

DXP

Pump Smart Starter

with  SMARTSTART™

3Ø, 50/60 Hz, 200-600 VAC: 1/2-40HP @200VAC, 1/2-50HP @230VAC, 1/2-100HP @460VAC, 3/4-75HP @600VAC

The DXP Pump Smart Starter comes standard with underload protection, a class 10 electronic overload to handle a wide range of applications and an input that accepts 200-600 Volts - a true plug and play install.



Features and Benefits

Integrated SMARTSTART™ electronic pump protection

- ▶ Class 10 electronic overload with underload protection
 - Specifically designed protection for pumps
 - Built-in 1.15 service factor compensation
- ▶ Current phase unbalance protection
- ▶ Cycle fault protection
- ▶ Locked rotor and stall protection
- ▶ Out of calibration
 - Detects if overload FLA dial is improperly set

Multi-voltage operating range with automation I/O

- ▶ Accepts 200-600 VAC directly, true plug and play
- ▶ Includes a dry contact auto-run input and fault relay output

Industrial grade construction

- ▶ Door mounted heavy-duty HOA switch or keypad
- ▶ Housed in an indoor rated NEMA N1 or outdoor rated NEMA 3R enclosure
- ▶ NEMA/IEC rated magnetic contactors feature 2.5 million electrical cycles at full rated current

Combination versions include disconnect

- ▶ NEMA 1 motor circuit protection disconnect provides short circuit protection
- ▶ NEMA 3R version molded case circuit breaker for service entry
- ▶ High interrupting ratings for maximum electrical system compatibility
- ▶ No fuses required
- ▶ Lockable handle for safety

DXP Specification

Starter Type			
DXP Pump Smart Starter			
Standard or Combination (MCP or MCCB Motor Circuit Protection Disconnect)			
NEMA Type 1 or 3R Enclosed			
User Interface			
Settings Adjustments	Internal		
Hand-Off-Auto	NEMA 3R Enclosed - Door mounted switch or keypad (model dependent), NEMA 1 Enclosed - Hand-Off-Auto keypad		
Standard Control Operations			
Inputs	Dry Auto Run	N.O. dry contact closure	
Output	Fault Relay	N.O. 12-240VAC	
Operational	Overload Type	Electronic, I ² t thermal trip curve	
	Fault Reset	Manual	
	Power Fail Modes	Selectable: Return to Off mode or return to last mode (Hand, Off or Auto)	
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	
Motor Protection		Adjustment / Description	Default Setting
Overload Current Setting Range		Differs per model	Per SFA
Overload Trip Class		Class 10	Always On
Underload		Adjustable trip: 0%-100% of FLA	35%
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	Default Setting
Current Phase Unbalance		Trips within 3 seconds @ 25% current unbalance *Trip threshold changes to 80% unbalance when switched to Off	On
Locked Rotor		Trips within 0.5 seconds	
Out of Calibration		Trips after 10 seconds if the FLA dial setting is incorrect (set above calculated FLA range), i.e. Start current is outside of an acceptable range (FLA setting *5 < inrush < FLA setting * 14)	
Max Time to Start		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	

