

Residential EV Group Power Sharing Calculator

Allocate a fixed power cap across two or more EVSE or vehicle requests under an explicit sharing policy.
The model does not infer product behavior.

Generated October 10, 2026

<https://www.elecatrrix.com/ev-charging-electrical-infrastructure/residential-ev-group-power-sharing-calculator/>

Inputs

Input	Value	Unit
Shared group power cap	11.52	kW
Allocation policy	Equal share	
EVSE or vehicle requests	Rows: 2	
Row 1 - Port or vehicle label	Vehicle A	
Row 1 - Requested maximum power	9.6	kW
Row 1 - Required energy	20	kWh
Row 1 - Available charging hours	8	h
Row 1 - Priority number	1	rank
Row 2 - Port or vehicle label	Vehicle B	
Row 2 - Requested maximum power	7.2	kW
Row 2 - Required energy	12	kWh
Row 2 - Available charging hours	6	h
Row 2 - Priority number	2	rank

Results

Result	Value	Unit
Active ports	2	ports
Total requested power	16.8	kW
Total allocated power	11.52	kW
Unserved requested power	5.28	kW
Estimated delivered energy	80.64	kWh

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Ports meeting entered energy need	2	ports
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Calculation details

Detail	Value	Unit
Per-port allocation summary	Vehicle A: 5.760 kW; 46.080 kWh; Vehicle B: 5.760 kW; 34.560 kWh	
Policy summary	Equal share: each port receives the lesser of its request and group cap divided by active ports.	
Calculation basis	Requested power is allocated under the selected explicit policy. Delivered energy uses each port allocation multiplied by its entered available hours.	
Group-sharing boundary	Planning allocation only; verify EVSE group controller behavior, firmware, site limits, wiring, protection, service capacity, utility context, and commissioning separately.	

Formulas

$$P_{\text{equal},i} = \min(P_{\text{request},i}, P_{\text{cap}} / N_{\text{active}})$$

$$P_{\text{priority},i} = \min(P_{\text{request},i}, P_{\text{remaining}})$$

$$E_i = P_{\text{allocated},i} \times t_i$$

$$P_{\text{unserved}} = \sum P_{\text{request}} - \sum P_{\text{allocated}}$$

$$\text{Ready by}_i = E_i \text{ ge } E_{\text{required},i}$$

Warnings and limitations

This is an entered-policy allocation review. It does not select EVSE equipment, determine service or circuit capacity, approve load management, or establish a code-compliant installation.