

iDrive AC variable speed 'economy' drives 0.2-2.2kW (1/4-3HP)

IMO



iDrive is the ultimate low-cost variable speed ac drive from the home of the world famous Jaguar range.

Ideal for small 3-phase motor control applications requiring flexibility, reliability and precision, iDrive is available from stock in single phase 230V or three phase 400V input models.

iDrives use only twelve basic set-up parameters for standard out-of-the box operation, but for higher performance applications the user can unlock and use the hidden advanced parameter set.

An internal First Environment EMC filter makes the iDrive suitable for virtually every industrial, commercial or domestic application without the need for additional equipment.

Compact, powerful, and user friendly. There is really only one small ac drive that you need to ask for... iDrive from IMO.



- Integrated Class A EMC filter
- CE and UL/cUL approvals
- Easy to install
- Basic/Advanced set-up
- DIN rail mounting as standard
- 1-phase and 3-phase variants
- V/F and sensorless vector modes
- High starting torque
- PID control as standard
- Keypad potentiometer
- 8 pre-set speeds
- DC braking as standard
- IP65/NEMA 4 models available
- Side-by-side mounting
- Thermostatic cooling fan
- Comprehensive inverter and motor protection functions
- Remote Keypad options with full copy facility
- Optional multi-function card
- PNP or NPN selectable
- RS232/485 option cards
- Modbus RTU/ASCII
- PC software (option)
- PDA (iPAQ) software (option)

actual size

Options and ordering codes

EDX - 075 - 4 3 - E									
iDrive									
Power (kW)									
0.2	020							IP20	
0.4	040							N4	NEMA4 (IP65)
0.75	075							N4S	As N4 plus control switches
1.5	150								
2.2	220								
								No Filter	
								E	EMC Filter built in
100v	1								
200v	2								
400v	4								
600v	6								
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Specification

Model data	Special Order only								Special Order only							
	110V/1Ø			220V/1Ø					220V/3Ø					440V/3Ø		
	EDX-xxx-11			EDX-xxx-21-E					EDX-xxx-23					EDX-xxx-43-E		
	020	040	075	020	040	075	150	220	020	040	075	150	220	075	150	220
Horsepower (hp)	0.25	0.5	1	0.25	0.5	1	2	3	0.25	0.5	1	2	3	1	2	3
Nominal Motor Capacity (kW)	0.2	0.4	0.75	0.2	0.4	0.75	1.5	2.2	0.2	0.4	0.75	1.5	2.2	0.75	1.5	2.2
Rated Output Current (A)	1.7	3.1	4.2	1.7	3.1	4.2	7.5	10.5	1.7	3.1	4.2	7.5	10.5	2.3	3.8	5.2
Rated Capacity	0.53	0.88	1.60	0.53	0.88	1.60	2.90	4.00	0.53	0.88	1.60	2.90	4.00	1.7	2.9	4.0
Max. Input Voltage	1Ø 100-120V +10%, -15% (50/60Hz)			1Ø 200-240V +10%, -15% (50/60Hz)					3Ø 200-240V +10%, -15% (50/60Hz)					3Ø 380-480V +10%, -15% (50/60Hz)		
Max. Output Voltage	3Ø / 0 to V input			3Ø / 0 to V input					3Ø / 0 to V input					3Ø / 0 to V input		
Input Current (A)	7.1	12.2	17.9	4.3	5.4	10.4	15.5	21	3.0	4.0	6.4	9.4	12.2	3	4.8	6.6
Net Weight (kg)	0.62	0.68	0.72	0.71	0.73	0.73	1.25	1.3	0.61	0.61	0.66	0.95	1	1.68	1.7	1.73
Allowable momentary power loss time (second)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	2.0
Frame size (see dims)	1	1	1	1	1	1	2	2	1	1	1	2	2	2	2	2
Enclosure	IP20			IP20/IP65					IP20					IP20/IP65		

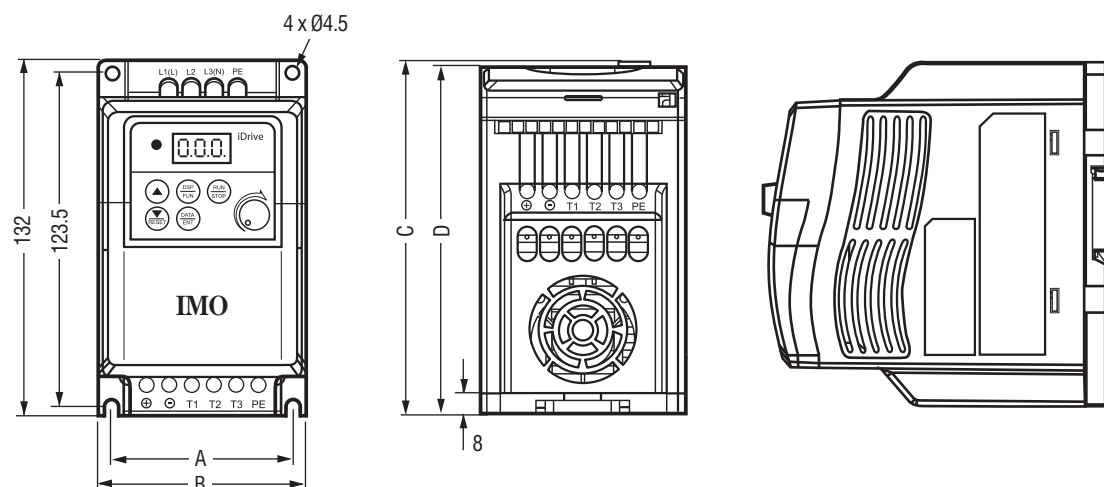
Common specification

Power Source	110V model: 100~120v +10% / -15%, 50/60Hz 220V model: 200~240v +10% / -15%, 50/60Hz 440V model: 380~480v +10% / -15%, 50/60Hz
Control Mode	Selectable V/f or Vector control (starting torque: 100% / 3Hz)
Frequency Range	0~200Hz
Frequency Setting Resolution	Digital: 0.1Hz (0~99.9Hz) / Hz(100~200Hz; Analogue: 0.6Hz / 60Hz
Frequency Setting Method	Set with ▲▼ keys or the VR on the keypad. Alternatively use the UP/DOWN (Motorised Pot) or the AIN signal
Display Functions	7 segment* 3; display frequency / DC voltage / output voltage / output current / inverter parameters error code / program version / PID feedback
External Frequency Setting	1. External variable resistor / 0-10V / 0-20mA / 2-10V / 4-20mA 2. Motorised Pot (UP/DOWN)
Output frequency limit function	Upper/lower frequency limits and two-stage prohibited frequencies
Carrier Frequency	4~16KHz (factory setting 10KHz, 10KHz or more De-rating
Acc/Dec control	0.1~999 sec, two-stage acc./dec. time could be changed By MFIT/Acc/Dec disable
DI (Digital Output)	NPN/PNP toggle* four points; two points optional (S1~S4 Built in, S5~S6 option)
DO (Digital Output)	Terminal * 1 point (1a terminal)---setting to Multi-function output. Optional Multi-function Photo Output* 1 point (open collector 24V, 600mA)
AIN (Analogue Input)	Setting to speed command and PID feedback signal/MFIT S7 (PNP Mode)
Other Functions	Instantaneous power loss restart, Speed search, fault restart, DC brake Torque boost, 2/3 wire control and PID function
Communication Control	RS-485 Option Card: Modbus RTU/ASCII mode, 4800~38400 bps max. 254 stations. PC-PDA software link
Humidity	0-95% Relative humidity (non-condensing)
Overload Protection	150% / 1 min
Operating Temperature	-10°C to +50°C (in distributor) IP20; -10~40°C IP65
Other Protection Function	Over current, over voltage, low voltage, overload, momentary power loss and restart stall prevention for acceleration/deceleration/operation, short-circuit protection for output/grounding fault, reverse restriction, restrictions for direct start after power up and error recovery
International Conformance	UL/cUL, CE
EMC	Integrated Class A (to EN61800-3 / First Environment, restricted sales)

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Dimensions IP20 Model mm



	A	B	C	D
Frame 1	67	77	130.5	128.45
Frame 2	108	118	148	144

Frame 1: 1Ø 110V/220V and 3Ø 220V models up to 0.75kW

Frame 2: 1Ø and 3Ø 220V from 1.5kW and all 3Ø 440V models

Connections

