

Energy : 12 kW

3 x 400 V A?

1 + 230V A?

$$P = U \cdot I$$
$$\frac{12 \text{ kW}}{3} = 400 \text{ V} \cdot I \text{ [A]}$$
$$I = 10 \text{ A} \cdot 3 \text{ Phases}$$

$$12 \text{ kW}$$
$$230 \text{ V}$$

$$\frac{12000}{230} \sim 52 \text{ A}$$

A) Cable to Scotland



B)

Export

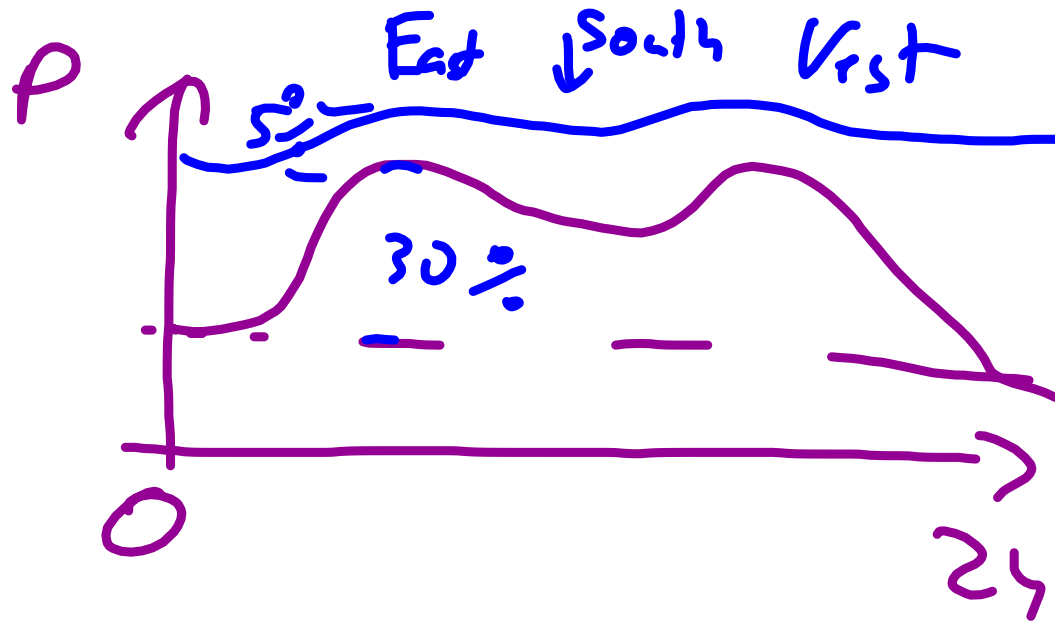
Energy

Company

Society

C) centralized ↔ distributed

13:00 h L2



28,000 kWh / year 60% heating

12,000 kWh / yr "other"

~ 1000 kWh / month

→ ~ 33 kWh / day

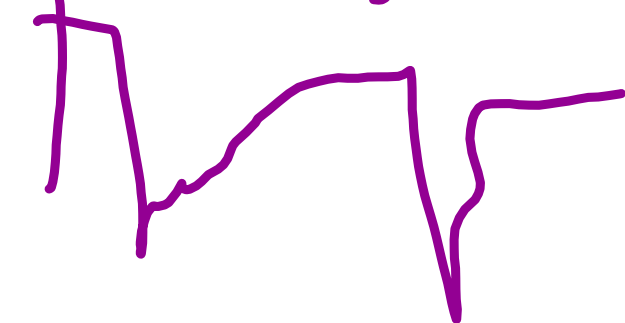
Solar panel & battery

leaf 22 kWh

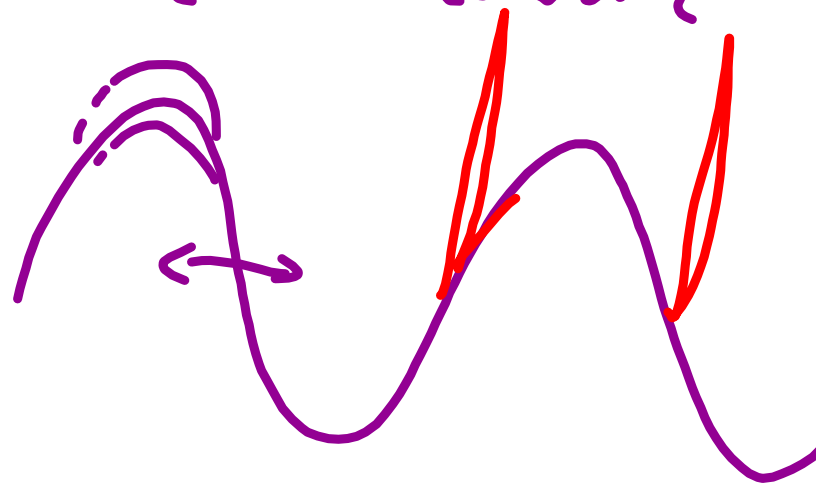
Wij:

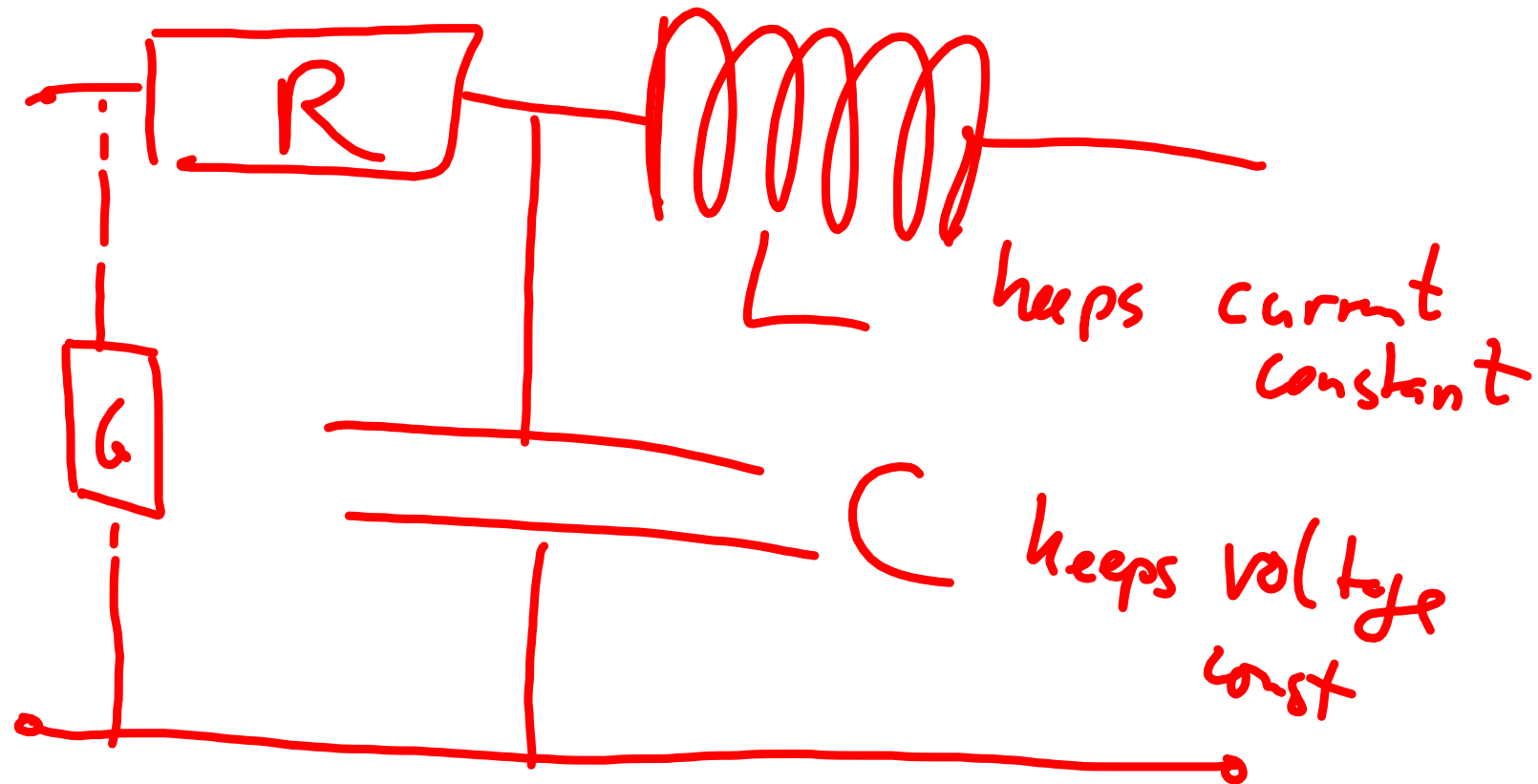
short outage

700 μ s



el network





https://en.wikipedia.org/wiki/Electrical_reactance#Inductive_reactance

cont. 14:22
Josef: m 9083 8066

$$U = 230V$$

$$\text{fuse: } 16A$$

$$3 \text{ Ph } 400V \quad 16A$$

$$3 \cdot 400 \cdot 16$$

$$3 \cdot 6400W \sim 20kW$$

$$U = R \cdot I$$

$$P = U \cdot I$$

$$3.7kW$$



$$230 \cdot 16 \sim 3680W$$

$$3.7kW$$

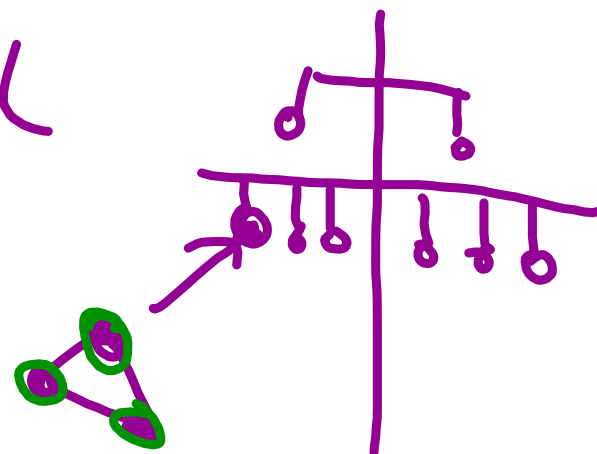
2 x 1.5 mm² cable — 10 A
 2.5 mm² — open 13 A
 — 16 A
 4.0 mm² — 25 A

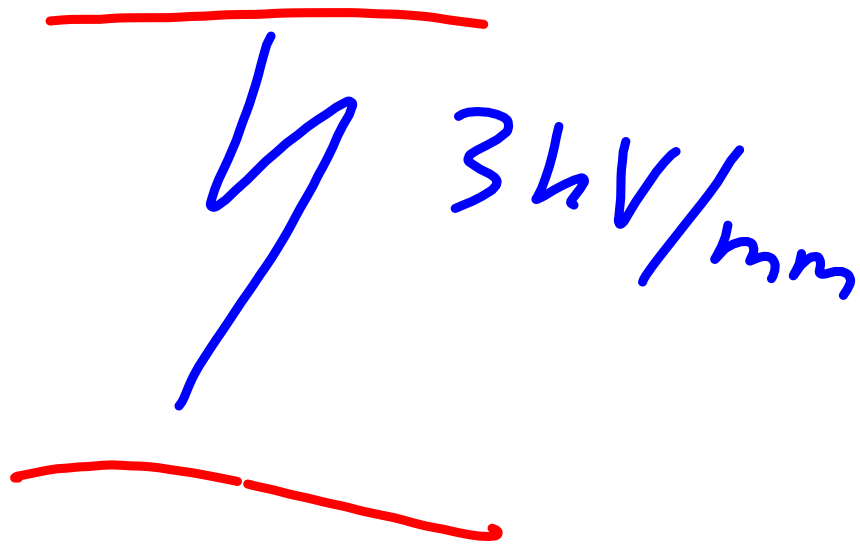
House: Main fuse 3+25 A — 50, 63 A
 3 · 230 V · 50 A ~ 34 kW

daily average ~ 33 kWh

$U = 380\text{V}$ $P = 1000\text{GW}$

$R_t = R_{20} (1 + \alpha (t - 20))$ $I = \frac{10\text{EG}}{380\text{ES}}$
 $T_{\text{max}} = 70^\circ$ $\alpha = \begin{cases} 0.00393 & \text{Cu} \\ 0.00403 & \text{Al} \end{cases}$ $I = 2600\text{A}$





380kV
~ 730mm

