

# Eddy Current Coupling Motor



#VARIABLE SPEED MOTOR

#MADE IN JAPAN

Since 1953, we have produced ECC-Motors in Japan. Because of their toughness and reliability, our products are still used in many factories.

## 強 Toughness & Durability

Our ECC-Motors are designed for long-time use, and for use in bad condition. They are very tough; some of our products which were produced 20~30years ago are still in use.

## 導 Easy To Install & Use

ECC-Motor do NOT require complicated control systems. You can start using this drive only with a controller & an operator which are for their operation. The way of operating, including speed control, is also very simple. You can gain the motor speed which you want very easily.

## 楽 Easy To Maintain

Structure of our ECC-Motor is very simple. No brushes or slip rings are used, and all bearings are grease-sealed. They do NOT need regular maintenance.

## 比 Comparison

Following list is comparison of ECC-Motors and VFDs (Variable Frequency Drive).

ITEMS	ECC-MOTORS	VFDs
Initial Cost	<b>Low</b>   Only operator and controller are required	High   You need inverters, reactors, noise filters, etc.
Initial Settings	<b>Very Simple</b>	Complicated
Speed Changing	Rough control	<b>Very Minute</b>
Controls	Manual only	<b>Automatic, Manual, etc.</b>
Energy Efficiency	Fair when driving at low speed	<b>Good</b>
Maintenance Cost	<b>Low</b>   Bearing exchanging is required	High   Need to replace inverters in about 10 years
Conditions	<b>Tough for bad conditions</b> : dusty, humid, etc.	Weak for bad conditions
Structure	<b>Simple and tough</b>	Precision instrument

## Applications

- Press Machines
  - Pumps
  - Conveyors
  - Extruders
  - Wind-up machines
  - Feeders
  - Blowers
  - Fans
- etc.

Why many factories still use our ECC- Motors, while VFDs are now getting popular?

- ① **Total cost is reasonable**
  - Energy efficiency is not good, but install and maintenance cost are low.
  - When you consider long-time use, ECC-Motors will be reasonable choice.
- ② **Easy treatment**
  - The structure and control system of ECC-Motor is very simple. You can install, control, set, or maintain this motor very easily.
- ③ **Toughness and durability**
  - This is the biggest reason why factories still adopt this motor. Some of our products have been active for 20~30 years. The factories prize reliability of our ECC-Motors.

 **DHOWA TECHNOS Co.,Ltd.**  
株式会社 ドーワテクノス

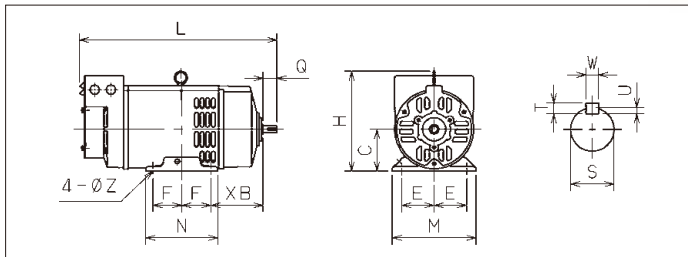
 **YAWATA Electric Machinery Mfg. Co.,Ltd.**  
八幡電機精工株式会社

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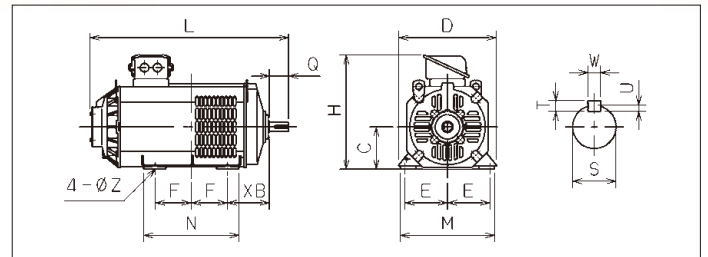
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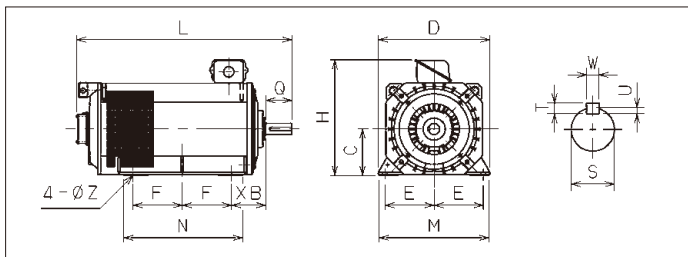
## Models & Size



▲ ECZV-N 0.2~1.5kW



▲ ECZV-N 2.2~11kW



▲ ECZV-N 15~37kW

YAWATA MODEL	kW	SPEED RANGE		MOTOR RATING
		50Hz	60Hz	
ECZV-N	0.2~1.5	1100-100	1500-100	4 pole, 380V, 50Hz and Special Voltage
	2.2~11	1200-100	1650-100	
	15~37	1375-100	1690-100	
ECZV-NO	0.2~1.5	1100-100	1500-100	
	2.2~11	1200-100	1650-100	
	15~37	1375-100	1690-100	

※ECZV-NO is a model for outdoor use.

Model	kW	Dimensions (mm)														
		C	D	E	F	H	L	M	N	XB	Z	Q	S	T	U	W
ECZV-N	0.2	90	-	70	62.5	215	425	180	155	112	-	30	14J6	5	3	5
	0.4	90	-	70	62.5	215	425	180	155	112	-	30	14J6	5	3	5
	0.75	100	-	80	70	235	465	205	170	132	12	40	19J6	6	3.5	6
	1.5	112	257	108	89	260	530	245	210	140	12	50	24J6	7	4	8
	2.2	112	275	118	90	320	570	265	250	125	12	60	28J6	7	4	8
	3.7	132	305	132.5	112	355	620	295	298	132	12	60	28J6	7	4	8
	5.5	160	355	157.5	125	410	715	345	320	160	15	80	38k6	8	5	10
	7.5	160	355	157.5	150	410	770	345	370	160	15	80	38k6	8	5	10
	11	180	395	177.5	157.5	450	835	385	385	180	19	110	42k6	8	5	12
	15	180	435	192.5	192.5	420	920	425	465	150	19	110	42k6	8	5	12
	22	200	485	212.5	212.5	520	1000	475	515	165	19	110	48k6	9	5.5	14
	30	225	535	237.5	250	570	1060	525	600	175	24	110	55m6	10	6	16
	37	250	600	265	265	620	1160	590	640	185	24	140	60m6	11	7	18

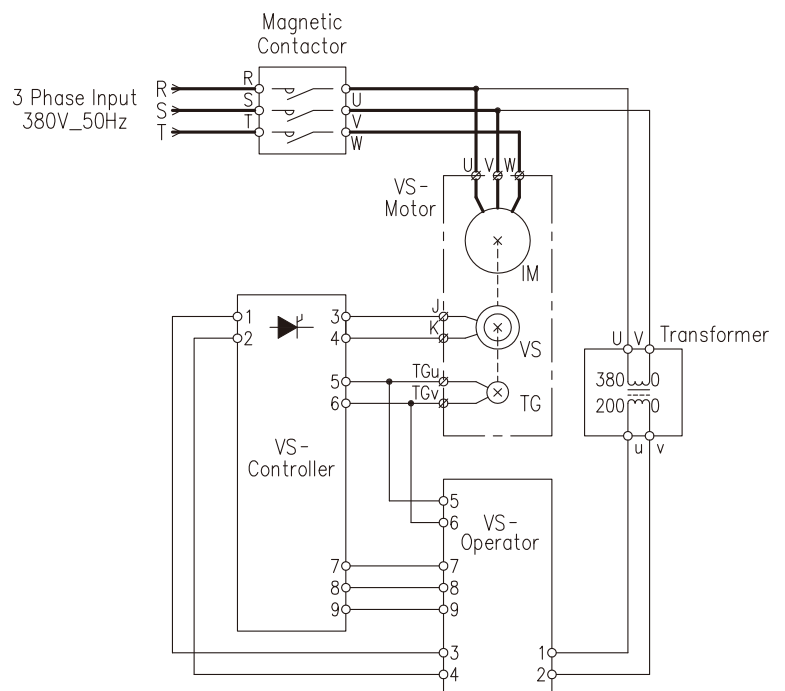
## Controllers & Operators

To use our ECC-Motors a controller and an operator are required. Drawing on right is circuit of basic use. You can control ECC-Motor's output speed by manipulating the operator.

The operator send electric command to the controller, and the controller adjust excitation coil voltage to change motor speed.

## Modules

When you want to control ECC-Motors more complexly (for example operating multiple motors at the same speed, operating one motor from multiple places...), we can provide you modules as options.



▲ Circuit of basic use, when applied 380V

### Contact details

