

# WHAT 6" SUBMERSIBLE MOTOR TYPE

## IS RIGHT FOR YOUR APPLICATION?

### FEATURES & BENEFITS

Feature	Benefit	ENCAPSULATED	Wet-Wound
Hermetically Sealed Stator	Protect winding from ambient conditions	✓	
Resin Winding Encapsulation	Maximize winding stability and heat transfer	✓	
Removable Lead	Field replaceable in case of damage	✓	
Double-Flange Design	Ease of handling and pump mounting	✓	
Water-Lubricated Bearing System	Lower bearing losses versus other mechanical systems, i.e. ball bearings	✓	✓
Pressure-Equalizing Diaphragm	Maintain safe internal working pressure	✓	✓
Sand Slinger	Protect shaft seal from debris	✓	✓
3 Lead & 6 Lead (YD) Connection Config.	Design flexibility to suit application requirements	✓	✓
On-Winding Temperature Sensor	Protect motor from damaging temperatures	✓	
Corrosion Resistant Material Options	Design flexibility to suit application requirements	✓	
High Ambient Temperature Ratings	Design flexibility to suit application requirements	✓	
High Efficiency Ratings <sup>1</sup>	Maximize power savings and reduce life cycle costs	✓	
Special Rated Voltages	Design flexibility to suit application requirements	✓	
Assembled in a U.S.A. ISO-9001 Facility	Maximize quality according to industry standards	✓	
High Pressure Testing Available	Qualify motor performance for high submergence installations	✓	
Motor Calibration Testing Available	Calibrate motor performance for application critical requirements	✓	
Field Service Support	On-site troubleshooting and technical training support from product knowledge experts	✓	
Technical Service Line	Troubleshooting and product technical support from product knowledge experts	✓	✓
Online Selection Program <sup>2</sup>	Ease of configuring the right motor, pump, and control system for the application	✓	

Review the differences between encapsulated and wet-wound motor constructions and decide if your application would benefit more from a Franklin Electric encapsulated motor.

### AVAILABLE FRANKLIN ELECTRIC ENCAPSULATED MOTORS:

- 6" Sand Fighter
- 6" DR56
- 6" HiTemp 90 °C
- 6" Volt-X
- 6" MagForce™
- 6" 316 SS

### INSTALLATION / APPLICATION RECOMMENDATIONS

	HIGH TEMP. ENCAPSULATED	STANDARD ENCAPSULATED	Wet-Wound
Variable Frequency Drive	★ ★ ★	★ ★ ★	✗
Open-Delta Power Grid System	★ ★ ★	★ ★	★
Reduced Voltage Starter	★ ★ ★	★ ★	★
Hermetically Sealed Booster	★ ★ ★	★ ★	✗
Horizontal Operation	★ ★ ★	★ ★	★
No Cooling Flow (open body of water) <sup>3</sup>	★ ★ ★	✗	✗
High Ambient Temperature (greater than nameplate)	★ ★ ★	★	✗
Potable Water (requires NSF/ANSI-61)	Not Applicable	★ ★ ★	✗
High Start Count & Long Life Expectancy	★ ★ ★	★ ★	✗

GOOD: ★ BETTER: ★ ★ BEST: ★ ★ ★ Not Recommended: ✗

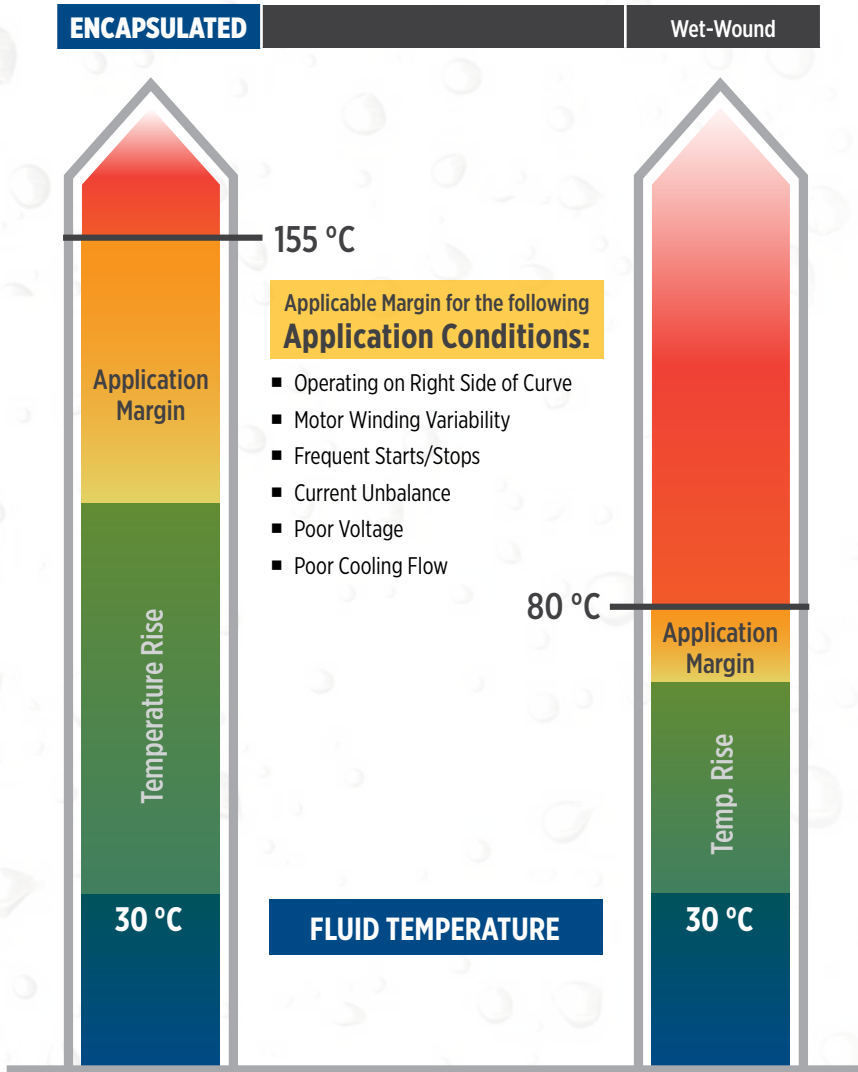
<sup>1</sup> MagForce™ Permanent Magnet Motor System

<sup>2</sup> FE encapsulated motors can be found on FE Select to easily be configured with pumps and controls

<sup>3</sup> High temperature ratings provide best reliability

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## APPLICATION TEMPERATURES



## SPECIFICATION & PERFORMANCE

	ENCAPSULATED	Wet-Wound
Horsepower Ratings	5-60	5-60
Typical Power Density (hp/inch)	0.66 hp/in	0.60 hp/in
Rated Speed	3450	3450
Nameplate Voltage Tolerance	+10% / -10%	+6% / -10%
Motor Insulation Rating	Class F (155 °C)	Not Applicable <sup>4</sup>
Duty Rating	Continuous	Continuous
Typical Nameplate Ambient Temperature	30 °C (86 °F)	30 °C (86 °F)
High Temperature Application Maximum Rating Available	90 °C (194 °F) <sup>5</sup>	60 °C (140 °F) <sup>6</sup>
Required Cooling Flow	0.5 ft/sec	1.0 ft/sec
Submergence Rating	500 psi	350 psi
Storage Temperature	-40 °C to 55 °C (-40 °F to 130 °F)	-20 °C to 70 °C (-4 °F to 158 °F)
Lab Test Starts	Over 1,000,000	20,000
Pre-Installation Fill Solution Check	Not Required	Recommended
Pump Mounting	NEMA	NEMA
Drinking Water Certification	NSF/ANSI-61	None
Motor Electrical Certification	ANSI/UL 778 CSA	None

<sup>4</sup> Below lowest IEC ratings for magnet wire insulation classes

<sup>5</sup> Franklin Electric offers standard HiTemp 90 °C designs

<sup>6</sup> Requires date and maintenance of rubber components