

HIGH-SPEED THREE-PHASES STATIC-SWITCH SERIES CST

Typology

Three-phases three or four wires static switches of two alternating lines, with single output, in SCR technology.

Specially designed for use in industrial automation applications where high reliability, functional safety and ability to quickly switch critical loads from a main line to a reserve line (double radial) are required.

Electrical characteristics

The most important features that distinguish this type of switch are:

Input voltages	230/400 Vca
Admitted tolerance	±20%
Input frequency	50 or 60 Hz
Accepted tolerance	±2%
Output voltages	230/400 Vca
Short-circuit current	10 In for 10 mS
Switching time	about 2 mS with in phase (±15°) lines; 10 mS out of phase
Accepted power factor	from 1 to 0,6 induct.
Single unit MTBF	about 100.000 hours

Flowing power

The product range includes the following models according to the powers that flow through.

Model	Flowing Power
CST3000	3000 VA
CST6000	6000 VA
CST10000	10000 VA
CST16000	16000 VA
CST25000	25000 VA
CST40000	40000 VA

Accessories

A wide range of accessories is available to allow the adaptation of the switches to the most complex applications and specifications.

The ones fitted as standard are the following.

Local and remote indication of:

Input lines state

Supplying line

Concordant phase

Those available on request are the following.

Input magnetothermic breakers

Output magnetothermic breaker

Output instruments (V/I)

Trimmable relay on input voltages

Trimmable relay on output voltage

Mechanical characteristics

The mechanical construction is 19-inch Rack type, to DIN41612 standards with IP20 protection degree, structure and front in anodized aluminum in natural or black color. The dimensions are as follows.

Model	Units x width	Depth
CST3-16000	3 x 84TE	405mm
CST25-40000	4 x 84TE	405mm
Accessories	3 x 84TE	405mm

With option X, the static switch is built in a fiberglass container that ensures double insulation (an internal fault does not cause a grounding). Dimensions vary according to the model.

Environmental compatibility

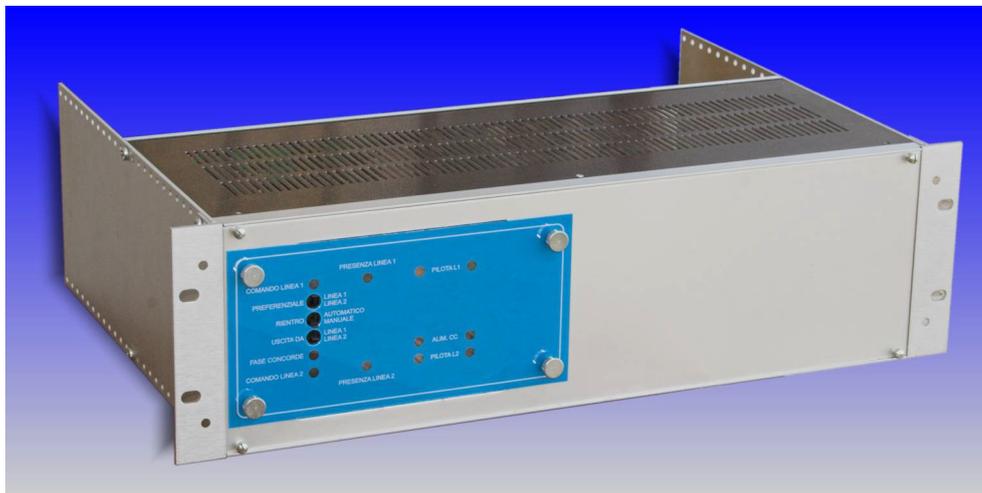
The static switches are subjected to tests, type or production, to guarantee their environmental compatibility. The most important are the following (* identifies the type tests).

*Vibrations	5 m.s ⁻² - 0,032m
*Stock temperature	da -25 a 70 °C
*Working temperature	da -10 a 55 °C
1,2/50 µs pulse strenght	2 kVp
Dielectric strenght	2 kV RMS
Insulation resistance	100 MΩ a 500 Vcc
Dumped oscillatory waves	1 kVp a 1MHz
Refer. standard for CE mark	EN61000-6-2 EN61000-6-4

Product range

Model	Input voltages 50Hz B=230 C=400 Input voltages 60Hz E=208 F=440	Input breakers	Output breaker	Instruments	Output fail relay	Input fail relays	Double insulation box	Four Poles	Flowing current
CST3000	B/E	I2	I3	S1	R8	R9			8
CST3000	C/F	I2	I3	S1	R8	R9			5
CST6000	B/E	I2	I3	S1	R8	R9	X		16
CST6000	C/F	I2	I3	S1	R8	R9	X		10
CST10000	B/E	I2	I3	S1	R8	R9	X	4P	27
CST10000	C/F	I2	I3	S1	R8	R9	X	4P	15
CST16000	B/E	I2	I3	S1	R8	R9	X	4P	40
CST16000	C/F	I2	I3	S1	R8	R9	X	4P	23
CST25000	B/E	I2	I3	S1	R8	R9	X	4P	65
CST25000	C/F	I2	I3	S1	R8	R9	X	4P	38
CST40000	B/E	I2	I3	S1	R8	R9	X	4P	110
CST40000	C/F	I2	I3	S1	R8	R9	X	4P	58

Mechanical dimensions



Three-phases static switch CST6000-C