

FANUC Robot R-2000iC series



Features

The FANUC Robot R-2000iC is a multi-purpose intelligent robot based on FANUC's years of experience and renowned technology. This high performance intelligent robot with outstanding reliability and cost performance will support your needs in various applications, such as spot welding, material handling and assembly.

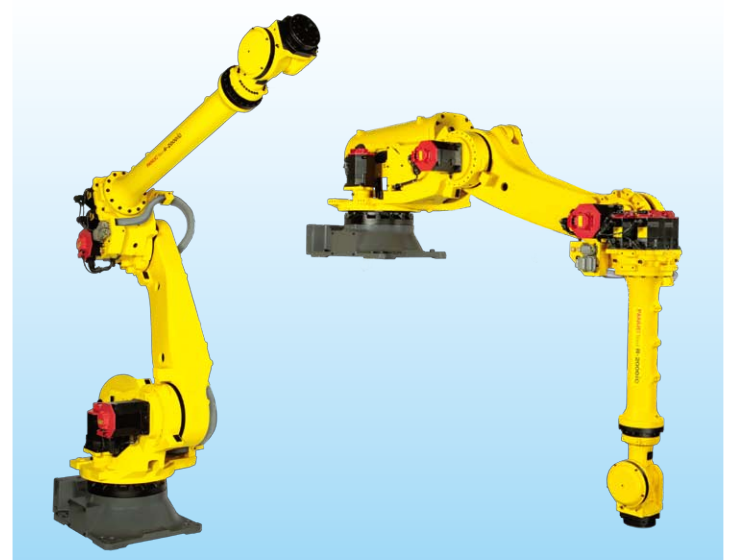
- Weight reduction of the mechanical unit and compact robot.
- The rigid yet lightweight arm and the world's most advanced motion control technology achieves significantly improved motion performance, allowing for higher productivity.
- Extensive options are available for various processes, including the spot welding solution arm.
- The new R-30iB robot controller provides energy and floor space savings with its energy regeneration option and compact cabinet.
- Available with the most advanced intelligent features such as the Learning Robot, Bin picking, Force Sensing and Visual Line Tracking.

Application Example



High Speed Spot Welding

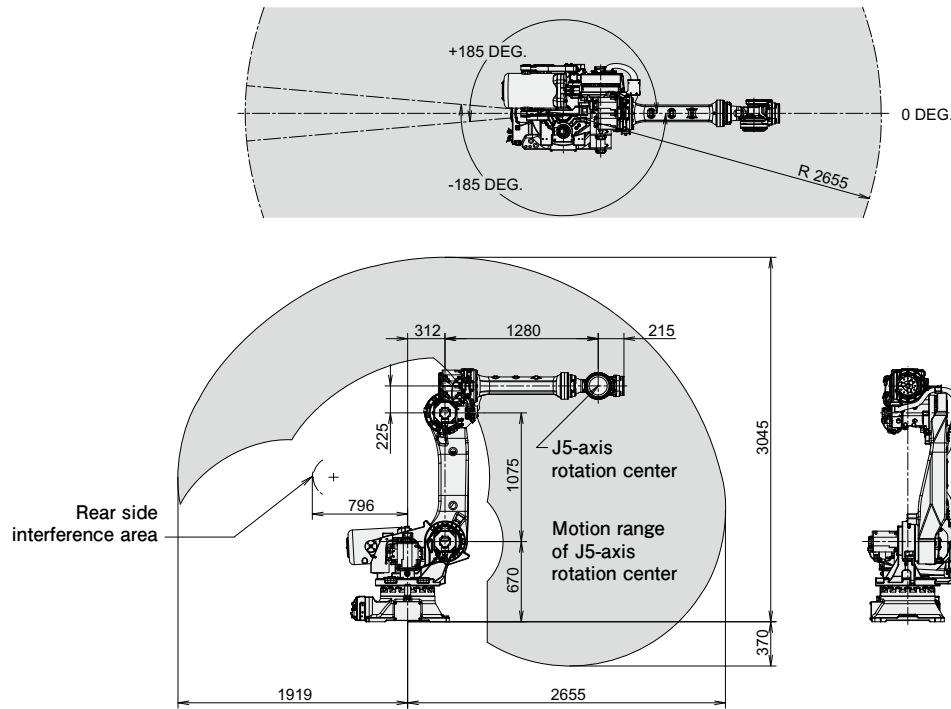
Lineup



Long Reach/Rack Mount

Operating space

R-2000iC/210F, 165F



Specifications

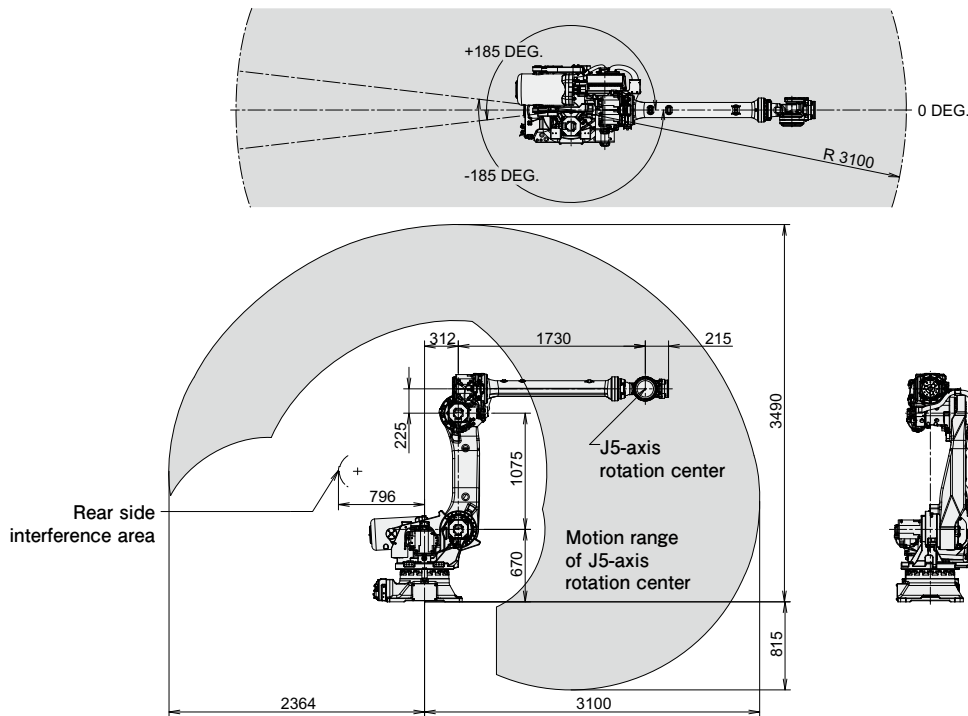
Item	Specifications				
	R-2000iC/210F		R-2000iC/165F		
Type	Articulated Type				
Controlled axes	6 axes (J1, J2, J3, J4, J5, J6)				
Reach	2655 mm				
Installation	Floor				
Motion range (Maximum speed) Note 1)	J1 axis rotation	370°(120°/s)	6.46 rad (2.09 rad/s)	370°(130°/s)	6.46 rad (2.27 rad/s)
	J2 axis rotation	136°(105°/s)	2.37 rad (1.83 rad/s)	136°(115°/s)	2.37 rad (2.01 rad/s)
	J3 axis rotation	312°(110°/s)	5.45 rad (1.92 rad/s)	312°(125°/s)	5.45 rad (2.18 rad/s)
	J4 axis wrist rotation	720°(140°/s)	12.57 rad (2.44 rad/s)	720°(180°/s)	12.57 rad (3.14 rad/s)
	J5 axis wrist swing	250°(140°/s)	4.36 rad (2.44 rad/s)	250°(180°/s)	4.36 rad (3.14 rad/s)
	J6 axis wrist rotation	720°(220°/s)	12.57 rad (3.84 rad/s)	720°(260°/s)	12.57 rad (4.54 rad/s)
Max. load capacity at wrist	210 kg		165 kg		
Max. load capacity at J2 base	550 kg				
Max. load capacity on J3 arm	25 kg (A)	(A) + (B) < 50 kg	25 kg (A)	(A) + (B) < 50 kg	
Max. load capacity on J3 casing	50 kg (B)		50 kg (B)		
Allowable load moment at wrist	J4 axis	1360 N·m	139 kgf·m	940 N·m	96 kgf·m
	J5 axis	1360 N·m	139 kgf·m	940 N·m	96 kgf·m
	J6 axis	735 N·m	75 kgf·m	490 N·m	50 kgf·m
Allowable load inertia at wrist	J4 axis	147 kg·m ²	1500 kgf·cm·s ²	89 kg·m ²	908 kgf·cm·s ²
	J5 axis	147 kg·m ²	1500 kgf·cm·s ²	89 kg·m ²	908 kgf·cm·s ²
	J6 axis	82 kg·m ²	837 kgf·cm·s ²	46 kg·m ²	469 kgf·cm·s ²
Drive method	Electric servo drive by AC servo motor				
Repeatability	±0.2 mm				
Mass Note 2)	1090 kg		1090 kg		
Installation environment	Ambient temperature : 0~45°C Ambient humidity : Normally 75 %RH or less (No dew, nor frost allowed) Short term Max. 95 %RH or less (within one month) Vibration acceleration : 4.9 m/s ² (0.5G) or less				

Note 1) In case of short distance motion, the axis speed may not reach the maximum value stated.

Note 2) Without controller.

Operating space

R-2000iC/125L



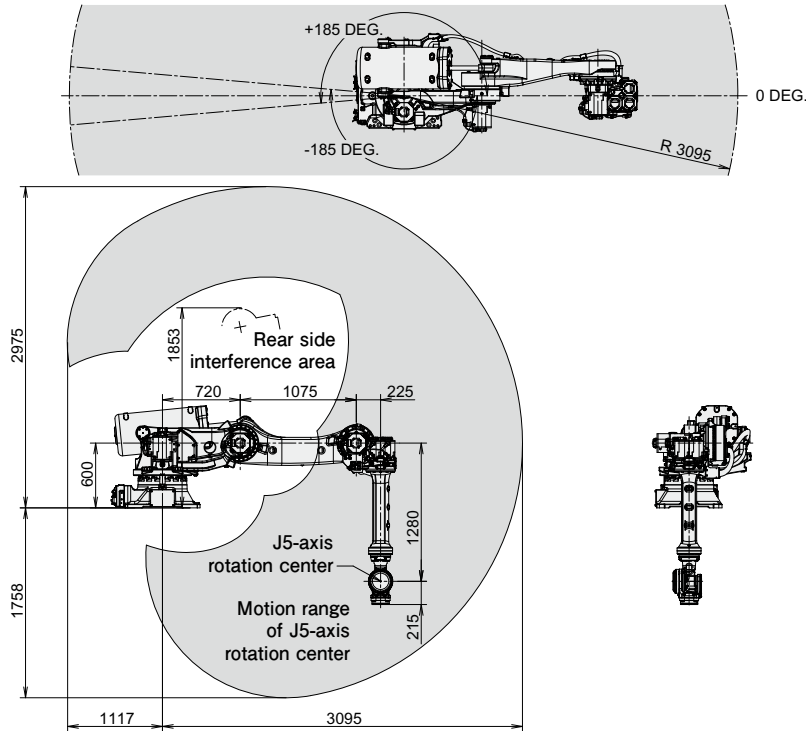
Specifications

Item	Specifications	
	R-2000iC/125L	
Type	Articulated Type	
Controlled axes	6 axes (J1, J2, J3, J4, J5, J6)	
Reach	3100 mm	
Installation	Floor	
Motion range (Maximum speed) Note 1)	J1 axis rotation	370°(130°/s) 6.46 rad (2.27 rad/s)
	J2 axis rotation	136°(115°/s) 2.37 rad (2.01 rad/s)
	J3 axis rotation	301°(125°/s) 5.25 rad (2.18 rad/s)
	J4 axis wrist rotation	720°(180°/s) 12.57 rad (3.14 rad/s)
	J5 axis wrist swing	250°(180°/s) 4.36 rad (3.14 rad/s)
	J6 axis wrist rotation	720°(260°/s) 12.57 rad (4.54 rad/s)
Max. load capacity at wrist	125 kg	
Max. load capacity at J2 base	550 kg	
Max. load capacity on J3 arm	25 kg (A)	(A) + (B) < 40 kg
Max. load capacity on J3 casing	40 kg (B)	
Allowable load moment at wrist	J4 axis	710 N·m 72 kgf·m
	J5 axis	710 N·m 72 kgf·m
	J6 axis	355 N·m 36 kgf·m
Allowable load inertia at wrist	J4 axis	72 kg·m ² 735 kgf·cm·s ²
	J5 axis	72 kg·m ² 735 kgf·cm·s ²
	J6 axis	40 kg·m ² 408 kgf·cm·s ²
Drive method	Electric servo drive by AC servo motor	
Repeatability	±0.2 mm	
Mass Note 2)	1115 kg	
Installation environment	Ambient temperature : 0~45°C Ambient humidity : Normally 75 %RH or less (No dew, nor frost allowed) Short term Max. 95 %RH or less (within one month) Vibration acceleration : 4.9 m/s ² (0.5G) or less	

Note 1) In case of short distance motion, the axis speed may not reach the maximum value stated.
 Note 2) Without controller.

Operating space

R-2000iC/210R, 165R



Specifications

Item	Specifications				
	R-2000iC/210R		R-2000iC/165R		
Type	Articulated Type				
Controlled axes	6 axes (J1, J2, J3, J4, J5, J6)				
Reach	3095 mm				
Installation	Rack mount				
Motion range (Maximum speed) Note 1)	J1 axis rotation	370°(105°/s)	6.46 rad (1.83 rad/s)	370°(115°/s)	6.46 rad (2.01 rad/s)
	J2 axis rotation	200°(100°/s)	3.49 rad (1.75 rad/s)	200°(110°/s)	3.49 rad (1.92 rad/s)
	J3 axis rotation	375°(110°/s)	6.54 rad (1.92 rad/s)	375°(125°/s)	6.54 rad (2.18 rad/s)
	J4 axis wrist rotation	720°(140°/s)	12.57 rad (2.44 rad/s)	720°(180°/s)	12.57 rad (3.14 rad/s)
	J5 axis wrist swing	250°(140°/s)	4.36 rad (2.44 rad/s)	250°(180°/s)	4.36 rad (3.14 rad/s)
	J6 axis wrist rotation	720°(220°/s)	12.57 rad (3.84 rad/s)	720°(260°/s)	12.57 rad (4.54 rad/s)
Max. load capacity at wrist	210 kg		165 kg		
Max. load capacity at J2 base	550 kg		550 kg		
Max. load capacity on J3 arm	30 kg (A)	(A)×4/3+(B) < 40 kg	25 kg (A)	(A) + (B) < 50 kg	
Max. load capacity on J3 casing	40 kg (B)		50 kg (B)		
Allowable load moment at wrist	J4 axis	1360 N·m 139 kgf·m		940 N·m 96 kgf·m	
	J5 axis	1360 N·m 139 kgf·m		940 N·m 96 kgf·m	
	J6 axis	735 N·m 75 kgf·m		490 N·m 50 kgf·m	
Allowable load inertia at wrist	J4 axis	147 kg·m ² 1500 kgf·cm·s ²		89 kg·m ² 908 kgf·cm·s ²	
	J5 axis	147 kg·m ² 1500 kgf·cm·s ²		89 kg·m ² 908 kgf·cm·s ²	
	J6 axis	82 kg·m ² 837 kgf·cm·s ²		46 kg·m ² 469 kgf·cm·s ²	
Drive method	Electric servo drive by AC servo motor				
Repeatability	±0.2 mm				
Mass Note 2)	1370 kg		1370 kg		
Installation environment	Ambient temperature : 0~45°C Ambient humidity : Normally 75 %RH or less (No dew, nor frost allowed) Short term Max. 95 %RH or less (within one month) Vibration acceleration : 4.9 m/s ² (0.5G) or less				

Note 1) In case of short distance motion, the axis speed may not reach the maximum value stated.
 Note 2) Without controller.

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