Product role and integration

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.

Protected three-phase supply — PSTX300 ramp / bypass — Three-phase motor

Installed-system role

ABB PSTX300-600-70-1SFA898114R7000 controls the motor starting and stopping ramp before its internal bypass carries running current. Select the circuit from motor current, starting duty and installation conditions.

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.

Configuration 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.

Technical scope

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

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Technical capability map

ABB / PSTX300-600-70-1SFA898114R7000

Parameter	Value
Manufacturer	ABB
Type designation	PSTX300-600-70
Product ID	1SFA898114R7000
Product family	PSTX softstarters
Rated operational current, IEC in-line	300 A
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

Parameter	Value
Bypass	Built-in
IEC motor power at 380-400 V, in-line	160 kW
IEC motor power at 500 V, in-line	200 kW
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
Operator interface	Detachable graphical display
Application functions	Current limit, kickstart, motor heating and pump cleaning

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Applications and engineering precautions

ABB / PSTX300-600-70-1SFA898114R7000

Centrifugal pump starting

Use the appropriate torque or voltage ramp to manage pump acceleration and deceleration. Validate the hydraulic response and the selected protection settings.

Compressor acceleration

Match current limit and ramp settings to compressor starting requirements. Confirm motor thermal duty and acceleration under the real load.

Conveyor startup

Ramp the motor into motion to reduce abrupt mechanical loading. Check starting time and the selected trip class against the conveyor inertia.

Motor-circuit diagnostics

Use the graphical interface and RUN, TOR and Event signals to supervise the start sequence. Integrate status with the plant circuit and fault-response design.

Precaution	Engineering check
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.
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.
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.
Coordinate protective devices	Select the required short-circuit protection and isolation devices. The internal bypass and electronic overload protection serve different functions.
Control unexpected motion	Isolate main and control power before wiring or service. Account for remote commands and automatic sequences before releasing the motor.
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.

Exact-model engineering questions

ABB / PSTX300-600-70-1SFA898114R7000

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.

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.

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.

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.

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.

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.

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Lifecycle, verification and portfolio

ABB / PSTX300-600-70-1SFA898114R7000

Manufacturer lifecycle context

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.

Commissioning focus

Read both type and order-code labels. Review short-circuit coordination and overload trip class.

Release criterion

Test stopping behavior and RUN/TOR/Event integration. Process response and external indications meet the approved sequence.

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 SDCS-CON-1	View ABB SDCS-CON-1
ABB SDCS-IOB-22 3BSE005177R1	View ABB SDCS-IOB-22 3BSE005177R1
ABB PM860K01 3BSE018100R1	View ABB PM860K01 3BSE018100R1
ABB HIEE300550R1 PPB022 CEV01	View ABB HIEE300550R1 PPB022 CEV01

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