Retractable louvre roof

System MH228. Motorised aluminium louvre roof with blades that slide back and stack, opening the roof fully to the sky. Designed, consented where required, supplied and installed by MOTE Home.

Specification

Operation	Blades retract and stack at one end, or at both ends of each module. Closed, the roof is watertight.
Drive	Electric motor and drive concealed in the side beam. Remote and phone app control.
Blade	228 × 40 × 1.8 mm, T6 temper, with leak-proof drainage channel. Up to 26 blades per module.
Side beam	250 × 50 × 2.5 mm, with 22 mm top flange and fixing slots
Between modules	Two side beams back to back
Slideway (blade track)	142 × 80 × 2.0 mm, each side of each module
Post	200 × 200 × 3.0 mm with internal screw ports. Downpipe, motor and LED cables run inside.
Gutter	142 × 55 × 1.5 mm with integrated LED strip groove, draining through the posts
Alloy and finish	Extruded aluminium alloy (grade per supplier certificate), polyester powder coat. Standard colours: charcoal (RAL 7024), mid grey, white. Black available at extra cost.
Fixings	Stainless steel. Grade 316 within 500 m of the sea, 304 minimum elsewhere.
Sensors	Rain sensor included, closes the roof automatically. Wind sensor optional.
Lighting	Dimmable LED strip around the frame, included.
Options	Motorised drop-down blinds between posts, radiant heaters, privacy screens.

Design limits

Blade span	4.2 m maximum between beams (module width). Wider roofs are split into equal modules.
Retract length	Up to 6 m per module. Blades stack at the motor end.
Overall size	Up to 12 × 12 m.
Posts	Any open edge with more than 6 m between supports gets an intermediate post. The house wall counts as a support.
Intermediate beams	Freestanding roofs: over 6 m. Attached to the house: over 8 m, or wherever the blade span needs one.
Height	2.4 m, 2.7 m or 3.0 m to the underside of the frame as standard.
Wind	Posts, fixings and footings are designed for each site's wind zone (NZS 3604 / AS/NZS 1170.2) by a Chartered Professional Engineer.

Building Code and consent

Building consent	Required over 30 m². An attached roof of 20–30 m² at ground level may be exempt under Schedule 1, exemption 17A, where a Licensed Building Practitioner designs or supervises the work. Confirm with your council.
B1 Structure	Specific engineering design for each project, covering wind, snow and earthquake loads.
B2 Durability	Aluminium and stainless steel components selected for the exposure zone. Durability period to be confirmed in the project specification.
E1 Surface water	Roof water collected in the integrated gutter and discharged through the posts to an approved outfall.
E2 External moisture	Head flashing over the wall beam, lapped behind the cladding and building wrap (MH-TD-03, MH-TD-04).

Care and maintenance

- Wash the frame and blades with fresh water and a soft brush every 3 months, or monthly within 500 m of the sea.
- Clear the gutters and post outlets every 6 months, more often under trees.
- Run the roof through a full cycle every month to keep the drive free.
- Do not operate the roof in high wind, or with snow or ice on the blades.

Warranty

[To be confirmed]

Typical details

MH-TD-01	General arrangement
MH-TD-03	Wall fixing: timber-framed wall
MH-TD-04	Wall fixing: concrete or block wall
MH-TD-05	Post fixing: existing concrete slab
MH-TD-06	Post on new concrete footing
MH-TD-07	Beam to post connection and drainage
MH-TD-08	Drop-down blind: cassette and guide rail
MH-TD-09	Post plan details and fixing schedule
MH-TD-10	Profile schedule MH228
MH-EN-01	Preliminary design calculations (for CPEng review)
MH-EN-02	Roof blade span table

Profile data from the supplier's MH228 shop drawing (9 Dec 2025) and installation instructions (2024).
This data sheet supports a building consent application. Project-specific drawings, engineering and specification are provided by MOTE Home for each job. Information is correct at the date shown and may change without notice.