

S-DIAS DC Motor Output Stage SR 011



- with 1 DC motor output stage +50 V/5 A
- 1 brake chopper
- 1 incremental encoder input RS422/TTL
- 2 enable inputs +24 V/3 mA/0.5 ms with STO function (not EG type tested)
- 1 digital output +24 V/0.5 A/short-circuit prot.

The S-DIAS motor output stage module SR 011 allows the connection of DC brush motors with a phase current up to 5 A. The operating modes PWM control, current and speed regulation via IxR compensation, as well as speed and position regulation via incremental encoder are supported.

DC Motor Output Specifications

Number	1
Supported motor type	DC brush motor
Operating modes	PWM control Current regulation Speed regulation via IxR compensation Speed regulation via incremental encoder Position regulation via incremental encoder
Supply voltage	+18-55 V
PWM frequency	32 kHz
Current controller frequency	16 kHz
Maximum PWM switching ratio	95 % (limited by hardware)
Maximum continuous current	5 A
Output current over the environmental temperature	maximum 5 A continuous current at 45 °C maximum 3.5 A continuous current at 50 °C maximum 2 A continuous current at 55 °C
Maximum peak current (1 s)	15 A
DC-link capacitance	2,8 µF
Motor current measurement	0-15 A

Voltage measurement	0-65 V
Temperature measurement	0-125 °C with temperature warning at 103 °C with temperature warning at 108 °C
Safety functions	Short circuit cutoff Temperature cut-off I ² t monitor Over and under voltage monitor

Brake Chopper Specifications

Number	1
Output	GND switching
Maximum current	6 A
Short-circuit protection	yes
Regen resistor	External power resistor
Article number	20-014-061-Z1
Regen resistor switching threshold on/off	60 V/55 V

Incremental Encoder Input Specifications

Number	1
Input signals	Incremental encoder signals RS422 (A, /A, B, /B, R, /R) RS422 signal (120 Ω termination, integrated in the module) Incremental encoder signal TTL (A, B, R) TTL level (1200 Ω Pull-Up, integrated in the module)
Input frequency	maximum 125 kHz
Counter frequency	maximum 500 kHz
Signal analysis	4x
Counter resolution	16 bits
Encoder power supply	+5 V/0.2 A short-circuit proof