

WEG CFW500 AC Drives – Accessories

WEG CFW500 Safety Module

The CFW500-SFY2 is a safety module capable of providing STO (Safe Torque Off) and SS1-t (Safe Stop 1 Time Controlled) safety operations.

- The STO function disables torque-generating power to the motor. This method of disabling the motor is very reliable against unexpected motor starts, even under a fault condition. When activated, the STO safety function blocks power from the drive's output electronic circuit, causing the motor to coast to a stop.
- The SS1-t function also disables torque-generating power to the motor but waits a predetermined period of time to allow the drive to impose a deceleration ramp before removing torque. This is especially useful in situations where inertial loads need to be decelerated before torque is removed from the motor.

The CFW500-SFY2 module can be installed on any CFW500 series drive in a dedicated slot on the top of the drive. It does not conflict with the installation of I/O or communications modules.



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WEG MAT #	Model #	Price	Description	Features/Specifications		Drawing Link	CFW500 Drive
15560296	CFW500-SFY2	\$72.00	Safety function module (STO and SS1-t)*	Safety functions	Safe torque off (STO) according to IEC/EN 61800-6-2 or stop category 0 according to IEC/EN 60204-1 Safe stop 1 time controlled (SS1-t) according to IEC/EN 61800-6-2 or stop category 1 according to IEC/EN 60204-1	PDF	All
				Safety category	SIL 3, per IEC 61508 / IEC 62061 / IEC 61800-5-2 PL e, category 4, as pwer EN ISO 13849-1		
				PFD_{avg}	< 2.74 x 10 ⁻⁴		
				PFH (1/h)	<3.13 x 10 ⁻⁹		
				MTTF_d(y)	> 1600 years		
				DC_{avg}	93%		
				Proof test interval	20 years		
				Response/reaction time	<100ms		
				OSSD test pulses	Pulse duration: <1ms Interval between pulses on same channel: >8ms Interval between pulses on different channels: >4ms		
				Safety input signals	ON: 15VDC – 30 VDC		
				Maximum discrepancy time between safety input signals	1s		
				Safety power supply	+24VDC ± 15% SELV type according to IEC 60950-1 PELV type according to IEC 60204-1		

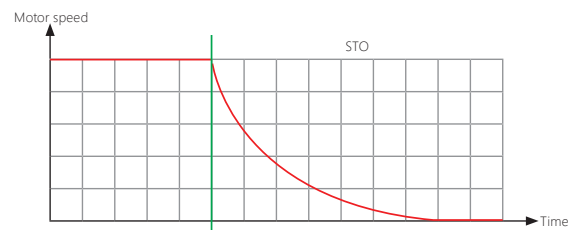


Figure 1.1: STO behavior

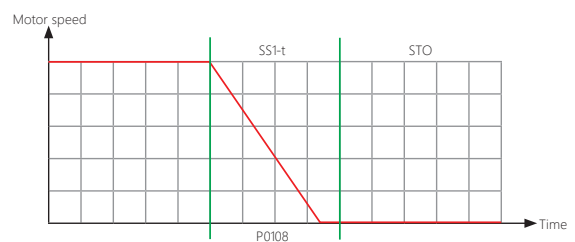


Figure 1.2: SS1-t behavior