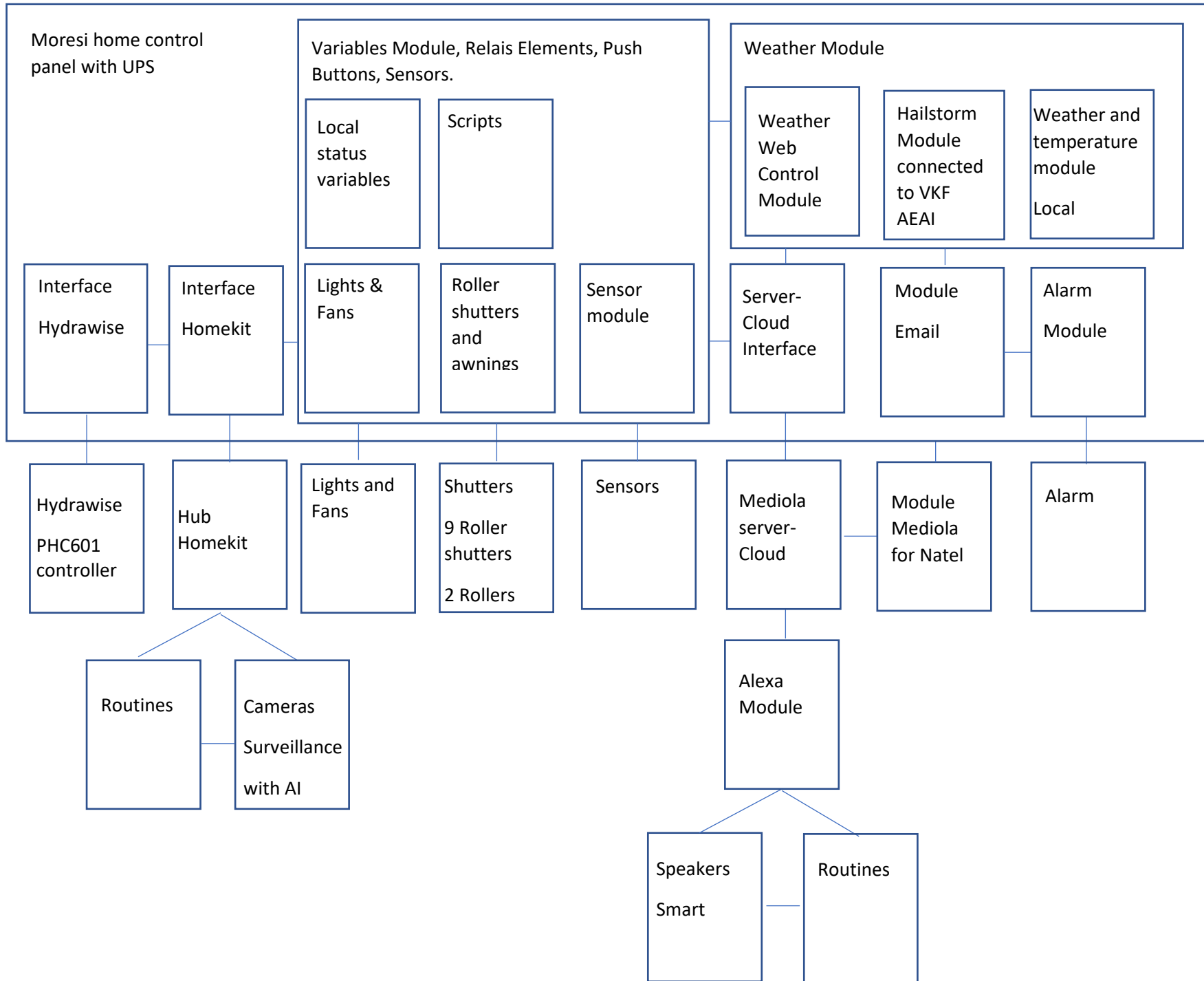


Principle of operation Casa Moresi



1 Dimension:

Wind safety system for slatted shutters

Slat shutters are extremely elegant shutters with the ability to let light filter in at will, but they have a major limitation due mainly to local wind gusts that could damage them irreparably. One must first evaluate according to the manufacturer's specifications the tightness according to SIA 118/342.

Assignment of wind resistance classes to wind speeds.

End elements (in accordance with EN 13659)

Wind class	0	1	2	3	4	5	6
km/h	< 32.5	32.5	38.5	46	60	76	92

Wind speed measured on the product

Recommended wind resistance classes

Wind load zone	Land category		Mounting height			
			6 m	18 m	28 m	50 m
According to SIA 261, Appendix E			6 m	18 m	28 m	50 m
1 Plateau, up to 600 m Valleys, up to 850 m	II	Lake shores	5	5	5	6
	IIa	Great Plains	4	5	5	5
	III	Localities, open field	4	4	5	5
	IV	Large urban areas	3	4	4	5
2 Pre-Alps, up to 1100 m	II	Lake shores	5	6	6	6
	IIa	Large plains	5	5	5	6
	III	Localities, open field	4	5	5	5
	IV	Large urban areas	4	4	5	5
3 Valleys with föhn, up to 850 m	II	Lake shores	6	6	6	–
	IIa	Large plains	5	6	6	6
	III	Localities, open field	5	5	5	6
	IV	Large urban areas	4	5	5	6

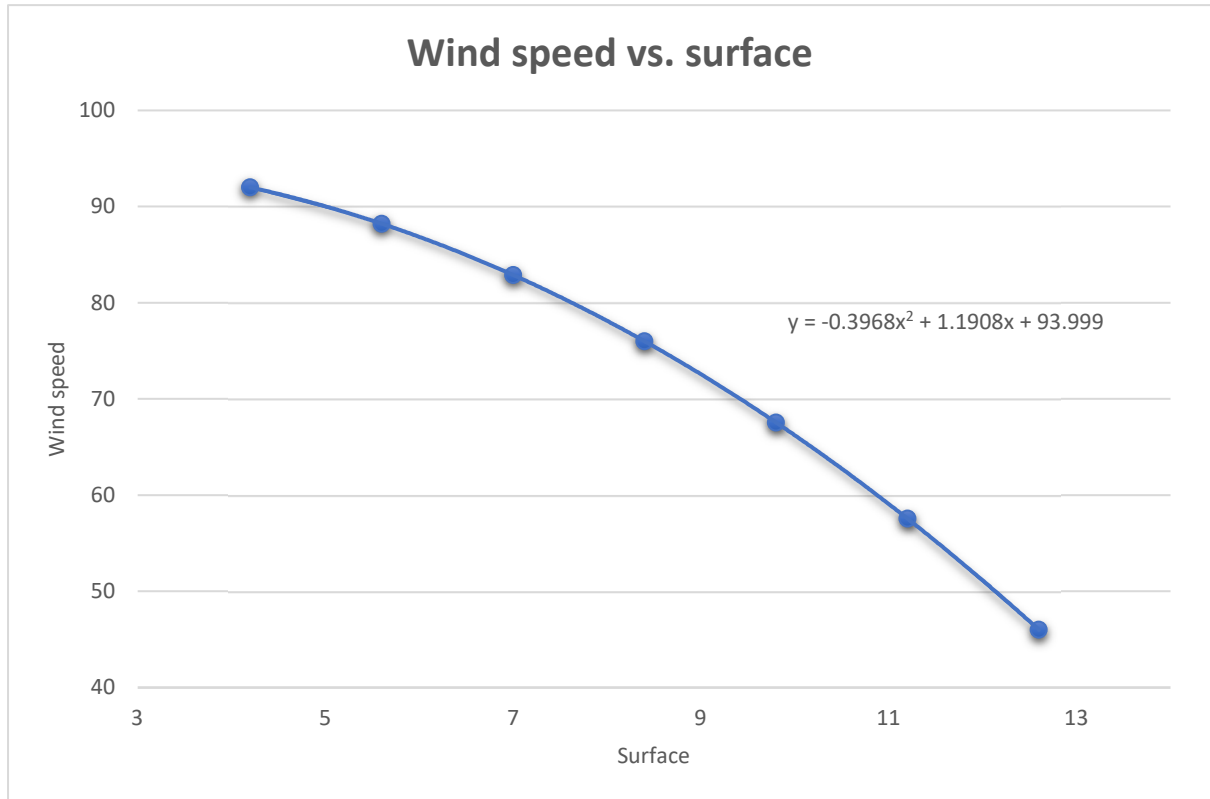
Warnings

- Calculation based on EN 13659, Appendix B, SIA 261
- In corner areas of buildings, wind speeds are high and must be considered separately.
- Buildings with perimeters without corners or at an altitude above 1100 m altitude require separate verification.
- In general, the substructure of the rail fastening must be sized in accordance with the higher wind forces.

Pack slats Roller blinds	Width [m] x a height of 2.8m						
	< 1.5	< 2	< 2.5	< 3	< 3.5	< 4	< 4.5
Exposed surface area m2	4.2	5.6	7	8.4	9.8	11.2	12.6
VR70, Class	6	6	6	5	5	5	3
Extreme km/h	92	88	83	76	68	58	46

Repeated tests during about 1 year give suggestions on the tightness of the shutters. Angles, neighboring buildings, and SOUTH-NORTH-WEST-EAST exposure are key factors in being able to correct the maximum slat capacity. In our case, correction factors have been introduced on the maximum capacity of the slats at parcel vs. wind speed. The North-South-East-West exposure

(holding factor vs. the maximum value assumed by the manufacturer of 75% in the South and 87.5% in the West) and the bordering location at a corner (wind holding reduction factor multiplied x2 near a corner) were introduced into the maximum allowed speed. The maximum allowable speed thus includes all turbulence factors that are not calculated in the manufacturer's technical tables. From there, the maximum allowable area can be traced back to the maximum allowable area as a function of wind speed using the inverse function.



Correzione Tenuta	Fattore Velocità
Sud	75%
Ovest	87,5%
Est	100%
Nord	100%

Angolo
2
1

Copertura
40%

	Larghezza	Altezza	Superficie 100%	Esposizione Classe 100%	Vento massimo sopportato 100%	Fattore correzione S-N-O-E	Angolo	Vento massimo sopportato 100% Fattore correzione	Vento Massimo sopportato con copertura
Salone 1	2,56	2,73	7,0	6	83	88%	1	73	93
Salone 2	2,79	2,73	7,6	5	76	88%	2	57	91
Salone 3	2,3	2,73	6,3	6	83	75%	2	42	89
Pranzo	4,406	1,816	8,0	5	76	100%	1	76	94
Corridoio	4,015	2,7	10,8	4	58	100%	1	58	91
Camera 1	3,534	1,78	6,3	6	83	88%	1	73	93
Camera 2	3,82	1,78	6,8	6	83	100%	1	83	94
Camera 3	3,83	1,78	6,8	6	83	100%	1	83	94
Scale	2,104	2,65	5,6	6	88	100%	1	88	95

The central system has been integrated with an ultrasonic wind speed meter that provides wind speed every 5 min.

2 Dimension:

Wind safety system for pack slats with measuring system and Web-Meteo preventive system

The wind measurement system was very effective, but could not always prevent all damage. Wind gusts are very unpredictable, therefore, a preventive system (Meteo Forecasting) was introduced that can raise the louvers if there is a high probability of major wind gusts in the next hour. The data provided are calculated through two websites:

<https://developer.srgssr.ch/apis/srf-weather>

Package	freemium	micro	small	medium	large	enterprise
Location reference points (max)	1	2	5	20	40	unlimited
Quota	25 requests / 1 day	300 requests / 1 day	500 requests / 1 day	2'500 requests / 1 day	5'000 requests / 1 day	20'000 requests / 1 day
Price (CHF)	Free	45 / month	70 / month	210 / month	480 / month	upon request

and

<https://developer.accuweather.com/>

AccuWeather APIs

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Tweets from @AccuWeather_Dev

AccuWeatherDeveloper
@AccuWeather_Dev · Jul 25

Did you know weather data can help drive up revenue and better forecast your production? Join us on August 17th for our webinar Weatheronomics: How to Drive Business with Weather Data. #webinar #weatherdata #accuweatherforbusiness

Recently Added APIs

- MinuteCast® Forecasts By Latitude, Longitude
/forecasts/v1/minute
- Government Issued Storms by year
/tropical/v1/gov/storms/{yyyy}
- Active government-issued storms by basin ID and government ID
/tropical/v1/gov/storms/active/{basinID}/{govtmentID}

About AccuWeather APIs

Try it Out.
Sign up for an AccuWeather APIs account and get free access to a sampling of our weather API endpoints, including Locations, Current Conditions, and Daily and Hourly Forecasts.

Limited Trial access allows each developer up to 50 calls per day.

Getting Started.
Basic Instructions for signing up, creating an App to get your API Key, and testing our weather APIs.

3 Dimension:

Hail security system

An even more unpredictable factor is hail. When it comes to hailstorms, slat packets are one of the building envelope components most susceptible to damage. Much of the building damage costs caused annually by hailstorms can be attributed to damaged slats. There are activities and limitations for building owners due to the repair or replacement of venetian blinds. The most effective measure to protect venetian blinds from hail damage is to raise them in time before the hailstorm strikes. To this end, the cantonal building insurance companies, together with their umbrella organization (Association of Cantonal Fire Insurance Companies VKF) and their partners SRF Meteo and NetIT-Services, have developed the "Hail Protection - Simply Automatic" system.

The "Hail Protection - Simply Automatic" system includes a hail forecast continuously updated by SRF Meteo based on current weather data. If a possible hailstorm is forecast for an area, a hail warning is issued for this area and made available on the NetIT Services server (link: <https://www.hagelschutz-einfach-automatisch.ch/eigentuemer-verwaltungen/das-system-erklaert/anleitung.html>).

The warning is provided every two minutes, and after a few weeks of testing we have ascertained its effectiveness. Even without large gusts of wind, hailstorms have been encountered and the signal provided has been very effective.

To sign up for the free service:

- (a) Send an e-mail to hagelschutz@vkf.ch and write that you wish to register for the hail protection service without a signal box.
- b) You will then receive the application form, which must be returned. To do this, you will need to enter the MAC address of the mini server.
- (c) After the application you will receive a login for the web portal (<http://meteo.netitservices.com/>). The system can be tested on the web portal by simulating a Rest/Api signal alarm on a defined link).
- (d) At the end you have to do a small acceptance test with an acceptance report.

