

## 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, 4-20mA, 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 (4-20mA, 85-264Vac types), 15W (open/close override, 4-20mA, 85-264Vac types) 14VA (high-speed motor type)

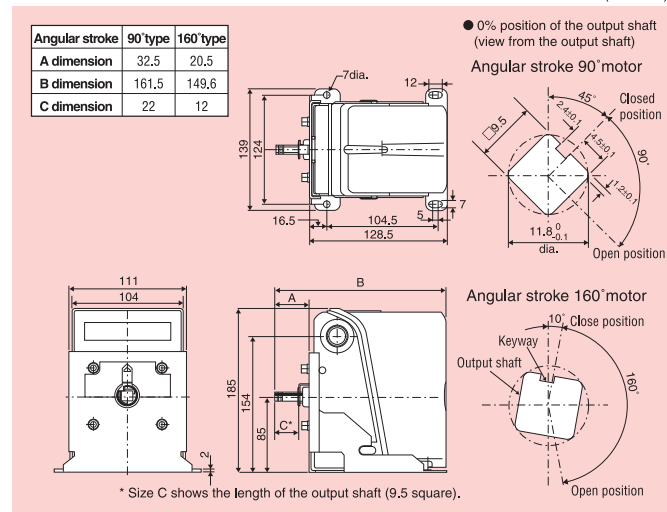
Item	Description
Reference operating conditions	23±2°C, 50±10% RH
Allowable temperature	-20 to +60°C
Allowable humidity	5 to 95% RH (without condensation)
Auxiliary switches (optional)	2 or 4
Auxiliary switch contact rating	250Vac, 5A (resistive load)
Auxiliary switch position at factory setting	Closed : 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

## Model Selection Guide

Model No.	Power (50/60Hz)	Input signal	Angular stroke	Motor timing		Output torque	Remarks	Built-in auxiliary switches (option)
				50Hz	60Hz			
ECM3000D01□0*	24Vac	Relay contact	90°	39s	33s	12.5N·m	ON/OFF control action	4
ECM3000D11□0*	100Vac	Relay contact						
ECM3000D21□0*	200Vac	Relay contact						
ECM3000E01□0*	24Vac	Potentiometer						
ECM3000F01□0*	24Vac	Relay contact						
ECM3000F11□0*	100Vac	Relay contact						
ECM3000F21□0*	200Vac	Relay contact						
ECM3000G01□0*	24Vac	4-20mAdc						
ECM3000G0120**	85-264Vac	4-20mAdc						
ECM3000G91□0*								
ECM3000G9120**				39s				**
ECM3000D03□0*	24Vac	Relay contact	160°	20s	16s	6N·m	High-speed motor type, Feedback potentiometer built-in	4
ECM3000D0200	24Vac	Relay contact						
ECM3000E0200	24Vac	Potentiometer						
ECM3000F0200	24Vac	Relay contact						
ECM3000F1200	100Vac	Relay contact						
ECM3000F2200	200Vac	Relay contact						
ECM3000G0200	24Vac	4-20mAdc						
ECM3000G0220**	85-264Vac	4-20mAdc						
ECM3000G9200								
ECM3000G9220**								
ECM3000F0400	24Vac	Relay contact		35s	29s	6N·m	High-speed motor type, Feedback potentiometer built-in	None

Note: \* Four auxiliary switches can be built into the 90° stroke motor by specifying the model No. Code for □ in model No. 0: Auxiliary switch is not built-in. 1: 4 auxiliary switches built-in type. \*\*2 auxiliary switches + open/close override function

## Dimensions



## 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
83165271-004	Auxiliary switches (4 switches built-in)
83165272-001	Extension unit*
83165272-002	Auxiliary potentiometer for 160° type

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

Please read the "Terms and Conditions" from the following URL before ordering or use:  
<http://www.azbil.com/products/bi/order.html>

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## Azbil Corporation

Advanced Automation Company

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

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URL: <http://www.azbil.com>

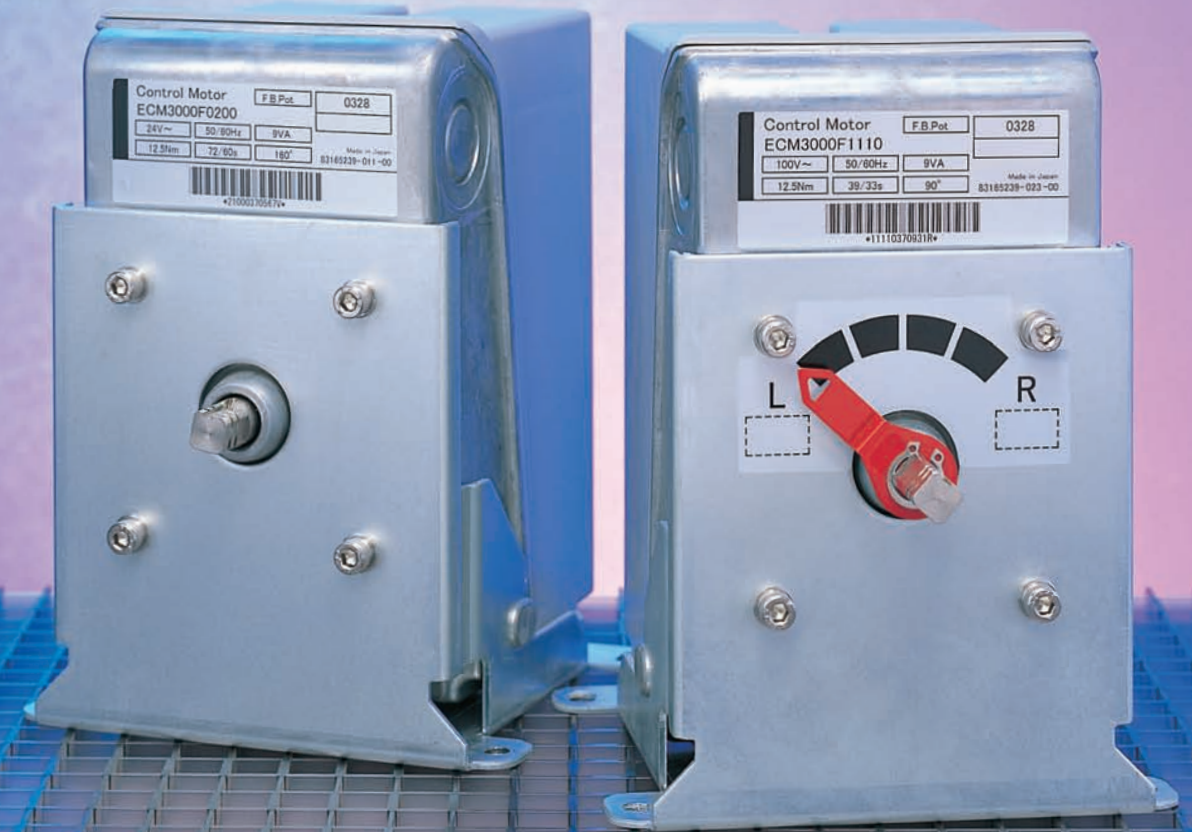
1st Edition : Issued in Jun. 2004-BR  
3th Edition: Issued in Jul. 2012-AZ

# azbil

## Electric Control Motor

# ECM3000

## Versatile Functionality for a Wide Variety of Industrial Applications

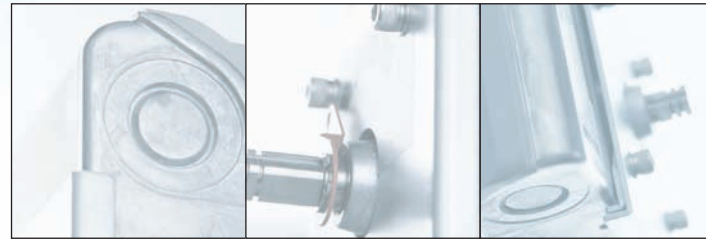




# Powerful, Superior Control

## ECM3000

Electric Control Motor



# ECM3000

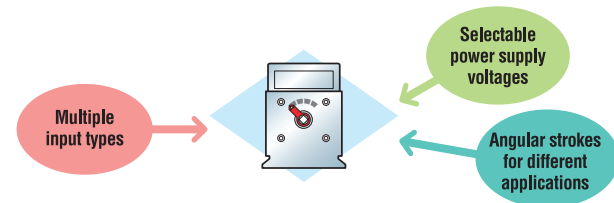


## Advantages

Multiple functions for multiple applications.

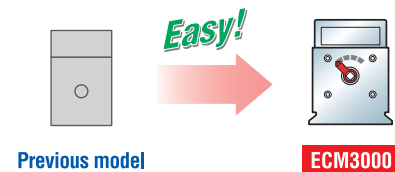
### Wide variety of models

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



### Easy replacement of Azbil Corporation's previous models

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



### Long-life design

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

**LONG LIFE**



### Rugged design is superior for tough environments

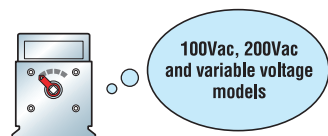
The protective structure of the ECM3000 is IP54 or equivalent. It can endure difficult environmental conditions, even splashing water.



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

### Models that run on 100Vac, 200Vac and variable voltage are available

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



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

<sup>\*1</sup> See the model selection guide table on the next page.  
<sup>\*2</sup> The torque of the high-speed motor type is 6N·m.  
<sup>\*3</sup> Auxiliary switches (4) are optional.  
<sup>\*4</sup> For the 85 to 264Vac power supply type.  
<sup>\*5</sup> On models with the open/close override function there are 2 auxiliary switches.