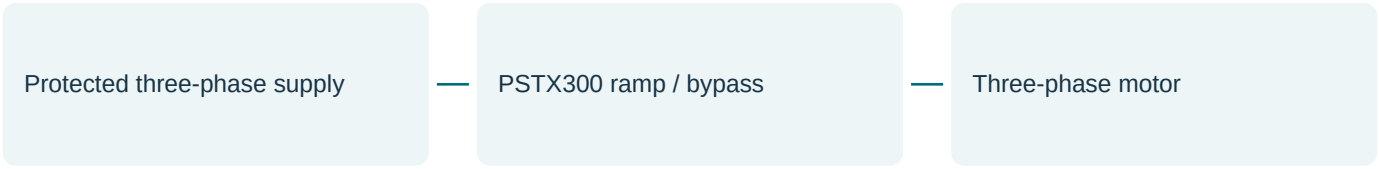
# Plan the installation scope

ABB / PSTX300-600-70-1SFA898114R7000

## ABB PSTX300-600-70-1SFA898114R7000

ABB PSTX300-600-70-1SFA898114R7000 is a 300 A three-phase softstarter for 208-600 V AC motors, with built-in bypass and 100-250 V AC control supply.

Apter Power engineering guide. Apply the manufacturer procedure and the approved site design for the installed equipment.




### Configuration and supply boundary

Confirm PSTX300-600-70 and 1SFA898114R7000, the control-supply marking, display and terminal/accessory scope. Protective and communication accessories are separate unless quoted.

| Identification checkpoint | Required value |
|---|---|
| Type designation | PSTX300-600-70 |
| Product ID | 1SFA898114R7000 |
| Product family | PSTX softstarters |
| Rated operational current, IEC in-line | 300 A |

### Operating context

Voltage-ramp and torque-ramp control let the starting sequence be adapted to the load. The correct selection also depends on acceleration time, starts per hour and the motor overload-protection settings.

### What are the separate main and control voltage ranges of PSTX300-600-70-1SFA898114R7000?

The 600-version main circuit is rated for 208-600 V AC. The -70 control supply is 100-250 V AC at 50/60 Hz; it is a separate circuit and must be connected to the designated terminals.

### How does the built-in bypass operate in PSTX300-600-70-1SFA898114R7000?

PSTX uses controlled semiconductor starting and stopping, with an internal bypass for running operation. The bypass reduces running losses but is not a maintenance isolator.

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# Prepare power and interfaces

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Electrical figures distinguish the exact 600 V model and the stated IEC connection arrangement. Starting-duty selection and protective coordination remain installation-specific.

| Technical boundary | Applicable value |
| --- | --- |
| Operational voltage | 208-600 V AC |
| Control supply voltage | 100-250 V AC |
| Control supply frequency | 50/60 Hz |
| Control arrangement | Three-phase controlled soft start and stop |
| Starting/stopping modes | Voltage ramp or torque ramp |
| Bypass | Built-in |
| IEC motor power at 380-400 V, in-line | 160 kW |
| IEC motor power at 500 V, in-line | 200 kW |

## Connection relationship

The 300 A IEC in-line and 515 A inside-delta figures describe different circuit arrangements. Match the wiring diagram and motor-current setting before energizing.

## Protection boundary

Built-in bypass and electronic overload protection do not replace maintenance isolation or coordinated short-circuit protection.

## System relationship

The built-in bypass reduces losses during normal running. Bypass does not replace electrical isolation, short-circuit coordination or the protective devices required by the installation.

| Additional interface criterion | Documented boundary |
| --- | --- |
| IEC rated-current setting range | 90-300 A |
| IEC inside-delta rated motor current | 515 A under the specified arrangement |
| Integrated motor protection | Electronic overload protection |
| Overload trip classes | 10A, 10, 20 and 30 |
| Relay status outputs | RUN, TOR and Event |

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# Install with controlled hold points

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Complete the identity and safe-state checks before disturbing the installed circuit. The following hold points follow the product-specific installation boundary.

### 01 / Match both supply circuits

Use the 208-600 V AC main-voltage version with its 100-250 V AC control supply. Keep line and control terminals clearly identified.

### 02 / Select the connection arrangement

Use the correct in-line or inside-delta wiring diagram. Set motor current according to that arrangement and the motor nameplate.

### 03 / Assess the starting duty

Check acceleration, starts per hour, ambient conditions and load inertia. A 300 A rating alone does not establish a suitable heavy-duty selection.

### 04 / Coordinate protective devices

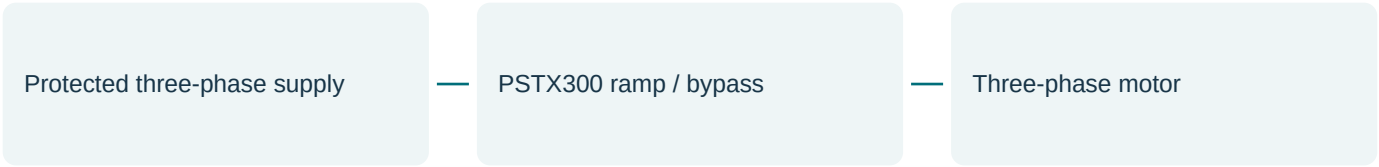
Select the required short-circuit protection and isolation devices. The internal bypass and electronic overload protection serve different functions.

### 05 / Control unexpected motion

Isolate main and control power before wiring or service. Account for remote commands and automatic sequences before releasing the motor.

### 06 / Verify ramps and trips

Set and test the chosen ramp, current limit and overload class with controlled motor operation before returning the process to service.




### Which overload tripping classes can be selected on PSTX300-600-70-1SFA898114R7000?

The integrated electronic overload protection supports classes 10A, 10, 20 and 30. Choose the class from the motor and starting duty, then verify the protection settings during commissioning.

### Can PSTX300-600-70-1SFA898114R7000 control stopping through a torque ramp?

The PSTX platform provides voltage-ramp or torque-ramp soft start and stop. Select the appropriate function and confirm the real load response, especially for a pump application.

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# Commission and verify operation

ABB / PSTX300-600-70-1SFA898114R7000

| Stage | Controlled action | Acceptance focus |
| --- | --- | --- |
| Identity | Read both type and order-code labels. | PSTX300-600-70 and 1SFA898114R7000 agree. |
| Supply separation | Check main and control terminal circuits. | Main and control voltages are within their respective ranges. |
| Circuit arrangement | Compare in-line/inside-delta wiring with the approved diagram. | Current setting follows the actual motor connection. |
| Protection | Review short-circuit coordination and overload trip class. | Devices and settings match motor duty and the circuit design. |
| Controlled start | Test the chosen ramp and observe current and acceleration. | Motor reaches operating speed without an unresolved trip. |
| Stop and status | Test stopping behavior and RUN/TOR/Event integration. | Process response and external indications meet the approved sequence. |

## Application configuration

The IEC in-line and inside-delta arrangements use different current relationships. Check the approved connection diagram before setting motor current; do not apply the inside-delta figure to a conventional in-line circuit.

## Which motor-current figures apply to in-line and inside-delta use of PSTX300-600-70-1SFA898114R7000?

The IEC ratings table gives 300 A for the in-line arrangement and 515 A for the specified inside-delta arrangement. Select wiring and current settings for the actual circuit rather than using the higher figure on an in-line installation.

## What IEC motor power is associated with PSTX300-600-70-1SFA898114R7000 at 400 V?

The specified normal-start IEC in-line selection is 160 kW at 380-400 V. Verify motor current, starting duty and application conditions before relying on the nominal power selection.

## Acceptance decision

Compare the controlled observations with the installed configuration and the manufacturer procedure. Investigate a disagreement before returning the function to service; retain the measured state and the corrective action in the handover record.

# Diagnose and hand over

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## Which relay states can be integrated from PSTX300-600-70-1SFA898114R7000?

The available relay signals include RUN, TOR and Event. Wire and configure these outputs to the plant control design and check their observed states during the start, running and fault sequences.

## Is PSTX300-600-70-1SFA898114R7000 rated for a 690 V main supply?

No. This exact -600 model is the 208-600 V AC version. A rating table for a -690 variant must not be transferred to product 1SFA898114R7000.

## Lifecycle and service planning

ABB retains an official product identity for PSTX300-600-70 and product 1SFA898114R7000. A current explicit lifecycle-phase declaration for this complete order code has not been confirmed.

## Support boundary

Request confirmation for the exact voltage version, control supply, motor current and starting duty before a replacement. Apter Power condition, availability and dispatch timing are confirmed separately.

## Technical references

Softstarters Type PSTX30...PSTX1250 Installation and commissioning manual, 1SFC132081M0201 Rev. O, 2021-09-15.

PSTX softstarters catalog, 1SFC132011C0201 2015.

## Related ABB portfolio references

Independent catalogue references; these links do not establish compatibility, substitution or endorsement.

| Complete product reference | Navigation |
|---|---|
| ABB PSTX170-600-70 1SFA898111R7000 | View ABB PSTX170-600-70 1SFA898111R7000 |
| ABB 3BHE004573R0042 UFC760-BE42 | View ABB 3BHE004573R0042 UFC760-BE42 |
| ABB HIEE400961R0001 UFB009AE01 | View ABB HIEE400961R0001 UFB009AE01 |
| ABB 3BHE006412R0101 UFC762AE101 | View ABB 3BHE006412R0101 UFC762AE101 |

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