

H2Kraft™ Containerized Solution

/ For Hydrogen Production

The integrated power system for green Hydrogen production – built into a standard 20' / 40' ISO container for turnkey deployment.



Options of power conversion technologies for reliable and efficient power system design.



Containerized and customized solutions for compact Hydrogen applications



Global customer service and application support.



Designed according to major global standards IEC / UL / IEEE

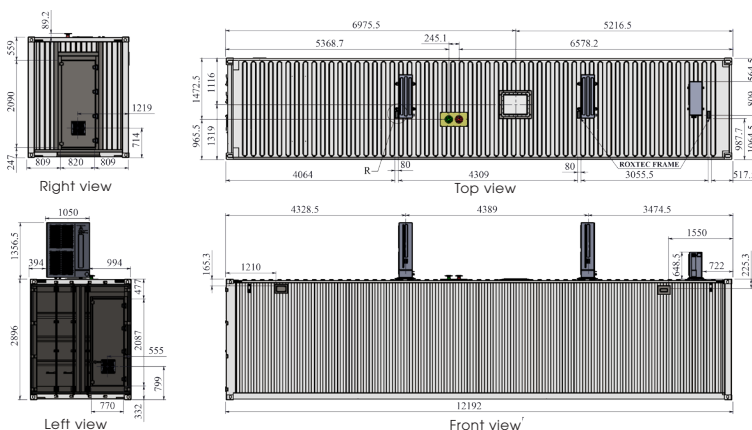
DIMENSIONS

Rectifier dimensions (mm)	Voltage Range 150 - 1000 V Current range (Amps)		
	A	B	C
Up to 1000	1 000	600	2 235
2 500	1 000	600	2 235
5 000	2 000	600	2 235
8 000	4 000	600	2 235
10 000	4 000	600	2 235

Transformer size

Indicative dimensions to be informed at offer stage.

EXTERNAL DIMENSION DIAGRAM



Note: Container dimensions are depending on rectifier size.

H2Krafft™

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We design the power system based on production specifics and grid requirements, considering what's the most economical solution over life-time operation. The below is an example of tailor-made containerized solution based on time proven thyristor technology.

TECHNICAL DATA

General

Output Direct Voltage range: 150 V - 1000 V*

Output Direct Current range: 1500 A - 10 kA**

Input 3-phase AC Voltages: 380, 415, 440, 480 V, 6.6 kV - 33 kV
(Higher voltages on request)

Frequency: 50/60 Hz

Auxiliary supply: ≤ 480 VAC ±10%, 3-phase

System topology: 6 to 48 pulse

Duty ratio: Continuous operation at rated load up to 1000m altitude

Protection: Overcurrent,
Overvoltage,
Thyristor Overtemperature, Thyristor fuse failure,
Transformer Overtemperature

Rectifier

EMC conformity: IEC 61000-6-4 (Emissions),
IEC 61000-6-2 (Immunity), IEEE 519

Design Standards: IEC 600146, IEC 62447-1
UL 2877, UL 62477-1

Protection class: IP 2x

Power factor: > 0.9 lagging at rated output and nominal input voltage

Efficiency: > 0.9 at rated nominal current

Ambient temperature: Std +5 to +40°C
(other temperatures on request)

Cooling: Forced air (AF) / Water Cooled

Humidity: 10-90% RH, non-condensing

Control precision: Std. ±1%

Regulation range: 0-100% (10-100% ±1% control precision)

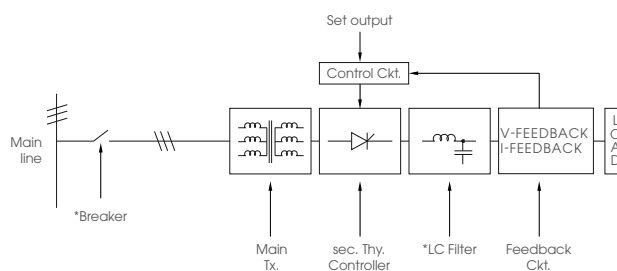
* Other voltages on request

** Other currents on request

*** Other Standards on request

BLOCK SCHEMATIC DIAGRAM

Secondary Controlled Rectifier with Ripple Filter



*Breaker and LC Filter are optional

CONTROL INTERFACE

- Any modern Fieldbus system.
- Standard Profinet / 4 -20 mA analog signal.

OPTION

- Harmonic filter
- Power factor correction
- AC/DC busduct
- Off load tranformer tappings

Transformer

Design types: Dry Type, Oil Immersed
(ONAN / ONAF)

Ambient temperature: Std -25 up to +52°C (other temperatures on request)

Design Standards: IEC 60076, IEC 61378-1, IEEE
C57.12.00, C57.18.10