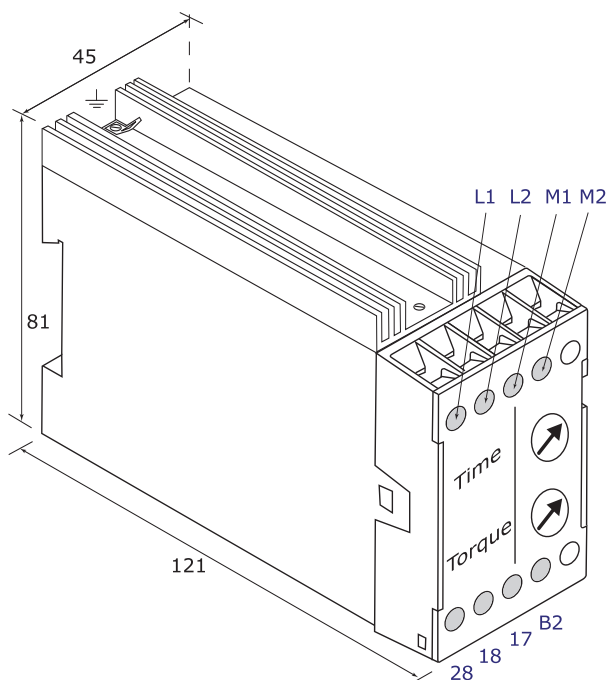


Electrical Specification

Conforming to Standards BS/EN60947

DC CURRENT:	S10 25A nominal current flows through L1, L2, M1 & M2 Smooth-BRAKE 60 Amp or 90 Amp high current connections directly to thyristor diode module.	
FREQUENCY:	The unit is for rated 50 Hz.	
DWELL TIME:	From operating main contactor to closing DC contactor:	
	S10	0.5 seconds
	Smooth-BRAKE	1 second
TIME RANGE:	S10	braking time range is 0.1 to 12.7 seconds (270° rotation linear potentiometer)
	Smooth-BRAKE	0.2 to 50 seconds (270° rotation linear potentiometer)
DC VOLTAGE:	The voltage range is up to approx. 160 volts, with the minimum voltage dependent on thyristor latching current.	
DUTY CYCLE:	S10 Limited by software to 10%. For every second of braking 10 is added to a register. For every second not braking 1 is subtracted. Restart is inhibited if the register is above a value of 250. Note: if the unit will not start it will be waiting for this register to count down below 250. The maximum delay is approx. 2 minutes. Smooth-BRAKE No software limitation of duty cycle. Heat sink rated for 10 off equally spaced 35 second stops per hour maximum at stated current.	
DIMENSIONS:	S10	81H x 45W x 121D (mm) - DIN Rail mounting
	Smooth-BRAKE	100H x 160W x 125D (mm)
TERMINALS:	S10	2 times 2.5mm ² max
	Smooth-BRAKE	main terminals M5 screw control terminals 2 times 2.5mm ² max
WEIGHT:	S10	200g
	Smooth-BRAKE	1.0kg
HUMIDITY:	85% non condensing	
AMBIENT TEMP:	Operating -10 to +40C Storage -20 to +70C	
PROTECTION:	IP code	IP20
RELAYS: RL1	Internal 8A rated contacts, 440Vac max breaking voltage.	
RL2	The relay terminals 17 18 28 are volt free and can be wired in a control circuit at lower voltage. The relay contacts can be protected with a 4 Amp Control fuse.	
BRAKE FUSE:	Semiconductor fuse	
	S10	30A (10mm x 38mm) FL078 740 A ² sec Ferraz 660gRB10-30 A070gRB30T13 ref M330015 or equivalent.
	Diode	40EPS12 800 A ² sec
	Thyristor	40TPS12 1250 A ² sec
	Smooth-BRAKE	
	60 Amp SKNH56 or IRKN56	8000 A ² sec
	FE100 semiconductor fuse	1800A ² sec
	NSD 32 3000 A ² sec	approx 60A 100 sec trip point
	NSD 40 6000 A ² sec	approx 100A 100 sec trip point
	90 Amp SKNH91 or IRKN91	15000 A ² sec
	FE120 semiconductor fuse	1900A ² sec
	ESD 50 8700 A ² sec	approx 120A 100 sec trip point
	ESD 63 13300 A ² sec	approx 150A 100 sec trip point

S10 Module Terminals Identification and marking



Part Numbers

BR011 400v

BR016 240v

BR021 110v

- L1** Common phase connection
- L2** Phase connection - connected to **M2**
- M1** Motor connection
- M2** Motor connection - connected directly to **L2**
- B2** Voltage sense input
- 17** Relay input - common to RL1 and RL2
- 18** RL1 Relay output - motor contactor via stop start circuit
- 28** RL2 Relay output connects to brake contactor

The **B2** terminal to signal the unit to brake requires the full operating voltage of the module applied.

L1 is common internally so a normally open auxiliary contact on the main contactor is used to provide a signal on **B2** from **L2**.