

Property details

MPRN	10300740612	Shared MPRN	No
BER Number	N/A	BER number assigned to shared dwelling	N/A
Address line 1	shannon valley	Type of Rating	New Dwelling - Provisional
Address line 2		Purpose of Rating	Grant Support
Address line 3		Building Regulations	2019 TGD L
County	Co. Roscommon	Planning Reference	
Eircode		Date of Plans	
Dwelling Type	End of terrace house	Assessor Name	Darren Winston
Year of construction	2008	Assessor Number	110142
Dwelling Extension	No	Date of Assessment	04/11/2025
Storeys	2	Assessor Comments	
		Assessor Description	Type 2 - Unit B (End of Terrace)

Dimension details

	Area [m ²]	Height [m]	Volume [m ³]
Ground floor	55.74	2.30	128.20
First floor	55.74	2.68	149.38
Second floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in Roof	0.00	0.00	0.00
Totals	111.48		277.59
Living Area	20.50 m ²		
Living Area Percentage	18.39 %		

Ventilation details

	Number	Air Change Rate [m3/h]	
Chimneys	0	0.00	
Open Flues	0	0.00	
Fans & vents	3	30.00	
Flueless combustion room heaters	0	0.00	
Manufacturer			Vent Axia Multivent
Model			Multivent
Has a permeability test been carried out	Yes		Is there a draught lobby on main entrance? No
Infiltration rate due to structure [ac/h]	0.15		Draught lobby air change [ac/h] 0.05
Intermediate infiltration rate	0.31		Openings infiltration [ac/h] 0.16
Number of sides sheltered	2		Structure type N/A
Adjusted infiltration rate [ac/h]	0.26		Is there a suspended wooden ground floor? No
Effective air change rate [ac/h]	0.51		Windows/doors/attic hatches draught stripped [%] N/A
Ventilation heat loss [W/K]	46.89		Ventilation method Whole-house extract ventilation
Adjusted result of air permeability test [ac/h]	0.15		How many wetrooms (inc. kitchen)? Is the vent. ducting flexible/rigid/both? K+n=4
Specific fan power [W/(l/s)]	0.24		Is MVHR ducting uninsulated where outside of insulated envelope? N/A
Heat exchanger efficiency [%]	0.00		Adjusted heat exchanger efficiency 0.00
Electricity for ventilation fans [Kwh/y]	81.28		
Heat gains from ventilation fans [W]	0.00		

Building Elements - Floors

Type	Description	U/F Heating	Include in compliance check	In Roof	Age Band	Exposed Perimeter [m]	Area [m ²]	U-Value [W/m ² K]	Heat Loss (AU) [W/K]
Ground Floor - Solid	GF	No	Yes	No	2005 -2009	N/A	55.74	0.37	20.62
Non-Heat Loss Floor	FF	N/A	No	No	2005 -2009	N/A	55.74	0.00	0.00
Total area [m²]									111.48

Building Elements - Roofs

Type	Description	Include in compliance check	Insulation Thickness [mm]	Age Band	Area [m ²]	U-Value [W/m ² K]	Heat Loss (AU) [W/K]
Pitched Roof - Insulated on Ceiling		Yes	300	2005 -2009	55.74	0.27	15.05
Total area [m²]							55.74

Building Elements - Walls

Type	Description	Wall is semi-exposed	Include in compliance check	Age Band	Area [m ²]	U-Value [W/m ² K]	Heat Loss (AU) [W/K]
Unknown		No	Yes	2005 -2009	91.29	0.37	33.78
Total area [m²]							91.29

Building Elements - Doors

Count	Type	Description	Draught Stripped	Area [m ²]	U-Value [W/m ² K]	Heat Loss (AU) [W/K]
1	Solid exposed door	D1 front	Yes	3.10	3.00	9.30
1	Solid exposed door	D2 rear	Yes	2.10	3.00	6.30
Total area [m²]						5.20

Building Elements - Windows

Count	Glazing Type	Frame Type	Frame Factor	Solar Transm.	In Roof	Over shading	Orient.	Area [m ²]	U-value [W/m ² K]
1	Double-glazed, air filled (low-E, en = 0.15, hard coat)	Wood/PVC	0.700	0.720	No	Very Little	South	3.64	2.00
1	Double-glazed, air filled (low-E, en = 0.15, hard coat)	Wood/PVC	0.700	0.720	No	Very Little	North	7.44	2.00
1	Double-glazed, air filled (low-E, en = 0.15, hard coat)	Wood/PVC	0.700	0.720	No	Average or Unknown	East	0.65	2.00
Total area [m²]									11.73

Heat loss details

Total glazed area [m²]	11.73	Glazing ratio	0.05
Total glazed heat loss [W/K]	21.72	Summer solar gain [W/m²]	474.31
Total effective collection area [m²]	5.25	Total element area [m²]	219.7
Total plane heat loss [W/K]	106.77	Thermal bridging factor [W/m²K]	0.0800
Fabric heat loss [W/K]	124.35	Total heat loss [W/K]	171.24
Per m2	1.54		

Lighting and Internal Gains

Lighting Design Calculation Method	Bulb type only	Average Efficacy [lm/W]	66.90
Fixed lighting provision [klmh/y]	3969.42	Top up lighting requirement [klmh/y]	0.00
Energy required for fixed lighting [kWh/y]	105.84	Energy required for top up lighting [kWh/y]	0.00
Energy required for portable lighting [kWh/y]	166.21		
Basic energy consumption for lighting [kWh/y]	898.95	Water heating (In watts [W])	128.74
Annual energy used for lighting [kWh/y]	272.05	Occupants (In watts [W])	141.17
Internal gains from lighting during heating season [kWh/hs] (In watts [W])	208.12 (35.69)	Mechanical ventilation (In watts [W])	0.00
Lighting (In watts [W])	35.69	Heat loss to the cold water network (In watts [W])	-39.41
Appliance and cooking (In watts [W])	224.42	Net internal gains (In watts [W])	490.61

Lights

Count	Name	Description	Type	Efficiency	Power [W]
1	Default LED/CFL		LED/CFL	66.90	

Water heating details

Are there distribution losses?	Yes	Is supplementary electric water heating used in summer?	N/A
Are there storage losses?	Yes	Is there a combi boiler?	No
Is there a solar water heating system?	No	Total hot water demand [kWh/y]	2038.49
Standard number of occupants	2.82	Temperature factor unadjusted	0.60
Number of mixer showers	1	Temperature Factor Multiplier	0.90
Number of electric showers	0	Hot water storage loss factor [kWh/l d]	0.00
Number of baths	1	Volume factor	0.00
Daily hot water use [Litres/d]	130.00	Combi-boiler electricity consumption [kWh/y]	0.00
Hot water energy reqs. at taps [kWh/y]	1732.72	Adjusted storage loss [kWh/y]	255.44
Distribution losses [kWh/y]	305.77	Adjusted primary circuit loss [kWh/y]	307.05
Water storage volume [Litres]	200.00	Heat gains from water heating system [W]	128.74
Is manufacturers declared loss factor available?	Yes	Output from supplementary heater [kWh/y]	0.00
Declared loss factor [kWh/d]	1.30		
Manufacturer and Model name	Midea 200LTR		
Insulation type	N/A		
Insulation thickness [mm]	N/A		

Type of mixer shower	Flow restriction	Flow rate [l/min]	HW usage [l/day]	WWHRS Manufacturer/Model	WWHRS efficiency	WWHRS Utilisation Factor	Energy Savings [kWh/yr]
Vented hot water system	No	7.000		Any / Any			
Total :			58.04				0.00

Combi-boiler Type	None	Output from main water heater [kWh/y]	2600.99
Combi-boiler loss [kWh/y]	0.00	Annual Heat gains from water heating system [kWh/y]	1127.79
Keep Hot facility	None	WWHRS input to main system [kWh/y]	0.00
Storage Loss	255.44	WWHRS input to supplementary system [kWh/y]	0.00
Storage Type	Cylinder, indirect		
Primary Circuit loss type	Boiler / heat pump with insulated primary pipework and with cylinder thermostat		
Primary circuit loss [kWh/y]	360.00	Heat Pump Type of DHW	Separate Hot Water Storage
Is hot water storage indoors or in group heating system	Yes		

Net space heat demand

Required temp. during heated hours	21.00	Length of one unheated period [h]	8
Required temperature rest of dwelling	18.00	Unheated periods per week	14
Living area percentage	18.39	Heat use during heating season [kWh/y]	5433.07
Required mean internal temperature [°C]	18.55	Heat use for full year [kWh/y]	5722.45
Thermal mass category of dwelling	Medium-low		

	Utilisation factor	Intermittent heating
Internal heat capacity of dwelling [per m ²]	0.14	0.09
Internal heat capacity [MJ/K]	15.61	10.03

Space heat demand details

Month	Mean Ext. Temp [°C]	Adj. Int. Temp [°C]	Heat Loss [W]	Heat Use [kWh]	Gain/Loss Ratio	Utilisation Factor	Heat Use [W]	Useful Gains [W]	Solar Gain [W]
January	5.3	16.70	1951	1008	0.32	0.97	1354	597	126
February	5.5	16.72	1922	840	0.37	0.96	1249	673	213
March	7.0	16.93	1701	717	0.47	0.93	964	737	305
April	8.3	17.12	1510	522	0.59	0.89	725	784	395
May	11.0	17.49	1112	264	0.88	0.77	354	758	490
June	13.5	17.84	744	93	1.34	0.61	130	614	509
July	15.5	18.12	449	24	2.15	0.43	33	417	476
August	15.2	18.08	494	36	1.86	0.49	48	446	427
September	13.3	17.82	773	136	1.08	0.70	189	584	343
October	10.4	17.41	1200	411	0.62	0.87	553	648	250
November	7.5	17.00	1628	729	0.40	0.95	1013	615	158
December	6.0	16.79	1848	943	0.33	0.97	1267	581	111

Space Heating

Type	Space Heating Standard	Fuel	Design flow temp[°C]	Daily Operation [h]	SH Seasonal eff.	WH Seasonal eff.	Heats water	Source
Heat pumps	I.S. EN 14825	Electricity	45	24	551.91	210.05	Yes	Assessor
Model								MHC-V6W/D2N8-B
Manufacturer								Midea
Back Up Space Heater Fuel	Electricity		Back Up Space Heater Efficiency [%]		100.00			
Back Up Water Heater Fuel	Electricity		Back Up Water Heater Efficiency [%]		100.00			

Heating System Test data: I.S. EN 14825

Heat Pump Type Air to Water

Test Condition - Low (35°C)

	A (88%) -7°C	B (54%) 2°C	C (35%) 7°C	D (15%) 12°C	E* (100%) TOL
Source	A-7	A2	A7	A12	A-10
Sink	W34	W30	W27	W24	W35
Heating Capacity (kW)	6.03	3.88	2.40	2.00	5.36
Coefficient of Performance (kW/kW)	3.13	6.02	7.40	9.20	2.76

Test Condition - Medium (55°C) *

	A (88%) -7°C	B (54%) 2°C	C (35%) 7°C	D (15%) 12°C	E* (100%) TOL
Source	A-7	A2	A7	A12	A-10
Sink	W52	W42	W36	W30	W55
Heating Capacity (kW)	5.05	3.22	2.20	1.78	4.52
Coefficient of Performance (kW/kW)	2.17	4.01	5.10	6.15	1.91

Heating System Test data: I.S. EN 16147

Source of Data	Water heating energy efficiency [%]
Co-efficient of Performance [kW/kW]	0.00
Water heating energy efficiency [%]	135.10
Reference Hot water Temperature [°C]	49.29
Hot water Rated Heat output P_{rated} [kW]	5.70
Declared load profile	L
Standing heat loss of test storage tank [kWh/day]	1.29
Volume of DHW accounted for in test [litre]	200
Heat Pump Type	Air to Water

Dist. System Losses and Gains

Temperature adjustment [°C]	0	Additional heat emissions due to non ideal control and responsiveness [kWh/y]	0.00
Heating system control category	3	Gross heat emission to heated space [kWh/y]	5433.07
Heating system responsiveness category	1	Mean internal temperature [°C]	17.02
Mean internal temperature during heating hours [°C]	18.55		

	Number present	Boiler controlled by thermostat	Inside dwelling	Electricity consumption [kWh/y]	Heat gain [W]
Central heating pumps	1	Yes	Yes	130	10
Oil boiler pumps	0	No	No	0	0
Gas boiler flue fan	0			0	
Warm air heating or fan coil radiators present	No			0	0
Totals				130	10

Note: Wet central heating systems are likely to have one or more central heating pumps.

Gains from fans and pumps associated with space heating system [kWh/y]	58	Is there underfloor heating on the ground floor?	No
Average utilisation factor, October to May	0.91	U-Value of ground floor [W/m ² K]	0.00
Useful net gain [kWh/y]	53	Fraction of heating system output from ground floor	0.67
Net heat emission to heated space [kWh/y]	5380	Additional heat loss via envelope element [kWh/y]	0.00
Annual space heating requirement [kWh/y]	5380		

Energy Requirements: Individual Heating Systems

Manufacturer name			Midea
Model name			MHC-V6W/D2N8-B
Brand name			N/A
Model Qualifier			N/A
Indoor unit identifier			N/A
Outdoor unit identifier			N/A
Efficiency of main heating system [%]	551.91	Fraction of heat from secondary system	N/A
Efficiency adjustment factor	1.00	Efficiency of secondary system [%]	N/A
Adjusted efficiency of main heating system [%]	551.91	Energy required for main heating system [kWh/y]	974.77
Product index number	N/A	Energy required for secondary heating system [kWh/y]	0
Manufacturer's reference number	N/A	Low temperature test condition (35°C)	N/A
Appliance ID	N/A	Intermediate temperature test condition (45°C)	N/A
Rated air flow rate [m³/h]	N/A	Medium temperature test condition (55°C)	N/A
		High temperature test condition (65°C)	N/A

Fraction of main space and water heat from CHP	N/A	Efficiency adjustment factor	1.0000
Heat demand from CHP	0.0	Adj. efficiency of main water heating system [%]	210.05
Efficiency of main water heating system [%]	210.05	Water Heating Efficiency [%]	135.1
Manufacturer name	Midea	Energy req. for main water heater [kWh/y]	2166.97
Model name	MHC-V6W/D2N8-B	Energy req. for secondary water heater [kWh/y]	0.00
Heat Pump Type	Air to Water		
Water Heating Standard	I.S. EN 16147		

	Fuel Type	Primary energy conversion factor	CO₂ emission factor
Main space heating system	Electricity	1.75	0.224
Secondary space heating system	None	0.00	0.000
Main water heating system	Electricity	1.75	0.224
Supplementary water heating system	Electricity	0.00	0.000
Cooling System	None	0.00	0.000
Pumps, fans	Electricity	1.75	0.224
Energy for lighting	Electricity	1.75	0.224

CHP data

Heat output from CHP [kWh/y]	0.00	CHP Fuel type	N/A
Electrical efficiency of CHP		Energy delivered to CHP [kWh/y]	0
Heat efficiency of CHP		Electrical output from CHP [kWh/y]	0

Summer internal gains

Dwelling volume [m ³]	277.585	Total gains in summer [W]	964.92
Effective air change rate for summer period [ac/h]	0.1	Temperature increment due to gains [°C]	7.23
Ventilation heat loss coefficient [W/K]	9.16	Summer mean external temperature [°C]	15
Fabric heat loss coefficient [W/K]	124.35	Heat capacity parameter	0.14
Heat loss coefficient under summer conditions [W/K]	133.51	Temperature increment related to thermal mass [°C]	1.02
Total Solar Gain for Summer Period [W]	474.31	Threshold internal temperature [°C]	23.25
Internal gains [W]	490.61		

Results

	Delivered energy [kWh/y]	Primary energy [kWh/y]	CO ₂ emissions [kgCO ₂ /y]
Main space heating system	975	1706	218
Secondary space heating system	0	0	0
Main water heating system	1238	2167	277
Supplementary water heating system	0	0	0
Cooling	0	0	0
Pumps and fans	211	370	47
Energy for lighting	272	476	61
CHP input (individual heating systems only)	0	0	0
CHP electric output (individual heating systems only)	0	0	0
Renewable and energy saving technologies			
Energy produced and saved	0	0	0
Energy consumed by the technology	0	0	0
Total	2696	4719	604
Per m² floor area	24.19	42.33	5.42
Energy Rating	A2		