

Distribution Network and System Operator Information (DNO/DSO)

Key Features & Benefits:

- The UK's long term strategy for decarbonisation of heat relies heavily on large scale roll out of heat pumps to domestic and non-domestic properties.
- Modern heat pumps such as Mitsubishi Electric's Ecodan can modulate to provide the level of output the building needs to keep its owners warm, which means many of the fixed speed, direct on-line compressors with high starting currents have become a thing of the past.
- This product information sheet produced in collaboration with the Energy Networks Association (ENA) provides all the electrical characteristics of our heat pumps. The information is used by the installers to notify the DNO of the electrical load changes being made to the property.
- All of the products listed meet the strict standards set by the Electro-Magnetic Capability (EMC) testing criteria. Our heat pumps conform to EN61000 3-2 & 3-3 or EN61000 3-11 & 3-12 and require a breaker of less than 40Amps; making them ideal for applications to the national grid.
- As identified by the Government in its **Clean Growth Strategy** published in 2018, the UK's long term strategy for decarbonisation of heat relies heavily on 'the large scale uptake' of heat pumps for domestic and non-domestic properties.



1. Check the heat pump model name

Heat pump
Model NameConnect
and NotifyApply to
Connect

- If status is connect and notify, no prior authorisation is required to connect the heat pump.
- If status is apply to connect, An application with the DNO will be required to grant the heat pump connection to the grid. Pre-filled DNO forms are available on request.

Note. Under all circumstances there is a requirement to inform the network operator of the heat pump installation

2. Get to know who is your DNO

Electricity Distribution
Networks:

- Scottish & Southern Electricity Networks
- SP Energy Networks
- Electricity North West
- Northern Powergrid
- UK Power Networks
- Western Power Distribution



Get to know the DNO contact details for a given postcode online. Scan the QR code or visit:
energynetworks.org/operating-the-networks/whos-my-network-operator

3. Electrical Characteristics
for grid connection

MODEL		QUHZ-W40VHA 4kW Ecodan	PUZ-WM50VAA 5kW Ecodan	PUZ-WM60VAA 6kW Ecodan	PUZ-WM85VAA 8.5kW Ecodan	PUZ-WM112VAA 11.2kW Ecodan	PUZ-WM140VHA 14kW 1ph Ecodan	PUZ-WM140VHA 14kW 3ph Ecodan
ELECTRICAL SUPPLY	Voltage	230 VAC, 50Hz	230 VAC, 50Hz	230 VAC, 50Hz	230 VAC, 50Hz	230 VAC, 50Hz	230 VAC, 50Hz	415 VAC, 50Hz
	Phase	1 Phase	1 Phase	1 Phase	1 Phase	1 Phase	1 Phase	3 Phase
ELECTRICAL CHARACTERISTICS	Compressor Type	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Total Heat Pump System Maximum Demand (kVA)	2.76 ^{*1}	2.99	2.99	5.06	6.44	8.05	9.00
	Total Heat Pump System Maximum Demand (A) ^{*1}	12 ^{*1}	13	13	22	28	35	13
	Power Factor ^{*2}			0.99	0.99	0.99	0.99	
	Test Impedance ^{*2}			Ra Test 0.15Ω Xa Test 0.15Ω Rn Test 0.10Ω Xn Test 0.10Ω	Ra Test 0.15Ω Xa Test 0.15Ω Rn Test 0.10Ω Xn Test 0.10Ω	Ra Test 0.15Ω Xa Test 0.15Ω Rn Test 0.10Ω Xn Test 0.10Ω	Ra Test 0.15Ω Xa Test 0.15Ω Rn Test 0.10Ω Xn Test 0.10Ω	
	Starting Current (A)	2	2	2	2	2	2	2
ELECTROMAGNETIC COMPATIBILITY DIRECTIVE	Starts Per Hour	6	6	6	6	6	6	6
	Booster Heater	None	None	None	None	None	None	None
	Backup Heater	None	None	None	None	None	None	None
	EN61000-3-2 Limits for harmonic current ≤16A EN61000-3-3 Limitation of voltage changes ≤16A EN61000-3-12 Limits for harmonic current ≤75A EN61000-3-11 Limitation of voltage changes ≤75A	• • • •	• • • •	• • • •	• • • •	• • • •	• • • •	• • • •
DECLARATION OF CONFORMITY		•	•	•	•	•	•	•
ENERGY NETWORKS ASSOCIATIONS (ENA) LISTED	Listed	•	•	•	•	•	•	•
	Status	Connect and Notify	Connect and Notify	Apply to Connect	Apply to Connect	Apply to Connect	Apply to Connect	Connect and Notify
Heat Pump Type Register Number		HP_0606	HP_0607	HP_0609	HP_0610	HP_0611	HP_0612	HP_0613

^{*1} According to databook informations. ^{*2} According to EN61000-3-12 & EN61000-3-11 test reports.

^{*3} Without thermal store energy consumption. These are Total Heat Pump System (Input) Rated Current (A) & Total Heat Pump System (Input) Rated Power (kVA) values.

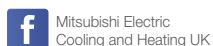
Energy Network Association Heat Pump Database Access

(scroll down the list and click onto "heat pump")

Scan the QR Code or visit: energynetworks.org/industry-hub/databases



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Note: The fuse rating is for guidance only. 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 October 2020

