SVTA-SWTA DIAGNOSTIC

NORMAL OPERATION

LED DISPLAY			OUTPUTS		LOAD	COMMENTS
Supply	Line Up	Load Down	Pwr	Diag.		

ANALOG INPUT VOLTAGE BELOW THE MINIMUM CONTROL VOLTAGE THRESHOLD

LED DISPLAY			OUTPUTS		LOAD	COMMENTS
(sequence: green rotating)	(sequence: green rotating)	(sequence: green rotating)	open	open	OFF	**DIAGNOSTIC** Phase presence = OK ; Phase voltage = OK ; Phase frequency = OK. LEDs blinking sequence indicates mains phase rotation is **direct**. Load connected. Analog input voltage below the minimum control voltage threshold (0.3V (0-10V) ; 4mA (4-20mA) ; 0.15V (0-5V / potentiometer))
(sequence: green rotating)	(sequence: green rotating)	(sequence: green rotating)	open	open	OFF	**DIAGNOSTIC** Phase presence = OK ; Phase voltage = OK ; Phase frequency = OK. LEDs blinking sequence indicates mains phase rotation is **reverse**. Load connected. Analog input voltage below the minimum control voltage threshold (0.3V (0-10V) ; 4mA (4-20mA) ; 0.15V (0-5V / potentiometer))

ANALOG INPUT VOLTAGE ABOVE THE MINIMUM CONTROL VOLTAGE THRESHOLD

LED DISPLAY			OUTPUTS		LOAD	COMMENTS
Supply: GREEN	Line Up: GREEN + OFF (blinking)	Load Down: OFF	open	open	ON	Indicates the voltage at the analog input or the voltage ramp set by the user (Time ramp (s)) is increasing.
Supply: GREEN	Line Up: GREEN	Load Down: OFF	closed	open	ON	Indicates the voltage at the analog input exceeds the maximum full power threshold voltage (9.7V (0-10V);19.7mA (4-20mA);4.9V (0-5V / potentiometer))
Supply: GREEN	Line Up: OFF	Load Down: GREEN + OFF (blinking)	open	open	ON	Indicates the voltage at the analog input or the voltage ramp set by the user (soft-stop) is decreasing.
Supply: GREEN	Line Up: OFF	Load Down: OFF	closed	open	ON	Stable analog input voltage or voltage ramps finished (if used). NOTA : A fast UP/DOWN LEDs blinking can occur

ABNORMAL OPERATION

LED DISPLAY			OUTPUTS		LOAD	POSSIBLE CAUSE	SOLUTION
Supply	Line Up	Load Down	Pwr	Diag.			

WHATEVER IS THE VOLTAGE VALUE AT THE ANALOG INPUT

LED DISPLAY			OUTPUTS		LOAD	POSSIBLE CAUSE	SOLUTION
OFF	OFF	OFF	open	open	OFF	Mains is missing or it is connected on the motor side (2T1, 4T2, 6T3) of the device, instead of the mains side (1L1, 3L2, 5L3)	Check the power side wiring
RED + OFF (blinking)	OFF	RED + OFF (blinking)	open	closed	OFF	Mains voltage too low	Check phase to phase voltage between 3L2 and 5L3
OFF	RED	OFF	open	closed	OFF	1 or 2 phase(s) missing, Mains frequency out of range, Too many disturbances	Check the phases
RED	RED	RED	open	open	OFF	Microcontroller malfunction or too many problems at the same time	Disconnect the device from the mains for a while and check the wiring
OFF	RED	RED	open	open	OFF	Load connection missing, Shorted thyristor (s)	Check load connections and measure the power element resistance (should be several 100kOhms)
OFF + GREEN (blinking)	RED + OFF (blinking)	OFF	open	open	OFF	A problem on the main occurred (e.g. phase missing) and now it is OK but analog input voltage is present	Remove the analog input voltage for a while
OFF + GREEN (blinking)	RED + OFF (blinking)	RED + OFF (blinking)	open	open	OFF	A problem on the load occurred (e.g. temporary disconnection) and now it is OK but analog input voltage is present	Remove the analog input voltage for a while
RED + GREEN (blinking)	OFF	OFF	open	open	OFF	Factory diagnostic	Consult us

ANALOG INPUT VOLTAGE ABOVE THE MINIMUM CONTROL VOLTAGE THRESHOLD

LED DISPLAY			OUTPUTS		LOAD	POSSIBLE CAUSE	SOLUTION
RED + OFF (blinking)	RED + OFF (blinking)	RED + OFF (blinking)	open	open	OFF	Power elements can not turn on	Check connection between 5 and 6 of the control terminal block. Check the load current is above the minimum specified
OFF	RED	OFF	closed	open	ON	1 or 2 phase(s) missing, Mains frequency out of range, Too many disturbances	Check the phases

LEGENDE

OFF	GREEN	RED	BLINKING OFF/GREEN	BLINKING OFF/RED
○	● (green)	● (red)	○● (off/green)	○● (off/red)

IMPORTANT INFORMATION CONCERNING THE DIAGNOSTIC
1- The device makes a complete diagnostic (mains, load and itself) as soon as the mains voltage is sufficient
2- The device checks only the presence of phases when the analog input voltage is above the minimum control threshold, during the ramps (softstart and softstop) and when it is full on (the power elements are tested only when analog control voltage is below the minimum control voltage threshold).

3- The control overrides the diagnostic.
   - If a problem occurs during the control period, the device will try to go on driving the load according the analog input voltage. If the problem goes on, it will be if possible indicated to the user according the diagnostic table.
   - If a problem occurs during the softstopping period, the device will stop immediately in order to reach the off state diagnostic period.

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