

MELFA CR800-R Compatible Robot Controller Instruction Manual



MELFA CR800-R Compatible Robot Controller



- CR800-R
- CR800-Q
- CR800-D

MELSEC iQ-R/Q compatible robot controller

Uses a multi-CPU configuration that dramatically improves its interaction with FA equipment and also offers highly precise control and fast yet simple information management.

Standalone type robot controller

Can be constructed as the control nucleus for robot controllers.



CR800-R



CR800-Q



CR800-D

Specifications

Robot CPU			R16RTCPU		Built-in
			Q172DSRCPU		
Number of axes controlled			Maximum 6 axes+ additional 8 axes available		
Robot language			MELFA-BASIC V, VI		
Position teaching method			Teaching method, MDI method		
Memory capacity	Number of teaching points	points	39000	I	26000 II 39000
	Number of steps	step	78000		78000
			52000		
	Number of programs	unit	512		

	General-purpose I/O	points	Input/Output (8192 input points/8192 output points with the multiple CPU common device)	I	Input/Output (Up to 256/256 when options are used)
	Dedicated I/O	points	Assigned to multiple CPU common device	I	Assigned to general-purpose I/O
	Gripper open/close	points	8 input 18 output		
External input output	Emergency stop input	points	1 (redundant)		
	Door switch input	points	1 (redundant)		
	Enabling device input	points	1 (redundant)		
	Emergency stop output	points	1 (redundant)		
	Mode output	points	1 (redundant)		
	Robot error output	points	1 (redundant)		
	Synchronization	points	1 (redundant)		
		Encoder input	channels	2 Q173DPX (optional)	
	RS-422	ports	1 (dedicated TIB)		
	Ethernet	ports	1 (dedicated TIB) 1 (for customer) 10BASE-T/100BASE-TX/1000BASE-T Correspondence with CC-Link IE Field Basic (Ver.A1d or later)		
Interface	USB	ports	1 (USB port of programmable controller CPU unit)		1 (Ver. 2.0 device functions only, mini B terminal)
	Additional-axis function	channels	1 (SSCNET 111/H)		
	Extension slot	slots	1 (Available only for function expansion option card)		2
	RIC communication interface	channels		I	2 (daisy chain)
	Remote I/O	channels	– 1 (Ver.2)		
	Memory extension slot	slots		II	1
	Ambient temperature	°C	0 to 40 (controller) 0 to 55 (robot CPU)		0 to 40
	Relative humidity	%RH	45 to 85		
	Input voltage range	V	RV-2FR/4FR/7FR, RH-3FRH/3FRHR/6FRH/12FRH/20FRH: Single-phase AC 200V to 230V RV-13FR/20FR/7FRLL, RH-1FRHR: Three-phase AC 200V to 230V or Single-phase AC 230V		

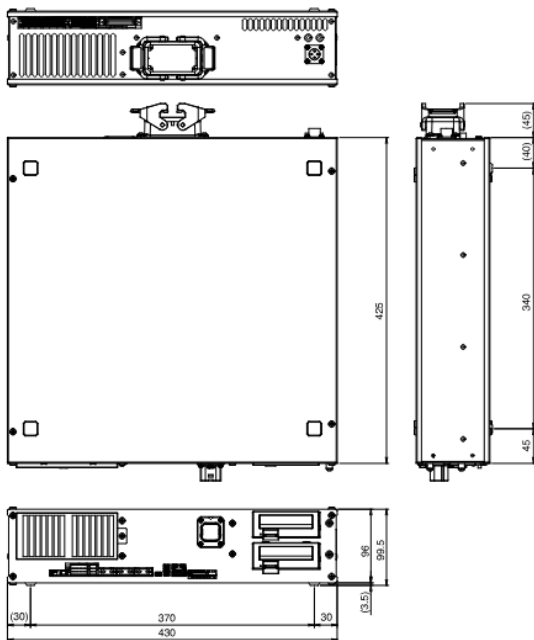
			RV-2FR, RH-3FRH: 0.5
Power supply			RH-3FRHR, RV-4FR, RH-6FRH: 1.0 RH-12FRH/20FRH: 1.5
	Power capacity *3	KVA	
			RV-7FR (except RV-7FRLL): 2.0
			RV-7FRLL, RV-13FR, RV-20FR: 3.0
External dimensions (including legs)	mm		430(W) x 425(D) x 99.5(H)
Mass	kg		Approx. 12.5
Structure [protective specification]			Self-contained floor type/open structure (Vertical and horizontal position can be placed) [IP20]
Grounding *4	g		100 or less (class D grounding)

1. For installing option interface.
2. The rate of power-supply voltage fluctuation is within 10%.
3. The power capacity indicates the rating for normal operation. Take note that the power capacity does not include the inrush current when the power is turned on.
The power capacity is only a rough guide and whether or not operation can be guaranteed depends on the input power-supply voltage.
4. Grounding works are the customer's responsibility.
5. Recommended USB cable (USB A-to-USB mini B): MR-J3USBCBL3M (Mitsubishi Electric), GT09-C30USB-5P (Mitsubishi Electric System & Service Co., Ltd)
6. RV-2FR series has 4 inputs and 4 outputs.
7. Mode selection switch provided by the customer.

Controller

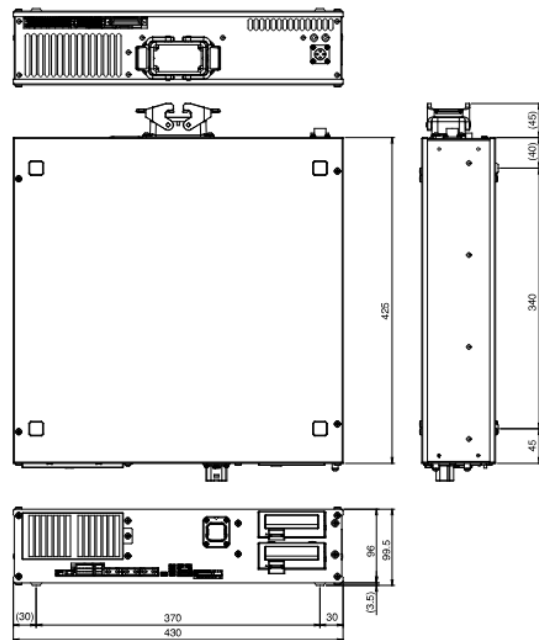
CR800-R/CR800-Q

▶ External Dimensions



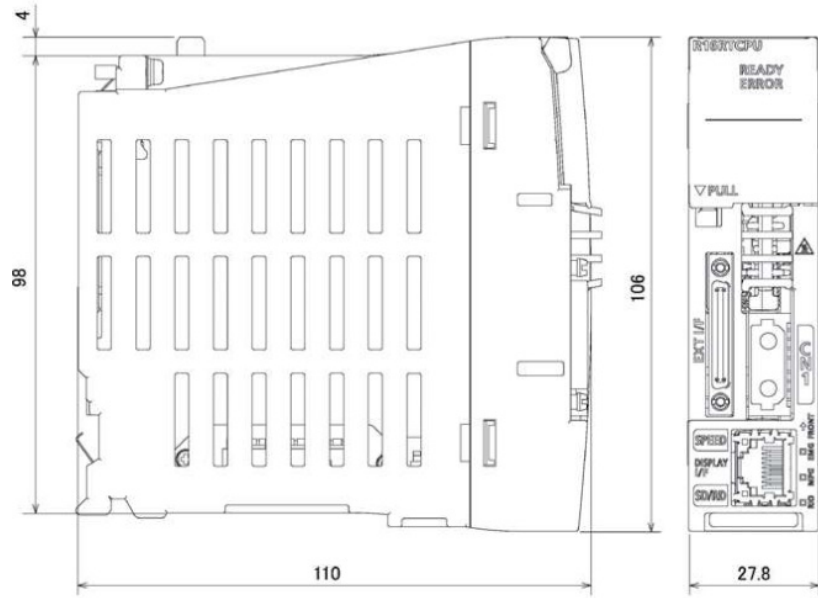
CR800-D

▶ External Dimensions

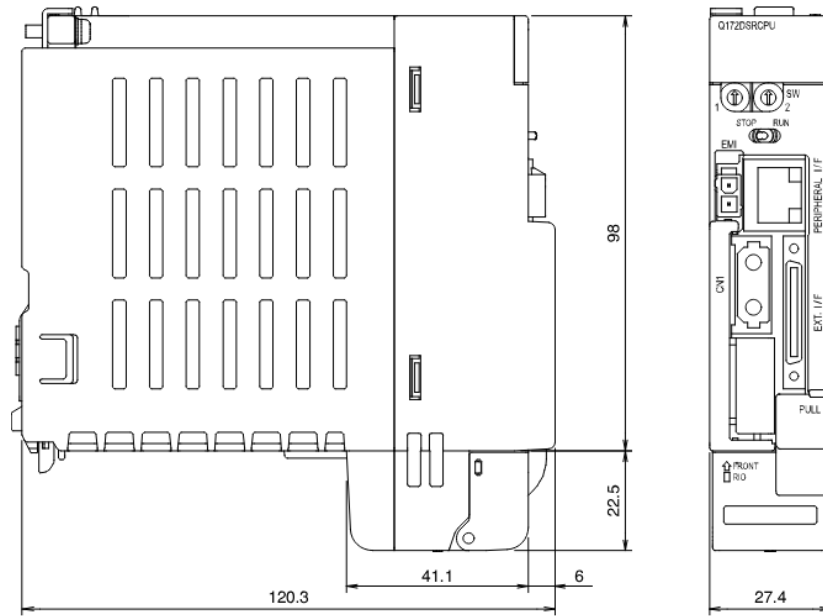


R16RTCPU

R16RTCPU



Q172DSRCPU



Multiple CPU environment

<CR800-R>

Unit	Item
	R35B 5-slot
	R38B a-slot
Base	R312B 12-slot
	R61P
	R62P
Power supply	R63P
	R64P
	ROOCPU
	R01CPU
	R02CPU
	R04CPU
PLC CPU	R08CPU
	R16CPU
	R32CPU
	R120CPU
	R08SFCPU-SET
	R16SFCPU-SET
Safety	R32SFCPU-SET
CPU	R120SFCPU-SET

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Unit	Item
	High-speed standard base between multiple CPU
	0350B 5-slot
	0380B 8-slot
	03120B 12-slot
Base	
	061P
	062P
Power supply	063P
	064PN
	Universal Model
	003UD(EN)CPU
	004UD(EN)HCPU
	006UD(EN)HCPU
	010UD(E)HCPU
PLC CPU	013UD(EN)HCPU
	020UD(E)HCPU
	026UD(EN)HCPU
	01 00UD(E)HCPU

MELSEC iQ-R/Q compatible robot controller

CR860-R/Q: Uses a multi-CPU configuration that dramatically improves its interaction with FA equipment and also offers highly precise control and fast yet simple information management.

CR860-D: Can be constructed as the control nucleus for robot controllers.



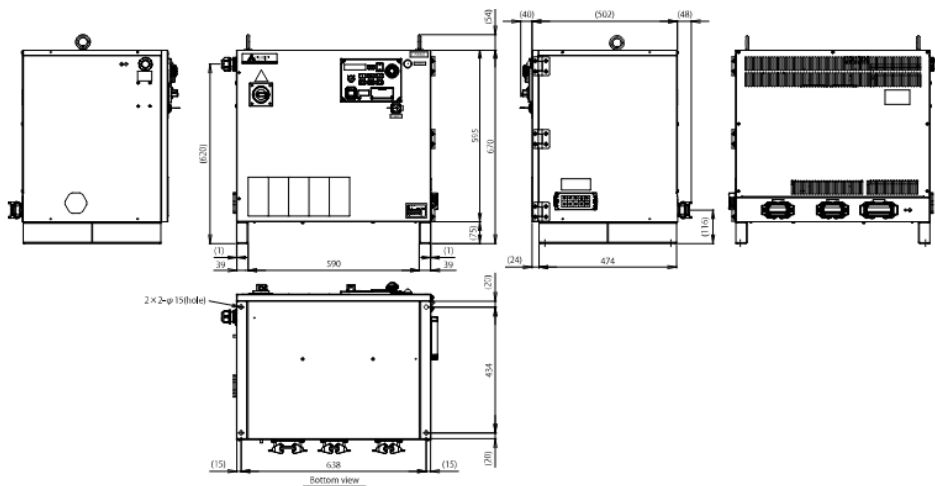
Specifications

R16RTCPU | Q172DSRCPU

Number of axes		Maximum 6 axes + additional 8 axes available			
Programming language		MELFA-BASIC V,VI			
Position teaching method		Teaching or MDI			
Memory capacity	Number of teaching positions	point	39000	26000	1 39000
	Number of steps	step	78000	52000	78000
	Number of programs	point	512		
		O input/ O output		O input/ O output	
	General-purpose 1/0	point	(8192 input/ 8192 output with the multiple CPU common device)		(Up to256 / 256 when options are used)
	Dedicated 1/0	point	Assigned to multiple CPU common device		Assigned to general-purpose 1/0
	Hand 1/0	point	12 input points/ 8 output points		
	External emergency stop input	point	1 (redundant)		
	Emergency stop output	point	1 (redundant)		
External input/output	Enabling device input	point	1 (redundant)		
	Mode output	point	1 (redundant)		
	Robot error output	point	1 (redundant)		
	Additional axis synchronization output	point			
	Door switch input	point			
	Encoder input	point	2	2	
	Additional axis	channel	channel		
	USB	port	1(Only the Ver.2.0 High Speed device function is supported.USS mini-B)		

			1 (Dedicated T/B)	
Interface	Ethernet port		1 (1000BASE-T / 100BASE-TX / 10BASE-T)	
	Option slot	slot	2 (Available only for function extension option card)	2
	SD memory card slot	slot	1 (Unusable)	1
	RS-422 port	port		
	Emergency stop switch		1	
	Mode selector		1	
Power supply			Three-phase 200 to 240	
	Input voltage range	V	(The rate of power-supply voltage fluctuation is within +10% to -15%)	
	Power capacity	kVA	7.5 (Inrush current is not included)	
External dimensions	mm	670(W) X 500(D) X 670(H)		
Mass	kg			
Ambient temperature	oc	Oto 45 (Controller) / O to 55 (Robot CPU)	Oto45	
Ambient humidity	%RH			
Structure				
Grounding	n	r less (Class D grounding)		

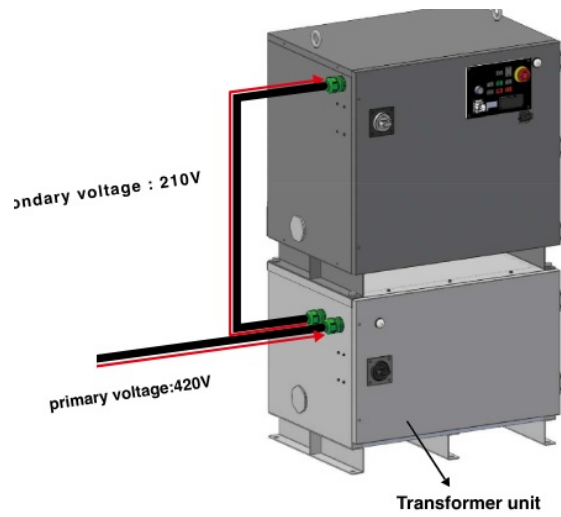
CR860-R/CR860-Q/R860-D



Transformer unit(option)

By using this transformer unit, the robot can be operated with 400V power supply.

This transformer unit is used to step down the voltage from 400V to 200V. This transformer unit is designed only for the CR860 controller. and is not used for other controllers.



Specification

Item	Specifications
External dimensions	670(W) × 500(H) × 515(D)
Color	Dark gray
Mass	Approx. 120kg (only the robot arm, excluding cables)
Phase	Three-phase
Capacity	10kVA
Frequency	50Hz
Rated voltage (primary side)	AC420V(± 10%)
Rated voltage (secondary side)	AC210V(± 5%)
Wiring	Delta connection
Operating temperature	0 to 45°C
Relative humidity	10 to 85%RH
Elevation	1000m or lower
Protection specifications	IP54

Documents / Resources



CR800-R Compatible Robot Controller

Instruction Manual · CR800-R, CR800-R Compatible Robot Controller, Compatible Robot Controller, Robot Controller, Controller

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Related Topics

controller

Robot Controller