

Low cost AC brushless drive system

631 series

The new 631 series AC brushless integrated drive system provides a complete low cost brushless drive and control solution which is ideal for a wide range of servo control applications.

The 631 servo system incorporated 3 phase brushless drive technology and a motion controller in a single integrated package capable of providing in excess of 1 kW motor shaft power.

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
- Smooth velocity control over wide speed range
- Digital tuning of servo constants for simple commissioning
- Simple installation using standard cables & connectors
- Digital control signal technology:

Clock & direction signal for use with digital controllers

Dual track Encoder input for synchronisation to other axes

Electronic gearbox software

Integrated position controller with internal memory for stand-alone operation

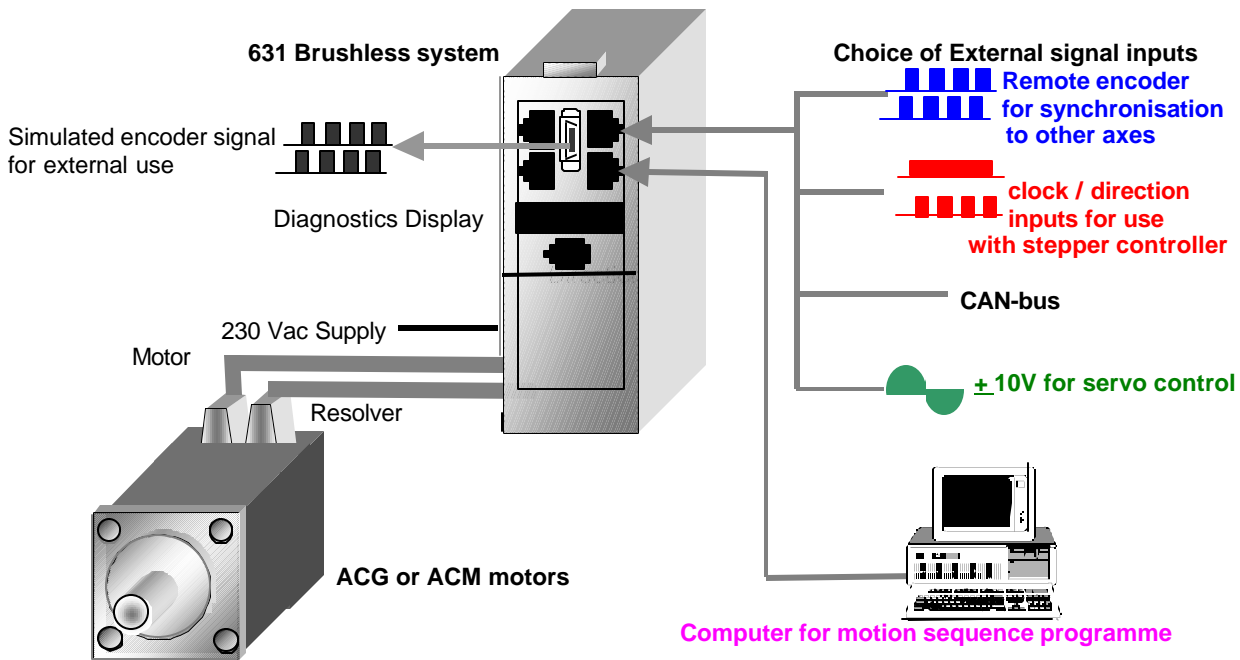
Digital I/O to interface with other machine functions

Communication via RS232. CAN-bus provides links to other drives

- 'CE' marked with integral EMC filter
- Wide range of matched motor options
- Continuous Torque ratings from 0.1 to 3 Nm
- High resolution of 8192 counts per revolution
- Electronic resolution setting of input pulse ratio



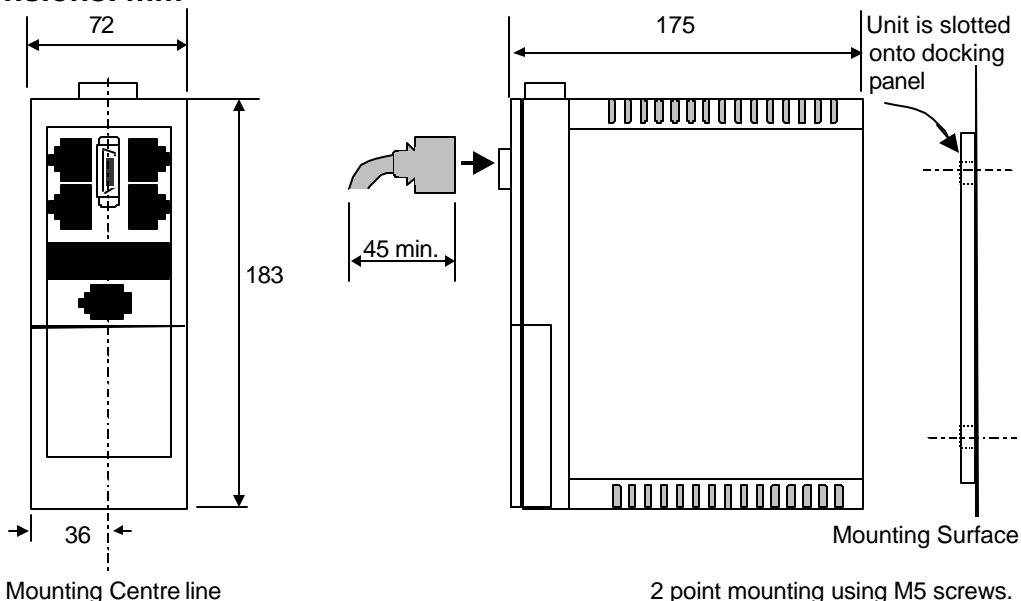
Typical Connections



Accessories

Motor & Resolver cables may be specified in alternative lengths of 2, 5 & 10 metres

Dimensions: mm



Specification

Model	631-	001 230-F00	002 230-F00	004 230-F00	006 230-F00
Maximum motor power		0.13 kW	0.38 kW	0.71 kW	1.34 kW
Maximum rated output current		1.0 A	2.0 A	4.0 A	6.0 A
Maximum peak current for 5 seconds		2.0 A	4.0 A	8.0 A	12.0 A
Supply voltage	230 Vac -50 / 60Hz				
Output stage	Sinusoidal PWM current control system Continuous current setting adjustable to maximum rating Peak current setting independently adjustable to maximum rating				
Control signal inputs	Pulse input: position / velocity control Dual track pulse train for electronic gearbox $\pm 10V$ signal for velocity or torque control (12 bit resolution)				
Control logic	Digital				
Tuning	Digital set up of servo constants				
Safety features	Over-current , Over-voltage, Over temperature, Low supply voltage				
Control safety features	large position error (programmable)				
Control specification					
Maximum input pulse frequency	Depending on input gear ratio and encoder feedback resolution settings				
Position feedback resolution	Programmable:, 256, 512, 1024, 2048, 4096 8192 counts/rev				
Command pulse multiple	Electronic gearbox A/B multiple: 1-99,999 / 1-99,999				
Position complete window	programmable				
Excess position error	programmable				
External Control Options:	As defined by control signal input specification				
Motion controller software options	Velocity control Point-point positioning Electronic gearbox Electronic Cam Motion sequence memory for stand-alone operation				
Digital I/O	4 configurable inputs (optically isolated 24Vdc supply) 4 configurable outputs (optically isolated 24 Vdc supply)				
I / O expansion options	8 I / O of which a maximum of 4 can be outputs (10-30 V)				
Analogue input	$\pm 10 V$				
CAN input / output	Connectors X20 / X21				
Resolver feedback	Connector X30				
Pulse train input / output	Connectors X40 / X41				