

# Orientalmotor

ORIENTAL MOTOR U.S.A. Corp.  
570 Alaska Avenue  
Torrance, CA 90503  
1-800-GO-VEXTA (468-3982)

## Item # 5IK90GE-SW2T / 5GE7.5SA, 90 W (1/8 HP) Induction Motor (7.5:1 Gear Ratio) (Three-Phase 200/220/230 VAC)

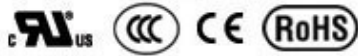
Induction motors are optimal for uni-directional continuous operation such as a conveyor system.

Optimal for uni-directional continuous operation

Conform to safety standards and global power supply voltages



Motor & gearhead ship separately.



### [Specifications](#) | [Dimensions](#) | [Connection](#) | [System](#)

#### Specifications

**Lead Time<sup>1</sup>** Contact your local sales office for more information.

**Product Line** Oriental Motor ®

**Motor Type** Induction

**Frame Size** 3.54 in

**Output Power** 90 W (1/8 HP)

**Voltage (VAC)** Three-Phase 200/220/230 VAC

**Frequency (Hz)**  
60  
50

**Current**  
0.59 A [200 VAC, 60 Hz]  
0.60 A [220 VAC, 60 Hz]  
0.61 A [230 VAC, 60 Hz]  
0.64 A [200 VAC, 50 Hz]

**Shaft/Gear Type** Parallel Shaft Gearhead

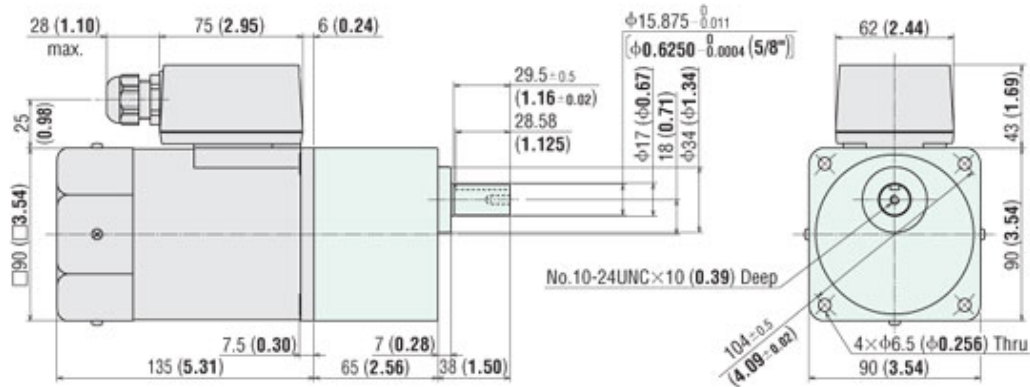
**Gear Ratio (X:1)** 7.5 :1

<b>Output Shaft</b>	Imperial
<b>Output Shaft Diameter</b>	5/8 in.
<b>Type</b>	Terminal Box
<b>Electromagnetic Brake</b>	Not Equipped
<b>Rated Torque</b>	30 lb-in [60 Hz] 36 lb-in [50 Hz]
<b>Rated Speed (rpm)</b>	200 [200 VAC, 50 Hz] 240 [60 Hz]
<b>Permissible Load Inertia</b>	337.50 oz-in <sup>2</sup>
<b>Permissible Overhung Load</b>	0.39 in. from Shaft End = 90 lb 0.79 in. from Shaft End = 112 lb
<b>Permissible Thrust Load</b>	33 lb
<b>RoHS Compliant</b>	Yes
<b>Safety Standards</b>	UL CSA CCC EN CE
<b>CE Marking</b>	Low Voltage Directives
<b>Insulation Resistance</b>	100 M $\Omega$ or more when 500 VDC megger is applied between the windings and the frame after rated motor operation under normal ambient temperature and humidity.
<b>Dielectric Strength</b>	Sufficient to withstand 1.5 kV at 50 Hz or 60 Hz applied between the windings and the frame for 1 minute after rated motor operation under normal ambient temperature and humidity.
<b>Temperature Rise</b>	Temperature rise of windings are 126°F (70°C) or less measured by the resistance change method after rated motor operation with connection to gearhead.
<b>Insulation Class</b>	Class B (266°F [130°C])
<b>Overheat Protection</b>	Built-in thermal protector (Automatic return type). Operating temperature, open: 266°F $\pm$ 9°F (130°C $\pm$ 5°C) close: 179.6°F $\pm$ 27°F (82°C $\pm$ 15°C)
<b>Ambient Temperature Range</b>	Three-phase 200 VAC: 14°F ~ 122°F (-10°C ~ 50°C) (nonfreezing) Other voltage: 14°F ~ 104°F (-10°C ~ 40°C) (nonfreezing)
<b>Ambient Humidity</b>	85% maximum (noncondensing)
<b>Degree of Protection</b>	IP54

## Dimensions Unit = mm (inch)

### ◇ Terminal Box Type ②

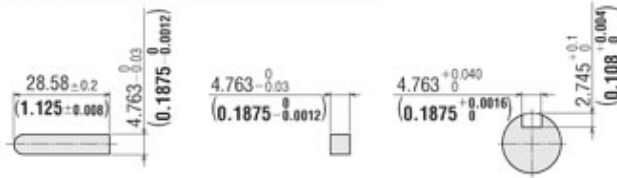
Mass: Motor 3.3 kg (7.3 lb.)  
Gearhead 1.5 kg (3.3 lb.)



● Use cable with a diameter of  $\phi 6 \sim \phi 12$  mm ( $\phi 0.24 \sim \phi 0.47$  inch).

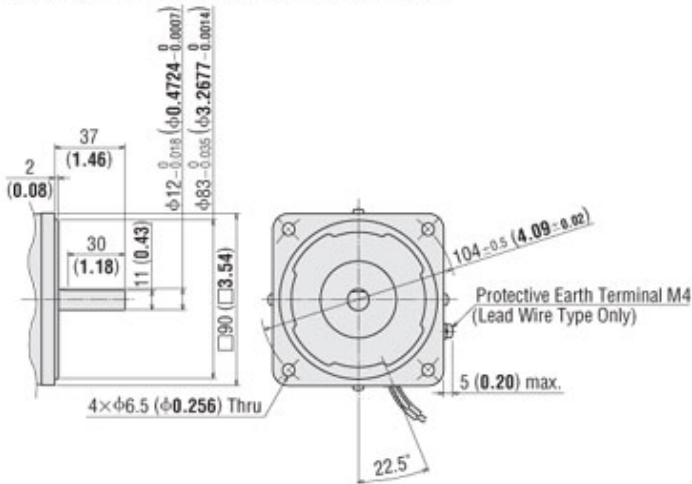
### ◇ Key and Key Slot

(The key is included with the gearhead)



### ◇ Shaft Section of Round Shaft Type

The mass and motor's dimensions (excluding the shaft section) are the same as those of the pinion shaft type.



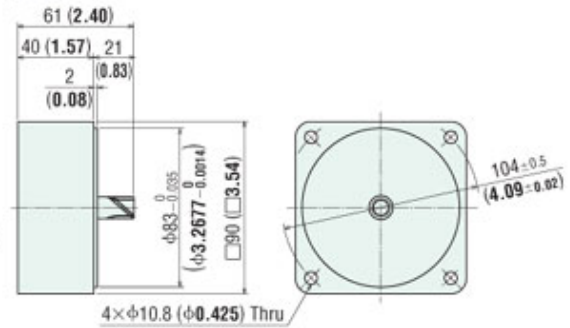
### ◇ Decimal Gearhead

Can be connected to **GE** pinion shaft type.

#### 5GE10XS

Mass: 0.6 kg (1.32 lb.)

#### CAD A029



## Connection Diagrams

- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.

Lead Wire Type		Terminal Box Type	
5IK90GE-AW2U 5IK90GE-CW2E	5IK90GE-SW2	5IK90GE-AW2TU 5IK90GE-CW2TE	5IK90GE-SW2T
<p><b>Clockwise</b></p>	<p><b>Clockwise</b></p> <p><b>Counterclockwise</b> To change the rotation direction, change any two connections between R, S and T.</p>	<p><b>Clockwise</b></p>	<p><b>Clockwise</b></p> <p><b>Counterclockwise</b> To change the rotation direction, change any two connections between R, S and T.</p>
<p><b>Counterclockwise</b></p>	<p><b>Counterclockwise</b></p>	<p><b>Counterclockwise</b></p>	<p><b>Counterclockwise</b></p>


PE: Protective Earth

**Note:**


Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, motor may ignore reversing command or change its direction of rotation after some delay.

## System


## System Configuration




**Mounting Brackets (Accessories)**



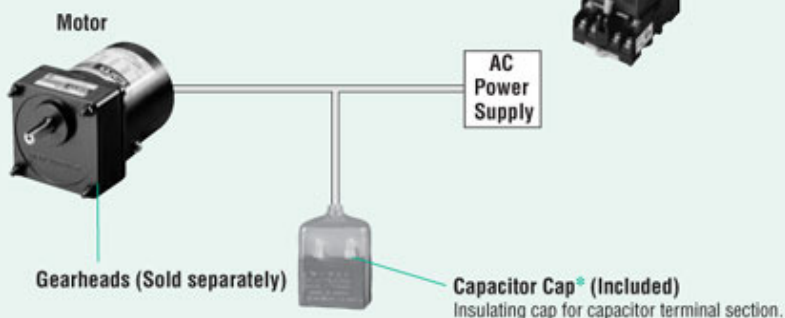
**Flexible Couplings (Accessories)**



**Brake Pack SB50W (Sold separately)**  
Equipped with instantaneous stopping functions, thermal protector open detection functions.



**Right-Angle Gearheads (Sold separately)**



**Motor**

**AC Power Supply**

**Gearheads (Sold separately)**

**Capacitor (Included)**

**Capacitor Cap\* (Included)**  
Insulating cap for capacitor terminal section.

<sup>1</sup> Quoted Ship Date for orders placed before 12:00 pm PST. Quantities may affect Shipping Date.

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