

DSS Industrial Smart Starter

with **SMARTSTART™**

3 Phase, 50/60 Hz, 200-600 VAC 1-40A Wide Range Overload; 1/2-10HP@208/230VAC; 1/2-30HP @ 460/575VAC

*Single Phase Options Available

The DXP Industrial Smart Starter comes equipped with our superior SmartStart motor protection. This 3 phase starter comes automation system ready with an input that accepts 200-600 VAC and a wide range 1-40A overload.

Features and Benefits

Designed for ease of integration with automation systems

- ▶ Comprehensive inputs/outputs for building
- ▶ Management systems
- ▶ Reduces installation costs
- ▶ Increased energy savings
- ▶ High reliability

SMARTSTART™ patented for superior motor protection

- ▶ Electronic protection including locked rotor, cycle fault and maximum time to start (due to missized motor or overload)
- ▶ FLA out of calibration indication -- ensures installer sets overload correctly based on calculated motor size

Advanced control inputs eliminate interposing relays

- ▶ Three dry inputs for remote and two external pilot devices*
- ▶ Two wet inputs (12-250VAC) for remote start and shutdown command

Fault logging retains critical information

- ▶ Last 10 start conditions, including FLA setting, max inrush, run current, time to start, and safety start mode
- ▶ Factory retrievable

Universal application

- ▶ Wide range electronic overload eliminates call backs due to missized heaters
- ▶ Accepts up to 600V

UL Type 1, 4, and 3R enclosures

- ▶ Lockable enclosure
- ▶ 3R features lockable keypad cover

Start/Stop/Remote keypad with LED status indicators


- ▶ Intuitive operation and control with Start (manual run), Stop, and Remote run modes
- ▶ Type 4 enclosed starters feature a 3 position switch for Start/Stop/Remote, and a run pilot light

Combination versions include disconnect

- ▶ Motor circuit protection disconnect provides short circuit protection
- ▶ High interrupting ratings for maximum electrical system compatibility
- ▶ No fuses required
- ▶ Lockable handle for safety



DXP Specification

Starter Type			
DSS - DXP Industrial Start/Stop with SmartStart			
Across the line or Full Voltage Non-Reversing			
NEMA 1, 3R, OR 4 enclosed			
Voltage Range: 3Ø, 200-600 VAC			
Amperage Range: 1-40A			
User Interface			
Start/Stop/Remote keypad with mode LEDs (N1 & 3R), Start/Stop/Remote switch & Run Pilot light (N4)			
Standard Control Operations			
Inputs	12-250V Remote	Apply 12- 250VAC/DC to energize	
	Dry Remote	N.O. Dry Contact	
	Shutdown	Apply 12- 250VAC/DC to energize	
	Limit Switch	N.O. Dry Contact	
	Internal Pilot Device	N.O. Dry Contact (N1 & 3R only)	
	External Pilot Device	N.O. Dry Contact (N1 & 3R only)	
Outputs	Proof of Flow Current Status	N.O. Relay Contact Ratings: 110VDC, 0.3A Resistive, 125VDC, 0.5A GP	
		30VDC, 2.0A Resistive	
		120VAC 50/60Hz, 0.5A Resistive	
		125VAC 50/60Hz, 1.0A GP	
	240VAC 50/60Hz, 0.25A Resistive		
Damper/Actuator	24 VDC, 1A maximum		
Operational	Power Fail Modes	Restart last mode, no delay (default)	
		Restart with 10 second delay	
		Restart Off - LED flashes last mode	
Environmental			
Ambient Operating Temp	-5° to 140° F (-20° to 60° C)		
Ambient Storage Temp	-5° to 185° F (-20° to 85° C)		
Relative Humidity	5% to 95% non-condensing (Nema 1)		
Motor Protection	Adjustment / Description	Default Setting	
Overload Current Setting Range	1-40A	Per FLA	
Overload Trip Class	Adjustable: Class 10 or 20, Trip current = 115% of FLA setting	Class 10	
Cycle Fault	Trip if cycle rate exceeds 20 starts/minute	Always On	
Stall	Trips within 0.5 seconds (disabled during startup)	Always On	
 SMARTSTART™ Protection	Adjustment / Description		
Current Phase Unbalance	On/Off	On	
Locked Rotor			Trips within 3 sec @ 25% current unbalance *Trip threshold changes to 80% unbalance when switched to Off
Out of Calibration			Trips within 0.5 seconds
Max Time to Start			Trips after 10 seconds if the FLA dial setting is incorrect (set above calculated FLA range), ie. Start current is outside of an acceptable range (fla setting *5 < inrush < fla setting *14)
		Regardless of FLA or I ² t curve, always trip at start if starting current is outside of an acceptable range (inrush / 5) and still decreasing after 10 seconds.	