

631 1 to 6A

The 631 is much more than a basic Brushless Servo drive. With torque, speed, position or motion control, built-in I/O, EMC compliant filter and PLC functionality, it's a complete positioning system in a single module. The 631 can be connected directly to a 230 VAC single-phase supply without needing an isolation transformer.



Motion Controller

1500 Program steps
Real-time and multi-tasking structure: PLC, Math and Motion programs
Electronic gearing and CAM functions
CANopen comm ports: DS301 implemented

INPUTS/OUTPUTS

Analog Inputs - 1 ; (10 VDC)
Digital Inputs - 4; ENABLE and 3 User configurable (24 VDC)
Digital Outputs - 2; User configurable (24 VDC Sourcing)
Resolver Feedback - 12- or 14-bit, User selectable
Incremental I/O User Configurable
Encoder Input, step/dir, step/step or Simulated Encoder Output
CANBUS ANCILLARY EQUIPMENT
8 Channel I/O Expansion module (LA469119)
8 - Configurable digital inputs/outputs (max. 4 outputs)

DIRECT 230 VAC SUPPLY CONNECTION

INTEGRAL EMC COMPLIANT FILTERS

35MM DIN OR DIRECT PANEL MOUNT

635 / 637+ 2 to 30A

Torque, speed, position or motion control and built-in I/O are all standard features of the 635/637+ series Brushless Servo drive. Each model has an internal power supply allowing direct connection to the supply. 635 models are 230 VAC rated and 637+ models are rated for either 230 or 460 VAC supplies. They become part of a total servo package including motors, servo gearboxes and interconnecting cables.

The 635/637+ is available as a stand-alone drive or as a rack mounted module with up to 9 drives in a single rack.



Motion Controller

1500 Program steps
Real-time and multi-tasking structure: PLC, Math and Motion programs
Electronic gearing and CAM functions
Several Fieldbus options available

INPUTS/OUTPUTS

Analog Inputs (635) - 2; one 10-bit, one 12-bit (10 VDC)
Analog Inputs (637+) - 2; one 10-bit, one 14-bit (10 VDC)
Analog Outputs (635) - 2 ; 7-bit (10 VDC)
Analog Outputs (637+) - 2; one 8-bit, one 10-bit (10 VDC)
Digital Inputs - 8; ENABLE and 7 user configurable (24 VDC), (inc. 2 interrupts)
Digital Outputs - 5; OK and 4 user configurable (24 VDC Sourcing)
Resolver Feedback - 12- or 14-bit, User selectable (635) or 16-bit (637+)
Incremental I/O User Configurable
Encoder Input, step/dir, step/step or Simulated Encoder Output

DIRECT 230 OR 460 VAC SUPPLY CONNECTION

637+ RACK OPTION SUPPORTS 9 DRIVES

7-SEGMENT DIAGNOSTIC DISPLAY

MOTOR PROTECTION, I²T AND PTC/NTC

SIMPLE COMMISSIONING AND PROGRAMMING
VIA EASYRIDER[®] SOFTWARE

COMPLETE PACKAGE OF MOTORS, SERVO
GEARBOXES AND INTERCONNECTING CABLES



TECHNICAL SPECIFICATION

Power Supply - Single- or three-phase 220-240 VAC ($\pm 10\%$); 50 - 60 Hz $\pm 5\%$

Three-phase 380-460 VAC ($\pm 10\%$); 50 - 60 Hz $\pm 5\%$

Ambient - 0-40°C (32-104°F); derate 2% per °C to 50°C (122°F) maximum

Altitude - 1000m (3280 ft) ASL, derate 1% per 100m (330 ft) up to 4000m (13123 ft) maximum



631/635/637

1 to 30A

SERVO DRIVES

220-240V

Type	Amps Cont. (rms)	Amps Peak* (rms)	Cont. Output (kW)	Mech. Typ. (kW)	H (inch)	W (inch)	D** (inch)	Weight
631 SERIES Single-phase								
631/001/230/F/00	1	2	0.4	0.19	7.2	2.8	6.8	3.3 lb. (1.5 kg)
631/002/230/F/00	2	4	0.8	0.38				
631/004/230/F/00	4	8	1.5	0.76				
631/006/230/F/00	6	12	2.3	1.14				
635 SERIES Single/Three-phase								
635/KDER03-0	2.5	5	0.9	0.47	9.8	3.5	8.5	6
635/KDER05-0	5.0	10	1.9	0.95		3.5		6
635/KDER07-0	6.5	13	2.5	1.23		4.1		6.4
635/KDER10-0***	10.0	20	3.8	1.90		4.1		7.6
637+ SERIES Single/Three-phase								
637+/KD6R02-3	2	4	0.8	0.4	15.7	2.4	11	11
637+/KD6R04-3	4	8	1.5	0.8				
637+/KD6R06-3	6	12	2.3	1.1				
637+/KD6R10-3***	10	20	3.8	1.9		4		19.4
637+/KD6R16-3***	16	32	6.1	3.0				
637+/KD6R22-3***	22	44	8.4	4.2				
637+/KD6R30-3***	30	60	11.4	5.7				

Mounting holes 0.2" - use M5 screws

* Peak amps for 5 seconds

** 2.75" must be allowed for connectors/cables

*** Three phase only

380-460V ($\pm 10\%$) THREE-PHASE

Type	Amps Cont. (rms)	Amps Peak* (rms)	Cont. Output (kW)	Mech. Typ. (kW)	H (inch)	W (inch)	D** (inch)	Weight (lbs)
637+/KD6R02-7	2	4	1.6	0.8	15.7	2.4	11	11
637+/KD6R04-7	4	8	3.2	1.6				
637+/KD6R06-7	6	12	4.7	2.4				
637+/KD6R10-7	10	20	7.9	4.0		4		19.4
637+/KD6R16-7	16	32	12.6	6.3				
637+/KD6R22-7	22	44	17.4	8.7				
637+/KD6R30-7	30	60	23.7	11.8				

* Peak amps for 5 seconds

** 2.75" must be allowed for connectors/cables.

635/637+ FACTORY INSTALLED OPTIONS

Profibus-DP	Add suffix - PDP
CANbus	Add suffix - CAN
DeviceNet	Add suffix - DEV
SUCOnet K	Add suffix - SUC
RS232	Add suffix - 232
RS485	Add suffix - 485
RS422	Add suffix - 422
Interbus S	Add suffix - IBS
I/O Expansion Boards (only one per drive)	
635/Expansion board 5 Inputs / 2 Outputs	Add suffix - EA5
637+ Expansion board 14 Inputs / 10 Output	Add suffix - EAE

Example: 637+/KD6R16-3-PDP

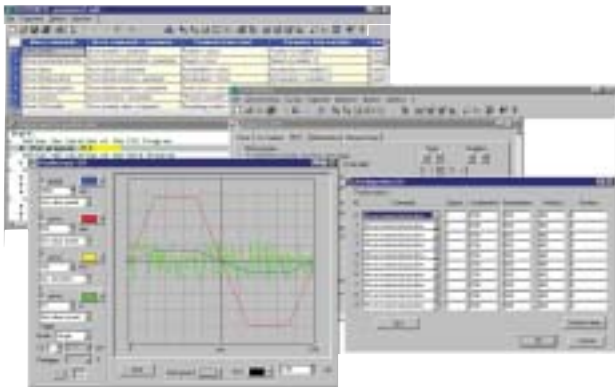
SERVO DRIVES

631/635/637

Accessories

EASYSRIDER® SOFTWARE

Easyrider software is a Windows based graphical programming utility for configuring the 63x series of Servo controllers. It provides a simple user interface for accessing all drive parameters, programming motion and calibrating the drive.



Complete cable assemblies between Parvex motors and 630 series drives.

COMPLETE CABLE ASSEMBLIES

Description	Part Number
Cable POWER, xxM with motor connector, 4 amp max.	220139R49xx
Cable POWER, xxM with motor connector, 8 amp max.	220139R42xx
Cable POWER, xxM with motor connector, 16 amp max.	220139R43xx
Cable POWER, xxM with motor connector, 32 amp max.	220139R48xx
Cable RESOLVER, xxM with motor connector	220049R51xx
Cable RESOLVER, xxM with motor and X30 connectors	220139R61xx

Note: Motor Power cables include brake and thermal conductors

xx = Cable length in meters; Standard lengths 2, 5, 10m. (6.5, 16.4, 32.8 ft)

Example: 220139R6150=50 meter (164 ft) long RESOLVER cable with motor & X30 connectors

LOOSE CABLES (NO CONNECTORS)

Description	Part Number
Power Cable, 0,5mm ² (20 AWG) (4 amp max.)	6537P0019
Power Cable, 1,0mm ² (18 AWG) (8 amp max.)	6537P0009
Power Cable, 2,5mm ² (14 AWG) (32 amp max.)	6537P0010
Resolver Cable, 3P, 0.34mm ²	6537P0001
CAN Cable, 2P, 0.14mm ²	KA.0003.8003
Signal Cable, 4P, 0.14mm ²	KA.0003.8015

LOOSE CONNECTORS

Description	Part Number
Motor POWER CONNECTOR size 1 (8 amp max.)	220065R1610
Motor POWER CONNECTOR size 1 (16 amp max.)	220065R1611
Motor POWER CONNECTOR size 3 (32 amp max.)	220065R3611
Motor RESOLVER CONNECTOR for Parvex motor	220065R4621
<i>Drive Connectors for 635/637+</i>	
X10 I/O	ST.1002.2003
X30/COM2	ST.1002.2001
X40	ST.1001.2002
X200	ST.1010.2001
COM1 for 635/637 only	ST.9701.0001
COM2 for Profibus	ST.0930.1701
Package X10,X30,X40 and COM 2	LA467063

CANbus ANCILLARY EQUIPMENT

Description	Part Number
8 Channel I/O CANbus Expansion Module	E/A-CAN
BCD Switch Module - 5 Digit plus sign with 6 digit LED readout	BCD-LED6-CAN-VZ000
CANbus terminator plug, 631 only X20/X21	CM469030
631 X20 (or X40) to 631 X20 (or X40) 100mm cable, 4C with connectors both ends	CM469036U001
631 X20 1m cable, 4C with connector one end	CM469029U010
631 X40 1m cable, 8C with connector one end	CM469033U010

CANbus HMI (HUMAN MACHINE INTERFACE)

Description	Part Number
4 x 20 Character IBT HMI	BE.1000.1805
IBT to 635/637+ (COM2), 2M Cable with Connectors	KK.5100.1301
Programming Cable, IBT to PC, 2M	KK.5100.1401
HMI Programming Software (Windows)	SO.9000.0005

SOFTWARE & PROGRAMMING CABLES

Description	Part Number
Programming Cable, PC-DRIVE 631/637+	CM351909
Programming Cable, PC-DRIVE 635/637	KK.5004.0001
EASYSRIDER Software on CD-ROM includes hardware and software manuals.	EASYSRIDER

For optional components; EMC/RFI filters, regenerative components, etc., please contact your local sales channel.