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Product News

**SANYO DENKI Develops  
New SANMOTION F5 5-phase Stepping Motors  
Industry’s highest torque and efficiency**

November 6, 2014

SANYO DENKI CO., LTD. has expanded its lineup of SANMOTION F5 series 5-phase stepping systems by developing and releasing stepping motors with the highest efficiency and torque in the industry.\*1 This new lineup includes motors with flange sizes of 42, 60, and 86 mm sq.

These new motors are both UL and CE certified, and can be safely used around the world.

They contribute to making high performance semiconductor manufacturing equipment, medical devices, and general industrial machinery.



Features

1. High Efficiency

Compared with our conventional product, motor temperature rise value has been decreased by 46%.\*2 curtailing device heat emission. The low energy loss contributes to energy savings.

2. High Torque

Compared with our conventional product, holding torque has been increased by 24% to 8.07 N·m.\*2 They are also suitable for devices which require high torque.

\*1: Information based on our own research as of November 6, 2014, collected among 5-phase stepping motors.

\*2: Specification of Model No. SM5863-7241. Our conventional product is Model No. 103F8583-7241.

Specifications

Basic step angle 0.72°

Motor size	Model number		Holding torque at 4-phase energization [N·m min.]	Rated current [A/phase]	Mass [kg]
	Single shaft	Dual shaft			
42mm sq.	SM5421-3241	SM5421-3211	0.13	0.35	0.24
	SM5422-3241	SM5422-3211	0.185	0.35	0.31
	SM5423-3241	SM5423-3211	0.245	0.35	0.38
60mm sq.	SM5601-7241	SM5601-7211	0.57	0.75	0.62
	SM5602-7241	SM5602-7211	0.9	0.75	0.8
	SM5603-7241	SM5603-7211	1.7	0.75	1.27
86mm sq.	SM5861-7241	SM5861-7211	2.3	0.75	1.75
	SM5862-7241	SM5862-7211	4.4	0.75	2.9
	SM5863-7241	SM5863-7211	6.8	0.75	4

Applications

Semiconductor manufacturing equipment, medical devices, and general industrial machinery

Release Date

December 1, 2014

Price

Open

\*The information stated in this release is current as of November 6, 2014.  
“SANMOTION” is a trademark of SANYO DENKI CO.,LTD.

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