

Variable speed Brushless motor drive system



- Variable speed motor control
- Bi-directional motor control
- Output power up to 50 watts
- Complete 'plug & run' simplicity
- Motor output speed from 100 to 3000 rpm @ full torque
- Geared motor output torque up to 3.5 Nm
- Digital display of actual motor speed
- Brushless dc motor technology for long life
- 24Vdc operation for increased safety
- Optional AC supply power-pac

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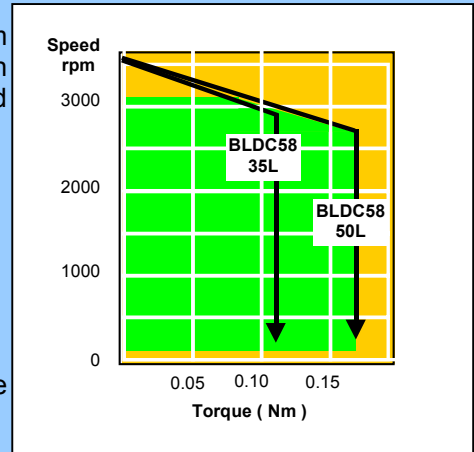
Mclennan's latest introduction to simplified speed control offers a ready-made solution to a wide range of light duty industrial and scientific applications that require a variable speed drive. The units are based on Brushless dc motor technology that offers long maintenance-free life combined with excellent controllability.



Advanced brushless motor with integrated drive technology

The 24Vdc BLDC58 motor that forms the heart of the system utilises integrated drive electronics that incorporates an analogue speed loop circuit providing excellent speed regulation under varying load conditions.

Motor model	Output Power (Watts)	Maximum Speed (rpm)	Maximum Torque (Nm)
BLDC58-35L	35	3000	0.11
BLDC58-50L	50		0.17



Speed regulation from 100-3000 rpm is obtained using the MSA933 motor speed control module.

Speed control module for BLDC58 motors

Simply connect the MSA933 unit to the BLDC58 motor and the unit to a 24 Vdc power supply using the connectors provided and the system is ready to use. The system provides the following features:

- Switched Motor direction of rotation
- Switched motor run/stop
- Motor speed control from 100-3000 rpm
- Digital display of actual motor speed
- 24Vdc operation
- Optional power supply for 230Vac operation



Gearboxes for increased torque and low speed operation

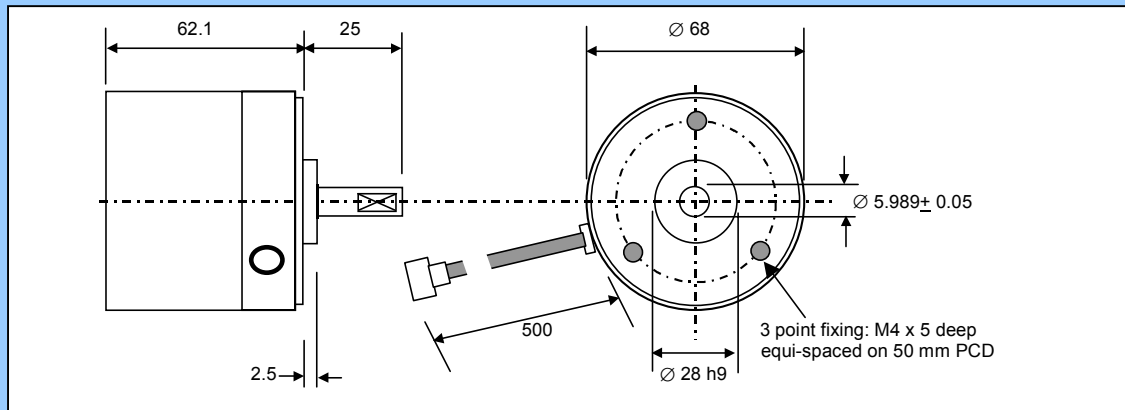
When low operating speeds and increased torque are required the BLDC58 motors may be fitted with high strength gearboxes.

Gearbox	Maximum speed (rpm)	Maximum Torque (Nm)	
		BLDC58-35L	BLDC58-50L
MRIG02S	500	0.4	0.6
MRIG06S	200	0.9	1.5
MRIG11S	100	1.7	2.7
MRIG17S	50	3.5	

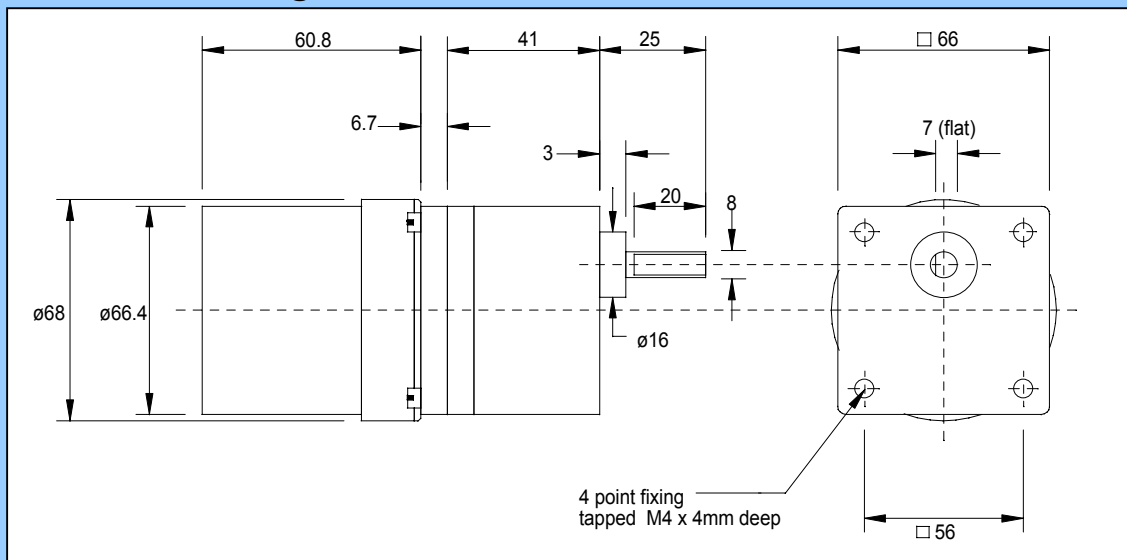


Variable speed drive system dimensions: mm

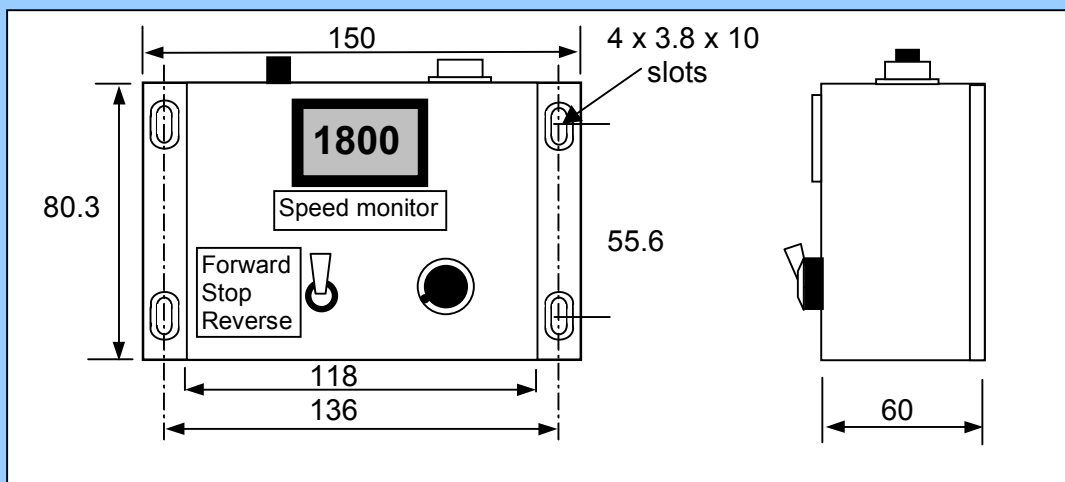
BLDC58 motor



MRIG -BLDC58 geared motor



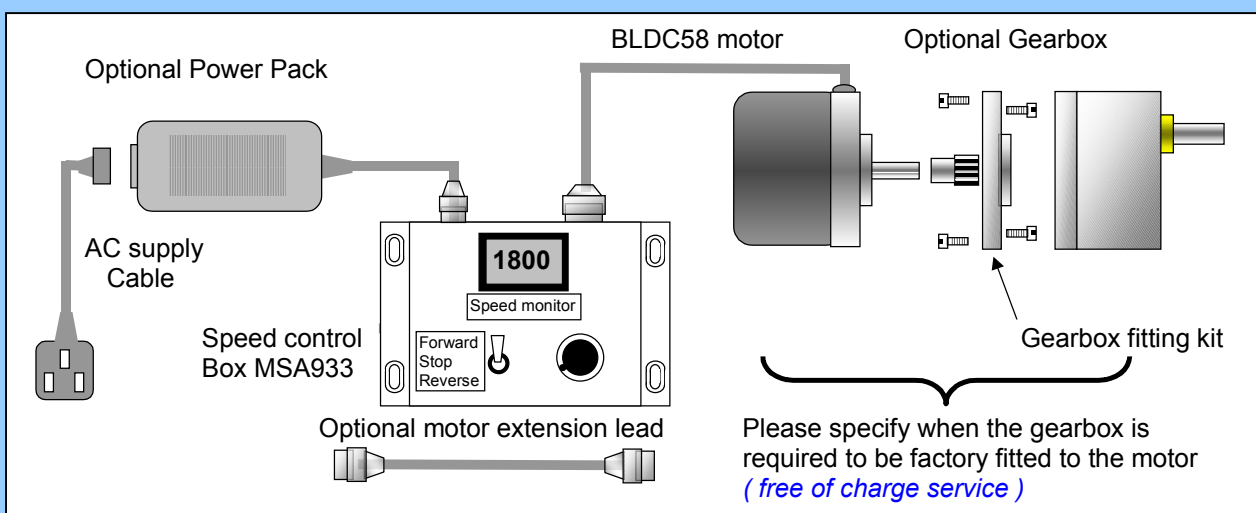
MSA933 control box



Variable speed drive system specification

Supply Voltage	Vdc	24
Supply Current	Amps	3
24V supply mating connector		Included in power pack kit
Alternative supply	Vac	230-50Hz using system power-pack
Speed adjustment		1 turn speed control dial
Speed Range		30:1
Max recommended motor speed	rpm	3000
Actual Speed display		4 digit display in counts per second
Speed display resolution	Counts /rev.	36 @ motor speed
Speed display @ max. motor speed	Counts/sec.	1800
Speed display @ min. motor speed	Counts/sec	60
Display values using	Count rate @	Display values
Motor BLDC58		30
BLDC58 + MRIG02S Gearbox	Per revs/sec @ output shaft:	150
BLDC58 + MRIG06S Gearbox		375
BLDC58 + MRIG11S Gearbox		750
BLDC58 + MRIG17S Gearbox		1500

System components



System ordering codes

Speed control module MSA933	506MSA00933
Optional AC Power Pack with cable for MSA933	006PSU00002
2 metre 230 Vac supply cable with UK connector	007ACC00002
2 metre 230 Vac supply cable with Euro connector	007ACC00003
35 Watt Motor BLDC58-35L with 0.5 m lead & connector	301BLS58935
50 Watt Motor BLDC58-50L with 0.5 m lead & connector	301BLS58950
Optional 2 metre motor extension lead	507MOC series
Optional MRIG02S gearbox *	002GSM00002
Optional MRIG06S gearbox *	002GSM00004
Optional MRIG11S gearbox *	002GSM00006
Optional MRIG17S gearbox *	002GSM00008
Motor-Gearbox fitting kit *	400MAX00051

Note* At time of order, please specify when gearboxes are required to be factory fitted to motors.