

## Soft starter benefits for

## **HVAC/Building Service Applications**

BENEFIT		FEATURE	Compressor	Fan	Pump	Escalator	Elevator
Protect equipment	Prevent damage due to reverse operation	Phase sequence	-				
	Prevent damage due to ammonia fluid	Instantaneous current	-				
	Prevent damage from misalignment of compressor screws	Instantaneous current					
	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					
Maximize productivity	Safely use full motor capacity without nuisance tripping	Motor thermal model					
	Maximize operation during periods of high loading	Motor thermal model	•				
	Control compressor loading according to motor loading	Analog output					
Smoother operation	Minimize stress on electrical supply	Reduced start current					
	Reduce mechanical stress during start	Gentle acceleration	-				
	Smoother start for passengers	Gentle acceleration					
	Minimize pressure surges	Gentle acceleration					
Intelligent control of the whole system	Override motor and system protections in emergency situations (e.g. fire pumps)	Emergency run					
	Simplify control circuits by directly connecting pressure switches	Digital inputs					