Electrical distribution

Shared intake and separate distribution to the two houses. The Noce external stair uses an extra-low-voltage system.

Project data

Item	Project information
Design	Chiappella · Casa del Noce and Casa del Forno
Sheet scope	Electrical power
Design reference	10 kW three-phase · Casa del Noce design requirement
Edition	Public · 24 November 2026
Format	A3 landscape · print at 100%

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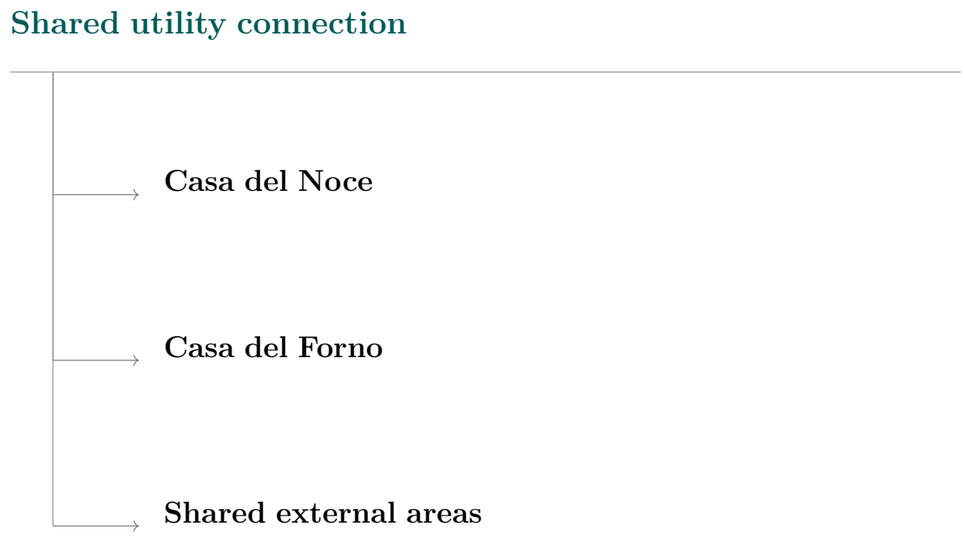
ColivingLiguria S.r.l.
Project presentation

Preliminary design · public edition

Noce and Forno are offered for sale together. Professional reviews, utility connection conditions and municipal permits require documentary evidence.

Electrical power



Cover schematic not to scale · dimensions on internal sheets

One utility contract and three proposed feeders

Site electrical distribution · coordination diagram not to scale

Incoming supply

Shared utility connection

Locate the meter and earthing connection

→

Main distribution

Calculate combined power demand

→

Isolation

Identify source and load

Casa del Noce

Dedicated feeder

10 kW three-phase design requirement

→

Plant room

Proposed main distribution board

→

Fixtures

AC boards, lighting, heat pump and services

Casa del Forno

Dedicated feeder

Survey loads and switchboard

→

Internal distribution

Trace circuits on each floor

→

End devices

18 socket outlets and 11 lights recorded in the BIM

Shared external areas

Identified feeder

Assign loads and service responsibilities

→

External routes

Protection and access to joints

→

Verification

Measurements and tests for each circuit

Available capacity

Noce requires 10 kW three-phase in the design. Calculate the coincident load of both houses and shared services, including heat pump, laundry and priority loads. Confirm the distributor's available capacity.

Casa del Forno

The surveyed building also contains two audiovisual devices. The proposed building has no occurrences in the 20 electrical classes reviewed. Locate boards, supplies and earthing on site.

Service boundaries

Provide isolation for each house and shared outdoor services. Submetering may support management. Fix installation levels and crossings after surveying buried services.

Plant room separation

Noce design footprint · scale 1:25 when printed at 100 percent



Green · dry compartment with space for electrical equipment

Room footprint 5.10 × 2.77 m · model area 14.127 m².

Power and protection

Size the board against actual supply capacity and loads. Keep water pipes clear of electrical equipment working spaces.

Door swing check

The door overlaps the maintenance area by approximately 0.014 m² in the position shown. Adjust the door stop or board location before installation.

Space allowance

The inverter and battery are space allowances. Check ventilation and the replacement route once the product is selected.

AC distribution, 48 V and photovoltaics

Noce design provision · laundry, envelope and outdoor interfaces

Alternating current

Main distribution board

Size protective devices

→

Floor AC distribution board

Outgoing circuits by function

→

Loads

Heat pump, sockets, network and laundry

Stair lighting

Isolated supply

Protection and branches

→

Distribution ≤ 48 V

Local conversion if required

→

Outside lighting

Approach, flight and landing

Photovoltaics

Space allowance for 24 modules

Three geometric strings of eight

→

Dedicated cable drop

Segregation, protective earth and protection

→

Inverter

Size AC interface

Signals and data

Dry-zone network node

Wired network with accessible terminations

→

Separate routes

AC, DC and data

→

Services

Network, control and monitoring

Main feeder

A 13.65 m feeder connects the main board and the first-floor board. It clears the retained timber beams. Verify the crossings and installation space with the design team.

Laundry

The washer and dryer have separate circuits from the main board. Plant auxiliaries and a rack service socket are also proposed. Size conductors and protective devices.

Energy and testing

Check shading, product data, string voltages, storage and island operation. Installed PV capacity and annual yield remain undetermined. Calculate currents, voltage drop and protection from measured routes.

Checks and design status

Requirements for detailed design

Electrical supply

Confirm supply capacity, earthing and coincident demand for both houses. The Noce design requirement alone cannot establish the contracted capacity for the site.

Electrical design

Size conductors and protection and calculate voltage drop. Resolve the overlap between the door and the working area.

Checks before handover

Check isolation, take measurements and test each outgoing circuit. Record the installed PV, storage and conversion equipment specifications.

Reading this edition

The drawings describe the proposed design for both houses, which are offered together. Model dimensions require site verification.

Professional and municipal review

The appointed professionals must review the drawings. Technical signatures, filing references and municipal approval are outstanding.

Project presentation

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