

ROBOTICS

# Product manual

## IRC5



## 2 Installation and commissioning

### 2.6.2 Configuration of the drive system

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##### General

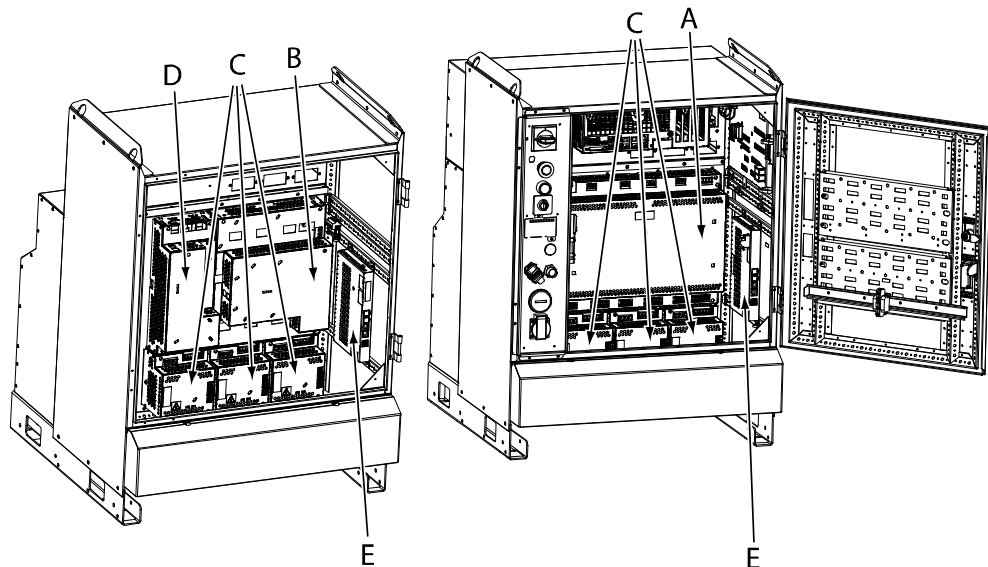
The IRC5 Controller contains one Main Drive Unit and up to three Additional Drive Units, and in some cases an Additional Rectifier Unit. The allowed combinations of these, depending on the robot type, is specified below.

The robot system may also be equipped with up to three additional drive modules, which are described in section [Installation of additional Drive Module on page 189](#).

The drive unit configuration is detailed in *Application manual - Additional axes and standalone controller*, see [References on page 9](#).

##### Location

The drive system is located in the Single Cabinet Controller as shown below.



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A	Main Drive Unit MDU-790A (for large robots)
B	Main Drive Unit MDU-430A (for small robots)
C	Additional Drive Units (for additional axes)
D	Additional Rectifier Unit (only used for additional axes in combination with small robots)

##### DC bus cables

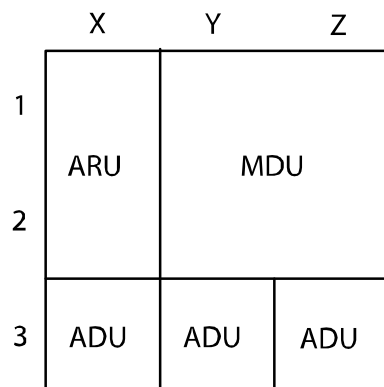
Between the units are fitted DC bus cables, which are specified below:

Description	Art. no.	Note
DC bus cable	3HAC036612-001	For small robots up to IRB 1600-1660
	3HAC036612-002	Between drive unit and first additional drive unit
	3HAC036612-003	Between drive unit and second additional drive unit
DC bus cable	3HAC089023-001	Between drive unit and third additional drive unit
		For medium and large robots
DC bus cable	3HAC089023-001	Between drive unit and additional drive units

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#### Small robots (up to IRB 1600-1660)

The following illustration shows the drive units. The table specifies which units may be fitted in which positions.

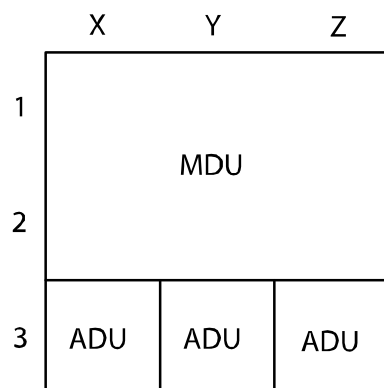


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Pos.	Identification	Description	Art. no.	Note
Y1, Y2, Z1, Z2	DSQC 406	Main Drive Unit MDU-430A	3HAC035301-001	
X1, X2	DSQC 417	Additional Rectifier Unit ARU-430A	3HAC035381-001	Required if any Additional Drive Unit is used.
X3	DSQC 664	Additional Drive Unit ADU-790A	3HAC030923-001	For first addition- al axis
Y3	DSQC 664	Additional Drive Unit ADU-790A	3HAC030923-001	For second addi- tional axis
Z3	DSQC 664	Additional Drive Unit ADU-790A	3HAC030923-001	For third addition- al axis

#### Medium and large robots

The following illustration shows the drive units. The table specifies which units may be fitted in which positions.



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### 2.6.2 Configuration of the drive system

*Continued*

Pos.	Identification	Description	Art. no.	Note
X1, X2, Y1, Y2, Z1, Z2	DSQC 663	Main Drive Unit MDU-790A	3HAC029818-001	
X3	DSQC 664	Additional drive unit ADU-790A	3HAC030923-001	For first additional axis
Y3	DSQC 664	Additional drive unit ADU-790A	3HAC030923-001	For second additional axis
Z3	DSQC 664	Additional drive unit ADU-790A	3HAC030923-001	For third additional axis

\* IRB 8700 uses two ADU, in addition to the MDU, for the robot. Therefore, only one ADU can be used for an additional axis.