabilities arising out of or in connection with any claim alleging that Mitsubishi has infringed the Intellectual Property Rights of a third party in supplying the goods and/or ancillary services related to delivery of the goods in accordance with the Customer's instructions or to a specification provided by the Customer.

8.3 Mitsubishi shall not be liable for the goods' failure to comply with its specification pursuant to Clause 3, and any guarantee/warranty offered to the Customer in accordance with Clause 8.1 shall not apply if:

(a) the Customer makes any further use of such goods after giving Mitsubishi notice of any alleged defect not in conformance with Mitsubishi's specification;

(b) the alleged defect arises because the Customer failed to follow its obligations under Clause 11, any Technical Information (defined below) or Mitsubishi's other oral or written instructions as to the storage, installation, commissioning, use or maintenance of the goods or (if there are none) good trade practice;

(c) the alleged defect arises because the Customer has integrated the goods with its internal software and/or IT systems which includes, but is not limited to: any third party software, application, operating system or any other intangible program whatsoever, that has the effect of not being compatible with the goods or otherwise causing the goods' to not perform in accordance with Mitsubishi's specification;

(d) the defect arises in connection with or as a result of Mitsubishi following any instruction, drawing, design or specification supplied by the Customer, or an affiliate, agent or subcontractor of the Customer, or any other information supplied by the foregoing prior to delivery of the goods;

(e) the Customer, or an affiliate, agent or subcontractor of the Customer, alters, modifies or repairs such goods without the written consent of Mitsubishi; or

(f) the defect arises as a result of fair wear and tear, wilful damage, negligence, or abnormal working conditions.

7. Price and Payment

7.1. Unless agreed separately and in writing by Mitsubishi the price of the goods shall be the price ruling in Mitsubishi's current trade price list at date of despatch excluding the costs and charges of special packaging, insurance and transport of the goods, which shall be charged to the Customer additionally. Notwithstanding any contrary provision hereof, Mitsubishi has the right to alter the prices contained in the trade price lists at any time without prior notice and it shall notify the Customer of any price variations before despatch of the goods and the Customer shall be entitled upon receiving notification of such variation to cancel the Contract by written notice to Mitsubishi delivered within seven (7) days of receipt of such notification without incurring liability to Mitsubishi.

7.2. Unless otherwise agreed in writing all money due to Mitsubishi shall be paid by the end of the month following the date of the invoice. Due sums unpaid shall thereafter bear interest at 1% per calendar month accruing from day to day.

7.3. The Customer agrees and acknowledges that Mitsubishi reserves the right by notice in writing to withdraw any credit facility offered to the Customer in the event the Customer's financial standing deteriorates to a level whereby it is unable to pay its debts as they fall due; or Mitsubishi has reasonable cause to believe that the foregoing is imminent and/or reasonably likely to occur during the term of the Contract(s), as determined by Mitsubishi either: (i) acting alone or (ii) in conjunction with its credit insurance provider (a "Financial Change").

7.4. In the event that credit is withdrawn due to a Financial Change, Mitsubishi may:

7.4.1 at its option, without incurring any liability, cancel any undelivered or incomplete portion of the Contract, or cancel any other agreement with the Customer and stop the manufacture and/or delivery of any goods;

7.4.2 change the Customer's account to a cash with order account; and

7.4.3 without prejudice to any other rights, demand immediate payment of any outstanding amounts which shall thereupon become due and payable.

7.5. Unless otherwise agreed in writing for goods to be delivered by Mitsubishi to a shipping destination outside the UK, the Customer undertakes to make payment by irrevocable letter of credit, confirmed by a first class London or Scottish clearing bank, at least ten (10) days prior to the scheduled delivery date.

7.6. Should the Customer make default in any payment or commit any act of bankruptcy or be the subject of a bankruptcy petition or execute an assignment for the benefit of his creditors, or, being a company, enter into voluntary or compulsory liquidation or suffer a Receiver or Administrator to be appointed over all or any part of his or its assets, then without prejudice to any other rights or remedies Mitsubishi may at its option without incurring any liability cancel any undelivered or incomplete portion of the Contract or cancel any other contract with the Customer and stop any goods in transit, and may without prejudice to any other rights demand immediate payment of any outstanding amounts which shall thereupon become due and payable.

8. Guarantee/Warranty and Exclusions

8.1 The goods will be subject to the Mitsubishi standard form of guarantee/warranty for the relevant goods, or in the event a standard form of guarantee/warranty does not apply or is not otherwise applicable to the respective goods or Customer, the goods shall be subject to a defects warranty of no more than twelve consecutive calendar months starting from the date of Mitsubishi's order acknowledgment. Mitsubishi may amend any of its goods' guarantees/warranties from time to time on giving written notice to the Customer and the Customer will utilise such replacement guarantee/warranty and no other from the date of notice, including in respect of existing stock of Mitsubishi goods.

8.2 In view of the giving by Mitsubishi of such guarantee/warranty it is agreed between Mitsubishi and the Customer that the following are fair and reasonable.

8.2.1 All terms, conditions and warranties which might otherwise be implied by statute or common law into the Contract are excluded, save anything implied by Section 12 of the Sale of Goods Act 1979 (Warranty as to Title) as amended from time to time.

8.2.2 The Customer does not and has not relied upon Mitsubishi's skill or judgement or on any representation made by or on behalf of Mitsubishi in connection with the Contract and/or the goods, unless such representation was contained in any printed specification or technical data published by Mitsubishi, or was given in writing and signed by a director of Mitsubishi.

8.2.3 Mitsubishi shall not in any event be liable in connection with any representation unless the same was contained in any printed specification or technical data published by Mitsubishi, or was given in writing and signed by a director of Mitsubishi.

8.2.4 The guarantee/warranty and the remedies expressly set out shall be the full extent of Mitsubishi's liability which will not in any event exceed in aggregate, whether as a result of breach of contract, negligence or other tort, misrepresentation, breach of statutory duty, termination, or otherwise, an amount equal to 100% of: (i) the cost of repair, replacement or credit, at Mitsubishi's option, of the goods, and/or (ii) the cost of re-performance of any ancillary services related to delivery of the goods proven to not conform to Mitsubishi's specification. Mitsubishi shall not in any circumstances be liable for any other loss or damage whatsoever, including any special, indirect or consequential loss or any loss of profit, loss of use, loss of agreements or contracts, loss of anticipated savings, loss of sales or business, loss of customers, loss of or damage to goodwill, loss of earnings or receipts or

8.4 All Contracts undertaken pursuant to these Terms and Conditions are solely in regard to the direct sale of goods and/or ancillary services between Mitsubishi and its Customer. Mitsubishi accepts no liability in regard to any other agreement directly or indirectly arising out of or in connection with the goods or the Customer's sale/project process, including any third party agreement between the Customer and the Customer's: supplier(s), customer(s), end customer(s), indirect customer(s), distributor(s), agent(s), associate(s), representative(s), investor(s), partner(s), subsidiaries, owner(s), parent(s) or ultimate parent company, any company wholly or partially owned by the Customer or by the Customer's ultimate parent company or one of its group companies or any other party, whatsoever, with whom the Customer may elect to enter into a legally binding agreement (each a "Non-Customer"). In the event the Customer and/or its Non-Customer elect to use any third party for the procurement and integration of non-Mitsubishi parts into or in combination with the goods, or for the performance of any works, deliverables, services or advice including, but not limited to: design, sub-contracting, construction, engineering and/or component integration services, as well as the provision of any intangible software, information technology, operating system, development and/or program (bespoke or off the shelf) works, that directly (or indirectly) affect or relate to the goods (together or separately "Third Party Works"), the Customer and/or Non-Customer shall be solely responsible for the scope, output and deliverables under any such Third Party Works contract; and the Customer shall always ensure it has appropriate mitigation measures in place when relying on any such Third Party Works including, but not limited to, obtaining a proportionate quantum of insurance, to protect against any defective Third Party Works when performing its work for (or with) the Non-Customer. In the event Mitsubishi introduces or otherwise recommends a third party to the Customer or a Non-Customer for any Third Party Works, any such recommendation shall be neither endorsed nor a binding nomination or mandatory requirement by Mitsubishi, and the Customer and/or Non-Customer shall in all cases be free to instruct any other third party to conduct its Third Party Works, and the Customer and Non-Customer shall be respectively responsible and liable for any reliance placed on any such Third Party Works. Mitsubishi does not undertake, warrant or represent (whether recommended or not) the quality of work, qualifications or skill of any third party performing Third Party Works, nor the functionality; specification; quality; accuracy; or output deriving from, and/or contained within, any Third Party Works. Mitsubishi shall not be liable for any: direct, indirect, special or consequential loss, damage, liability or expense incurred or suffered which is claimed to have resulted from the Customer's and/or the Non-Customer's use of, or reliance on, any Third Party Works, including without limitation, any fault, error, act, omission, interruption, negligence or delay; and the Customer shall hold harmless, reimburse and indemnify Mitsubishi for all claims, damage, losses, costs (including all legal costs), expenses, demands or liabilities arising out of or in connection with any Third Party Works.

8.5 In the event the Customer seeks to make a claim against Mitsubishi under a Contract pursuant to these Terms and Conditions, the Customer shall first notify Mitsubishi of its intention to make such a claim in a period: commencing from the day on which the Customer became, or ought reasonably to have become, aware of the claim-event having occurred (the "Event Date") (but not from a date on which the Customer may become aware of its having grounds to make a claim), and shall expire twenty-four months from the Event Date (the "Notice Period"). Mitsubishi shall have no liability in the event the Customer notifies Mitsubishi of the claim-event after the final day of the Notice Period. The Customer's notice must be in writing and must identify the event and the grounds for the claim in reasonable detail.

8.6 The guarantee/warranty set out in these Terms and Conditions apply solely in regard to goods manufactured by Mitsubishi. In the event the Customer has sought to purchase goods from Mitsubishi that have been manufactured by a third party ("Third Party Goods"), the Customer shall be solely responsible for confirming and approving the functionality, scope, specification, output and desired performance of the Third Party Goods; and the Customer shall always ensure it has reviewed the Third Party Goods' manufacturer's specification and any applicable third party warranty terms and conditions before placing an order for the respective Third Party Goods with Mitsubishi. The Customer warrants and represents that it has undertaken all applicable mitigation measures before it elected to rely on the Third Party Goods and placed its order(s) for the Third Party Goods with Mitsubishi including, but not limited to, obtaining a proportionate quantum of insurance to cover any loss or damage, and having performed detailed technical assessments of the Third Party Goods' suitability for the Customer's requirements. In the event Mitsubishi recommends or expresses an opinion on the functionality and/or compatibility of the Third Party Goods with Mitsubishi's goods or any other goods, any such recommendation or expression of opinion by Mitsubishi shall be neither endorsed nor binding in any way, and the Customer shall in all instances purchase the Third Party Goods from Mitsubishi on an "as is" basis. Conditional on the Customer immediately notifying Mitsubishi in writing that the respective Third Party Goods are defective, the Customer acknowledges and agrees that Mitsubishi's

sole obligation and the Customer's sole remedy shall be for Mitsubishi to use commercially reasonable endeavours to obtain the repair or replacement of the allegedly defective Third Party Goods, at Mitsubishi's sole discretion, subject to the terms of Mitsubishi's purchasing agreement with the supplier of the Third Party Goods. Mitsubishi does not warrant or represent that the specification; quality; accuracy; or performance output deriving from any Third Party Goods is suitable for the Customer's purposes, and Mitsubishi shall not be liable for any: direct, indirect, special or consequential loss, damage, liability or expense incurred or suffered which is claimed to have resulted from the Customer's use of, or reliance on, any Third Party Goods, including without limitation, any fault, error, act, omission, interruption, negligence or delay.

9. Returned Goods

9.1 The Customer shall be responsible for the cost of carriage and insurance in respect of all goods returned by the Customer to Mitsubishi for service or credit which goods shall be at risk of the Customer until actual receipt thereof by Mitsubishi.

9.2 Mitsubishi will not accept returned goods for credit or rectification unless such return has been authorised in writing by the appropriate Department of Mitsubishi or otherwise confirmed in accordance with that Department's returns procedure and the goods are received by Mitsubishi in stock condition and Mitsubishi reserves the right to determine at its sole discretion whether to accept the return of the goods or whether to rectify the goods or whether to issue a credit note in respect thereof.

10. Cancellation

Orders, once accepted, cannot be cancelled by the Customer without Mitsubishi's written approval, in which case the Customer agrees to indemnify Mitsubishi for all loss suffered by it as a result of an approved cancellation. Mitsubishi may in any event terminate any Contract in part or full, or any other agreement or accepted order subject to these Terms and Conditions of Sale, at any time without incurring any liability; by giving the Customer no less than seven (7) days' notice by post or email.

11. Technical Information and Trademarks

11.1 All technical information, specifications and drawings and any confidential information of any kind coming into the possession of the Customer in connection with any of Mitsubishi's goods remain the property of Mitsubishi and shall not be used by the Customer other than for the performance of any contract between Mitsubishi and the Customer. All documents shall be returnable on request.

11.2 The Customer shall comply with, and shall ensure it notifies all affected Non-Customers of their obligation to comply with, all applicable installation, commissioning, electrical and operational standards and directives, as well as all laws and regulations, in regard to the safe and compliant use of any purchased good(s) in its respective jurisdiction. The Customer further undertakes to comply with (and to notify the same to any Non-Customer) all information of a technical nature that pertains to a respective goods' particulars and the compliant, safe and specified usage of any purchased goods including, but not limited to: all manuals, guidelines, directives, health and safety/usage instructions, operational details, specifications, drawings, and any other documents whatsoever provided by Mitsubishi (or otherwise available through Mitsubishi's online hyperlinks, websites or applications) (together or separately "Technical Information"). The Customer acknowledges and agrees that all Technical Information is given in good faith, and no responsibility is accepted by Mitsubishi for their accuracy and their supply shall not be used to find liability on Mitsubishi's part.

11.3 The Customer shall comply with all laws and regulations affecting the purchase and/or resale, packaging and labelling of the goods and shall not alter the packaging or labelling of the goods (including any Technical Information) nor shall it conceal, obscure, remove or otherwise interfere with the packaging or labelling of the goods (including any Technical Information) unless authorised by Mitsubishi in writing.

11.4 The Customer shall not do any act in relation to the goods to which Section 6 of the Trade Marks Act 1938 (as amended) applies, namely the Customer shall not:

11.4.1 Apply any trade mark of which Mitsubishi is the proprietor or registered user ("Mitsubishi Trade Mark") to the goods after they have suffered any alteration in their state or condition, get-up or packing;

11.4.2 Alter partly remove or partly obliterate any Mitsubishi Trade Mark;

11.4.3 Apply any other trade mark to the goods;

11.4.4 Add any other matter in writing that is likely to injure the reputation of any Mitsubishi Trade Mark.

12. Availability of Goods

Delivery is subject to the availability of the goods and if, owing to non-availability of such goods or any other cause beyond the control of Mitsubishi, Mitsubishi shall be unable to carry out its obligations hereunder it shall be entitled to determine this Contract forthwith by giving notice in writing to the Customer to that effect.

13. Severability

In the event that any of these Conditions or any part of any of them shall be held to be invalid or unenforceable, such invalidity or unenforceability of such condition or part thereof shall not affect the validity and enforceability of all remaining Conditions and parts of Conditions.

14. Proper Law and Jurisdiction

14.1 This Contract shall in all respects be governed by English Law.

14.2 The Customer submits to the non-exclusive jurisdiction of the English Courts, without prejudice to the right of Mitsubishi to bring any action before any other courts having jurisdiction.

15. Service of Notice

Any notice to be served under this Contract must be in writing and must be served by hand or by recorded delivery and in the case of a corporation shall be served at its registered office and in the case of Mitsubishi this shall be the address set out in

Clause 5.4. Service shall take effect if given by hand on the date of delivery. If given by post it shall take effect two days after posting excluding Saturdays, Sundays and statutory holidays in England.

16. Third Party Rights

A person who is not a party to this Contract has no right under the Contracts (Rights of Third Parties) Act 1999 to enforce or to enjoy the benefits of any term of this Contract.

17. COVID-19 and Brexit

17.1 The (i) global spread, and subsequent pandemic waves, of coronavirus ("COVID-19"), and (ii) process of the United Kingdom's exit from the European Union and direct and indirect consequences of the foregoing ("Brexit") are, together and/or separately, reasonably likely to result in material delay to component procurement, production, shipment and delivery and in other supply chain delays which in turn may cause delays in any delivery date or completion of Mitsubishi goods and/or ancillary services related to delivery of the goods, whether foreseen or unforeseen (together, or separately, a "Special Delay").

17.2 As a prevailing special condition to any Mitsubishi quotation, and without prejudice to these Terms & Conditions, the Customer acknowledges and agrees that any indicated or proposed date, milestone or other time period set out in a Contract and/or in any other document, email, purchase order, order acknowledgment or communication (in oral or recorded form); is to be construed solely as an estimate for time of delivery or performance; and any provision or term to the contrary is deemed amended and to be interpreted in accordance with this Clause.

17.3 Any Special Delay shall not be grounds for the Customer to terminate or cancel an order for goods and/or ancillary services related to delivery of the goods which is the subject of a Mitsubishi quotation, without Mitsubishi's prior written approval.

17.4 Mitsubishi does not accept liability for any loss, cost, liquidated damages or any unascertained, general or special damages of any nature whatsoever or any other claim or fine or expense (directly or indirectly) connected to COVID-19 or Brexit.

17.5 If either party becomes aware of the likelihood of delay or any actual delay in delivery or performance resulting from a Special Delay, the party first aware of the Special Delay shall use all reasonable endeavours to notify the other party of the same in writing, by recorded post, whereupon Mitsubishi shall issue a revised delivery date or alternative remedy.

18. Bribery Act 2010 and Compliance

The Customer shall ensure, and ensure that its directors, employees, agents, representatives, affiliates, group companies, members and any other party acting on its behalf shall:

18.1 comply with all applicable laws, statutes, regulations, and codes relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010 and those relating to anti-slavery and human trafficking (including the Modern Slavery Act 2015) ("Relevant Requirements"), as well as complying with: its own ethics, anti-bribery and anti-corruption policies, any relevant industry code on anti-bribery and any such related guidance or policy made available by Mitsubishi (whether in physical copy or otherwise available from Mitsubishi's website, hyperlink or any other digital method), in each case as may be updated from time to time ("Relevant Policies");

18.2 not engage in any activity, practice or conduct which would constitute an offence under sections 1, 2 or 6 of the Bribery Act 2010 if such activity, practice or conduct had been carried out in the UK;

18.3 have and shall maintain in place their own policies and procedures including, but not limited to, adequate procedures under the Bribery Act 2010, to ensure compliance with the Relevant Requirements, the Relevant Policies, and will enforce them where appropriate; and

18.4 promptly notify Mitsubishi (in writing) if a public official in any jurisdiction becomes its officer or employee (and the Customer warrants it has no public officials in any jurisdiction as officers, employees or direct or indirect owners at the date of the Contract).

Breach of this Clause shall be deemed a material breach, whereupon Mitsubishi may terminate the respective Contract with immediate effect by giving written notice to the Customer. The Customer shall indemnify and hold Mitsubishi harmless against any and all claims, losses or damages arising from, or related to, such breach.

August 2023

MECH-iS-G07 / MEHP-iS-G07


Air source chillers and reversible heat pumps
for outdoor installation (50-220kW)

**MECH-iS
MEHP-iS**

The **MECH-iS-G07** and **MEHP-iS-G07** are the new Mitsubishi Electric chiller and heat pump ranges manufactured to the highest standard quality and features.

Suitable for a range of different applications, from comfort to industrial and even IT cooling processes.

Key Features & Benefits:

- Hot Water up to 65°C
- Cold water down to -12°C
- Best-in-class for low noise levels
- Compact design and modular expansion
- New Smart Coordinated Defrost 

R32



Designed down to a fine art

The **MECH-iS-G07** and **MEHP-iS-G07** achieve top-level energy efficiencies, in the most compact footprints in their category.

The range comprises of 7 new sizes developed within 3 compact modules to fit any thermal load requirement up to 110kW, **extendable up to 220kW** through an optional twin module configuration.



High Efficiency



Compact Design



Twin module configuration

Groundbreaking performance

MECH-iS-G07 and MEHP-iS-G07 bring brilliant performance, particularly in partial load conditions, helping individuals and businesses reduce the energy bills.

MECH-iS-G07	Up to	EER: 3.3	SEER: 5.6	SEPR HT: 6.5	
MEHP-iS-G07	Up to	COP: 3.4	SEER: 4.6	SCOP LT: 4.6	SCOP MT: 3.5

- **EER** - conditions: evap. 12/7°C, air 35°C - NET values [EN14511 - EN14825]
- **SEER** - Regulation (EU) N.2281/2016
- **SEPR-HT** - Regulation (EU) N.2281/2016

- **COP** - conditions: cond. 40/45°C, air 7(6)°C - NET values [EN14511 - EN14825]
- **SCOP LT** - Regulation (EU) N.813/2013
- **SCOP MT** - Regulation (EU) N.813/2013

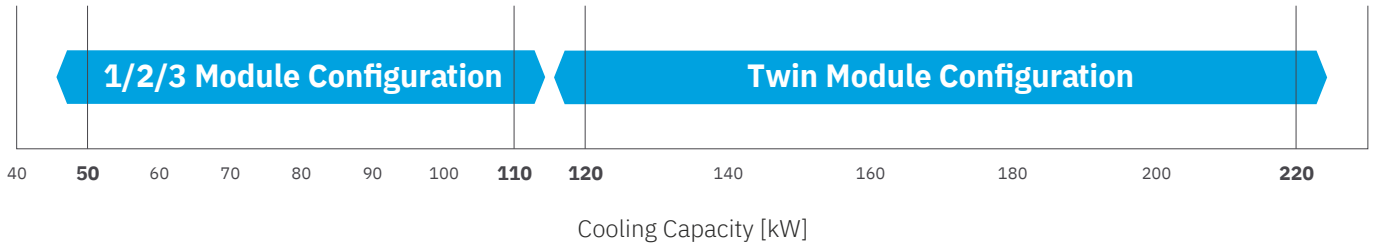
Reduced sound levels

Best-in-class sound levels without additional accessories.

MECH-iS-G07 and MEHP-iS-G07 units are fitted with **acoustic enclosures** for compressors and hydronic kits **as standard**.



Configuration



Chassis Size 1

50 / 60 / 70 kW



Chassis Size 2

80 / 90 kW



Chassis Size 3

100 / 110 kW



Twin Module Combination

(Optional)

The twin module kit for easy on-site installation consists of:

- Structural connection for positioning and safety
- Software connection through Multi Manager controls
- Inter-connecting, pipe matching hydraulic kit



Benefits for every application

Comfort

- Hot water up to 65°C available for MEHP-iS-G07, with an operating range as low as -20°C ambient
- Exceptional performance at part load operating conditions
- Quiet and compact unit
- Plug & Play solution: options for factory fitted pumps and buffer vessel
- MEHP-iS-G07 specifically designed to be optimised for heating mode



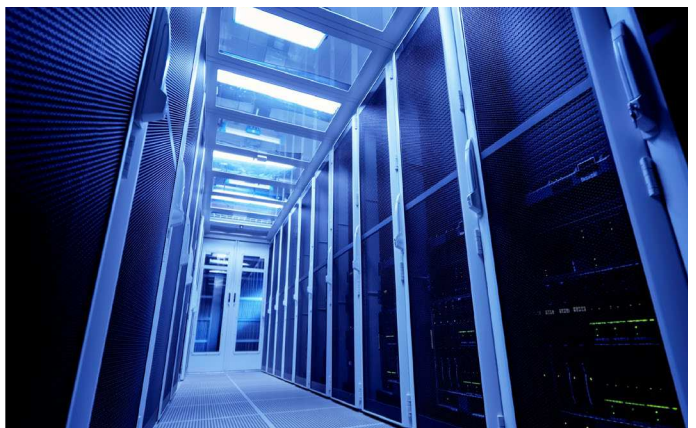
Process

- MECH-iS-G07 is capable of -12°C water supply for a range of process applications
- Wide ambient operating temperatures from -20°C to +50°C
- Multiple coil coating options available to suit wide range of operating environments
- Dependable design and components
- Easily accessible service points for faster maintenance
- Refrigerant leak detection options available



IT Cooling

- Combine the MECH-iS-G07 with our w-MEXT range for a complete Mitsubishi Electric system, ideal for small and medium sized data centres
- Use our **HPC** software to optimise the entire system by controlling both the MECH-iS-G07 and the w-MEXT together
- Operate more efficiently with supply water temperatures available up to 24°C
- Connect 8 units together for advanced network controls
- Enhance the MECH-iS-G07 further with options such as External Capacity Cap, KIPLink Controls and Energy Meter



Lower GWP refrigerant

R32

R32 is a highly efficient refrigerant that is easy to recycle and offers a lower Global Warming Potential (GWP) than R410A.

The reduced GWP level of this refrigerant gas tackles both direct and indirect global warming, offering customers a concrete forward-looking solution for your building and a robust alternative to traditional refrigerants.



Lower GWP

-66% GWP vs R410A



Safety
Class A2L

Reduced environmental impact



- Zero Ozone Depletion Potential (ODP)
- One-third lower GWP value than R410A
- F-Gas phasedown compliant
- Lower equivalent refrigerant volumes

Future proof performance



- Ideal for the next generation of equipment
- High refrigeration and thermal conductivity
- Low pressure drops
- Affordable and readily available

Reliability



- Easy to handle, reuse, and recycle
- Low toxicity, low flammability
- A single component refrigerant

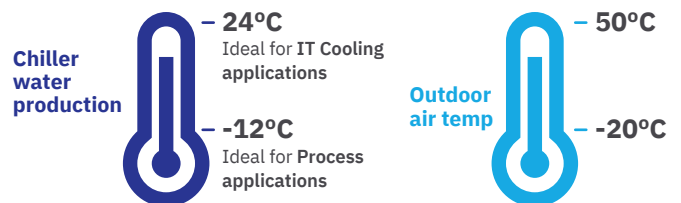
Wide operating range

Exceeding the limits of standard heat pumps and chillers, MECH-iS-G07 and MEHP-iS-G07 ranges achieve extreme water temperatures, making these units ideal for many uses from Comfort to Process and IT Cooling applications.

Cooling, Heating or Hot Water from one unit



MEHP-iS-G07 can produce, without any auxiliary accessory, medium-grade and hot water up to 65°C. This makes MEHP-iS-G07 a perfect solution to replace fossil fuel heating.



MECH-iS-G07 can operate with ambient temperatures up to 50°C and chilled water temperatures ranging from -12°C to +24°C, making it ideal for both for Process and IT Cooling applications.

Designed for quality

Controls

W3000+ control software, available with standard keyboard or touch screen, features proprietary settings, to perfectly manage your equipment.

Compact keyboard (Standard)



7 inch touch screen (Optional)



KIPLink (Optional)

Full access by simply scanning the QR code.



Robust Electronics

EMI filters and DC reactors included as standard.

Complete Fan Assembly

High-efficiency EC fans as standard.

Heat Exchanger

V-shape micro-channel coils for chillers and Cu/Al coils for heat pumps. Several treatment options available.

Hydrophilic Coating

Source side heat exchanger treatment that allows water droplets to flow off the surface (MEHP-iS-G07 only).

Inverter Scroll Compressors

Acoustic enclosure as standard.

Hydronic Kits

(Optional)

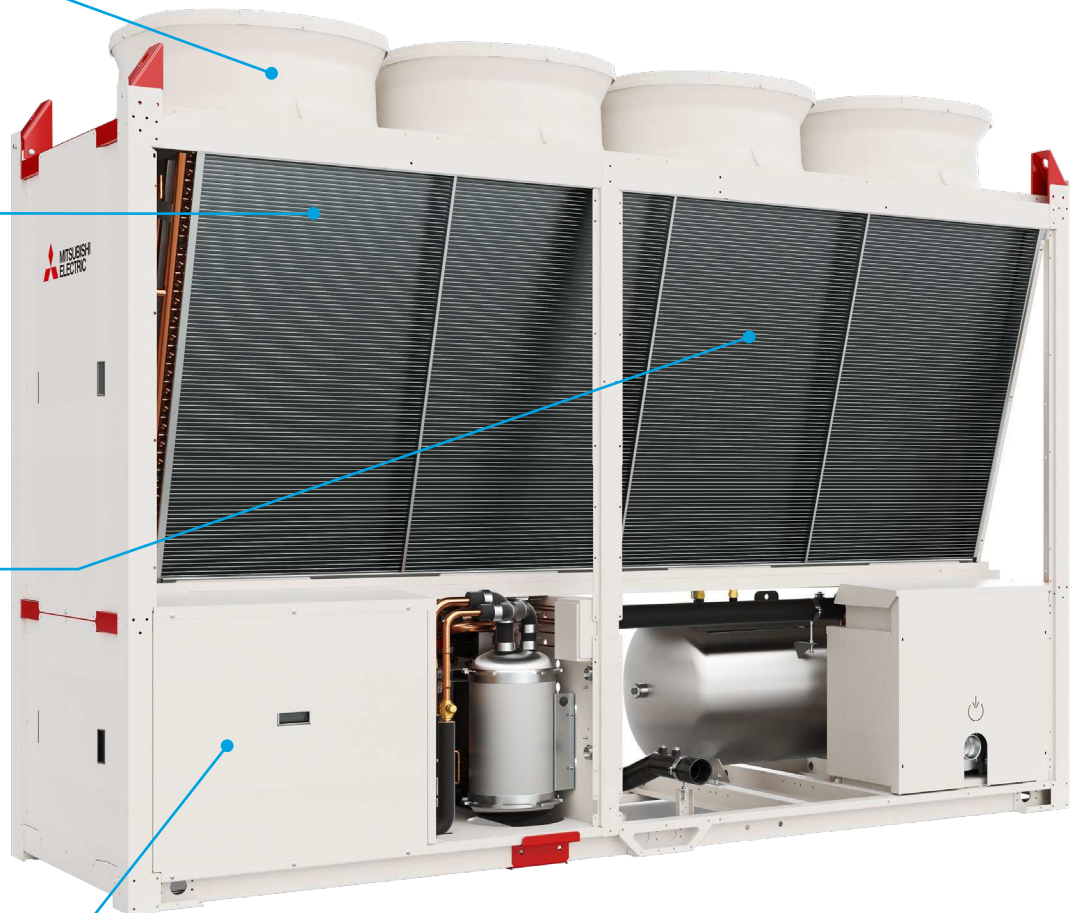
Factory-installed several pumps (with VPF options) and buffer tank.



Single-head in-line pump



Twin-head in-line pump



Mitsubishi Electric Quality

The MECH-iS-G07 and MEHP-iS-G07 have been designed and manufactured to the highest quality standards.



Control Systems

Integrated Solutions

LAN Multi Manager



01 / Architecture

Exploits proprietary LAN technology to connect a group of chillers and heat pumps.

03 / Applications

Comfort, Process and IT Cooling.

02 / Interfacing

Completely integrated in the units.

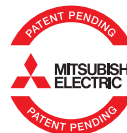
04 / Functions

Smart management of the group of units with dynamic master logic, stand-by management, load and resource management.

Smart Coordinated Defrost

Smart control logic for coordinating the non-simultaneous start of defrosting cycles of a group of heat pumps:

- Minimises the energy required for defrost
- Increase of the maximum heat output of the system during defrost
- Increased system efficiency
- Minimum impact on leaving water temperature



LAN Functions

The (optional) integrated LAN controller makes it possible to optimise load distribution, alarm management and units back-up or stand-by, for up to 8 units in a single group (8 x MECH-iS-G07 or 4 x MEHP-iS-G07).

To increase the size of your Heat Pump group, use a non-integrated controller, such as the Manager 3000+, to allow up to 8 x MEHP-iS-G07 together.

Options

Energy Meter for BMS Energy Meter for W3000+

Track your electrical power consumption with data is sent to the BMS or directly readable on the unit keyboard.

Refrigerant Leak Detection

Refrigerant leak detection system, factory fitted, to raise an alarm when a leak is detected.

External Capacity Cap

This option controls the maximum capacity output of the unit and is ideal for full inverter or hybrid units.

Hydronic Kits

Low or high head, fixed or variable speed, single or twin pumps and buffer tank all integrated within the unit.

Auxiliary Source and DHW Management

Functions for plants requiring the production of domestic hot water that will be stored in a storage tank. (MEHP-iS-G07 only).

Multifunction Card

Night mode, hydraulic decoupler probe for pump activation and User Limit Control Function.

Modular Installation Kit

Two modules of the same size can be connected through a dedicated kit:

- Structural connection for position and safety
- Software connection through LAN Multi Manager Controller
- Inter-connecting, pipe matching hydraulic kit

Specifications

MECH-IS-G07		0051	0061	0071	0082	0092	0102	0112
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE								
COOLING ONLY (GROSS VALUE)								
COOLING CAPACITY ^{*1}	kW	50.09	60.11	70.14	80.14	90.23	100.2	110.2
TOTAL POWER INPUT ^{*1}	kW	15.16	19.13	26.89	26.24	32.57	31.43	37.90
EER ^{*1}	kW/kW	3.296	3.147	2.606	3.057	2.767	3.191	2.908
COOLING ONLY (EN14511 VALUE)								
COOLING CAPACITY	kW	50.00	60.00	70.00	80.00	90.00	100.0	110.0
EER ^{*1,4}	kW/kW	3.280	3.110	2.580	3.020	2.740	3.150	2.870
COOLING WITH PARTIAL RECOVERY								
COOLING CAPACITY ^{*5}	kW	51.97	62.36	72.77	83.15	93.61	104.0	114.3
TOTAL POWER INPUT ^{*5}	kW	14.66	18.50	25.99	25.37	31.48	30.39	36.64
DESUPERHEATER HEATING CAPACITY ^{*5}	kW	12.68	16.19	23.11	22.16	27.82	26.37	32.15
EXCHANGERS								
HEAT EXCHANGER USER SIDE IN COOLING								
WATER FLOW ^{*1}	l/s	2.395	2.874	3.3354	3.833	4.315	4.792	5.270
PRESSURE DROP AT THE HEAT EXCHANGER ^{*1}	kPa	15.6	22.5	30.6	23.6	29.9	28.3	34.2
PARTIAL RECOVERY USER SIDE IN REFRIGERATION								
WATER FLOW ^{*1}	l/s	0.612	0.781	1.116	1.070	1.343	1.273	1.552
PRESSURE DROP AT THE HEAT EXCHANGER ^{*1}	kPa	8.57	14.0	28.5	12.9	20.4	12.9	19.1
PERFORMANCE								
COOLING ONLY (GROSS VALUE)								
16°C/10°C								
COOLING CAPACITY ^{*2}	kW	54.69	65.32	75.82	87.60	98.20	109.4	120.1
TOTAL POWER INPUT ^{*2}	kW	15.47	19.61	27.69	26.82	33.41	32.06	38.73
EER ^{*2}	kW/kW	3.529	3.332	2.736	3.269	2.940	3.408	3.103
23°C/15°C								
COOLING CAPACITY ^{*3}	kW	62.37	73.93	85.00	100.1	111.5	124.7	136.4
TOTAL POWER INPUT ^{*3}	kW	15.86	20.25	28.85	27.55	34.52	32.81	39.78
EER ^{*3}	kW/kW	3.925	3.640	2.941	3.640	3.232	3.802	3.427
EXCHANGERS								
16°C/10°C								
WATER FLOW ^{*2}	l/s	2.181	2.605	3.024	3.494	3.917	4.362	4.788
PRESSURE DROP AT THE HEAT EXCHANGER ^{*1}	kPa	12.9	18.5	24.9	19.6	24.7	23.4	28.2
23°C/15°C								
WATER FLOW ^{*3}	l/s	1.868	2.215	2.546	2.999	3.339	3.735	4.086
PRESSURE DROP AT THE HEAT EXCHANGER ^{*1}	kPa	9.50	13.3	17.6	14.5	17.9	17.2	20.6
REFRIGERANT CIRCUIT								
COMPRESSORS NR.	No.	1	1	1	2	2	2	2
NO. CIRCUITS	No.	1	1	1	1	1	1	1
REGULATION		Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless
MIN. CAPACITY STEP	%	27	27	27	22	22	20	20
REFRIGERANT		R32	R32	R32	R32	R32	R32	R32
THEORETICAL REFRIGERANT CHARGE	kg	8.00	8.00	8.00	11.00	11.00	13.00	13.00
OIL CHARGE	kg	3.50	3.50	3.50	7.00	7.00	7.00	7.00
RC (ASHRAE) ^{*6}	kg/kW	0.16	0.13	0.12	0.14	0.12	0.13	0.12
FANS								
QUANTITY	No.	2	2	2	3	3	4	4
AIR FLOW	m ³ /s	6.86	7.01	7.01	9.84	9.84	12.97	12.97
TOTAL FANS POWER INPUT	kW	0.96	1.00	1.00	1.41	1.41	1.88	1.88
NOISE LEVEL								
TOTAL SOUND PRESSURE ^{*7}	dB(A)	45	46	48	48	49	50	50
TOTAL SOUND POWER LEVEL IN COOLING ^{*8,9}	dB(A)	77	78	80	80	81	82	82
SIZE AND WEIGHT								
A ^{*10}	mm	2085	2085	2085	2600	2600	3225	3225
B ^{*10}	mm	1100	1100	1100	1100	1100	1100	1100
H ^{*10}	mm	2400	2400	2400	2400	2400	2400	2400
OPERATING WEIGHT ^{*10}	kg	630	630	630	830	830	940	940

■ Eurovent Certified Data

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Plant (side) cooling exchanger water (in/out) 16°C/10°C; Source (side) heat exchanger air (in) 35°C.
3. Plant (side) cooling exchanger water (in/out) 23°C/15°C; Source (side) heat exchanger air (in) 35°C.
4. Values in compliance with EN14511
5. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C; Plant (side) heat exchanger recovery water (in/out) 40°C/45°C.
6. Rated in accordance with AHRI Standard 550/590
7. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
8. Sound power on the basis of measurements taken in compliance with ISO 9614.
9. Sound power level in cooling, outdoors.
10. Unit in standard configuration, without optional accessories. - Not available.

MEHP-iS-G07		0051	0061	0071	0082	0092	0102	0112
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE								
COOLING ONLY (GROSS VALUE)								
COOLING CAPACITY *1	kW	48.10	53.11	60.09	68.39	74.18	85.99	93.98
TOTAL POWER INPUT *1	kW	17.00	19.95	25.48	24.91	30.10	31.86	37.61
EER *1	kW/kW	2.829	2.668	2.357	2.747	2.465	2.696	2.500
COOLING ONLY (EN14511 VALUE)								
COOLING CAPACITY *1*2	kW	48.00	53.00	60.00	68.30	74.10	85.90	93.80
EER *1*2	kW/kW	3.810	2.640	2.340	2.730	2.450	2.680	2.480
HEATING ONLY (GROSS VALUE)								
TOTAL HEATING CAPACITY *3	kW	49.92	59.86	69.87	79.89	89.85	100.1	110.1
TOTAL POWER INPUT *3	kW	14.39	17.65	21.98	23.95	28.53	29.65	34.19
COP *3	kW/kW	3.465	3.403	3.177	3.343	3.151	3.382	3.216
HEATING ONLY (EN14511 VALUE)								
TOTAL HEATING CAPACITY *3*2	kW	50.00	60.00	70.00	80.00	90.00	100.3	110.3
COP *3*2	kW/kW	3.465	3.380	3.150	3.320	3.120	3.350	3.180
COOLING WITH PARTIAL RECOVERY								
COOLING CAPACITY *4	kW	49.90	55.10	62.34	70.95	76.96	89.22	97.50
TOTAL POWER INPUT *4	kW	16.44	19.28	24.62	24.09	29.10	30.81	36.36
DESUPERHEATER HEATING CAPACITY *4	kW	14.39	17.02	21.96	20.98	25.61	26.76	31.89
EXCHANGERS								
HEAT EXCHANGER USER SIDE IN COOLING								
WATER FLOW *1	l/s	2.300	2.540	2.874	3.270	3.547	4.112	4.494
PRESSURE DROP AT THE HEAT EXCHANGER *1	kPa	14.4	17.6	22.5	17.2	20.2	20.8	24.9
HEAT EXCHANGER USER SIDE IN HEATING								
WATER FLOW *3	l/s	2.410	2.889	3.373	3.856	4.337	4.832	5.311
PRESSURE DROP AT THE HEAT EXCHANGER *3	kPa	15.8	22.7	31.0	23.9	30.2	28.7	34.7
PARTIAL RECOVERY USER SIDE IN REFRIGERATION								
WATER FLOW *4	l/s	0.695	0.822	1.060	1.012	1.236	1.292	1.539
PRESSURE DROP AT THE HEAT EXCHANGER *4	kPa	11.1	15.5	25.7	11.6	17.3	13.3	18.8
REFRIGERANT CIRCUIT								
COMPRESSORS NR.	No.	1	1	1	2	2	2	2
NO. CIRCUITS	No.	1	1	1	1	1	1	1
REGULATION		Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless
MIN. CAPACITY STEP	%	27	27	27	22	22	20	20
REFRIGERANT		R32	R32	R32	R32	R32	R32	R32
THEORETICAL REFRIGERANT CHARGE	kg	12.0	12.0	12.00	18.00	18.00	25.0	25.0
OIL CHARGE	kg	3.50	3.50	3.50	7.00	7.00	7.00	7.00
RC (ASHRAE) *5	kg/kW	0.25	0.23	0.20	0.27	0.24	0.29	0.27
FANS								
QUANTITY	No.	2	2	2	3	3	3	4
AIR FLOW	m ³ /s	5.89	5.89	5.89	8.89	8.89	11.77	11.77
TOTAL FANS POWER INPUT	kW	0.88	0.88	0.88	1.41	1.41	1.88	1.88
NOISE LEVEL								
TOTAL SOUND PRESSURE *6	dB(A)	59	60	62	62	63	63	63
TOTAL SOUND POWER LEVEL IN COOLING *7*8	dB(A)	77	78	80	80	81	82	82
TOTAL SOUND POWER LEVEL IN HEATING *7*9	dB(A)	77	78	80	80	81	82	82
SIZE AND WEIGHT								
A *10	mm	2085	2085	2085	2600	2600	3225	3225
B *10	mm	1100	1100	1100	1100	1100	1100	1100
H *10	mm	2400	2400	2400	2400	2400	2400	2400
OPERATING WEIGHT *10	kg	710	710	710	960	960	1085	1085

■ Eurovent Certified Data

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C. 2. Values in compliance with EN14511. 3. Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C; Plant (side) heat exchanger recovery water (in/out) 40°C/45°C. 5. Rated in accordance with AHRI Standard 550/590
6. Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level. 7. Sound power on the basis of measurements taken in compliance with ISO 9614.
8. Sound power level in cooling, outdoors. 9. Sound power level in heating, outdoors. 10. Unit in standard configuration, without optional accessories. - Not available.



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Note: Refer to 'Installation Manual' and 'Instruction Book' for further 'Technical Information'. The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:466), R1234ze (GWP:7) or R1234yf (GWP:4). *These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

Effective as of September 2022

