

# Electric Fire Pump Controllers

Starting Method	% Motor Full Load Starting Amps	% Torque	Advantages	Disadvantages	Cost Index
Full Voltage	600	100	Low Cost High Starting Torque Uses Standard Motors	High Starting Current	100
Part Winding	390	42	Low Cost	Special Motors	120
Wye-Delta Open	200	33	Low Starting Current Medium Starting Torque	Power Line Transients Special Motors	130
Wye-Delta Closed	200	33	Low Starting Current Medium Starting Torque No Line Transients	More Expensive	185
Primary Resistor	300	25	Standard Motors Low Starting Torque	High Starting Current Resistive Heating	150
Auto Transformer	150 – 50% Tap 252 – 65% Tap 384 – 80% Tap	25 42 64	Highest Starting Torque Low Starting Current Uses Standard Motors	Expensive	200
Solid State Soft Start	240-340	15	Soft Start & Soft Stop Reduced Water Hammer Redundant Power Circuit Standard Motors	Expensive	180
VFD	125	100	Pressure Limiting Soft Start & Stop Reduced Water Hammer Standard Motors Redundant Power Circuit	Most Expensive Large Footprint	450