

Specifications

Item	Description
Operation mode (fixed according to model No.)	ON-OFF, position proportioning or open/close override function
Input signal (fixed according to model No.)	Relay contact, 4~20mAdc, potentiometer (nominal 135Ω)
Angular stroke (fixed according to model No.)	90° or 160°
Motor timing (for relay contact, standard model)	39/33s (relay contact, angular stroke 90°motor, no-load, 50/60Hz) 69/58s (relay contact, angular stroke 160°motor, no-load, 50/60Hz)
Output torque	12.5N·m (high-speed motor type: 6N·m)
Power rated voltage (fixed according to model No.)	24Vac/100Vac/200Vac/85~264Vac, 50/60Hz
Power consumption (during operation)	9VA (relay contact, potentiometer, 4~20mA types), 11VA (open/close override, 4~20mA, 24Vac types) 14W (4~20mAdc, 85~264Vac types). 15W (open/close override, 4~20mA, 85~264Vac types) 14VA (high-speed motor type)

Item	Description
Reference operating conditions	23±2°C, 50±10% RH
Allowable temperature	-20 to +60°C
Allowable humidity	5 to 95% RH (without condensation)
Auxiliary switches (optional)	2 or 4
Auxiliary switch contact rating	250Vac, 5A (resistive load)
Auxiliary switch position at factory setting	Closed : 9°±5° Open : 81°±5°
Auxiliary switch settable range	Within output opening range of 5 to 95%
Open/close override function	Signals: CCW/CW/CONT/S. No-voltage contact. Contact rating: 30Vdc min., 100mA min. Contact resistance: 10Ω (1mAdc)
Protection	Splash-proof structure, IP54 or equivalent
Material	Case: Die-cast aluminum Bracket: Steel Cover: Polycarbonate resin with GF
Mass	Approx. 3kg
Standards compliance	EN55011, EN61000-6-2, UL61010-1, GB30439.8

Model Selection Guide

Model No.	Supply power	Input signal	Angle of rotation	Motor timing		Output torque	Notes	UL marking *1	CE marking *1
				50 Hz	60 Hz				
ECM3000D01	24 V AC	Relay contact	90°	39 s	33 s	12.5 N·m	ON/OFF action	✓	✓
ECM3000D11	100 V AC							—	—
ECM3000D21	200 V AC							—	—
ECM3000E01	24 V AC							✓	✓
ECM3000F01	24 V AC							✓	✓
ECM3000F11	100 V AC			39 s	16 s	6 N·m	Position proportional action (high-speed motor model)	—	—
ECM3000F21	200 V AC							—	—
ECM3000G01	24 V AC							✓	✓
ECM3000G91	85~264 V AC							—	—
ECM3000F03	24 V AC							—	✓
ECM3000D020	24 V AC	Relay contact	160°	69 s	58 s	12.5 N·m	ON/OFF action	✓	✓
ECM3000E20								✓	✓
ECM3000F020		Potentiometer						✓	✓
ECM3000F120	100 V AC	—						—	
ECM3000F220	200 V AC	✓						✓	
ECM3000G02	24 V AC	—						—	
ECM3000G92	85~264 V AC	4~20 mA DC		72 s	35 s	6 N·m	Position proportional action (high-speed motor model)	✓	✓
ECM3000F040	24 V AC	Relay contact						—	✓

Example: ECM3000D01

T 0 (zero) : not GB-compliant, C: GB-compliant

0 (zero) : Without options *3

3 : 4 built-in auxiliary switches (contact current is 100 mA to 5 A for standard model) *5

4 : 2 built-in auxiliary switches (contact current is 100 mA to 5 A for standard model), with forced opening/closing function *4

5 : 4 built-in auxiliary switches (contact current is 1 to 100 mA for low-current model) *5

6 : 2 built-in auxiliary switches (contact current is 1 to 100 mA for low-current model), with forced opening/closing function *4

*1. GB-compliant models are not compliant with UL or CE standards.

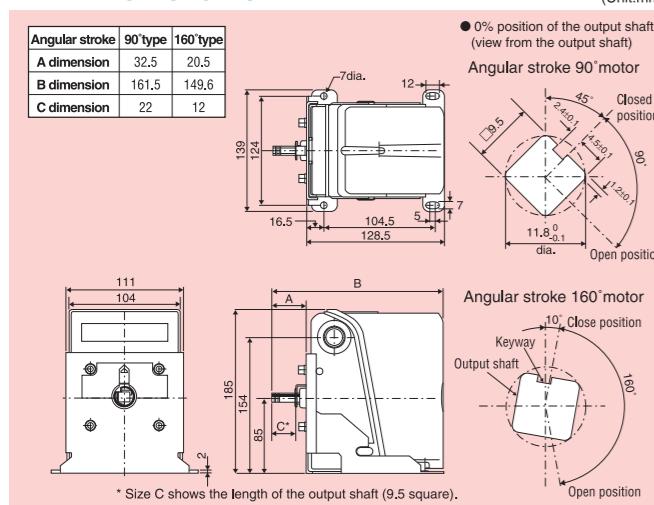
*2. Direct/reverse operation can be switched and zero point, span, and deadband can be adjusted.

*3. An extension unit can be mounted.

*4. Selectable only for model ECM3000G01, ECM3000G91, ECM3000G02, and ECM3000G92.

*5. Selectable only for 90° stroke models.

Dimensions

ECM is a trademark of Azbil Corporation in Japan.
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Azbil Corporation

Advanced Automation Company

Yamatane Corporation changed its name to Azbil Corporation on April 1, 2012.

1-12-2 Kawana, Fujisawa,
Kanagawa 251-8522 JapanURL: <https://www.azbil.com>1st Edition: Issued in Jun. 2004-BR
5th Edition: Issued in Feb. 2020-AZ

Optional parts

Part No.	Name
N-3128	Crank arm
J-26026G-ARM	Damper arm
Q455C, D	Valve linkage
Q605A, D, E	Damper linkage
83165292-001	Bracket for V51E
83174065- 83165272-001	Auxiliary switches (4 switches built-in)*2
83165272-002	Extension unit*1
	Auxiliary potentiometer for 90° type
	Auxiliary potentiometer for 160° type

*1. Only one type of extension unit can be mounted on a model without internal auxiliary switch.

*2. For details, contact the azbil Group.

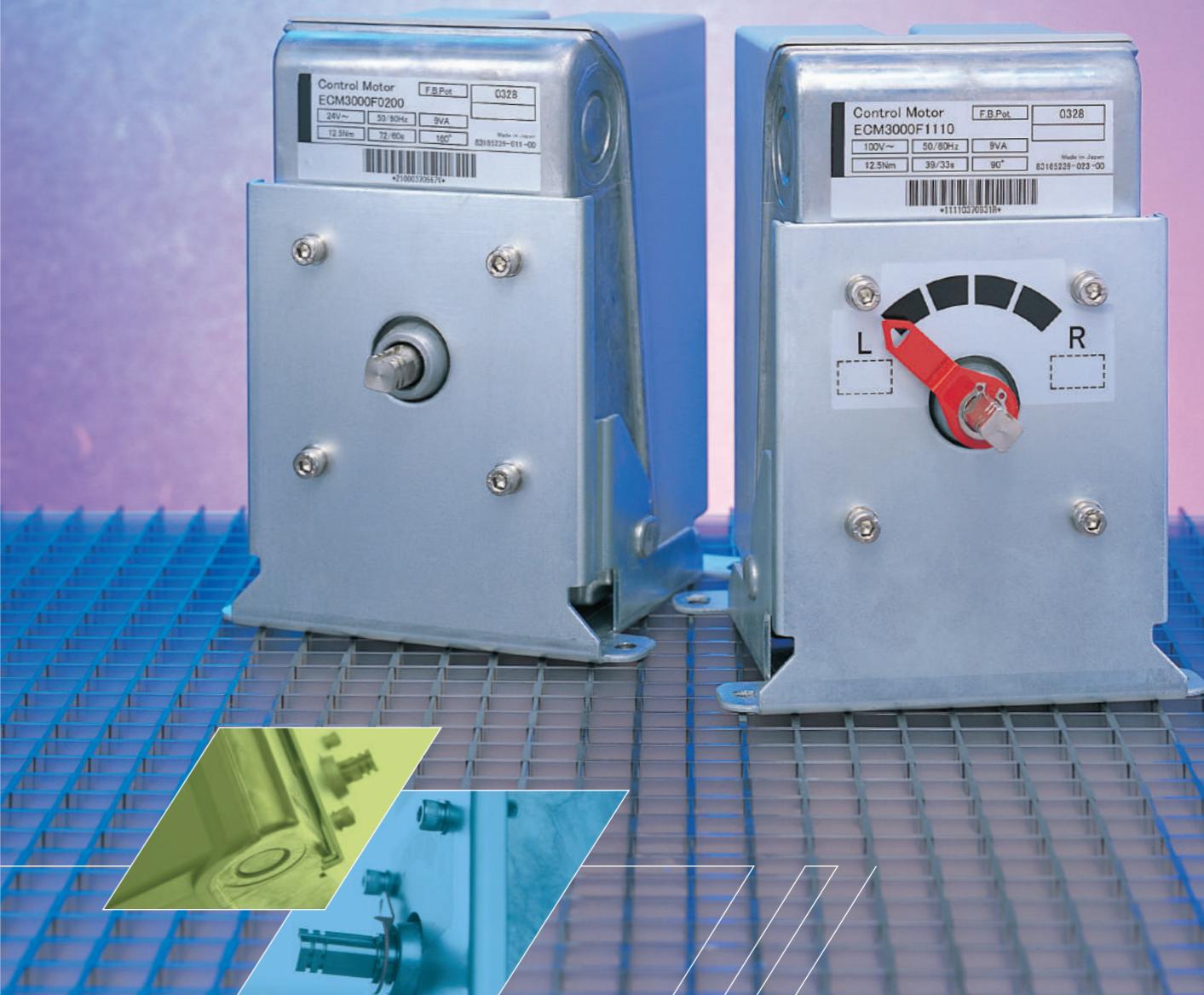
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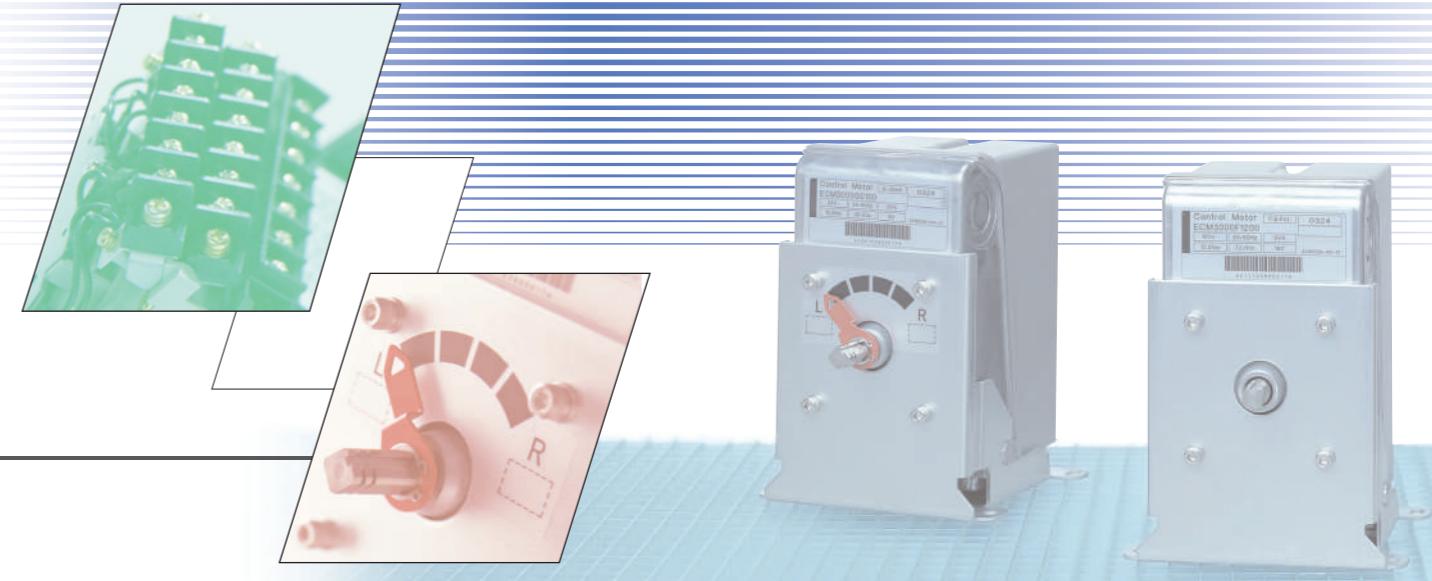
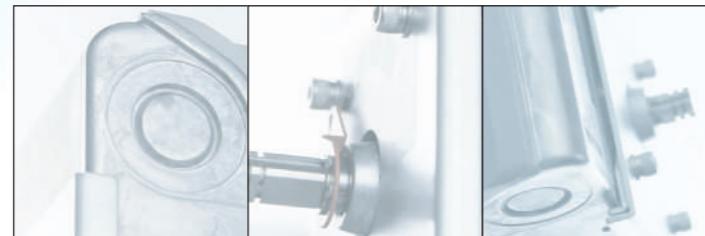
Electric Control Motor Model ECM3000

Versatile Functionality for a Wide Variety of Industrial Applications



Powerful, Superior Control

Electric Control Motor Model ECM3000



Advantages

Wide variety of models

The model ECM3000 provides a wide variety of models for different input signals, power supply voltages, angular strokes, and many other application needs.



Long-life design

Long-life parts are adopted for various internal components of the motor. This ensures long service and dependability.



Models that run on 100V AC, 200V AC and variable voltage are available

The model ECM3000 supports 100V AC and 200V AC power supply voltages. A variable voltage model is also available for the 4–20mA DC type.



Multiple functions for multiple applications.

Easy replacement of Azbil Corporation's previous models

Using the provided bracket, replacement of Azbil Corporation's previous motors with the model ECM3000 is easy.



Rugged design is superior for tough environments

The protective structure of the model ECM3000 is IP54 or equivalent. It can endure difficult environmental conditions, even splashing water.



When installing the model ECM3000 outdoors, an appropriate protective cover should be installed.

Model with 4 optional auxiliary switches

Models with 4 auxiliary switches are available for the 90° angular stroke motor model. The valve position signal can be output to an external device. Additionally, for the 4–20mA input type, models with open/close override function plus 2 auxiliary switches are available.



Selection Guide

A variety of models to meet your application needs.

Appearance		90° type	160° type	
Model No.	ECM3000D	ECM3000E	ECM3000F	ECM3000G
Input signal	Relay contact	Potentiometer	Relay contact	4 to 20mA DC
Operation mode	ON-OFF	Position proportioning	Position proportioning	Position proportioning
Power supply	24V AC 100V AC 200V AC 85 to 264V AC	—	—	—
Output torque	12.5N·m	12.5N·m	12.5N·m or 6N·m ^{*1}	12.5N·m
Angular stroke	90° 39s/33s	160° 69s/58s	90° 39s/33s	160° 69s/58s 20s/16s ^{*2} 35s/29s ^{*2} 39s ^{*4} 72s ^{*4}
Stroke timing (50/60Hz)				
Auxiliary switches (4) ^{*3}	●	—	●	— ● ^{*5} —

^{*1} See the model selection guide table on the next page.

^{*2} The torque of the high-speed motor type is 6N·m.

^{*3} Auxiliary switches (4) are optional.

^{*4} For the 85 to 264VAC power supply type.

^{*5} On models with the open/close override function there are 2 auxiliary switches.