

R88D-1SN□□□-ECT

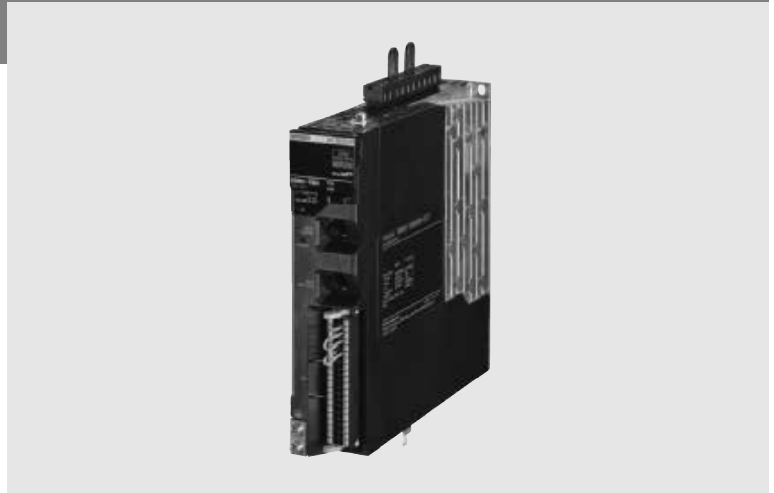
1S servo drive

Sysmac general purpose servo

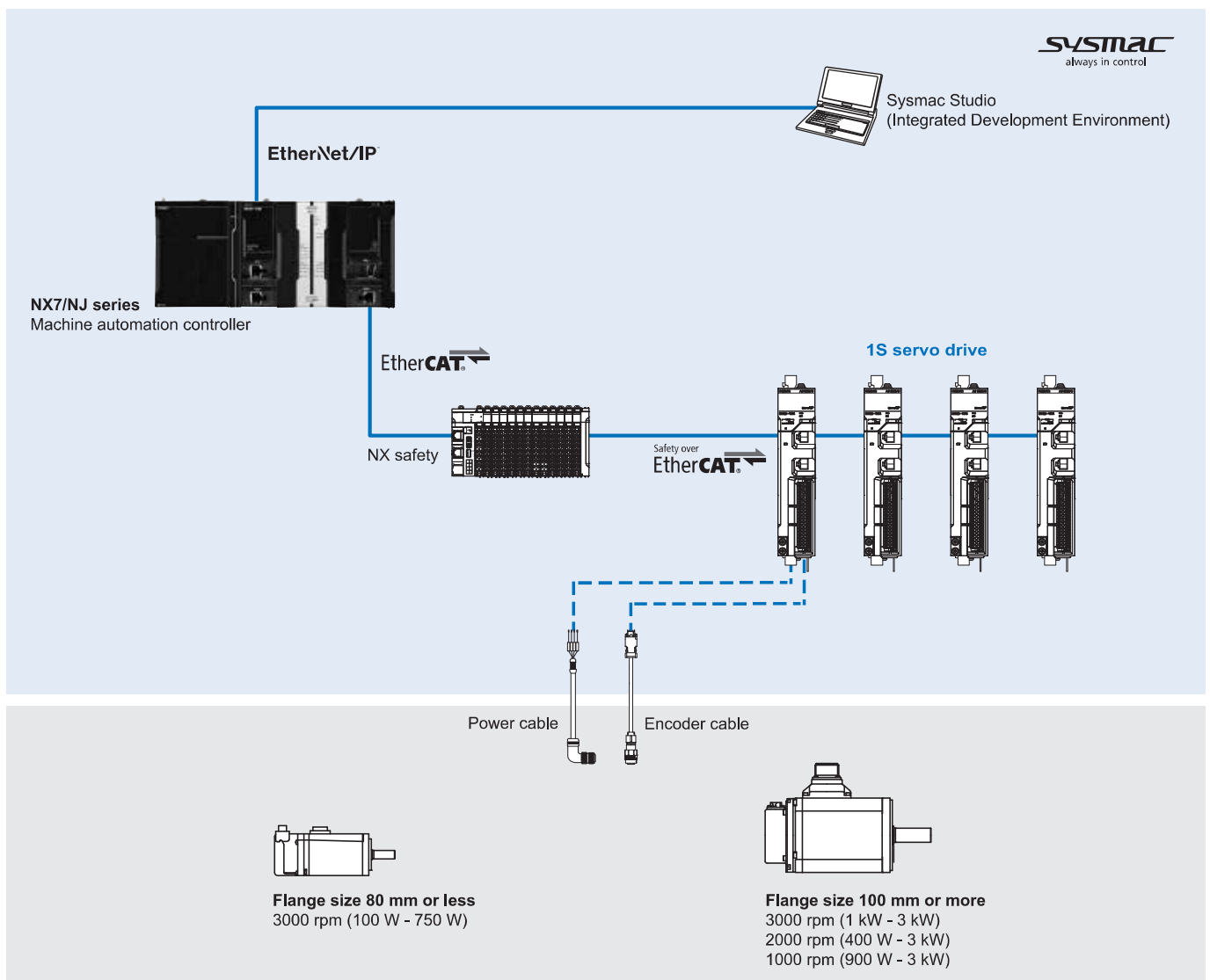
- 23-bit resolution encoder
- Fast and secure screw-less push-in in all connectors
- Pluggable connectors for easy pre-wiring and system maintenance
- Direct wiring of I/O signals
- Embedded relay for direct motor brake control
- Improved loop control for overshoot and quick setting time
- Safety function built-in:
 - Network Safe Torque Off: PLd (EN ISO 13849-1), SIL2 (IEC 61508)
 - Hardwired Safe Torque Off: PLe (EN ISO 13849-1), SIL3 (IEC 61508)

Ratings

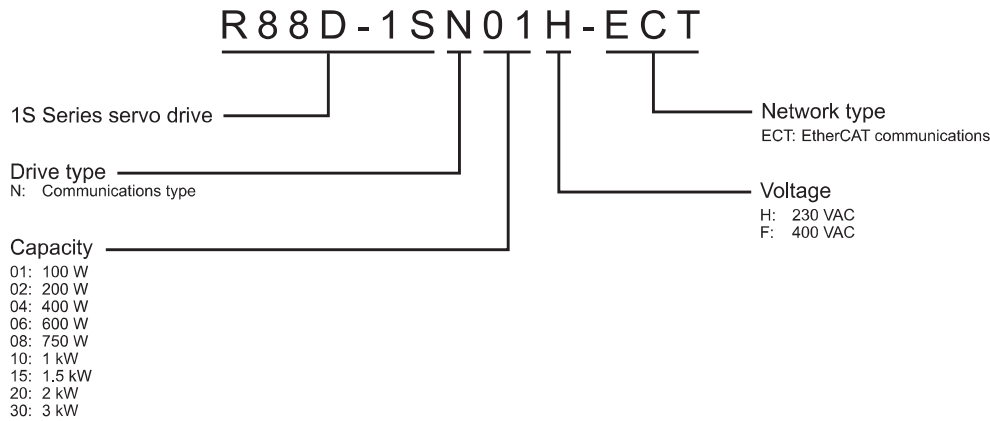
- 230 VAC single-phase: 100 W to 1.5 kW
- 400 VAC three-phase: 600 W to 3 kW



System configuration



Type designation



Specifications

Single-phase, 230 V

Servo drive model		R88D-1SN01H-ECT	R88D-1SN02H-ECT	R88D-1SN04H-ECT	R88D-1SN08H-ECT	R88D-1SN15H-ECT		
Applicable servo motor	3000 r/min	R88M-1M10030T	R88M-1M20030T	R88M-1M40030T	R88M-1M75030T	R88M-1L1K030T R88M-1L1K530T		
	2000 r/min	-	-	-	-	R88M-1M1K020T R88M-1M1K520T		
	1000 r/min	-	-	-	-	R88M-1M90010T		
Max. applicable motor capacity	W	100	200	400	750	1500		
Input	Control circuit	Power supply voltage	V				24 VDC (21.6 to 26.4 V)	
	Main circuit	Power supply voltage	V				Single-phase 200 to 240 VAC (170 to 252 V)	
		Frequency	Hz				50/60 Hz (47.5 to 63 Hz)	
Output	Rated input current	Single-phase	Arms	1.8	2.7	4.6	7.3	15.7
	Rated output current	Arms	0.8	1.5	2.5	4.6	9.7	
Basic	Max. current	Arms	3.1	5.6	9.1	16.9	28.4	
	Ambient operating/storage temperature	0 to 55°C/-20 to 65°C						
	Ambient operating/storage humidity	90% RH or less (without condensation)						
	Atmosphere	Must be free from corrosive gases						
	Altitude	1000 m or less						
	Vibration resistance (max.)	5.88 m/s ² , 10 to 60 Hz (continuous operation at resonance point is not allowed)						
Degree of protection	IP20 (Built into IP54 panel)							
Weight	kg	1.2	1.2	1.5	2.0	3.4		

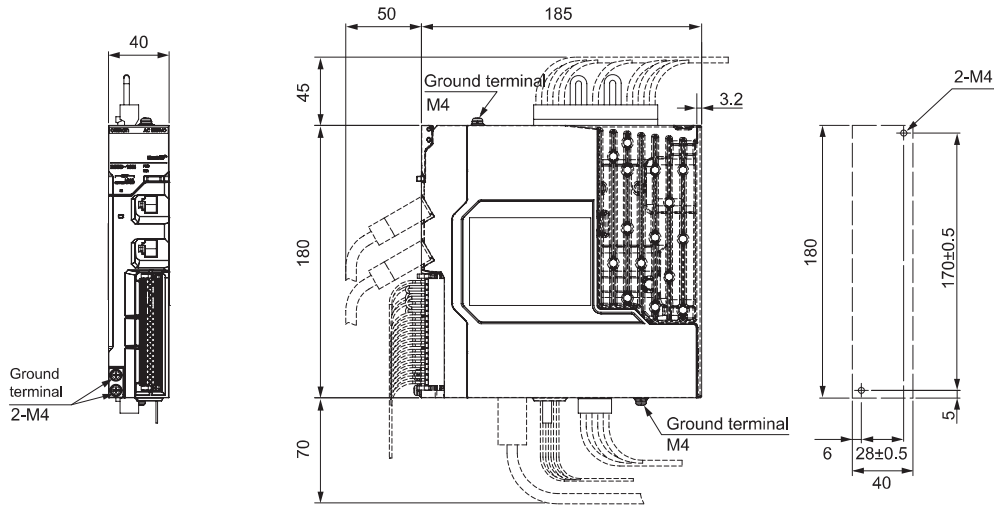
Three-phase, 400 V

Servo drive model		R88D-1SN06F-ECT	R88D-1SN10F-ECT	R88D-1SN15F-ECT	R88D-1SN20F-ECT	R88D-1SN30F-ECT		
Applicable servo motor	3000 r/min	-	R88M-1L75030C R88M-1L1K030C	R88M-1L1K530C	R88M-1L2K030C	R88M-1L3K030C		
	2000 r/min	R88M-1M40020C R88M-1M60020C	R88M-1M1K020C	R88M-1M1K520C	R88M-1M2K020C	R88M-1M3K020C		
	1000 r/min	-	R88M-1M90010C	-	R88M-1M2K010C	R88M-1M3K010C		
Max. applicable motor capacity	W	600	1000	1500	2000	3000		
Input	Control circuit	Power supply voltage	V				24 VDC (21.6 to 26.4 V)	
	Main circuit	Power supply voltage	V				Three-phase 380 to 480 VAC (323 to 504 V)	
		Frequency	Hz				50/60 Hz (47.5 to 63 Hz)	
Output	Rated input current	Three-phase	Arms	2.4	3.1	4.3	6.5	8.4
	Rated output current	Arms	1.8	4.1	4.7	7.8	11.3	
Basic	Max. current	Arms	5.5	9.6	14.1	19.8	28.3	
	Ambient operating/storage temperature	0 to 55°C/-20 to 65°C						
	Ambient operating/storage humidity	90% RH or less (without condensation)						
	Atmosphere	Must be free from corrosive gases						
	Altitude	1000 m or less						
	Vibration resistance (max.)	5.88 m/s ² , 10 to 60 Hz (continuous operation at resonance point is not allowed)						
Degree of protection	IP20 (Built into IP54 panel)							
Weight	kg	3.4	3.4	3.4	3.4	3.4		

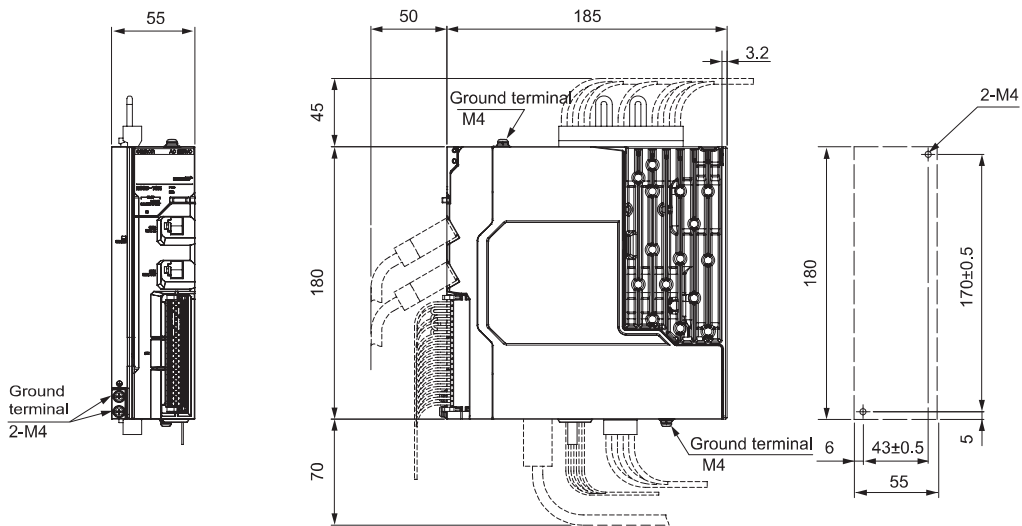
Dimensions

Servo drives

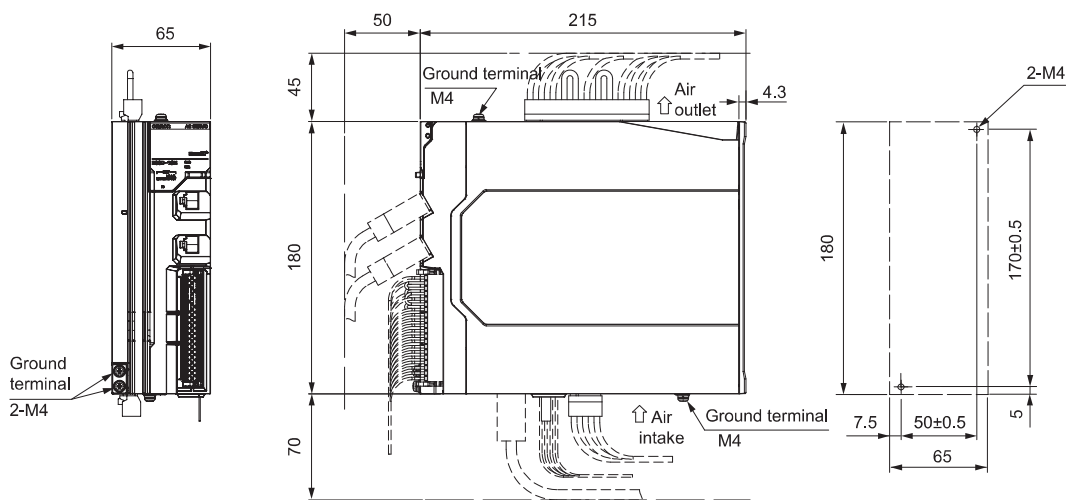
R88D-1SN01H-ECT/02H-ECT (230 V, 100 W to 200 W)



R88D-1SN04H-ECT (230 V, 400 W)



R88D-1SN08H-ECT (230 V, 750 W)



Servo drives

Symbol	Specifications		Compatible 1S servo motor	Model
④	Single-phase 230 VAC	100 W	R88M-1M10030T-□	R88D-1SN01H-ECT
		200 W	R88M-1M20030T-□	R88D-1SN02H-ECT
		400 W	R88M-1M40030T-□	R88D-1SN04H-ECT
		750 W	R88M-1M75030T-□	R88D-1SN08H-ECT
		1.5 kW	R88M-1L1K030T-□	R88D-1SN15H-ECT
			R88M-1L1K530T-□	
			R88M-1M1K020T-□	
			R88M-1M1K520T-□	
		Three-phase 400 VAC	600 W	R88M-1M40020C-□
	R88M-1M60020C-□			
	1 kW		R88M-1L75030C-□	R88D-1SN10F-ECT
			R88M-1L1K030C-□	
			R88M-1M1K020C-□	
			R88M-1M90010C-□	
	1.5 kW		R88M-1L1K530C-□	R88D-1SN15F-ECT
			R88M-1M1K520C-□	
	2 kW		R88M-1L2K030C-□	R88D-1SN20F-ECT
		R88M-1M2K020C-□		
R88M-1M2K010C-□				
3 kW	R88M-1L3K030C-□	R88D-1SN30F-ECT		
	R88M-1M3K020C-□			
	R88M-1M3K010C-□			

Filters

Symbol	Applicable 1S servo drive	Manufacturer	Rated current	Leakage current	Rated voltage	Model
⑤	R88D-1SN01H-ECT, R88D-1SN02H-ECT	Schaffner EMC Co. Ltd.	3 A	7.83 mA	250 VAC	R88A-FI1S103-SE
	R88D-1SN04H-ECT		5 A			R88A-FI1S105-SE
	R88D-1SN08H-ECT		8 A			R88A-FI1S108-SE
	R88D-1SN15H-ECT		16 A			R88A-FI1S116-SE
	R88D-1SN06F-ECT, R88D-1SN10F-ECT, R88D-1SN15F-ECT, R88D-1SN20F-ECT, R88D-1SN30F-ECT	9 A	1.2 mA	400 VAC	R88A-FI1S309-SE	

External regeneration resistor

Symbol	Resistance value	Regeneration absorption for 120°C temperature rise	Nominal capacity	Model
⑥	25 Ω	24 W	120 W	R88A-RR12025
	20 Ω	60 W	300 W	R88A-RR30020
	25 Ω			R88A-RR30025
	33 Ω			R88A-RR30033

⑦ USB cable

Use a commercially available USB cable that is double-shielded, gold-plated and supports USB 2.0. The Micro B type USB cable can be used.

Machine controller

Symbol	Name		Model
⑧	IPC machine controller	Industrial box PC type	NY512-□
		Industrial panel PC type	NY532-□
	NX7 series	CPU unit	NX701-□
		Power supply unit	NX-PA9001 (220 VAC)
			NX-PD7001 (24 VDC)
	NJ series	CPU unit	NJ501-□
			NJ301-□
			NJ101-□
		Power supply unit	NJ-PA3001 (220 VAC)
			NJ-PD3001 (24 VDC)
NX1 series	CPU unit	NX1P2-□	