

# WIRING DIAGRAMS - STANDARD MOTORS

These diagrams apply to **STANDARD FRAME INDUCTION MOTORS** which are used in the following products:-

	Sections
• AD/E..D/V Alpha/Beta Series Diags. DD 4, 5, 6, 7, 10	D
• AD/E..S Alpha Series Supply Diags. DD 4, 5, 6, 7, 10	D
• *AL.. Centrifugal fans Diags. DD 1, 2, 3	E
• *AP/APV.. Axial Flow fans Diags. DD 1, 2, 3, 6, 7, 9, 10	B
• *APB.. Belt-driven axial fans Diags. DD 1, 2, 3, 6, 7, 9, 10	B
• *APS.. Belt-driven axial fans Diags. DD 1, 2, 3, 6, 7, 9	B
• BFA.. Bifurcated fans Diags. DD 1, 2, 3, 6, 7, 9, 10	B
• CGD/E.. GE Series Diags. DD 1, 2, 3, 8, 9, 10	D
• *CHD/E.. Heritage Series Diags. DD 1, 2, 3, 8, 9, 10	D
• CPD/E.. Compact 2000 Diags. DD 1, 4, 5, 6, 7, 10	A
• *FL..DD FlexLine Series Diags. DD 1, 2, 3, 10	E
• FP.. Compact F/Proof Series Diag. DD 8	A
• *HC.. High Capacity Series Diags. DD 1, 2, 3, 10	D
• *PCD/E.. PowerLine Series Diags. DD 1, 2, 3, 7, 9, 10	B
• *RDE.. New Generation Series Diags. DD 1, 2, 3, 9, 10	D
• *RDLE.. Alpha/Beta Industrial Diags. DD 1, 2, 3, 9, 10	D
• *RDS.. New Generation Series Diags. DD 1, 2, 3, 9, 10	D
• RSS.. New Generation Series Diags. DD 1, 2, 3, 9	D
• *RVE.. New Generation Series Diags. DD 1, 2, 3, 9, 10	D
• *RVLE.. Alpha/Beta Industrial Diags. DD 1, 2, 3, 9, 10	D
• SCD/E... Short Cased Series Diags. DD 4, 5, 6, 7	B
• *SQ.. SQ Series Diags. DD 1, 2, 3, 9, 10	A
• SS.. Smoke-Spill Series Diags. DD 1, 2, 3	D

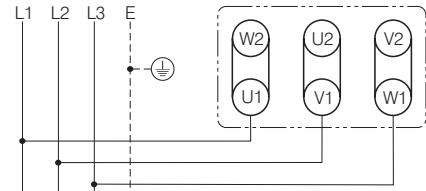
## 3Ø WIRING DIAGRAMS

### Diagram DD1

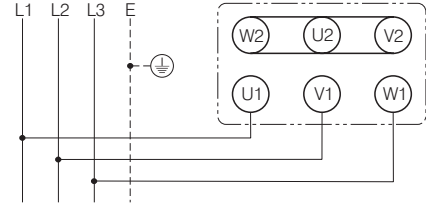
#### SINGLE SPEED MOTORS

refer to the name plate data for correct connection

##### For delta (Δ) wired motors



##### For star (Y) wired motors

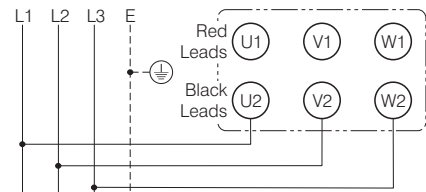


### Diagram DD2

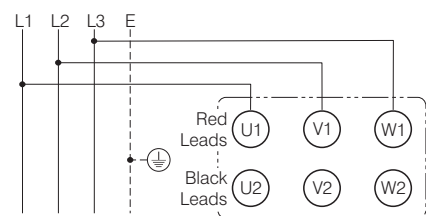
#### TWO-SPEED MOTORS

with 2 separate windings (dual winding)

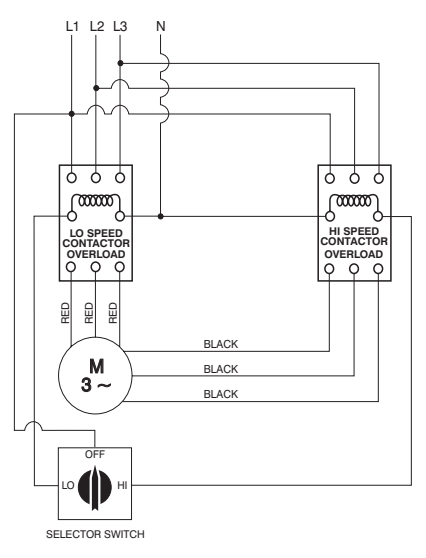
##### High speed



##### Low speed



##### Suggested wiring arrangement



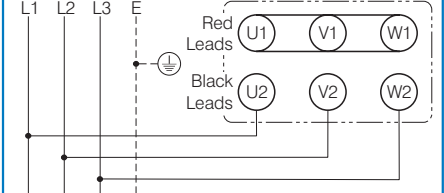
## 3Ø WIRING DIAGRAMS

### Diagram DD3

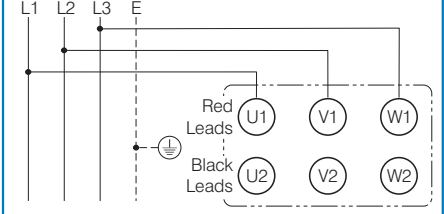
#### TWO-SPEED MOTORS

in Dahlander connection (tapped winding)

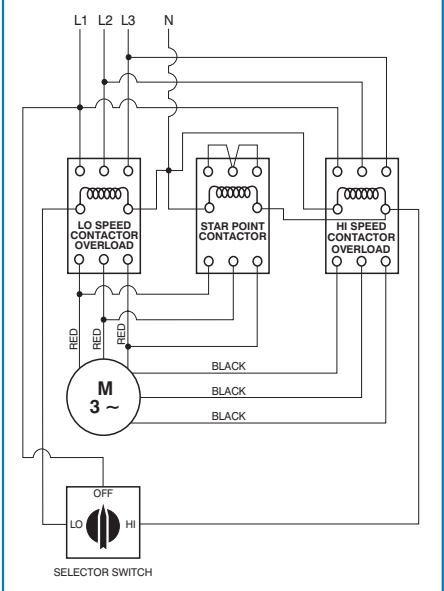
##### High speed



##### Low speed



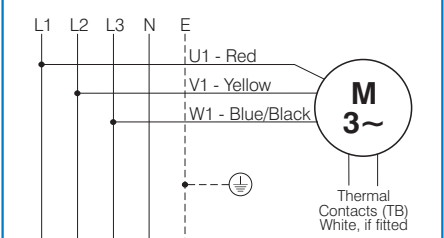
##### Suggested wiring arrangement



### Diagram DD4

#### Single speed only

Codes: ..31. and ..35.



**\*NOTE:** Refer to the motor manufacturer's data on the motor for wiring diagrams on standard frame Ex e, Ex d etc. motors.

These diagrams are current at the time of publication, check the wiring diagram supplied with the motor.

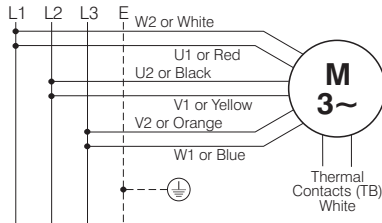
## 3Ø WIRING DIAGRAMS

### Diagram DD5

#### TWO-SPEED MOTORS

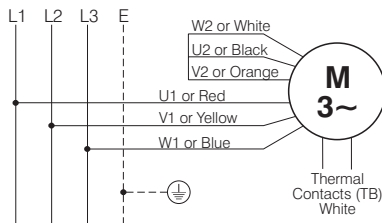
##### High speed delta ( $\Delta$ ) connection

Codes: ..40. to 63.



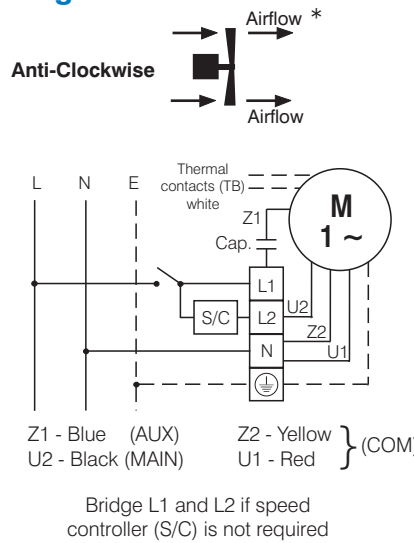
##### Low speed star ( $\gamma$ ) connection

Codes: ..40. and upwards



## 1Ø WIRING DIAGRAMS (Form A)

### Diagram DD6

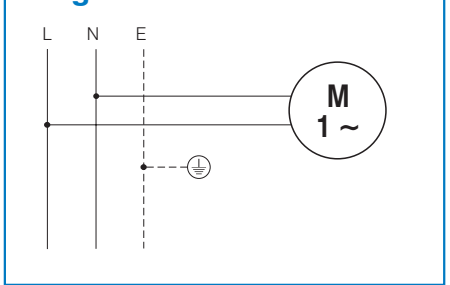


Note:  
This diagram suits speed controllers, VA2.0 and VA2.8 only. When using the AVA5.0, VA5.0 and VA8.0 speed controllers, use the AUX, MAIN and COM connections.

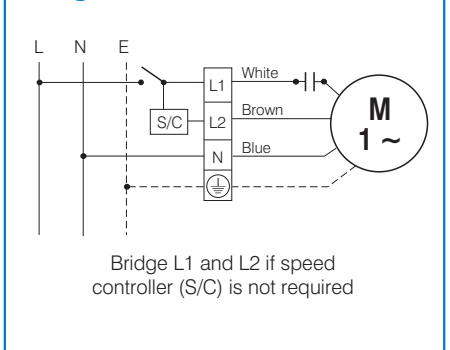
\* Airflow direction base on left-hand blade installation.

## 1Ø WIRING DIAGRAMS

### Diagram DD8



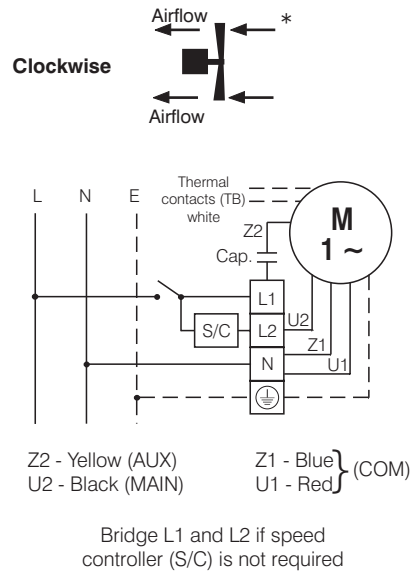
### Diagram DD9



For all other SINGLE-PHASE wiring diagrams refer to the manufacturers data on the motor.

## (Form B)

### Diagram DD7



Note:  
This diagram suits speed controllers, VA2.0 and VA2.8 only. When using the AVA5.0, VA5.0 and VA8.0 speed controllers, use the AUX, MAIN and COM connections.

\* Airflow direction base on left-hand blade installation.

These diagrams are current at the time of publication, check the wiring diagram supplied with the motor.

# WIRING DIAGRAMS - EXTERNAL ROTOR MOTORS

These diagrams mainly apply to **EXTERNAL ROTOR MOTORS** but some standard frame induction motor diagrams have been included for ease of presentation.

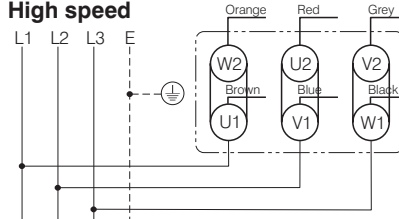
	Sections
• CD/E..D/V Gamma Series Diags. ER 1, 2, 4, 5	D
• CD/E..S Gamma Supply Series Diags. ER 1, 2, 4, 5	D
• CF.. Compact axial fans Single-phase motors Diag. ER 6	B
• EDM.. EDM Series Diags. ER 6, 7	A
• GRE.. Sigma Series Diag. ER 4	E
• HCM... HCM Series Diag. ER 4	A
• HV.. Stylvent Series Diags. ER 6, 8	A
• HXM.. HXM Series Diag. ER 6	A
• MT.. Minitube Series Diags. ER 4, 6	B
• MV..E Minivent Exhaust Series Diags. ER 4, 6	D
• MV..S Minivent Supply Series Diags. ER 4, 6	D
• RP.. Ring Plate Series Diag. ER 4	A
• VM.. VentMajor Series Diag. ER 6	B
• SILDES Silent Design Series Diag. ER 6	A
• EWE Ezifit Thru Wall Diag. ER 4	A

## 3Ø WIRING DIAGRAMS

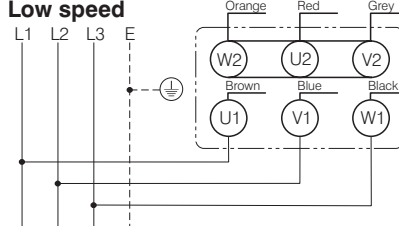
### Diagram ER1

#### TWO-SPEED MOTORS

##### High speed



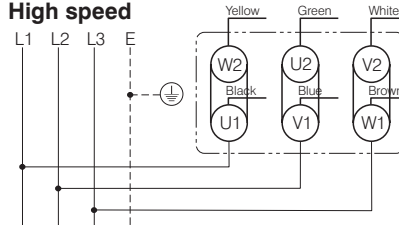
##### Low speed



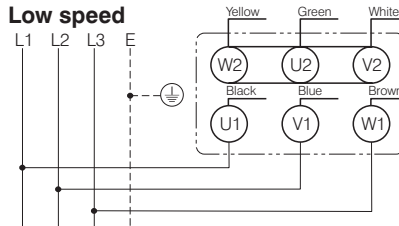
### Diagram ER2

#### TWO-SPEED MOTORS

##### High speed

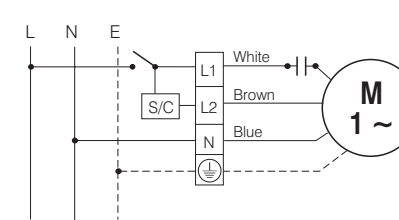


##### Low speed



## 1Ø WIRING DIAGRAM

### Diagram ER3

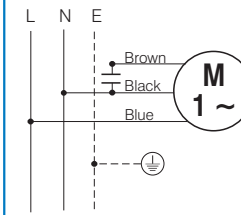


Bridge L1 and L2 if speed controller (S/C) is not required

## 1Ø WIRING DIAGRAMS

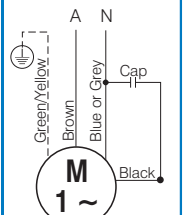
### Diagram ER4

#### 3 active wires plus auto-reset thermal contacts



Codes: CE19.. to CE28..  
+ other fans as shown

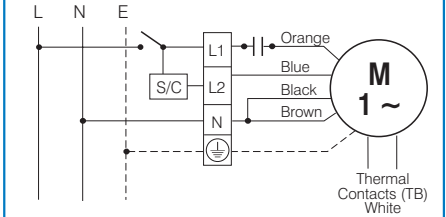
#### Single phase AC motor with capacitor



CE31 only

### Diagram ER5

#### 4 active wires plus manual-reset thermal contacts

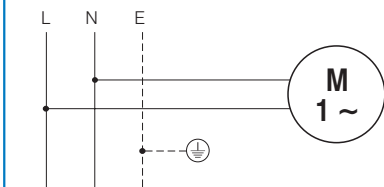


Bridge L1 and L2 if speed controller (S/C) is not required

Codes: CE35.. and over + other fans as shown

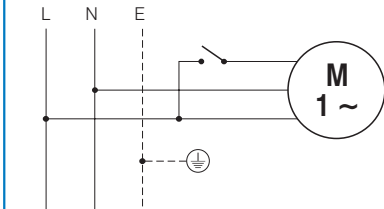
### Diagram ER6

#### Codes: EDM..S & ..C; HV-150AE; MT132; MV112 & MV132 SILDES



### Diagram ER7

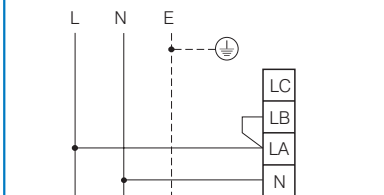
#### Codes: EDM..CT & ..CR



### Diagram ER8

#### Codes: HV-230AE & HV-300AE

Exhaust air mode. For supply air mode bridge LA & LC do not bridge LA & LB.



These diagrams are current at the time of publication, check the wiring diagram supplied with the motor.

# WIRING DIAGRAMS - EXTERNAL ROTOR MOTORS

These diagrams apply to **EXTERNAL ROTOR MOTORS** that are fitted to the following products:-

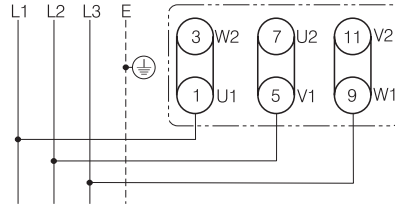
- EIE.. Ezifit In-Wall  
Diag. ER 10
- JWV.. JetVent Warehouse  
Diag. ER 9

Pgs  
A  
G

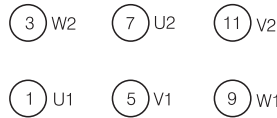
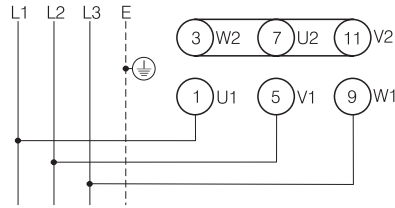
## 3Ø WIRING DIAGRAMS

### Diagram ER9 2 speed Star/Delta motor with 6 pole isolator

#### High speed Delta ( $\Delta$ )



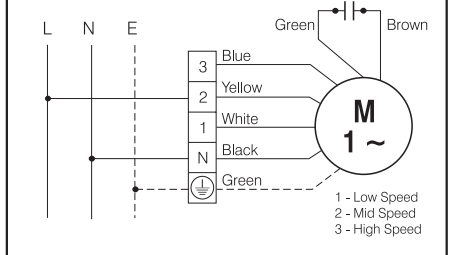
#### Low speed star (Y)



## 1Ø WIRING DIAGRAMS

### Diagram ER10

Codes: EIE150



These diagrams are current at the time of publication, check the wiring diagram supplied with the motor.

# WIRING DIAGRAMS - EC MOTORS

The following EC motors the diagrams have been simplified for ease of presentation. There are many different programming set ups, control signal types, and input/output options available. For detailed information please see the installation manual provide with the fan or contact Fantech.

EC fans should be permanently powered and the control inputs used to operate the fan. EC fans are not to be power cycled regularly; this can damage the fan and will void warranty.

These diagrams apply to EC motors that are fitted to the following products.

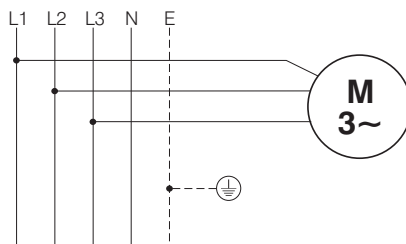
These diagrams apply to EC motors that are fitted to the following products.

		Sections
• APEC..	Ecotronic Axial Diag. EC7	B
• CD/EEC..D/V	Gamma EC Diag. EC1, EC2, EC3, EC4, EC5, EC6	D
• CD/EEC..S	Gamma EC Supply Diag. EC1, EC2, EC3, EC4, EC6	D
• CPEEC..DD	Compact 2000 Ecotronic Diag. EC1, EC2, EC3, EC4, EC5, EC6	A
• GUE/DEC..D/V	Gamma Ultra EC Diag. EC1, EC2, EC3, EC4, EC6	D
• PCE/DEC..	Powerline EC Diag. EC1, EC2, EC3, EC4, EC6	B
• PCEEC..DD	Powerline Ecotronic Diag. EC7	B
• PUE/DEC..	Powerline Ultra EC Diag. EC1, EC2, EC3, EC4, EC6	B
• JETLINE-.ECO	Jetline Ecowatt Diag. EC8	B
• JIU-CPCEC-..	JetVent EC Diag. EC1, EC2, EC6	F
• SCEEC..	Short Case Axial EC Diag. EC1, EC2, EC3, EC4, EC5, EC6	B
• ZFH..EC	AeroMini EC, ZOO EC, AeroMix EC Diag. EC5, EC7	G

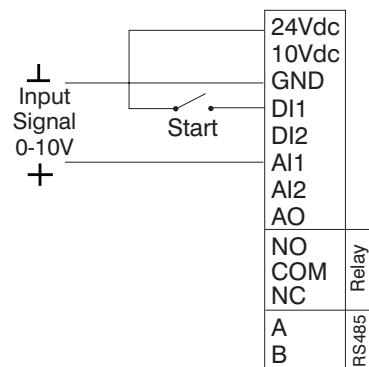
## 3Ø WIRING DIAGRAMS

### Diagram EC1

#### POWER CONNECTIONS



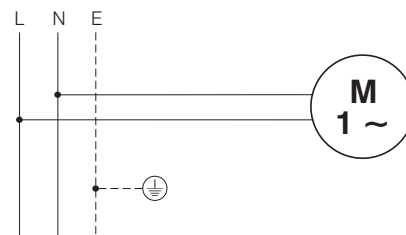
#### CONTROL CONNECTIONS



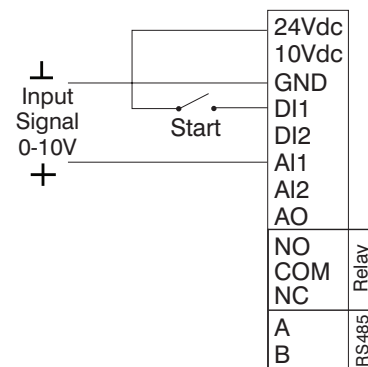
## 1Ø WIRING DIAGRAMS

### Diagram EC3

#### POWER CONNECTIONS

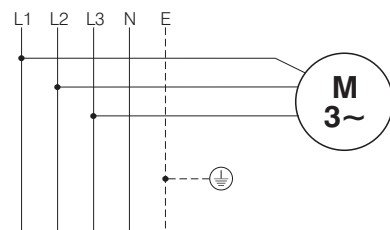


#### CONTROL CONNECTIONS

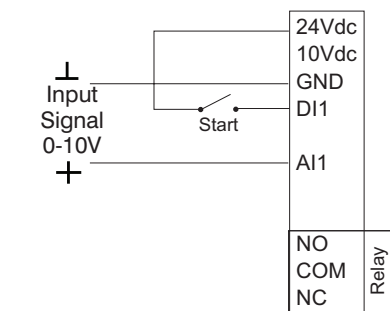


### Diagram EC2

#### POWER CONNECTIONS

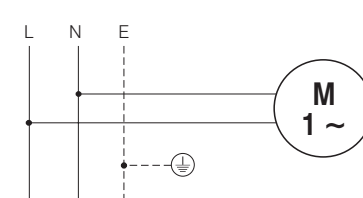


#### CONTROL CONNECTIONS

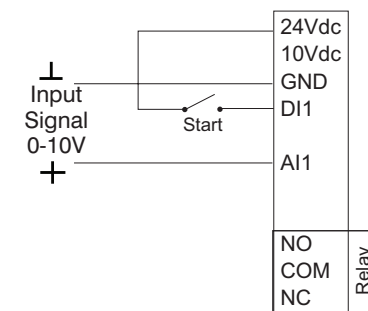


### Diagram EC4

#### POWER CONNECTIONS



#### CONTROL CONNECTIONS



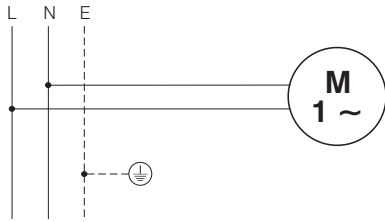
These diagrams are current at the time of publication, check the wiring diagram supplied with the motor.

# WIRING DIAGRAMS - EC MOTORS

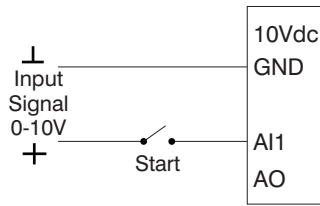
## 1Ø WIRING DIAGRAMS

**Diagram EC5**

**POWER CONNECTIONS**



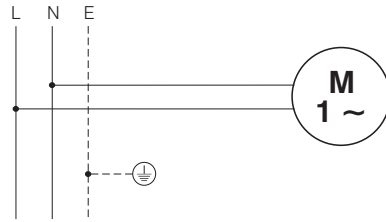
**CONTROL CONNECTIONS**



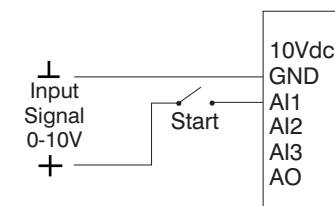
## 1Ø WIRING DIAGRAMS

**Diagram EC7**

**POWER CONNECTIONS**



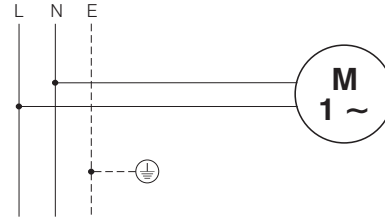
**CONTROL CONNECTIONS**



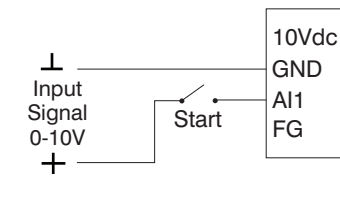
## 1Ø WIRING DIAGRAMS

**Diagram EC8**

**POWER CONNECTIONS**

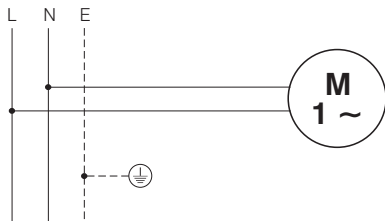


**CONTROL CONNECTIONS**

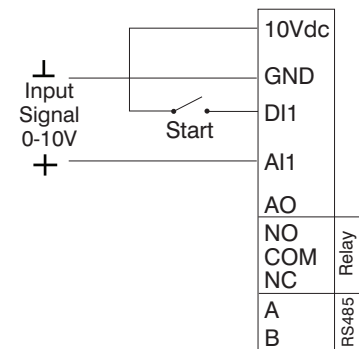


**Diagram EC6**

**POWER CONNECTIONS**



**CONTROL CONNECTIONS**



These diagrams are current at the time of publication, check the wiring diagram supplied with the motor.

