# Preventive maintenance for softstarters type PSTB and PSTX

In order to guarantee high levels of efficiency and reliability to your electrical installation, ABB suggests a regular preventive maintenance on your installed softstarters to keep your product up-to-date.

Preventive maintenance includes the carrying-out of tests, measurements and any maintenance, repair or replacement activities, based on specially designed technical plans, aimed at reducing the probability of failure or the working deterioration of the apparatus.

ABB as leader in design and production for low voltage softstarters, always pays particular attention to customer satisfaction. Thanks to highly qualified organization, ABB provides support to customers during all phases of the product's life cycle, from product selection to after-sales and service assistance

#### **Benefits**

Preventive Maintenance creates value over the long-term by

- Providing the best management of maintenance costs, in particular:
  - Less expensive direct costs of maintenance, by reducing the charges due to urgent situations
  - Less expensive indirect costs of the installation shut-down, taking advantage of scheduled stops.
- Ensuring better efficiency and reliability of the equipment
- Extending the softstarter's life
- Guaranteeing the safety of the product for longer time.

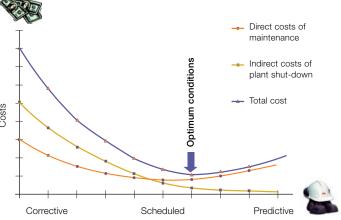
### Preventive maintenance program

ABB has designed its maintenance schedule for all softstarter families, based on its technical knowledge of the products and on its experience in the field.

The preventive maintenance program has the following main targets:

- Check the preservation and the efficiency status of the apparatus
- Anticipate the trend of deterioration of the softstarter, signaling the need for replacement of excessively worn out components, where available, or suggest alternative solutions for bringing them up to date
- Increase the life cycle of the installation, proposing proactive maintenance and replacing obsolete components.





Maintenance planning

## **Provided services**

Considering the importance of the maintenance activity and the required technical know-how, ABB guarantees professional competence. Interventions are performed by ABB recommended skilled technicians. After the inspection activities, ABB technicians give all the indications related to the future maintenance needs and any possible corrective actions, while releasing the final report.

#### Maintenance schedule

ABB draws up a systematic and functional preventive maintenance program. ABB proposes a maintenance intervention every three years directed to extend the product's life (extraordinary

maintenance). Service intervals shall have to be suitably assessed in case of non-standard service and environmental conditions. The offer foresees the following maintenance schedule:

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Type Code PST(B), PSTX, PSE	0	1	2	3	4		5 (	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Serial number 1S																						
Environment condition																						
Temperature, Humidity Deg C / %																						
Altitude(meters above sea level)		1		-														-				
Run time Data	_												•		•	•	•				•	_
Number of starts, run timeh																						
Visual and Mechanical inspection	•	•	•	•	-	-		-		-		•	-	•	•		-	-	•	•		
Check settings & events	-	T	T	Р	ı		l F	>	1	Τ	р	Ι	1	Р	Ι	1	Р	T	Ι	р	1	T
Optimize settings		Ī	Ī	Р	ı		l F	>	ı	T	р	ı	ı	Р	I	I	Р	Ī	I	р	ı	Ī
Top cover		Ī	Ī	Р	ı		l F	>	ī	T	р	ı	1	Р	I	I	Р	1	I	р	ı	Ī
Base		Ī	Ī	Р	ı		l F	>	I .	ı	р	ı	ı	Р	I	I	Р	ı	I	р	ı	Ī
HMI Base		Ī	Ī	(R)	) l		I (F	٦)	ī	T	(R)	ı	1	(R)	T	I	(R)	I	I	(R)	ı	Ī
HMI module		Ī	Ī	(R)	) l		I (F	٦)	I	ı	(R)	ı	ı	(R)	ı	ı	(R)	ı	I	(R)	ı	Ī
Upper and lower bar holders		Ī	Ī	I	ı		I	ı	1	T	Ι	I	1	I	I	I	T	Ī	I	I	I	Ī
Upper and lower terminals		Ī	Ī	ı	ı		I	ı	ı	1	ı	ı	1	ı	ı	ı	ı	1	ı	ı	ı	Ī
Side plates		Ī	Ī	ı	ı		I	ı	ı	ı	Ι	ı	ı	ı	I	I	ı	I	I	ı	ı	Ī
Upper plates / Lower plate (fan plate)		Ī	I	ı	ı		I	ı	1	1	I	I	1	I	I	I	T	T	I	I	ı	Ī
Hot spots marks on steel plates		I	I	ı	I		I	ı	L	T	I	I	I	I	T	I	T	ı	I	I	ı	Ī
Terminal bars		I	I	(R)	) l		l (F	٦)	I	T	(R)	ı	I	(R)	I	I	(R)	1	I	(R)	ı	Ī
Flexibar isolation		I	Ī	(R)	) l		l (F	٦)	ı	T	(R)	I	ı	(R)	1	I	(R)	ı	I	(R)	ı	I
Bus bar connection internal		I	I	(R)	) l		l (F	٦)	I	T	(R)	I	ı	(R)	1	ı	(R)	ı	I	(R)	ı	Ī
Electrical components													•			•						
Main terminals screws / Control terminals screws		Τ	1	Ι	I		1	ı	1	1	Ι	Ι	1	Ι	Ι	Ι	Ι	Ι	I	Ι	Ι	T
Internal electrical connection (thyristor, bypass, terminals)		I	Ī	- 1	ı		I	ı	1	T	I	I	1	ı	I	I	T	ı	I	ı	I	Ī
Fans damage on wings, rotating		I	I	- 1	I		I	ı	1	1	I	I	1	I	1	I	ı	1	I	I	1	I
"Cables isolation (Current transformer, bypass, gate, NTC, fans)"		I	I	T	I		l	l	I	T	I	I	I	T	I	I	-1	I	I	ı	1	- 1
PCBA, Firmware																						
PCBA connections		1	1	-	ı		ı	ı	1	1	1	1	- 1	1	1	-	1	1	1	1	1	1
PCBA visual inspection / Mounting (screws and pegs)		1	1	- 1	ı		ı	ı	1	1	ı	I	- 1	1	- 1	ı	-	1	ı	١		<u>.</u>
Firmware update		1	1	Р	ı		l F	>	1	1	Р	Т	1	Р	- 1	1	Р	- 1	1	Р	- 1	1
By Pass																						
By pass relay / contactor		-	1	(R)	) l		l (F	٦)	1	T	(R)	T	ı	(R)	1	1	(R)	ı	ı	(R)	ı	-
By pass function		-	1	-1	I		l	l	1	1	1	Ι	- 1	-1	Т	- 1	-1	Ι	Ι	Ι	Ι	- 1
Customer application																						
Customer Wiring diagram		1	1	- 1	- 1		1	ı	1	1	1	-	1	-	- 1	1	-1	1	1	1	1	1
Legend																						
I (Inspection) Inspection and tests, corre	ctive	acti	ons.	if re	eau	ired	, ren	lace	eme	ent c	of th	e co	amo	oner	nt							
P (Performance)  Tests, measurements and a aimed at improving produc	any "r					<b>.</b>						• • • • • • • • •	•••••		•••••	uired	j,			•••••	•••••	•••••

For further information contact:

(R) (Replacement under condition)

(P) (Performance under condition)

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preventive maintenance inspection

Service for control and protection

Any replacement of component suggested by ABB qualified technician after ordinary and/or extraordinary

Tests performed only if provided by contract and/or if seemed necessary by ABB qualified technician

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