Robot Control Cabinet @Run MyRobot

Siemens WKC

siemens.com/sinumerik-robotics

Scope of supply
Robot Control Cabinet for CNC Application

SIEMENS
Ingenuity for life

Fits and ideally supports "Easy to sell, easy commission-approach of Run MyRobot"

COMAU Robot

Comau supply the Kinematic and external Cable-Set

SIEMENS WKC

Robot Control Cabinet@ Run MyRobot for the CNC controlled Processing Application

Note: Commissioning and Pre-Commissioning of CNC, PLC and HMI not in the scope of supply by Siemens WKC

Supported robot kinematics

No.	Robot OEM	Robot type	RCC Size
1.	COMAU	Racer 7 1.0	RCC Size 1
2.	COMAU	Racer 7 1.4 Rel. 2.1	RCC Size 1
3.	COMAU	NS 12 1.85	RCC Size 1
4.	COMAU	NS 16 1.65	RCC Size 1
5.	COMAU	NJ 16 3.1	RCC Size 1
6.	COMAU	NJ 40 2.5	RCC Size 1
7.	COMAU	NJ 60 2.2	RCC Size 1
8.	COMAU	NJ 110 3.0	RCC Size 1
9.	COMAU	NJ 130 2.05	RCC Size 1
10.	COMAU	NJ 130 2.6	RCC Size 1
11.	COMAU	NJ 165 3.0	RCC Size 1
12.	COMAU	NJ 220 2.7	RCC Size 1
13.	COMAU	NJ 290 3.0	RCC Size 2
14.	COMAU	NJ 370 2.7	RCC Size 2
15.	COMAU	NJ 370 3.0	RCC Size 2
16.	COMAU	NJ 420 3.0	RCC Size 2
17.	COMAU	NJ 500 2.7	RCC Size 2
18.	COMAU	NJ 650 2.7	RCC Size 2

RCC: **R**obot **C**ontrol **C**abinet

Siemens MC MTS supported robot kinematics are listed in the Siemens SIOS portal, based on Sizer Project Specification Version 1.1.0

→ SIOS entry ID 109757564

Technical Data / Value
Standard Basic Specification V1.1.0

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PARAMETER	Data / Value
Grid Type	TN-C
Rated Voltage	3AC 400V
Nominal Current	13,6A….68A Kinematics type dependent
Frequency	50Hz
Rated Control Voltage	DC 24V (buffered 4s)

Color	Enclosure RAL 7035, Plinth RAL 9005
Dimension (H x W x D) incl. plinth and air condition unit	RCC Size 1: 1.400 x 1088 x 500mm RCC Size 2: 1.400 x 1488 x 500mm

elected data (not complete)

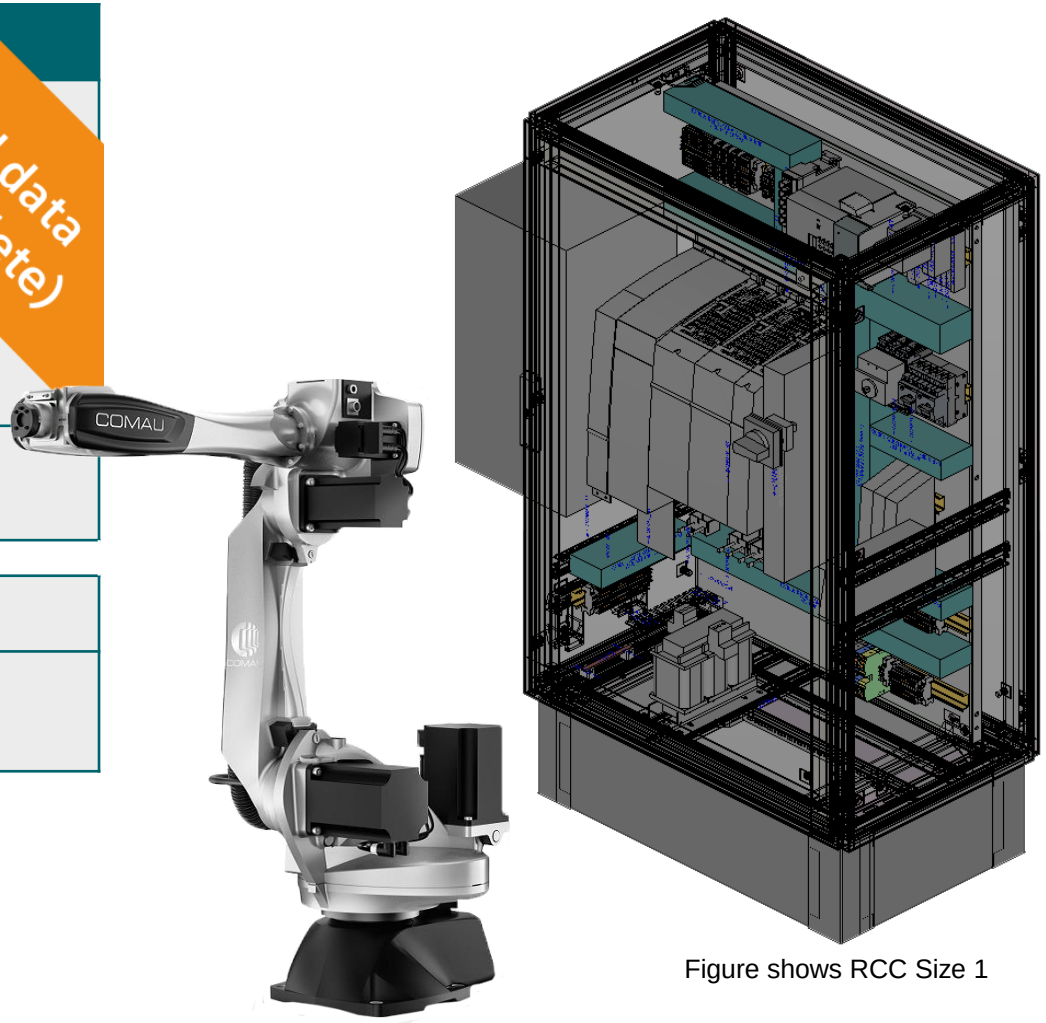

Figure shows RCC Size 1

Technical Data / Value
Standard Basic Specification V1.1.0

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PARAMETER	Data / Value
IP Protection Class enclosure	IP 54 for ambitious conditions
Climatisation	Air conditioning unit for ambitious conditions
Charge of the Neutral Conductor	not required
Ambient Temperature (max.)	35°C
Electromagnetic Compatibility (EMC)	Cat. C4 based on EN 61800-3

elected data (not complete)

The Robot Control Cabinet (RCC) is a component designed to be used and integrated into a machine system. The machine manufacturer/end user is solely responsible for the safety of the machine system, conformity with EU directives, and suitability in the end user‘s application.

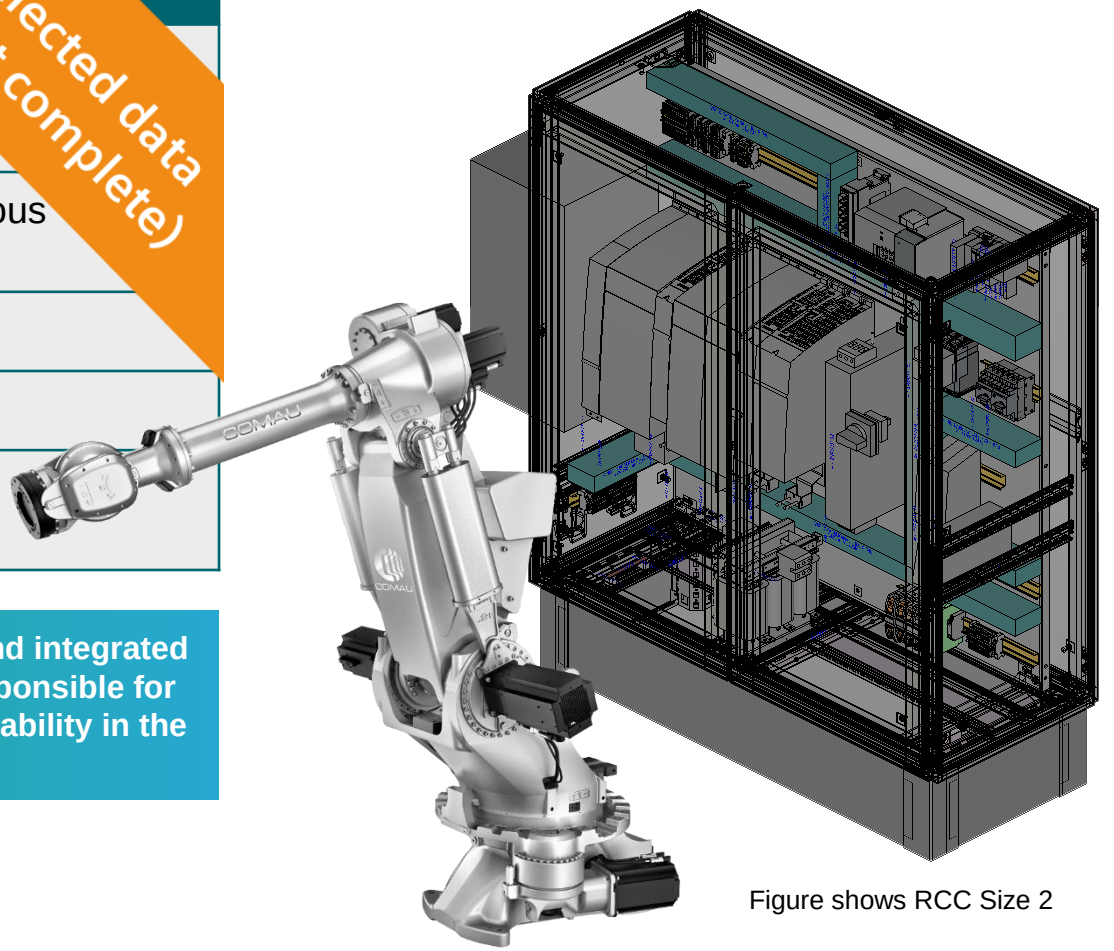
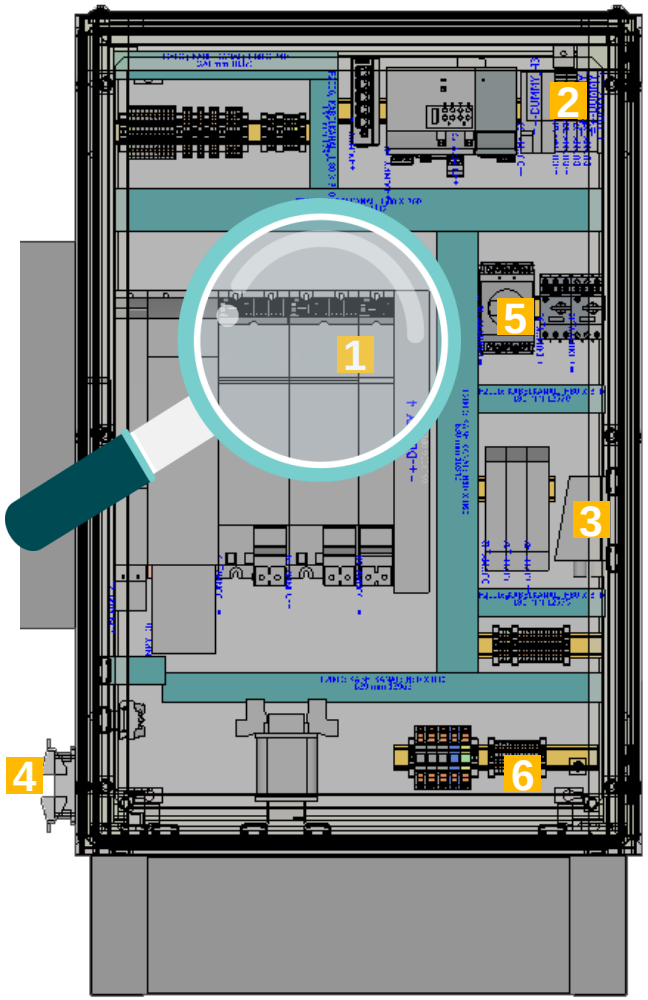


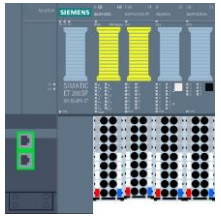
Figure shows RCC Size 2

Standard Basis Specification V1.1.0



1 SINUMERIK / SINAMICS / Software based on
Siemens MC MTS SIZER Specification Version 1.1.0

2



ET 200sp PLC Interface
16xDI, 8xDQ, 8x**F**-DI, 4x**F**-DQ

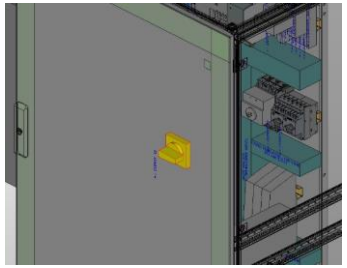
3

Connection-Box PN + HT10 Handheld Terminal

4

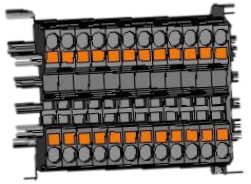
Interface connectors (robot interface)
Power and Encoder (6 Axis per connector)

5



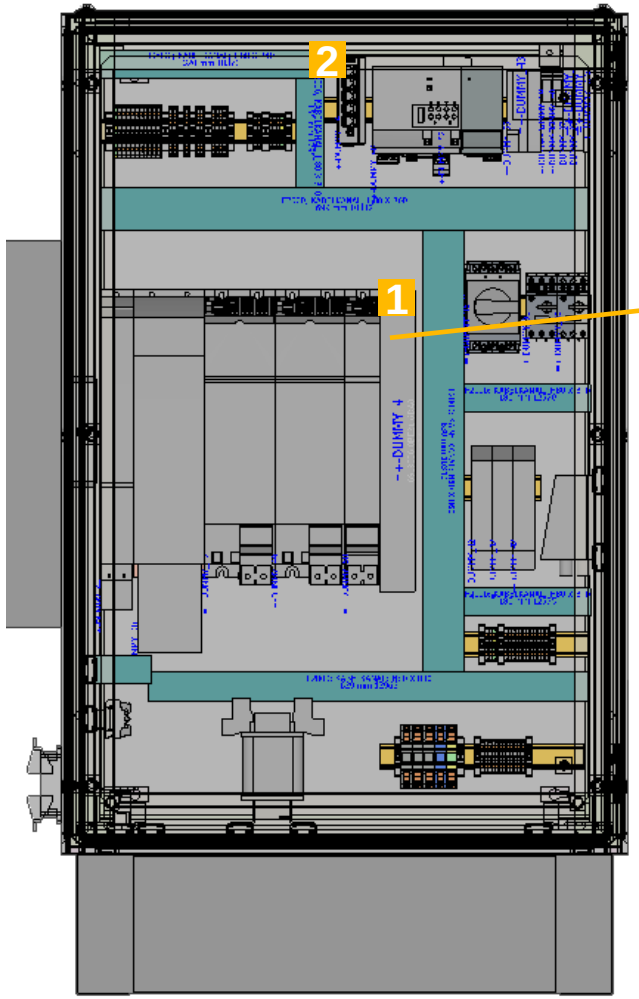
Main disconnect handle (door)

6



Customer Interface terminals
(power supply + PLC signal interface)

Additional Standard Options



1

SINAMICS
Line Filter
(Cat. C3 and C2
based on
EN 61800-3)

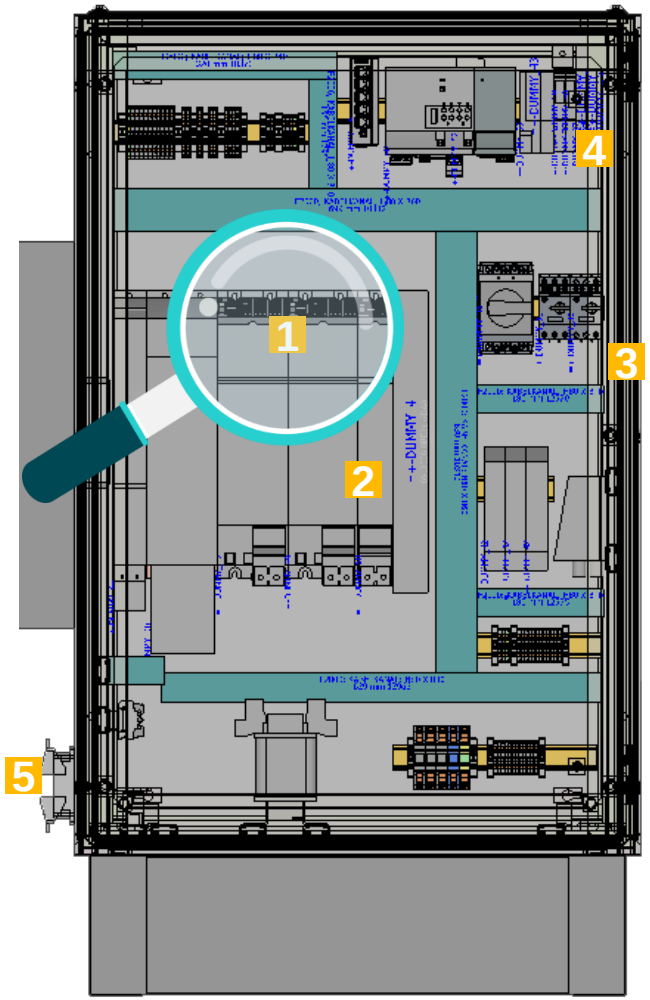
Conformance to special EMC requirements

2

Ethernet Switch

Note:
- **Not part of the Standard Basic Specification V1.1.0**

Customized Functions (based on Application)



1

- Power Failure Concept
- Emergency Retraction

2

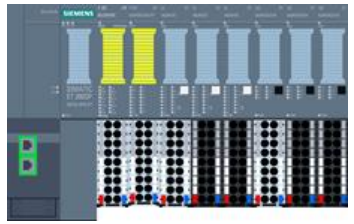
Drive Axis Extension
(e.g. Spindle, Rotary Table)

3

SIMATIC IPC Box PC /
SINUMERIK Edge Computing

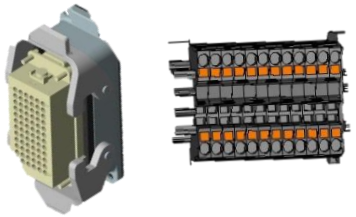
cOP @WKC

4



PLC Module Extension

5

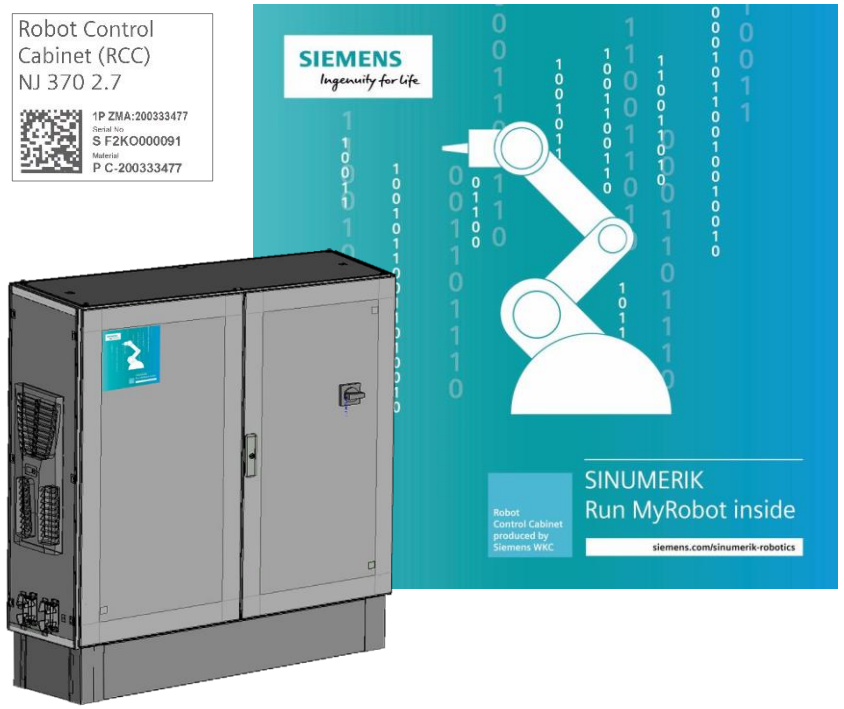


Interface Extension (Connectors, Terminals)

Note:

- **Not part of the Standard Basic Specification V1.1.0**
- **Additional Design Engineering necessary**

Customer Benefits



"Plug and Play"
meets customer expectation,
when integrating robots

Feature / Function	Benefit
• Standard + option design	• Easy to sell, one complete component
• Digital Twin for machinery integration	• Easy and short time installing
• Design support for customized functions	• Easy commission-approach of Run MyRobot
• Optimized enclosure design	• Small footprint
• Robust cooling and EMC concept	• Eplan dokumentation for further digital integration
• International certification	• Worldwide availability

References

Customer projects

- Felsomat, M-Robot, DLR, ELHA, RWTH Aachen, VLM Robotics, div. Siemens CT & MC Business Units)

Equipping of a demonstration cell

- RCC für COMAU at Köln incl. cOP@ WKC

Development and construction of a functional trade fair model

- Digital Enterprise at HMI 2019 and SPS 2019 Nürnberg

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Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

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