

MEL servo brushless drives

MEL- J2S Super series

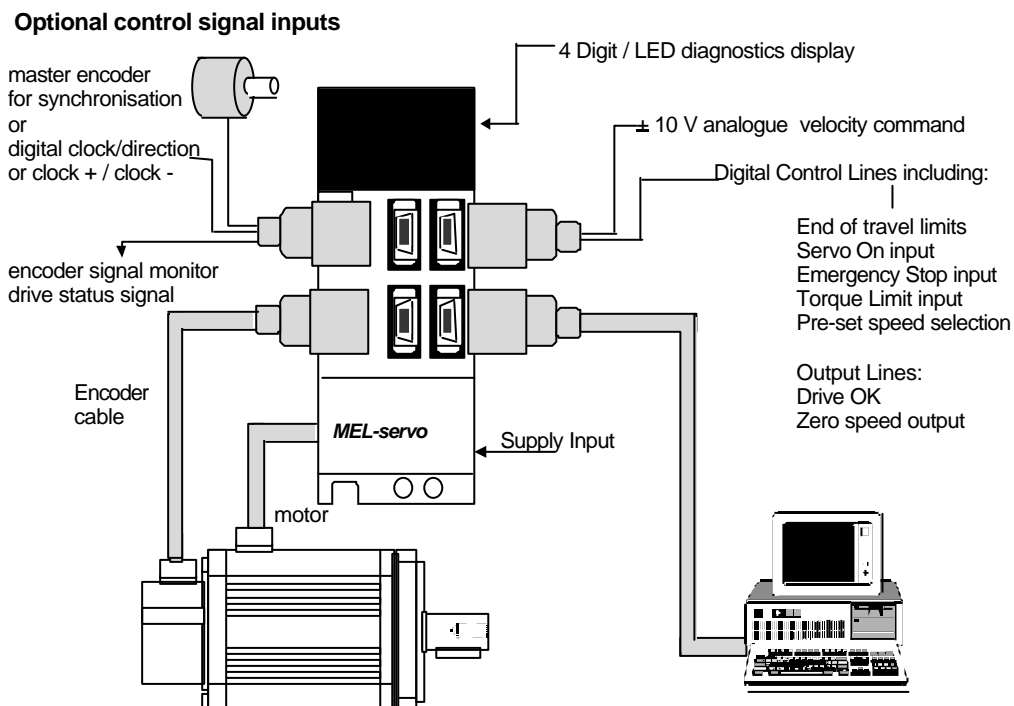
The introduction of the new MEL-J2 Super series AC brushless drive represents a significant step in motor drive technology. MEL Servo, the latest generation of Mitsubishi brushless drives distributed by Mclennan have already established a reputation in many world-wide markets as one of the most advanced and cost effective high performance drive packages available, providing a state-of-the-art solution for a wide range of motion control applications

features

- Wide range of compact self contained brushless drives
- Connects directly to 230 Vac single phase supply
- 3 phase Sinewave output for smooth motor operation
- Multi function ability enables MEL Servo to be used for
POSITION CONTROL
VELOCITY CONTROL
TORQUE CONTROL
ELECTRONIC GEARBOX SYNCHRONISATION
- Improved Automatic self adaptive tuning of servo constants for optimum control, even under varying load conditions.
- Simple installation using standard cables & connectors
- Choice of control signal inputs including:
 $\pm 10 V$ analogue input for use with servo positioners
Clock & direction signal for use with stepper controllers
Dual track encoder input for master / slave operation
4 programmable set speeds
- Optional absolute position memory retains motor position even during loss of power.
- Extensive diagnostics with local display or via RS232 interface for 'Lap-top' computer commissioning
- 'CE' marked
- Wide range of Mitsi motor options from 40 mm to 176 mm frame size
- Continuous Torque ratings from 0.16 to 16.7 Nm
- High resolution, programmable up to 131,072 counts per revolution



Typical Connection options



Dimensions: mm

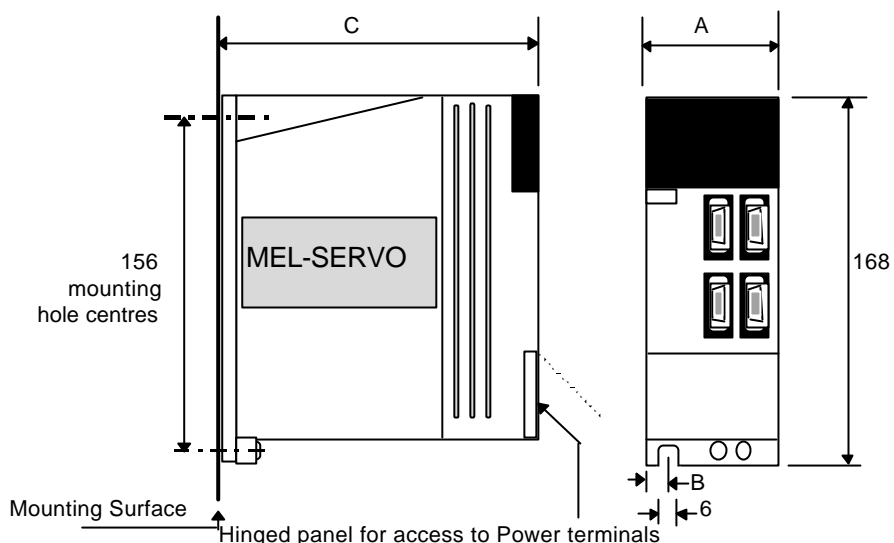


Table of variable dimensions:

Drive unit	Overall Width 'A'	Number of Mounting points	Distance 'B' to mounting holes centre from edge	Overall Length 'C'
MEL-J2S-10A MEL-J2S-20A	50 mm	2	6 mm	135 mm
MEL-J2S-40A MEL-J2S-60A	70 mm	2	22 mm	135 mm
MEL-J2S-70A MEL-J2S-100A	70 mm	3	22 mm from LH side 6 mm from RH side at base only	190 mm
MEL-J2S-200A MEL-J2S-350A	90 mm	4	6 mm from both sides	195 mm

MEL- J2S Specification

Servo Amplifier	MEL-J2S-	10A	20A	40A	60A	70A	100A	200A	350A
Supply requirements		230 Vac 50 or 60 Hz Single Phase					230 Vac 50 or 60 Hz 3 phase		
Permissible fluctuation		-20 % + 10 %					-25 % + 10 %		
Output Power (kW)		0.1	0.2	0.4	0.6	0.75	1.0	2.0	3.5
Weight (kg)		0.7	0.7	1.1	1.1	1.7	1.7	2.0	2.0
Output stage		3 phase Sinewave PWM current control system							
Dynamic Brake circuit		Integral							
Built -in Protection against:		Over-current, regenerative voltage overload, motor over-temperature, encoder fault, under-voltage, instantaneous power failure, over-speed, excessive encoder error							
Speed frequency response		≥ 550 Hz							
Torque Limit input		0 to ± 10 Vdc / max current (except torque control mode)							
Position control specification									
Max. input pulse frequency		500kpps. for differential receiver, 200 kpps for open collector							
Position feedback resolution		131,072 pulses per revolution							
Command pulse multiplying factor		Electronic gearbox A/B				A,B: 1 to 65,535			
		1/50 < A/B < 500							
In position range setting		0 to ± 10,000 pulses							
Error excessive		± 10 revolutions.							
Speed control specification									
Speed control range		Analogue speed command 1:2000 (internal speed command 1:5000)							
Analogue command input		DC ± 10 V							
Speed fluctuation ratio		± 0.01% (load fluctuation 0-100%)							