SCST700

3-phase signal transformer for synch signaling

PRELIMINARY TECHNICAL INFORMATION

HIGHLIGHTS

- SC6006 synchronism adaptor
- 10 to 700 V_{AC} mains voltage input
- Generates a neutral phase from 3-phase line
- Wide range of application topologies
- Standard dimensions for 72 mm DIN rail platform



non-contractual photo

TECHNICAL SPECIFICATIONS

Description		*notes/test conditions*	*min*	*typ*	*max*	
Mains input voltage(1)	$V_{IN\ AC}$	*Jumpers on A position*	200		700	V_{AC}
Mains input voltage(2)		*Jumpers on A position*	65		220	V_{AC}
		Jumpers on B position	20		70	V_{AC}
		Jumpers on C position	10		23	V_{AC}
Mains frequency	f_{AC}			50/60		Hz
Output signaling current	$I_{OUT\ AC}$				0.7	mA
Protection degree				IP-00		
Combustibility class				UL94 V-0		
Storaging temperature range	T_{stg}		-40		80	ºC
Operating temperature range	T_{op}		-10		50	ºC

Data at T_a = 25 °C and rated values, unless otherwise indicated.

(1) With mains voltage connected on J2 connector.

(2) With mains voltage connected on J1 connector.

CONFORMALS

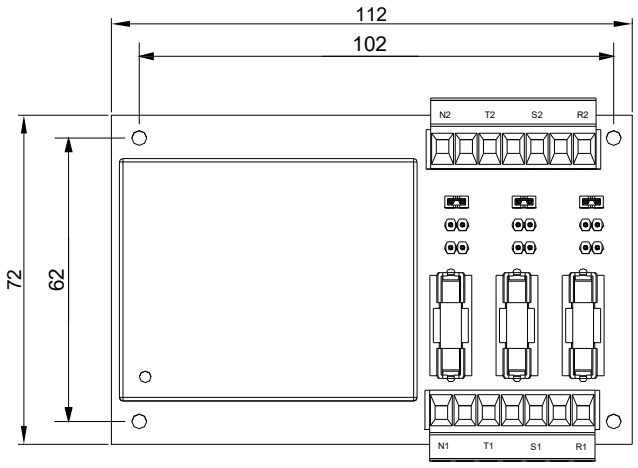
Conformal coating	MIL-1-46058, Type UR
Security	EN60950-1, UL60950-1

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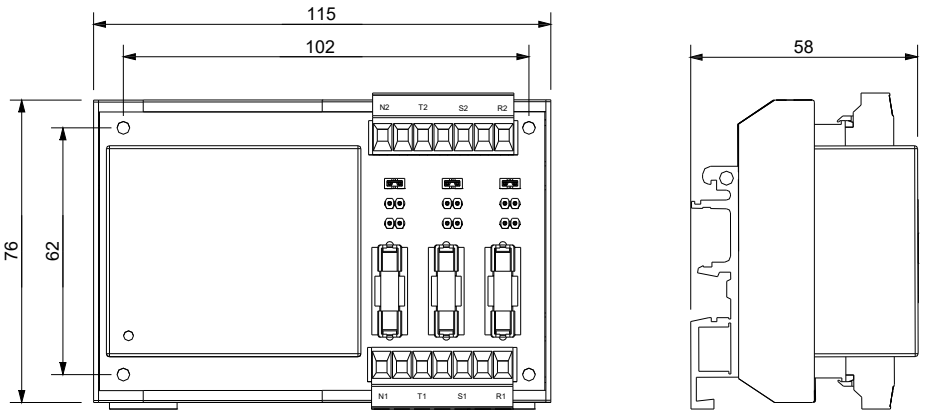
MECHANICAL DIMENSIONS

Description			
Board dimensions	112 x 72 x 31		mm
Total dimensions (with plate)	115 x 76 x 58		mm
Fixations	PCB fixation holes	4x Ø3.2 mm	
	and also DIN platform, fast mounting on EN50022 rail.		
Weight (aprox.)		550	g



All dimensions in mm.

MECHANICAL DIMENSIONS (WITH PLATE DIN RAIL)



All dimensions in mm.

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CONNECTIONS

Description	*notes/test conditions*	*min*	*typ*	*max*	
Device configuration	On-board jumpers				
Signal and power signals	Plug connectors, with screw. Type MSTB 2,5 (Phoenix Contact)				
Connectors fixing screw torque			5.0		Nm
Cable section MSTB 2,5		28		16	AWG

ACCESSORIES

The board is supplied with the following accessories:

- All its corresponding pluggable connectors.
- DIN platform for EN50022 rail implementation.

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CONTROL & SUPPLY CONNECTORS PINOUT

J1 CONNECTOR

#pin	Designator	Function
1	N1	Neutral (Common)
2		Not implemented
3	T1	Mains AC Line T J1
4		Not implemented
5	S1	Mains AC Line S J1
6		Not implemented
7	R1	Mains AC Line R J1

J2 CONNECTOR

#pin	Designator	Function
1	R2	Mains AC Line R J2
2		Not implemented
3	S2	Signal AC Line S J2
4		Not implemented
5	T2	Mains AC Line T J2
6		Not implemented
7	N2	Neutral (Common)

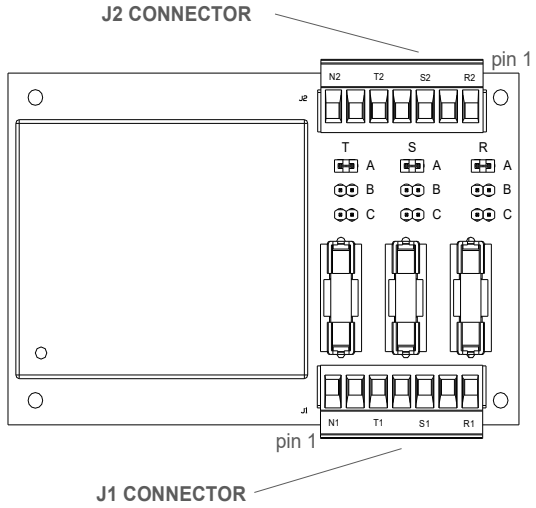


figure 1: Connectors and pinning detail.

JUMPER SETUP

Prior to its connection user must ensure the correct set up of the on-board jumper configuration according the input application voltage. Following you will find a configuration table to set up the jumpers and a figure as a guidance. When the mains voltage exceeds 220 V_{AC} J2 connector on board must be used as mains input and use J1 as synchronism output signaling for low voltage applications J1 works as input connected to mains and J2 as output synchronism signaling.

Please see examples of application in the last sheet of this datasheet.

V_{ACIN}	Jumper Configuration	Mains Connection	Synch Output
200 to 700 V_{AC}	Jumpers on A position	J2	J1
65 to 220 V_{AC}	Jumpers on A position	J1	J2
20 to 70 V_{AC}	Jumpers on B position	J1	J2
10 to 23 V_{AC}	Jumpers on C position	J1	J2

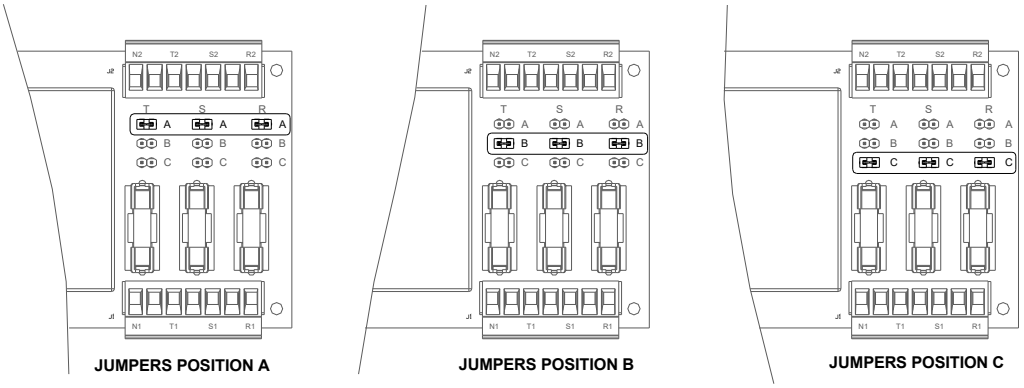


figure 2: On-board jumper positions.

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TYPICAL APPLICATIONS

Example of how to interface a SC6006 with mains lower than 220 V_{AC} without neutral connection available:

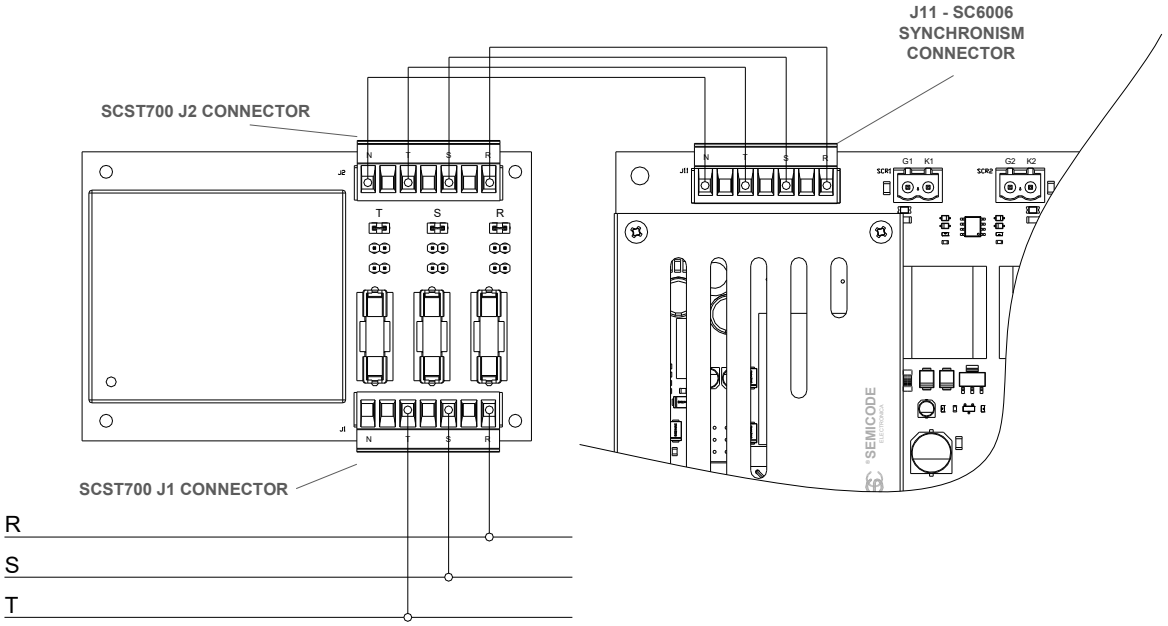


figure 3: Typical application with SC6006 with mains lower than 220 V_{AC}.

Example of how to interface a SC6006 with mains higher than 220 V_{AC} without neutral connection available:

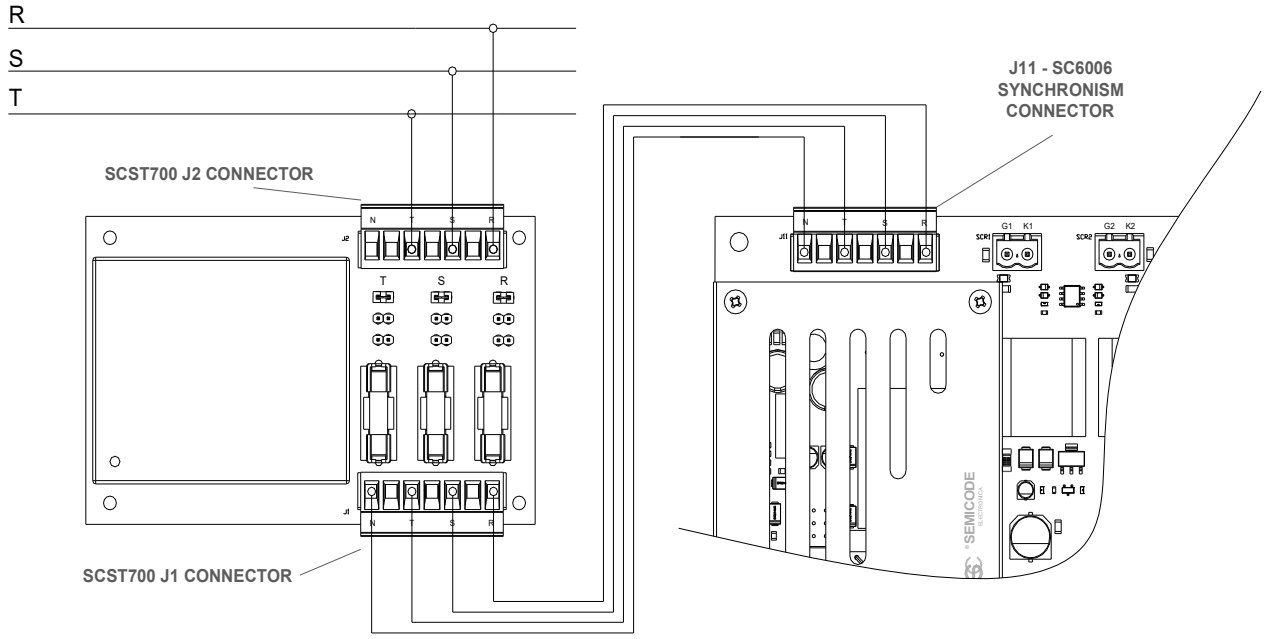


figure 4: Typical application with SC6006 and mains voltage higher than 220 V_{AC}.

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