High power AC brushless drive system 637 series

The 637 series AC brushless integrated drive system provides a complete brushless drive and control solution for use with the high power ACM series range of AC brushless servo motors. The flexibility offered by the wide range of control features results in a drive system that can be readily integrated in a wide range of servo control applications.
The 637 servo system incorporates 3 phase brushless drive technology and a motion controller in a single integrated package capable of providing in excess of 11 kW motor shaft power.

features

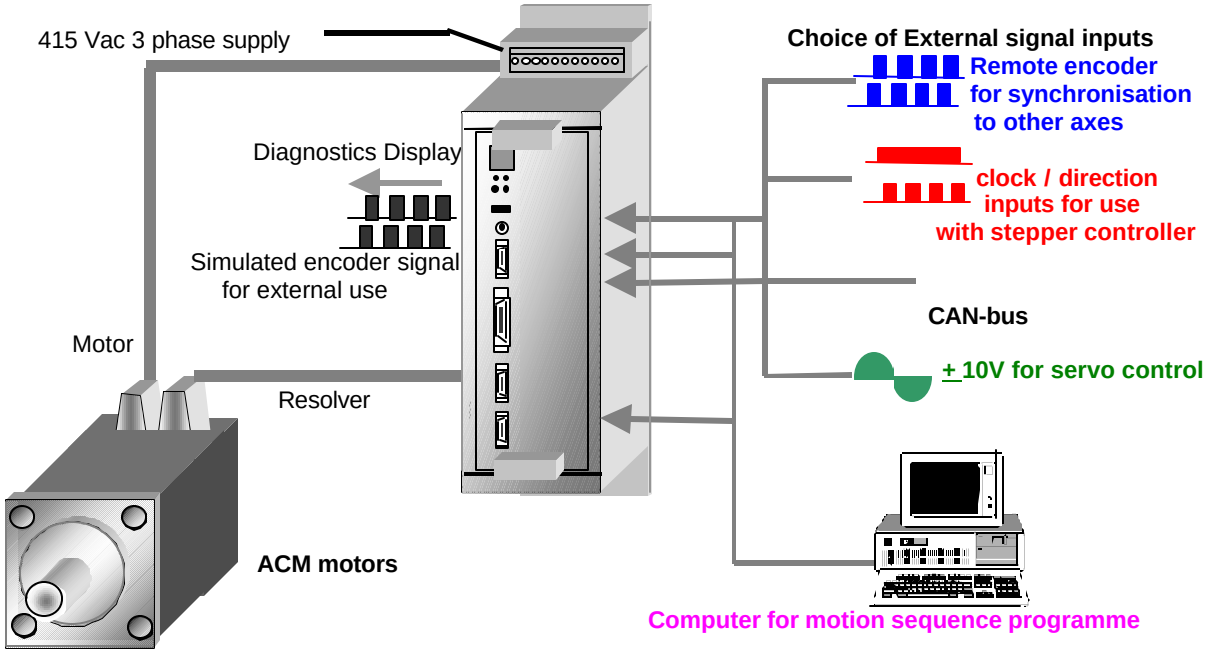
- Wide range of compact self contained brushless drives
- Connects directly to 415 Vac three phase supply
- 3 phase Sinewave output for smooth motor operation
- Smooth velocity control over wide speed range
- Digital tuning of servo constants for simple commissioning
- Simple installation using standard 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
- Wide range of matched motor options
- Continuous motor torque ratings from 3.2 to 53 Nm
- High resolution of 8192 counts per revolution
- Electronic resolution setting of input pulse ratio

Typical Connections

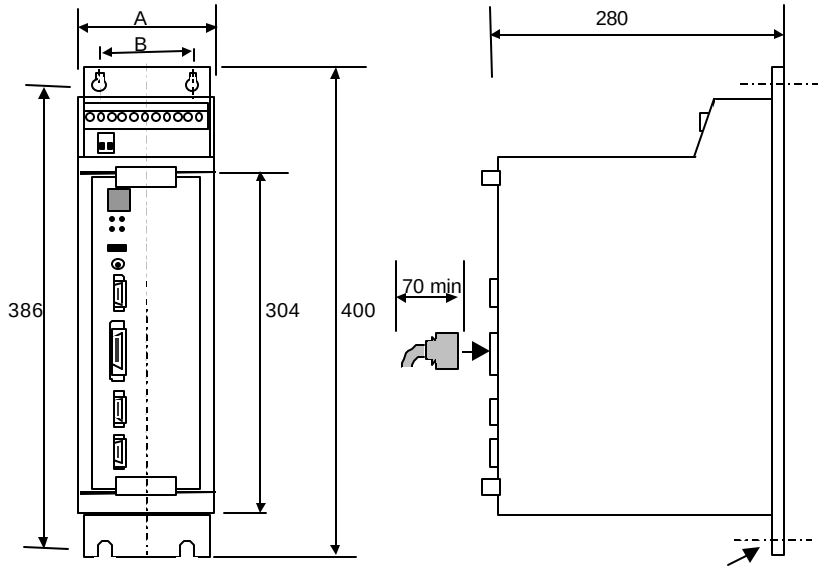
637 Brushless system



Accessories

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

Dimensions: mm



4 point mounting.

Variable dimensions

Drive 637K	A	B
DR6-02 DR-04 DR-06 DR-10	64.5	30
DR-16 DR-22 DR-30	104.6	71.1

Specification

Model	**637 K D6R-02**	**637 K D6R-04**	**637 K D6R-06**	**637 K D6R-10**
Maximum motor power	0.65 kW	1.4 kW	2.0 kW	2.7 kW
Maximum rated output current	2 A	4 A	6 A	10 A
Maximum peak current for 5 seconds	4 A	8 A	12 A	20 A
Model	**637 K D6R-16**	**637 K D6R-22**	**637 K D6R-30**	
Maximum motor power	5.0 kW	8.0 kW	11 kW	
Maximum rated output current	16 A	22 A	30 A	
Maximum peak current for 5 seconds	32 A	44 A	60 A	
Supply voltage	380-460 Vac –50 / 60Hz			
	24 Vdc : logic & Opto-isolated I/O supply			
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 ± 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 **I / O expansion options**	8 total, 7 configurable inputs (optically isolated 24Vdc supply) 5 configurable outputs 22 Inputs / 17 Outputs			
Analogue inputs	± 10 V for speed / torque signal + one, configurable (10 bit)			
Analogue outputs	Speed & current output (resolution 7 bit)			
Communications interface	Connectors COM 2			
Resolver feedback	Connector X30			
Pulse train input / output	Connectors X40			