

## Soft starter benefits for

## Marine Applications

BENEFIT		FEATURE	Blower / Fan	Bow Thruster	Compressor	Hydraulic Power Pack	Pump	Winch
Protect equipment	Prevent damage due to reverse operation	Phase sequence						
	Prevent damage from jammed loads	Instantaneous overcurrent						
	Prolong life of pumps, pipes, valves and headworks by preventing water hammer	Soft stop						
	Early warning of abnormal load conditions (broken couplings, blocked pipes, etc.)	Undercurrent						
	Smooth take-up with gradual tensioning	Gentle acceleration						
Maximize productivity	Safely use full motor capacity without nuisance tripping	Motor thermal model						
	Complete critical processes	PowerThrough						
Smoother operation	Minimize stress on electrical supply	Reduced start current						
	Reduce mechanical stress during start	Gentle acceleration						
Intelligent control of the whole system	Override motor and system protections in emergency situations (e.g. fire pumps, ventilation fans)	Emergency run						
	Simplify control circuits by directly connecting pressure switches	Digital inputs						
	Improve system performance with closed loop process control	Analog output						