ROBOTICS

Product specification

OmniCore A line

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Product specification

OmniCore A250XT
OmniCore A400XT

OmniCore

Document ID: 3HAC091291-001

Revision: C

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Original instructions.

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Overview of this specification

About this product specification

This product specification describes the properties of the OmniCore A line cabinets in terms of:

- Technical data and dimension
- The fulfilment of standards
- Variants and options

Usage

Product specifications are used to find data and performance about the product, for example to decide which product to buy. How to handle the product is described in the product manual.

The specification is intended for:

- Product managers and product personnel
- Sales and marketing personnel
- Order and customer service personnel
- Integrators and customers

References

Tip

All documents can be found via myABB Business Portal, *www.abb.com/myABB*.

Document name	Document ID
Product manual - OmniCore A250XT	*3HAC090253-001*
Product manual - OmniCore A400XT	*3HAC090255-001*
User manual - FlexPendant	*3HAC093167-001*

Revisions

Revision	Description
A	First edition.
B	Published in release 24D with RobotWare 7.17. • Minor corrections.
C	Published in release 25A with RobotWare 7.18. • Option 3012-6 Cylinder with key added.

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1 A line application cabinets

General

OmniCore A line is part of the OmniCore controller family, offering additional cabinet space for various applications.

The cabinets offer the same operating conditions and protection classes as their corresponding controller size.

Application equipment

The cabinets are prepared for DIN rails and terminal rails. The number of possible rails depends on the size of the cabinet.

The fixed installation panel on the cabinet can be delivered with cable glands, to make connections easier.

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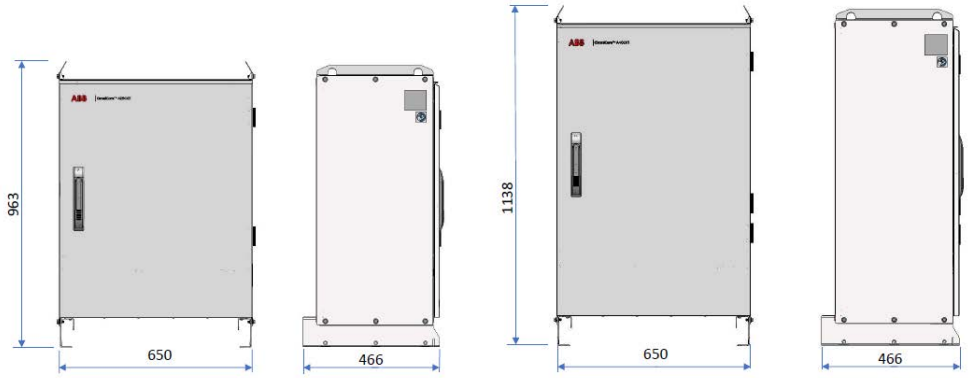
1.1 Technical data

Dimensions and weight



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	A250XT	A400XT
Width	650 mm	650 mm
Depth	466 mm	466 mm
Height	963 mm	1.138 mm
Weight	33 kg	38 kg

Transportation and storage conditions

Parameter	Value
Minimum ambient temperature	-40°C (-40°F)
Maximum ambient temperature	+55°C (+131°F)
Maximum ambient temperature (less than 24 hrs)	+70°C (+158°F)
Shock and Vibration	In accordance with ETSI EN 300 019-2-2 / Environmental class 2.3 (No severity reduction for horizontal axes)

After storage, the operating conditions inside the controller must be met for at least 6 hours before switching on the controller (see *Operating conditions on page 10*).

The robot controller shall be stored according to its IP classification.

Operating conditions

Parameter	Value
Minimum ambient temperature	+5°C (+41°F)
Maximum ambient temperature	+45°C (+113°F)
Maximum ambient altitude	2,000 m
Shock and Vibration	In accordance with ETSI EN 300 019-2-3 / Environmental class 3.5 (3M5) (Random vibration)

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Note

The humidity conditions shall apply with the environmental conditions EN 60721-3-3, climatic class 3K3. For temperatures 0-30 °C, the relative humidity must not exceed 85%. For temperatures exceeding 30 °C, the absolute humidity must not exceed 25g/m^3.

Protection classes

Cabinet	Protection class
A250XT	IP54
A400XT	IP54

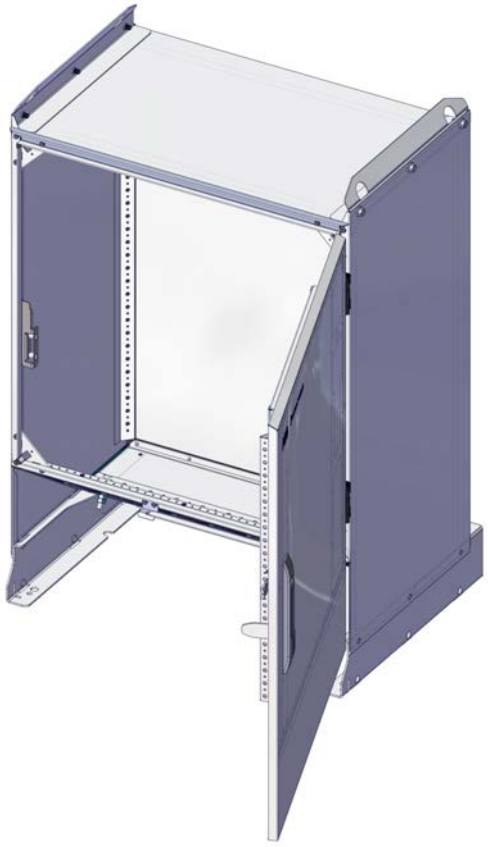
The cabinet must be closed and sealed when no internal access is required.

If the cabinet is not properly closed and sealed, it does not comply with the protection class and may affect the following:

- Units inside the cabinet are exposed to dust or moisture. Especially important in cases with high heat and humidity, or much pollution.

1.2 Cabinet design

A250XT



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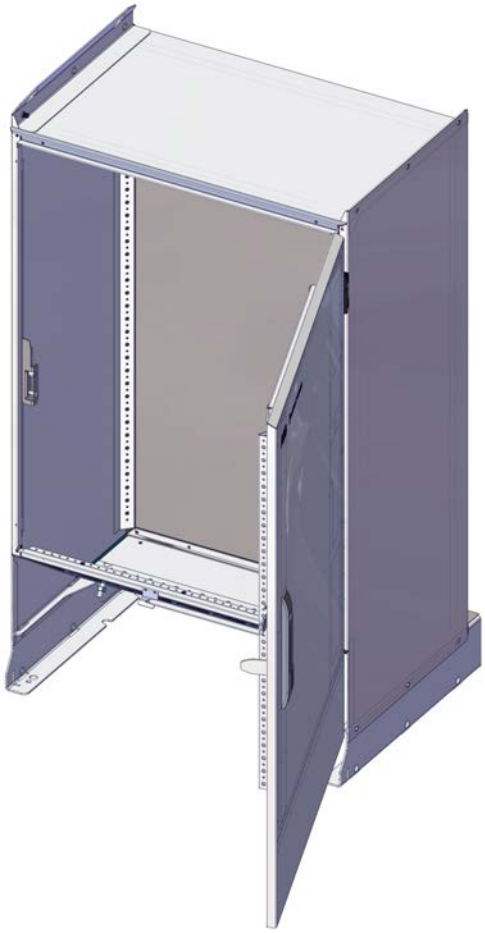
A400XT



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2 Specification of controller & RobotWare options

General

The available options for the cabinets are described in this section.

For details about controller options, see the product specification for the respective controller.

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2.1 Controller

2.1.1 Application cabinet variant

Available variants

Option	Name	Volume for equipment (l)	Max. DIN rails	Max. terminal rails
[3099-310]	OmniCore A250XT	165	9	2
[3099-410]	OmniCore A400XT	205	12	3

2.1.2 Wheels

2.1.2.1 Wheels [3011-1]

General

With the option *Wheels* the robot controller will be delivered with a set of wheels.

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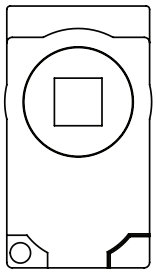
Note

The inner dimensions between the cabinet feet is slightly smaller with the wheel option.

2.1.3 Door lock

Square 6 mm [3012-1]

The option *Square 6 mm* [3012-1] is the default lock variant for OmniCore.



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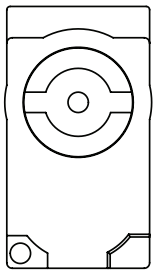
Double bit 3 [3012-2]

The following lock insert is used for the option *Double bit 3* [3012-2]:



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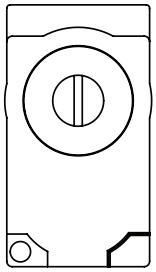
Slot 1, 2 x 3 [3012-3]

The following lock insert is used for the option *Slot 1, 2 x 3* [3012-3]:



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Triangular 6,5 CNOMO [3012-4]

The following lock insert is used for the option *Triangular 6,5 CNOMO* [3012-4]:

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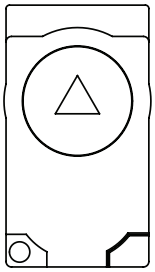

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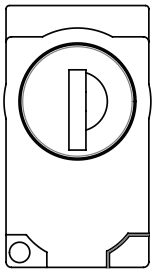
Cylinder with key [3012-6]

The following lock insert is used for the option *Cylinder with key* [3012-6]:



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2.2 Ethernet & signal interfaces

2.2.1 Cable grommet [3050-1]

General

The option *Cable grommet* provides for connections of Ethernet-based communication links to external ABB selected devices such as cameras, conveyor tracker, etc.

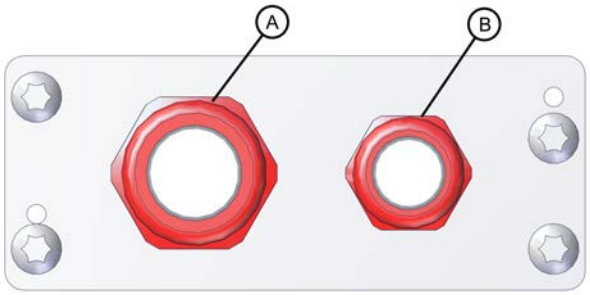
The technical solutions in this module vary with the number of Ethernet ports that should be available for communication, IP class, and requirements on the Ethernet connector itself (RJ45 or M12).

The option *Cable grommet* provides extended capability for connectivity.

2.2.2 2xCable gland [3050-2]

General

The option *2xCable gland* is used for connection of external process equipment.



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The glands allow for cables of the following dimensions:

Cable gland	Cable diameter (mm)
A	4.5 mm - 6.0 mm
B	11.0 mm - 14.5 mm

The interface is located in the fixed installation panel.

2.3 Application Arc welding

2.3.1 BullsEye stand alone SW

2.3.1.1 BullsEye SW [3424-1]

General

The BullsEye SW is a licenced standalone product, the *BullsEye for OmniCore Add-In*. This Add-In can be downloaded from the RobotStudio RobotWare Add-ins gallery. The Add-In works together with RobotWare 7.18 or later.

2.4 Warranty

Warranty

For the selected period of time, ABB will provide spare parts and labor to repair or replace the non-conforming portion of the equipment without additional charges. During that period, it is required to have a yearly *Preventative Maintenance* according to ABB manuals to be performed by ABB. If due to customer restrains no data can be analyzed with ABB Connected Services for robots with OmniCore controllers, and ABB has to travel to site, travel expenses are not covered. The *Extended Warranty* period always starts on the day of warranty expiration. Warranty Conditions apply as defined in the *Terms & Conditions*.

Note

This description above is not applicable for option *Stock warranty* [438-8]

Option	Type	Description
438-1	Standard warranty	Standard warranty is 12 months from *Customer Delivery Date* or latest 18 months after *Factory Shipment Date*, whichever occurs first. Warranty terms and conditions apply.
438-2	Standard warranty + 12 months	Standard warranty extended with 12 months from end date of the standard warranty. Warranty terms and conditions apply. Contact Customer Service in case of other requirements.
438-4	Standard warranty + 18 months	Standard warranty extended with 18 months from end date of the standard warranty. Warranty terms and conditions apply. Contact Customer Service in case of other requirements.
438-5	Standard warranty + 24 months	Standard warranty extended with 24 months from end date of the standard warranty. Warranty terms and conditions apply. Contact Customer Service in case of other requirements.
438-6	Standard warranty + 6 months	Standard warranty extended with 6 months from end date of the standard warranty. Warranty terms and conditions apply.
438-7	Standard warranty + 30 months	Standard warranty extended with 30 months from end date of the standard warranty. Warranty terms and conditions apply.
438-8	Stock warranty	Maximum 6 months postponed start of standard warranty, starting from factory shipment date. Note that no claims will be accepted for warranties that occurred before the end of stock warranty. Standard warranty commences automatically after 6 months from *Factory Shipment Date* or from activation date of standard warranty in WebConfig. **Note** Special conditions are applicable, see *Robotics Warranty Directives*.

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