

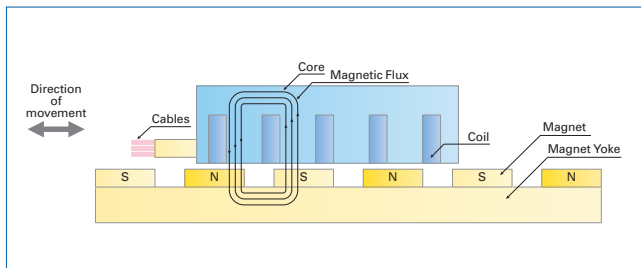
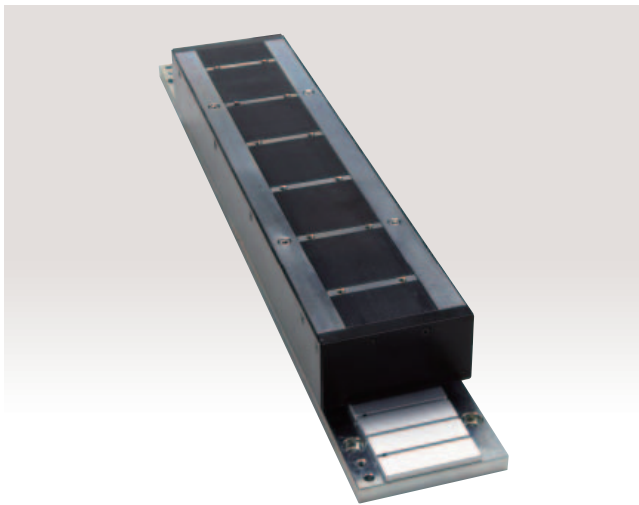
SANMOTION

LINEAR SERVO MOTOR

Single magnet core type linear servo motor

■ Features

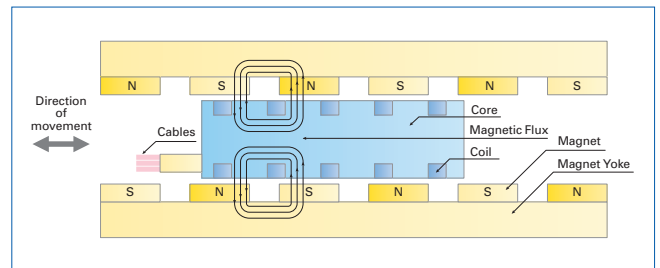
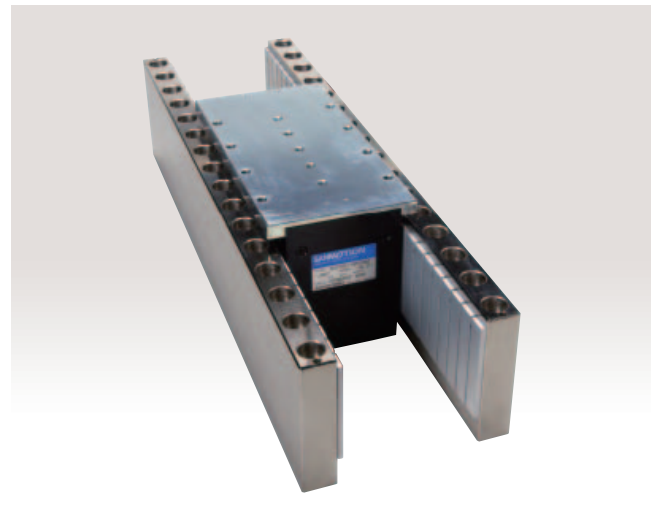
The compact and high thrust.



Dual magnet core type linear servo motor

■ Features

Low cogging with a structure that cancels out magnetic attractive force.



■ Uses

Semiconductor manufacturing equipment, FPD manufacturing equipment, Chip mounters, Bonding machines, Electric discharge machine, Material Handling, Vibration control function devices, etc.

■ Model.No

Coil

DS	030	C	1	N2	E	C	1	00															
Type	Magnet width	Coil	Coil length	Cooling & Winding Specification	Hall sensor specification		Cable length	Specification															
DS : Single magnet core type	030 : 30mm 050 : 50mm 075 : 75mm 100 : 100mm 150 : 150mm		<table border="1"> <thead> <tr> <th></th> <th>Single magnet core type</th> <th>Dual magnet core type</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>200mm</td> <td>226mm</td> </tr> <tr> <td>2</td> <td>376mm</td> <td>402mm</td> </tr> <tr> <td>3</td> <td>552mm</td> <td>578mm</td> </tr> <tr> <td>4</td> <td>—</td> <td>754mm</td> </tr> </tbody> </table>		Single magnet core type	Dual magnet core type	1	200mm	226mm	2	376mm	402mm	3	552mm	578mm	4	—	754mm	N2 : Self-Cooling Specification Y2, Y4 : Water Cooling Specification	E : Line driver (Standard) B : Open collector A : None		1 : 300mm 2 : 600mm 3 : 1000mm	00 : Standard
	Single magnet core type	Dual magnet core type																					
1	200mm	226mm																					
2	376mm	402mm																					
3	552mm	578mm																					
4	—	754mm																					
DD : Dual magnet core type																							

Thermal Specification
A : None
C : With thermostat

Magnet rail

DS	030	M	512	A	00
Type	Magnet width	Magnet rail	Magnet rail length	Cover specification	Specification
DS : Single magnet core type	030 : 30mm 050 : 50mm 075 : 75mm 100 : 100mm 150 : 150mm		064 : 64mm 128 : 128mm 256 : 256mm 512 : 512mm	A : None B : With cover	00 : DS Standard 02 : DD Standard
DD : Dual magnet core type					

Single magnet core type linear servo motor

Specifications

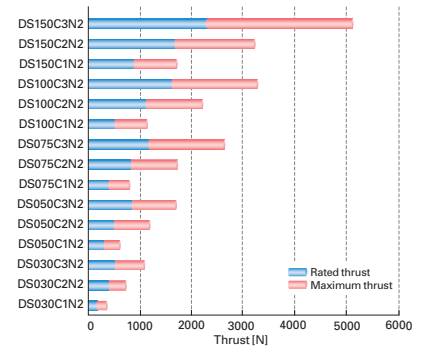
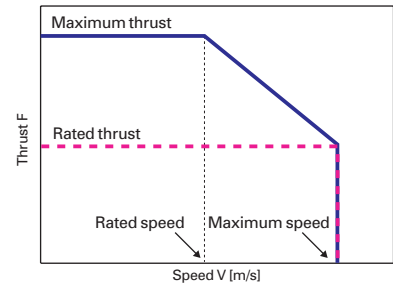
Maximum thrust : 350N to 5100N, Rated thrust : 160N to 2400N

Coil model.no.	Rated thrust N	Maximum thrust N	Rated speed ⁽¹⁾ m/s	Maximum speed ⁽¹⁾ m/s	Magnetic Attractive Force N	Coil mass kg	Size						Magnet rail model.no.	Servo amplifier model.no.		
							W1 mm	W2 mm	W3 mm	N1 mm	N2 mm	T1 mm				
DS030	C1N2	160	350	4.0	5.5	1500	2.8	65	25	15	6	2	58	DS030M	RS1A03L	
	C2N2	320	700			3000					5.4				12	RS1A05L
	C3N2	480	1050			4500					7.8				18	RS1A10L
DS050	C1N2	260	580	2.4	3.5	2500	3.8	85	25	35	6	2	58	DS050M	RS1A03L	
	C2N2	520	1160			5000					7.4				12	RS1A05L
	C3N2	780	1740			7500					11.0				18	RS1A10L
DS075	C1N2	400	850	1.6	2.4	3750	5.2	110	25	30	9	3	58	DS075M	RS1A03L	
	C2N2	800	1700			7500					10.0				18	RS1A05L
	C3N2	1200	2550			11250					14.8				27	RS1A10L
DS100	C1N2	540	1150	2.8	4.0	5000	6.6	135	32.5	35	9	3	58	DS100M	RS1A05L	
	C2N2	1080	2300			10000					12.6				18	RS1A10L
	C3N2	1620	3450			15000					18.6				27	RS1A15L
DS150	C1N2	800	1700	1.8	2.6	7500	9.4	185	32.5	30	15	5	60	DS150M	RS1A05L	
	C2N2	1600	3400			15000					17.8				30	RS1A10L
	C3N2	2400	5100			22500					26.2				45	RS1A15L

(1) Speed is limited by the resolution capabilities of the linear encoder.

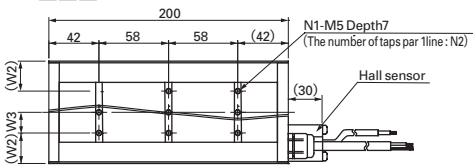
Magnet rail model.no.	Magnet rail mass kg/m	Size										
		W mm	W4 mm	W5 mm	L1 mm	L2 mm	T2 mm	T3 mm	N3 mm	d mm		
DS030	M064A00	5.5	30	60	45	63.3	31.65	14	10	2	6	
	M128A00					127.3						
	M256A00					255.3						
	M512A00					511.3						
DS050	M064A00	7.6	50	80	65	63.3	31.65	14	10	2	5	
	M128A00					127.3						
	M256A00					255.3						
	M512A00					511.3						
DS075	M064A00	10.2	75	105	90	63.3	31.65	14	10	2	5	
	M128A00					127.3						
	M256A00					255.3						
	M512A00					511.3						
DS100	M064A00	12.8	100	130	115	64	32	14	10	2	5	
	M128A00					128						
	M256A00					256						
	M512A00					512						
DS150	M064A00	20.9	150	180	165	64	32	16	12	2	6	
	M128A00					128						
	M256A00					256						
	M512A00					512						

Thrust-speed characteristic

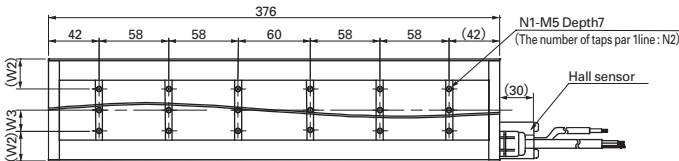


Coil dimension

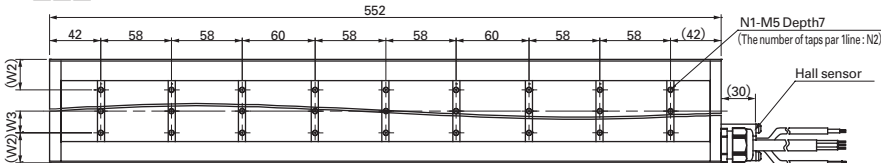
DS□□□C1



DS□□□C2

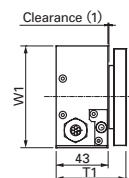
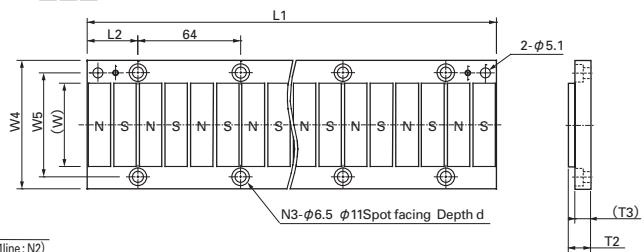


DS□□□C3



Magnet rail dimension

DS□□□M



Dual magnet core type linear servo motor

Specifications

Maximum thrust : 630N to 6400N, Rated thrust : 430N to 4150N

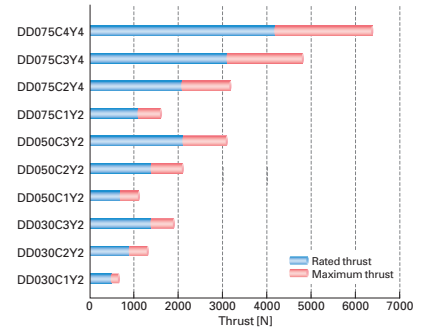
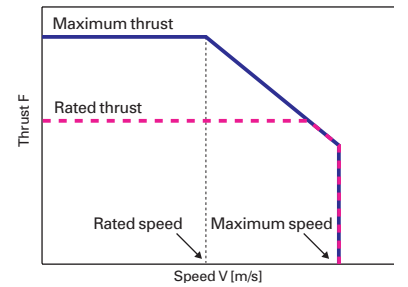
Coil model.no.	Rated thrust N ⁽¹⁾	Maximum thrust N	Rated speed ⁽²⁾ m/s	Maximum speed ⁽²⁾ m/s	Magnetic Attractive Force ⁽³⁾ N	Coil mass kg	Size						Magnet rail model.no.	Servo amplifier model.no.			
							W1 mm	L1 mm	L2 mm	L3 mm	N1 mm	H1 mm			H2 mm		
DD030	C1Y4	430	630	2.2	3.0	150	8.3	130	226	40.5	50.5	8	82	78	DD030M	RS1A05L	
	C2Y4	860	1260			300			15.0	402	38.5	48.5				16	RS1A10L
	C3Y4	1290	1890			450			21.6	578	36.5	46.5				24	RS1A10L
DD050	C1Y2	700	1050	2.5	3.0	250	11.2	140	226	40.5	50.5	8	102	98	DD050M	RS1A10L	
	C2Y2	1400	2100			500			21.2	402	38.5	48.5				16	RS1A15L
	C3Y2	2100	3150			750			29.0	578	36.5	46.5				24	RS1A30L
DD075	C1Y2	1050	1600	2.0	3.0	380	14.7	150	226	40.5	50.5	8	127	123	DD075M	RS1A10L	
	C2Y2	2100	3200			750			26.5	402	38.5	48.5				16	RS1A15L
	C3Y2	3100	4800			1150			38.1	578	36.5	46.5				24	RS1A30L
	C4Y2	4150	6400			1500			49.5	754	34.5	44.5				32	RS1A30L

(1) When using forced water cooling. (2) Speed is limited by the resolution capabilities of the linear encoder. (3) This is a reference value for an assembling accuracy of ±0.1 mm.

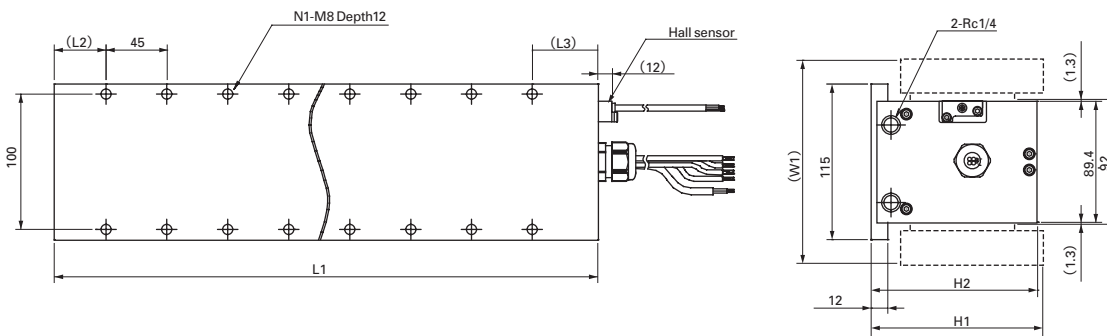
Magnet rail model.no.	Magnet rail mass ⁽¹⁾ kg/m	Size										
		W1 mm	W2 mm	W3 mm	W4 mm	H3 mm	L4 mm	N2 mm	D1 mm	D2 mm	d mm	
DD030	M064A02	15.5	130	115	15	7.5	60	64	2	7	11	7
	M128A02							128	4			
	M256A02							256	8			
	M512A02							512	16			
DD050	M064A02	26.5	140	120	20	10	80	64	2	9	14	9
	M128A02							128	4			
	M256A02							256	8			
	M512A02							512	16			
DD075	M064A02	42.5	150	125	25	12.5	105	64	2	11	17	11
	M128A02							128	4			
	M256A02							256	8			
	M512A02							512	16			

(1) Indicates the total value for both sides.

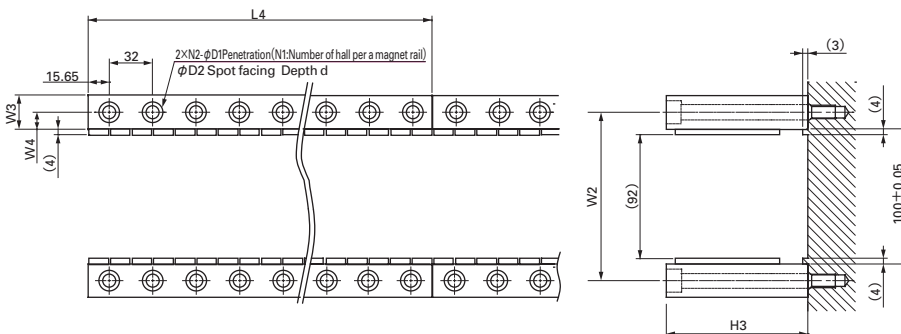
Thrust-speed characteristic



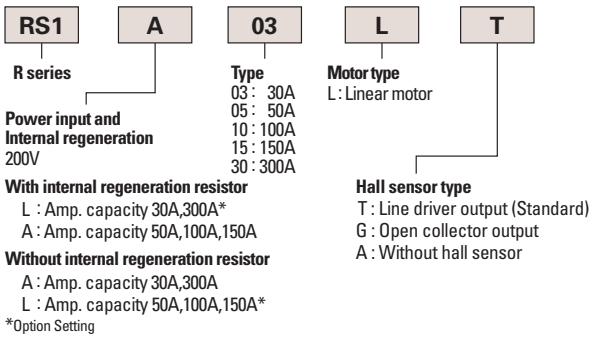
Coil dimension



Magnet rail dimension



AC servo amplifier model.no.



Connectors for Amplifier

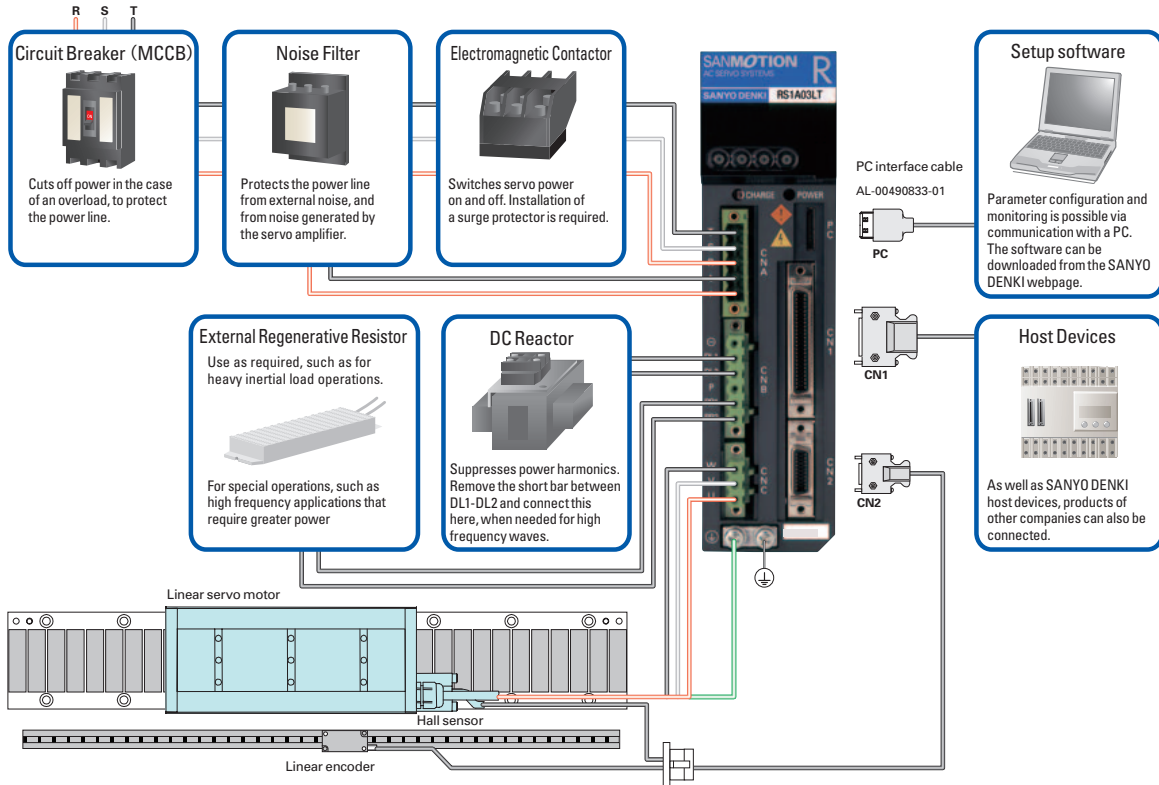
Usage	Contents	Model No.	Applicable amplifier capacity
Single connector	CN1 (Plug, Housing)	AL-00385594	All capacity
	CN2 (Plug, Housing)	AL-00385596	
	CNA (Plug)	AL-00329461-01	50A Max.
	CNB (Plug) : Accessory	AL-Y0000988-01	
	CNC (Plug)	AL-00329458-01	
Connector sets	CN1,CN2 (Plug, Housing)	AL-00393603	50A Max.
	CNA,CNC (Plug)		
	CN1,CN2 (Plug, Housing)	AL-00292309	100A Min.

Supported Linear Encoders (Customers are asked to provide their own linear encoder)

Manufacturer	Series, Specification
Renishaw plc.	RGH22 series, Incremental, Minimum resolution 0.1 to 5 μ m
HEIDENHAIN	LIDA47series, Incremental, Minimum resolution 0.05 to 1 μ m

* Linear encoders that generate analog sine wave output cannot be used.

System configuration



Precautions For Adoption

Cautions

Failure to follow the precautions on the right may cause moderate injury and property damage, or in some circumstances, could lead to a serious accident. Always follow all listed precautions.

Cautions

- Read the accompanying Instruction Manual carefully prior to using the product.
- If applying to medical devices and other equipment affecting people's lives, please contact us beforehand and take appropriate safety measures.
- If applying to equipment that can have significant effects on society and the general public, please contact us beforehand.
- Do not use this product in an environment where vibration is present, such as in a moving vehicle or shipping vessel.
- Do not perform any retrofitting, re-engineering, or modification to this equipment.
- The SERVO SYSTEMS presented in this catalog are meant to be used for general industrial applications. If using for special applications related to aviation and space, nuclear power, electric power, submarine repeaters, etc., please contact us beforehand.

* For any question or inquiry regarding the above, contact our Sales Department.

<http://www.sanyodenki.com>

SANYO DENKI CO., LTD.

1-15-1, Kita-Otsuka, Toshima-ku, Tokyo 170-8451, Japan

Phone: +81 3 3917 5157

SANYO DENKI AMERICA, INC.

468 Amapola Avenue Torrance, CA 90501 U.S.A.

Phone: +1 310 783 5400

SANYO DENKI EUROPE SA.

P.A. Paris Nord II 48 Allée des Erables-VILLEPINTE BP.57286 F-95958 ROISSY CDG Cedex France

Phone: +33 1 48 63 26 61

SANYO DENKI GERMANY GmbH

Frankfurter Strasse 63-69 65760 Eschborn Germany

Phone: +49 6196 76113 0

SANYO DENKI KOREA CO., LTD.

9F 5-2, Sunwha-dong Jung-gu Seoul, 100-130, Korea

Phone: +82 2 773 5623

SANYO DENKI SHANGHAI CO., LTD.

Room 2116, Bldg B, FAR EAST INTERNATIONAL PLAZA, No.317 XianXia Rd., Shanghai 200051 China

Phone: +86 21 6235 1107

SANYO DENKI TAIWAN CO., LTD.

Room 1208,12F, No.96 Chung Shan N, Rd., Sec.2, Taipei 104, Taiwan, R.O.C.

Phone: +886 2 2511 3938

SANYO DENKI (H.K.) CO., LIMITED

Room 2305, 23/F, South Tower, Concordia Plaza, 1 Science Museum Rd., TST East, Kowloon, Hong Kong

Phone: +852 2312 6250

SANYO DENKI SINGAPORE PTE. LTD.

10 Hoe Chiang Road #14-03A/04 Keppel Towers Singapore 089315

Phone: +65 6223 1071

The names of companies and/or their products specified in this catalogue are the trade names, and/or trademarks and/or registered trademarks of such respective companies.

*Remarks : Specifications Are Subject To Change Without Notice.

'08.7.N Rev.A