



KRP GROUP, s.r.o.

Českobratrská 1403/2
702 00 Ostrava
Česká republika
www.usporyefektivne.cz

VYPRACOVAL/DRAWN BY

Ing. David Mamula

KONTRLOVAL/CHECKED BY

Ing. Tomáš Gałęziok

VEDOUcí PROJEKTU/PROJECT MANAGER

Ing. Tomáš Gałęziok

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STAVEBNÍK	TERMO Frýdlant n. O. s.r.o., Hamernická 233, 739 11 Frýdlant nad Ostravicí		
PROJEKT/PROJECT	FVE Frýdlant nad Ostravicí Kotelna Instalace fotovoltaického systému o výkonu 93,84 kWp	DATUM/DATE	10/23
		STUPEŇ/PHASE	DSP
		MĚŘÍTKO/SCALE	-
ČÁST/PART	FVE	JEDNOTKY/UNITS	mm
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NÁZEV/TITLE	KONFIGURACE MĚNIČŮ	ARCHIVNÍ ČÍSLO/ARCHIVE NUMBER REV. 23TG108-D-06 01	

*KACO new energy GmbH – A Siemens Company
Werner-von-Siemens-Allee 1
74172 Neckarsulm
Germany*

*Contact
Telephone: 07132-3818-0
E-Mail: info@kaco-newenergy.de*

11/16/2023

FVE Frýdlant nad Ostravicí Kotelna

Address of Installation

Hamernická 233
739 11 Frydlant nad Ostravici
Czechia
(Lat: 49.59009 °N; Lon: 18.36238 °E)



Climatedata Location

Location	Lysahora (Peak), CZE
Latitude	49.55 °N
Longitude	18.45 °E
Irradiation	1070 kWh/m ²
Temperature	3.8 °C

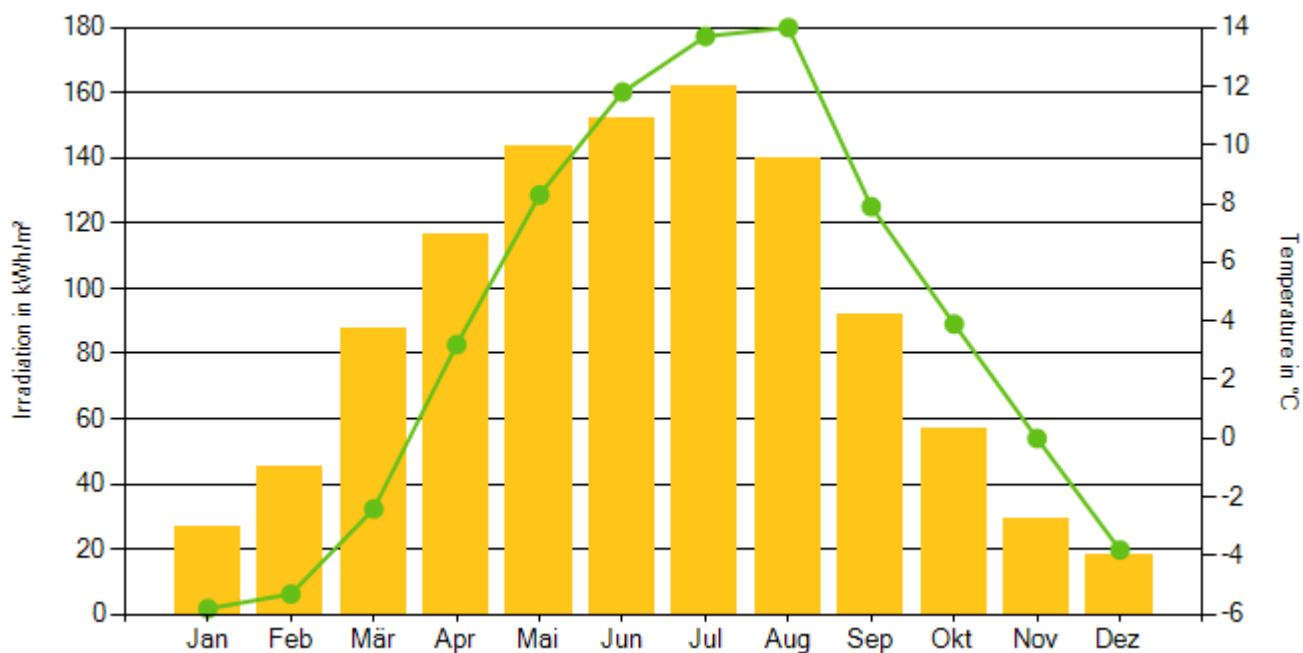


Figure: Meteo chart

Module Areas

No. of Module Areas	2
Total number of modules	204
Total PV Power	93.84 kWp

1. Module Area - Panely východ

Name	Panely východ
No. of Modules	102
PV power of Module Area	46.92 kWp
Inclination	10 °
Orientation	79 °
Mounting type	Roof parallel - good rear ventilation
Manufacturer	Sunpro Power Co., Ltd
PV module type	SP460-120M10
	460 Wp, η : 21.24 %, type: mono

2. Module Area - Panely západ

Name	Panely západ
No. of Modules	102
PV power of Module Area	46.92 kWp
Inclination	10 °
Orientation	259 °
Mounting type	Roof parallel - good rear ventilation
Manufacturer	Sunpro Power Co., Ltd
PV module type	SP460-120M10
	460 Wp, η : 21.24 %, type: mono

Configuration

Inverter	1 x blueplanet 50.0 TL3 XL - INT (KACO new energy)
Configuration	MPP 1: 1 x 20 (Panely východ) 1 x 20 (Panely východ) 1 x 20 (Panely východ) 1 x 21 (Panely východ) 1 x 21 (Panely východ)
Dimensioning Factor	93.8 %
Inverter	1 x blueplanet 50.0 TL3 XL - INT (KACO new energy)
Configuration	MPP 1: 1 x 20 (Panely západ) 1 x 20 (Panely západ) 1 x 20 (Panely západ) 1 x 21 (Panely západ) 1 x 21 (Panely západ)
Dimensioning Factor	93.8 %

Consumption

Load profile	BDEW load profile business (GO)
Annual consumption	276000 kWh

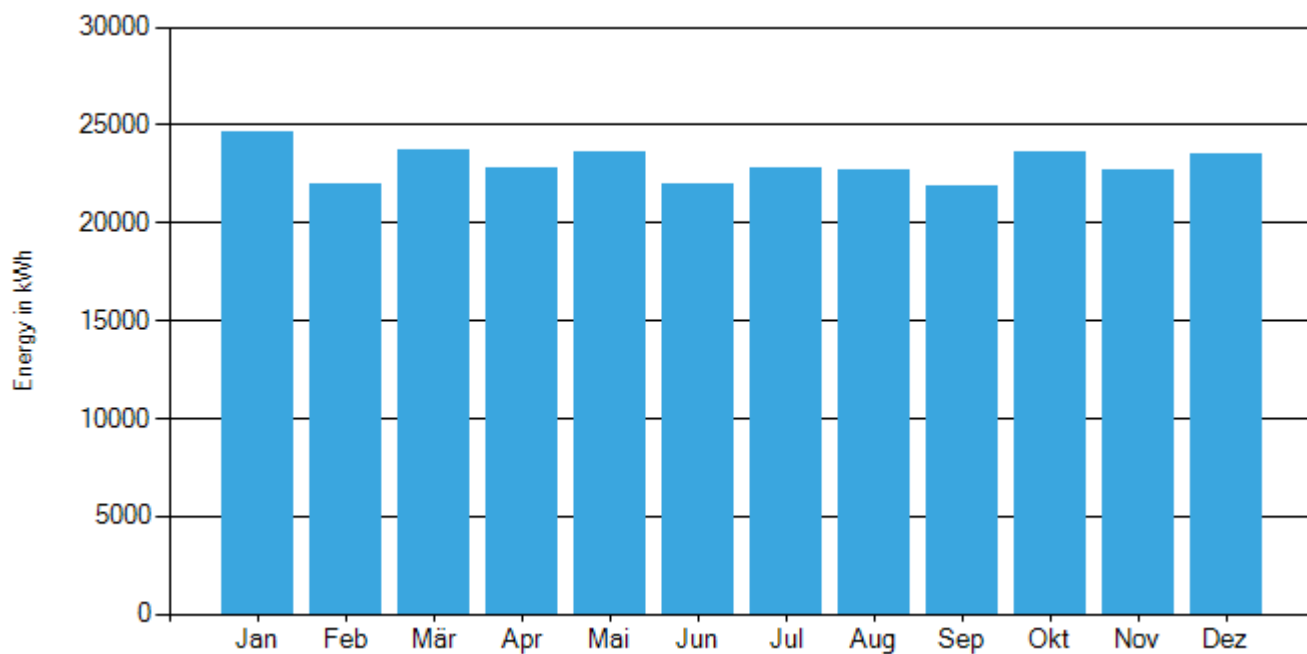


Figure: Consumption chart

Results

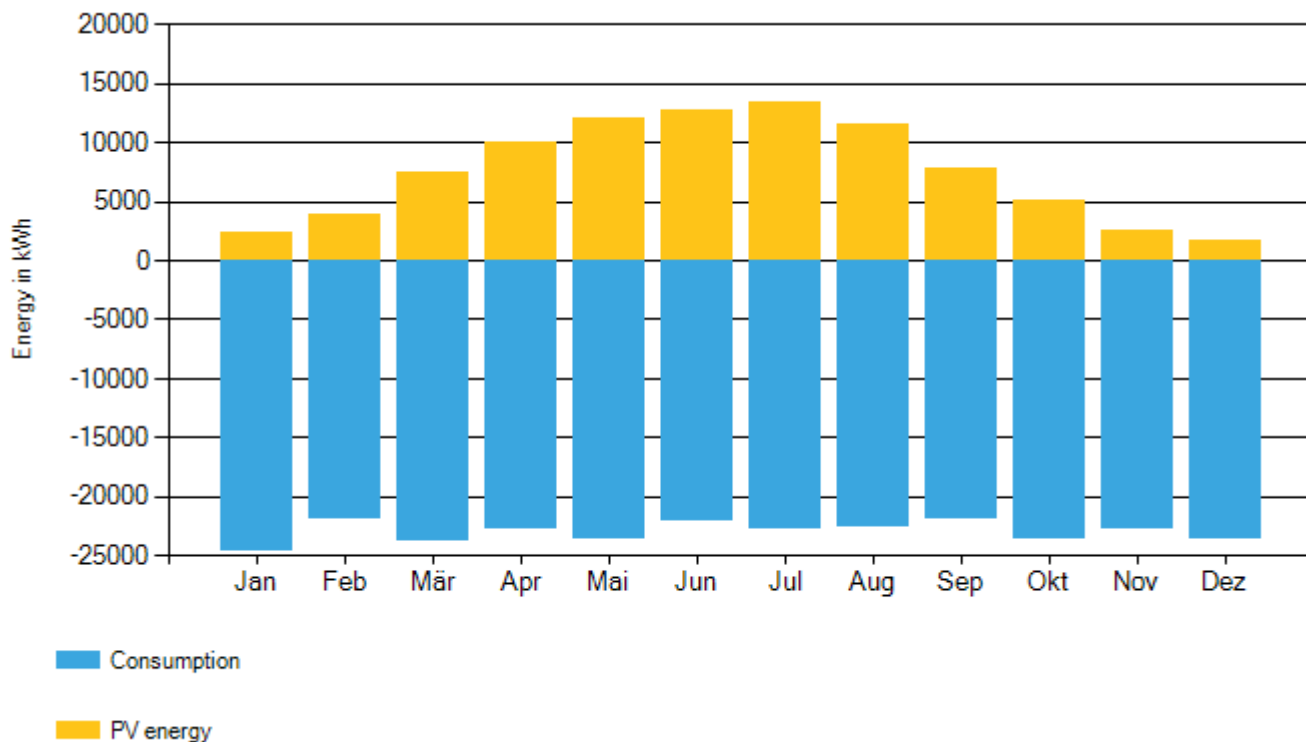


Figure: Monthly PV energy and consumptions chart

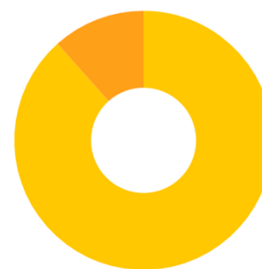
The yield

Annual PV energy	90850 kWh
Spec. Annual Yield	968.13 kWh/kWp
Performance Ratio (PR)	92.28 %
Avoided CO ₂ emissions	48605 kg/year

PV energy

Annual PV energy	90850 kWh
thereof own consumption	80331 kWh
thereof grid feed-in	10519 kWh
Own Consumption Ratio	88.4 %

PV energy 90850 kWh

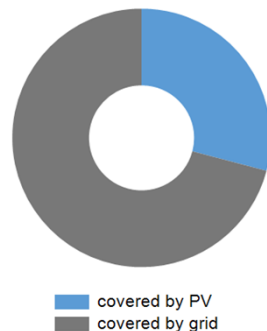


Own consumption
Grid feed-in

Consumption

Consumption	276000 kWh
covered by PV	80331 kWh
covered by grid	195680 kWh
Autarky	29.1 %

Consumption 276000 kWh



Parts List

#	Type	Article no.	Manufacturer	Name	Amount	Unit
1	PV Module		Sunpro Power Co., Ltd	SP460-120M10	204	Piece
2	Inverter		KACO new energy	blueplanet 50.0 TL3 XL - INT	2	Piece

About KACO new energy

To learn more about KACO new energy and its product range of inverters and accessories for photovoltaics and battery storage, visit <https://kaco-newenergy.com/>.

Use of the Online Configurator

The online configurator is a free service provided by KACO new energy GmbH ("KACO"). It is non-binding and makes no claim to completeness or functionality with regard to configuration and equipment. The results do not represent customer-specific solutions, but merely offer assistance with typical tasks. You yourself are responsible for the proper and safe operation of the products within the applicable regulations and must therefore check the function of the respective application example and adapt it individually to your system.

The results are not necessarily subject to the usual tests and quality inspections of a chargeable product, may contain functional and performance deficiencies and may be subject to errors. You are obliged to design the use in such a way that any malfunctions do not lead to damage to property or injury to persons.

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Further notes

KACO reserves the right to make changes at any time without notice. In the event of any discrepancies between the suggestions in the Online Configurator and other KACO publications, such as catalogues, the content of the other documentation shall take precedence.

The results have been calculated using mathematical models created by the company Valentin Software GmbH (PV*SOL algorithms). The actual energy balance of the photovoltaic system may vary depending on weather conditions, the efficiency of the modules and other factors.



Figure: Valentin Software GmbH