

Oriental motor

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

Item # FPW690S2-3, 90 W (1/8 HP) Washdown Gear Motor (3:1 Gear Ratio) (Three-Phase 200/220/230 VAC)



The FPW Series washdown gear motors are watertight, dust-resistant geared induction motors which conform to IEC standard IP67.



Web Price

\$633.00

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Specifications

Lead Time¹ Please contact Sales for Lead-time.

Product Line Oriental Motor®

Motor Type IP67 Rated Washdown Induction

Frame Size 4.09 in

Output Power 90 W (1/8 HP)

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

Frequency (Hz)
60
50

Current
0.49 A [230 VAC, 60 Hz]
0.50 A [220 VAC, 60 Hz]
0.51 A [200 VAC, 60 Hz]
0.54 A [200 VAC, 50 Hz]

Gear Ratio (X:1) 3 :1

Output Shaft Diameter 18 mm

Type Cable



Rated Torque	12.3 lb-in [60 Hz] 15 lb-in [50 Hz]
Rated Speed (rpm)	500 [200 VAC, 50 Hz] 600 [60 Hz]
Permissible Load Inertia	98 oz-in ²
Permissible Overhung Load	0.39 in. from Shaft End = 123 lb 0.79 in. from Shaft End = 180 lb
Permissible Thrust Load	45 lb
RoHS Compliant	Yes
Safety Standards	UL CSA CCC EN CE
CE Marking	Low Voltage Directives
California Proposition 65	<p>⚠ CA WARNING Cancer risk from exposure to Nickel. See www.P65Warnings.ca.gov Risk of reproductive harm from exposure to Di-n-hexyl phthalate (DnHP). See www.P65Warnings.ca.gov Risk of cancer and reproductive harm from exposure to Di(2-ethylhexyl phthalate (DEHP). See www.P65Warnings.ca.gov See "?" or copy/paste www.P65Warnings.ca.gov in your browser.</p>
Insulation Resistance	100 MΩ or more when 500 VDC megger is applied between the windings and the frame after rated motor operation under normal ambient temperature and humidity.
Dielectric Strength	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.
Temperature Rise	126°F (70°C) or less measured by the resistance change method after rated motor operation under normal ambient temperature and humidity.
Insulation Class	Class B (266°F [130°C])
Overheat Protection	Built-in thermal protector (Automatic return type). Operating temperature, open: 266°F ± 9°F (130°C ± 5°C) close: 185°F ± 36°F (85°C ± 20°C)
Ambient Temperature Range	14°F ~ 104°F (-10°C ~ 40°C) (nonfreezing) [Three-Phase 200 V: 14°F ~ 122°F (-10°C ~ 50°C) (nonfreezing)]
Degree of Protection	IP67

Screws

● **Screws (Included)**
(Material: Stainless Steel)



	ℓ	Screw Size
FPW425 Type	3.15 inch (80 mm)	M5 P0.8
FPW540 Type	3.54 inch (90 mm)	M6 P1.0
FPW560 Type	3.54 inch (90 mm)	M6 P1.0
FPW690 Type	3.94 inch (100 mm)	M8 P1.25

4 washers and 4 hexagonal nuts are provided with the screws.

Screws

Connection

■ **Connection and Operation**

- The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents counterclockwise direction.
- The connection method varies with the output power or the gear ratio.
- For added safety, it is advisable to use a ground fault interrupt circuit in situations where the motor is likely to get wet during operation.

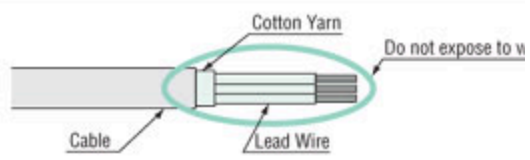
	Single-Phase 110/115 VAC, Single-Phase 220/230 VAC		Three-Phase 200/220/230 VAC	
25 W (1/30 HP) 40 W (1/19 HP)	Gear Ratio 3~18 50~180	Gear Ratio 25~36	Gear Ratio 3~18 50~180	Gear Ratio 25~36
60 W (1/12 HP)	Gear Ratio 3~9 25~60	Gear Ratio 12.5~18 75~180	Gear Ratio 3~9 25~60	Gear Ratio 12.5~18 75~180
90 W (1/8 HP)	Gear Ratio 3~9 50~180	Gear Ratio 12.5~36	Gear Ratio 3~9 50~180	Gear Ratio 12.5~36
Connection	<p>Clockwise</p>	<p>Clockwise</p>	<p>Clockwise</p>	<p>Clockwise</p>
	<p>Counterclockwise</p>	<p>Counterclockwise</p>	<p>Counterclockwise</p> <p>To rotate the motor in a counterclockwise direction, change any two connections between R, S and T.</p>	<p>Counterclockwise</p> <p>To rotate the motor in a counterclockwise direction, change any two connections between R, S and T.</p>

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, the motor may ignore reversing command or change its direction of rotation after some delay.

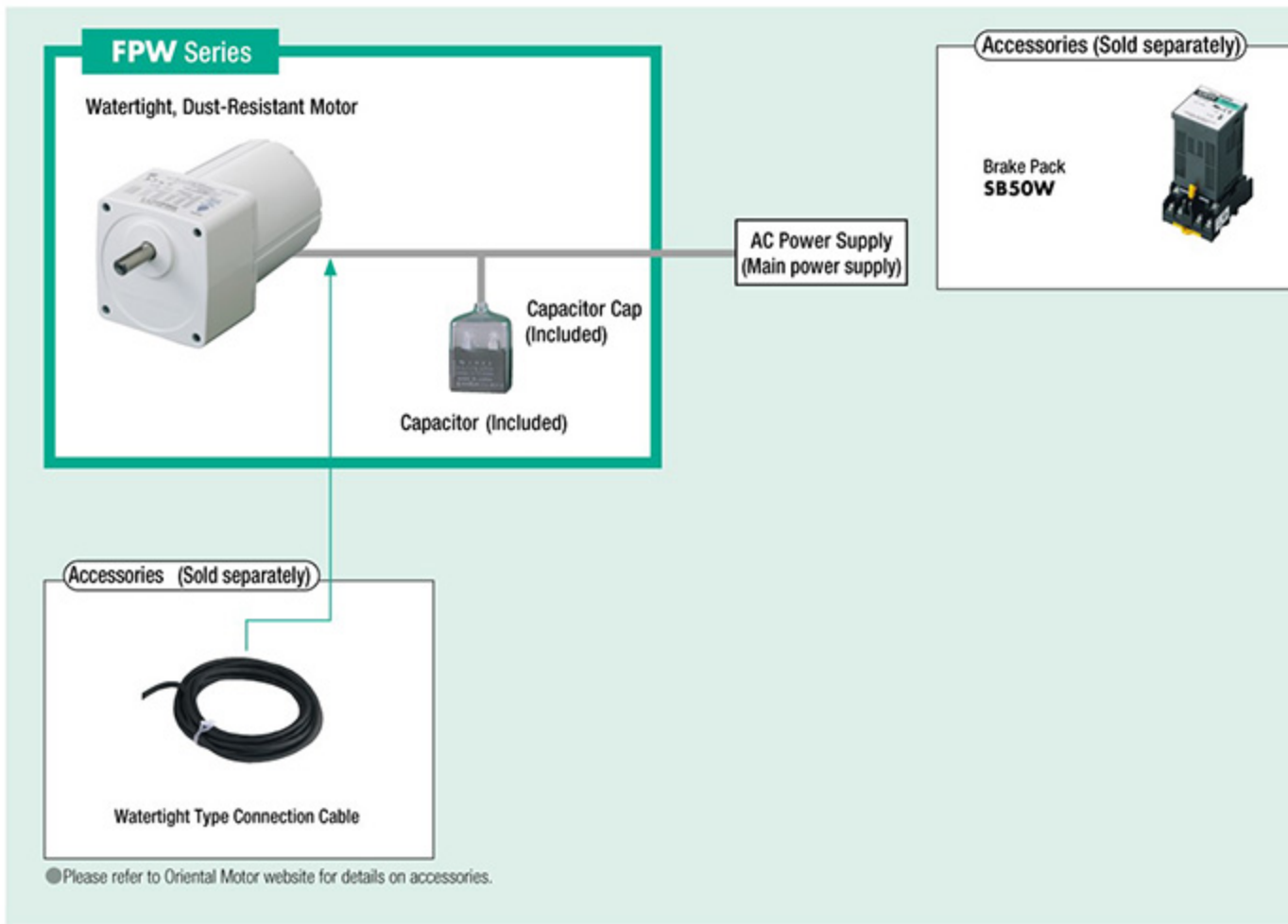
Wiring precautions:

The terminals of the cable are not waterproofed. Be sure not to splash water on the cable terminal, otherwise water could seep inside the motor through the lead wire or the fabric covering, resulting in damage to the motor.



System

System



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

