

SSP SMARTSTART™ PUMP STARTER

3Ø, 50/60 Hz, 200-600 VAC, 1-130 FLA (differs per model)

INTEGRATED ELECTRONIC PROTECTION

- Enhanced Class 10 electronic overload protection specifically designed for submersible motors; Built-in 1.15 service factor compensation
- Underload (dry-run protection)
- Current phase unbalance protection
- Cycle fault protection
- Locked rotor and stall protection

MULTI-VOLTAGE OPERATING RANGE*

- Accepts 200-600 VAC directly, true plug and play
 - Includes a dry contact auto-run input and fault relay output
- *With Automation I/O*

INDUSTRIAL GRADE CONSTRUCTION

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

CIRCUIT BREAKER DISCONNECT (OPTIONAL)*

- UL 489 circuit breaker provides branch and short circuit protection
 - No fuses required – saves time and money
 - Lockable handle for safety
- *Service entrance rated*

REVOLUTIONARY MOTOR PROTECTION

- **Aware:** SMARTSTART™ protects your system from adverse dry-run conditions with built-in underload protection standard.
- **Watchful:** SMARTSTART™ detects harmful extended starting conditions with maximum time to start. Monitors motor in-rush current conditions and trips if the motor doesn't start within 10 seconds (class 10 overload) regardless of FLA setting.
- **Active:** Active current monitoring provides superior protection against locked rotor and stall conditions, tripping faster than a standard inverse trip curve, regardless of the FLA setting.



SSP SMARTSTART™ PUMP STARTER - ORDERING & SIZING INFORMATION

SMARTSTART™ PUMP STARTER

3-Phase, 50/60 Hz, 200-600 VAC, NEMA Type 3R Enclosed - Combination Starter. Includes Service Entrance Circuit Breaker Disconnect.

Model No.	200 V - 460 V SFA Range** (A)	600 V SFA Range** (A)	3-PHASE HP (UL) / Max. SFA**								Contactor NEMA Size
			200 V		230 V		460 V		600 V		
			HP	SFA	HP	SFA	HP	SFA	HP	SFA	
SSP3R-S0-J-G15	6-8	6-8	2	8	2	8	5	8	5	8	0
SSP3R-S0-J-G20	8-11	8-11	3	11	3	11	7.5	11	10	11	
SSP3R-S0P-J-G30	11-17	11-17	3	17	5	17	10	17	15	17	
SSP3R-S1-J-G40	16-22	16-22	5	22	7.5	22	15	22	20	22	1
SSP3R-S1P-J-G50	20-28	20-28	7.5	28	10	28	20	28	25	28	
SSP3R-S1P-J-G60	24-32	24-32	7.5	32	10	32	20	32	30	32	
SSP3R-S2-J-G80	32-45	32-45	10	45	15	45	30	45	40	45	2
SSP3R-S2-J-G100	40-52	40-52	15	52	15	52	40	52	50	52	
SSP3R-S3-J-G125	50-71	50-71	20	71	25	71	50	71	60	71	
SSP3R-S3P-J-G150	60-80	60-77	25	80	30	80	60	80	75	77	3+

*DPV = Differs per voltage

**Use SFA Range or Max. SFA when sizing for submersible motor applications. If an amperage value for SFA is not published on the motor nameplate, consider SFA range to be FLA range.

SMARTSTART™ PUMP STARTER

3-Phase, 50/60 Hz, 200-600 VAC, NEMA Type 3R Enclosed - Standard Starter. Disconnect not Included.

Model No.	200 V - 460 V SFA Range** (A)	600 V SFA Range** (A)	3-PHASE HP (UL) / Max. SFA**								Contactor NEMA Size
			200 V		230 V		460 V		600 V		
			HP	SFA	HP	SFA	HP	SFA	HP	SFA	
SSP3R-S1P-J-32	1-32	1-32	7.5	32	10	32	20	32	30	32	1+
SSP3R-S2-J-52	22-52	22-52	15	52	15	52	40	52	50	52	2
SSP3R-S3P-J-85	50-80	50-77	25	80	30	80	60	80	75	77	3+

*DPV = Differs per voltage

**Use SFA Range or Max. SFA when sizing for submersible motor applications. If an amperage value for SFA is not published on the motor nameplate, consider SFA range to be FLA range.

SMARTSTART™ PUMP STARTER

3-Phase, 50/60 Hz, 200-600 VAC, NEMA Type 1 Enclosed - Standard Starter. Disconnect not Included.

Model No.	200 V - 460 V SFA Range** (A)	600 V SFA Range** (A)	3-PHASE HP (UL) / Max. SFA**								Contactor NEMA Size
			200 V		230 V		460 V		600 V		
			HP	SFA	HP	SFA	HP	SFA	HP	SFA	
SSP1-S1P-J-32	1-32	1-32	7.5	32	10	32	20	32	30	32	1+
SSP1-S2-J-52	22-52	22-52	15	52	15	52	40	52	50	52	2
SSP1-S3P-J-85	50-80	50-77	25	80	30	80	60	80	75	77	3+

*DPV = Differs per voltage

**Use SFA Range or Max. SFA when sizing for submersible motor applications. If an amperage value for SFA is not published on the motor nameplate, consider SFA range to be FLA range.

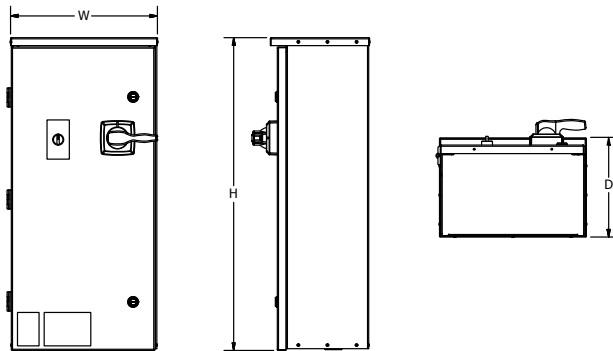
SSP SMARTSTART™ PUMP STARTER - DIMENSIONS

OPTIONS (FACTORY INSTALLABLE)

Model No.	Description
SSP-DHM	Digital Hour Meter
SSP-SRG240	Surge Suppressor, 200/230 V
SSP-SRG480	Surge Suppressor, 460 V
SSP-SRG600	Surge Suppressor, 600 V
SSP-SRG	Surge Suppressor, Universal, Corner Grounded Delta Configuration
SSP3R-S0-S2-UP	Upsized N3R enclosure to 32" x 15" x 8"
SSP3R-S3-S3P-UP	Upsized N3R enclosure to 42" x 25" x 12"
SSP-2FC	2-Float Switch Input Terminals
SSP-RPL	Run Pilot Light
SSP-FPL	Fault Pilot Light

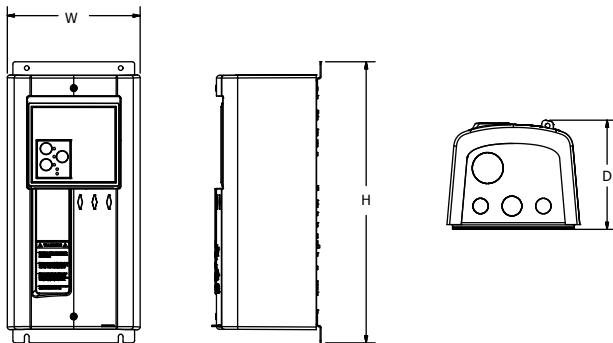
DIMENSIONS: NEMA 3R ENCLOSURE

Combination Starter	Dimensions (in)		
	H	W	D
SSP3R-S0-J-GXX	22	15	10
SSP3R-S0P-J-GXX			
SSP3R-S1-J-GXX			
SSP3R-S1P-J-GXX			
SSP3R-S2-J-GXX			
SSP3R-S3-J-GXX	32	15	10
SSP3R-S3P-J-GXXX			
Standard Starter	H	W	D
SSP3R-S1P-J-32	16	12	8
SSP3R-S2-J-50			
SSP3R-S3P-J-80			

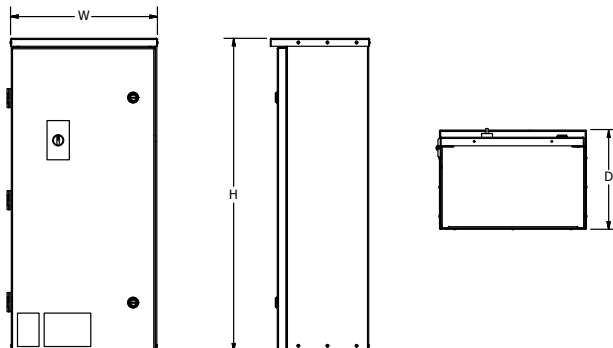


DIMENSIONS: NEMA 1 ENCLOSURE

Standard Starter	Dimensions (in)		
	H	W	D
SSP1-S1P-J-32	16	7.5	6
SSP1-S2-J-50			

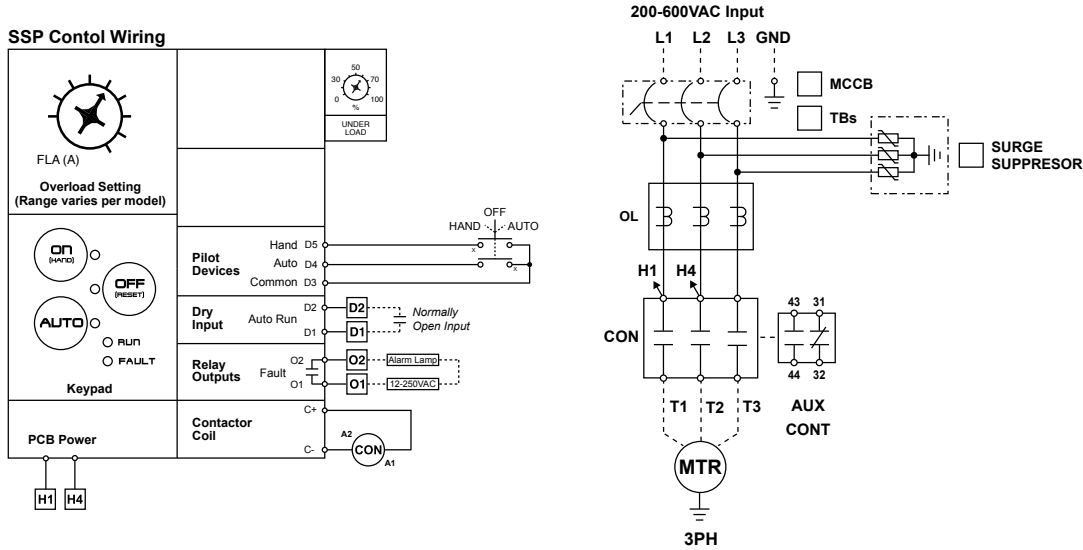


Standard Starter	Dimensions (in)		
	H	W	D
SSP1-S3P-J-80	16	12	8



SSP SMARTSTART™ PUMP STARTER - WIRING DIAGRAM & SPECIFICATIONS

WIRING DIAGRAM



NOTE: standard wiring schematic shown, actual product wiring may vary depending on options selected. Dashed lines indicate field wiring.

SPECIFICATIONS

Starter Type		
Standard or combination (service rated, suitable for use as a service disconnect)		
NEMA Type 1 or 3R Enclosed		
User Interface		
Settings Adjustments	Internal	
Hand.Off.Auto	NEMA 3R Enclosed - door mounted switch, NEMA 1 Enclosed - Hand/Off/Auto keypad	
Standard Control Operations		
Inputs	Dry Auto Run	N.O. dry contact closure
	Run Timer	Optional - starter will run for a user defined time (1/2-12 hrs.), then return to off until another run command is received
Output	Fault Relay	N.O. 12-240 VAC
Operational	Overload Type	Electronic, I2T thermal trip curve
	Fault Reset	Manual
	Power Fail Modes	Selectable: return to off mode or return to last mode (Hand/Off/Auto)
Environmental		
Ambient Operating Temp	-5 °F to 140 °F (-20 °C to 60 °C)	
Ambient Storage Temp	-5 °F to 185 °F (-20 °C 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	Adjustable Class 10 (Submersible)	Always on
Underload	Adjustable Trip: 0%-100% of FLA	70%
Cycle Fault	Trip if cycle rate exceeds 20 starts/minute	Always On
Stall	Trips within 0.5 seconds (disabled during startup)	Always On
Protection	Adjustment / Description	Default Setting
Current Phase Unbalance	Trips within 3 sec. @ 25% current unbalance. *Trip threshold changes to 80% unbalance when switched to off	On
Locked Rotor	Trips within 0.5 seconds	
Max Time to Start	Regardless of FLA or I2T curve, always trip at start if starting current is outside of an acceptable range (in-rush / 5) and still decreasing after 10 seconds.	