JAGUAR - AQUA

Product Outline and Characteristics of Jaguar - VXA Series

- Wide capacity range from 0.75 to 710 kW
- Torque vector control
- IP21 & IP55 with same dimension
- DC Reactor and EMC filter built-in up 90 kW
- Automatic energy-saving operation
- Wet-bulb temperature estimation control
- Cascade control
- 4PID control
- Customisable logic
- Dry pump detection
- Anti Jam
- Linearisation function
- Real time clock
- Slow flow rate
- Standard comms BACnet MS/TP, Modbus RTU & Metasys N2

User friendly, easy to see keypad

1. Present value (PV)	5. Output current	9. Power consumption
2. Setting value (SV)	6. Output voltage	10. Cumulative energy
3. Manipulating value (MV)	7. Torque	
4. Frequency	8. Rotation speed	

* User defined process value display options
*Multi-language function: 19 languages + user customised language supported

DC Reactor + EMC Filter Built In

0.75 to 90kW (Protective structure IP21 or IP55 can be selected with the model between 0.75 and 90kW.)

Inverter capacity	EMC filter	DC reactor	Protective structure
0.75kW to 90kW	Built-in	Built-in	IP21/IP55
110kW to 710kW	Built-in	External	IP00

Optimum Control for Pump Applications

The first IMO Jaguar Drive developed specifically for the water industry and other pumping applications in a slim, easy to install package.

The Jaguar VXA achieves optimum energy saving on pump applications, contributing significantly to environmental protection while drastically reducing energy costs.

Inverter technology is proven to save energy consumption and an increasing number of users are benefiting from these savings. With its optimised control algorithm and dedicated application control functions the Jaguar VXA is leading the way in performance while continuing the user friendly reputation that Jaguar is renowned for.

Application: Water purification plants, clean water and sewage treatment plants.
Irrigation systems, seawater desalination.
Oil pumping, injection machines, hydraulic presses & extruders.

Standard specifications

3-phase, 400V series (0.75 to 710kW)

Item			Specifications													
Model	VXA#**-4E		2A5	4A1	5A5	9	13A5	18A5	24A5	32	39	45	60	75	91	112
Applicable standard motor (rated output) [kW] *1			0.75	1.5	2.2	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55
Output ratings	Rated capacity [kVA] *2		1.9	3.1	4.1	6.8	10	14	18	24	29	34	45	57	69	85
	Voltage [V] *3		3-phase, 380 to 480V (with AVR function)													
	Rated current [A]		2.5	4.1	5.5	9.0	13.5	18.5	24.5	32	39	45	60	75	91	112
	Overload current rating		110% -1min (Overload tolerated interval: compliant with IEC 61800-2)													
	Rated frequency [Hz]		50, 60Hz													
Input Power Supply	Main power supply (No. of phase, voltage, freguency)		3-phase, 380 to 480V, 50/60Hz													
	Control power supply auxiliary-input (No. of phase, voltage, freguency)		Single phase, 380 to 480V, 50/60Hz													
	Voltage, frequency variations		Voltage: +10 to -15% (Unbalance rate between phases is within 2%) *4 Frequency: +5 to -5%													
	Rated input current [A]		1.6	3.0	4.3	7.4	10.3	13.9	20.7	27.9	34.5	41.1	55.7	69.4	83.1	102
	Required power supply capacity [kVA]		1.2	2.1	3.0	5.2	7.2	9.7	15	20	24	29	39	49	58	71
Braking	Braking torque [%] *5		20										10 to 15			
	DC braking		Braking starting frequency: 0.0 to 60.0Hz, Braking time: 0.0 to 30.0s, Braking level: 0 to 60%													
EMC filter			Built-in [Compliant with EMC standard (IEC/EN61800-3:2004)]													
DC reactor (DCR)			Built-in (IEC/EN61000-3-2, IEC/EN61000-3-12)													
Compliant with Electrical Safety Standards			UL508C, C22.2No.14, IEC/EN61800-5-1:2007													
"#" Enclosure (IEC/EN60529)			IP21/IP55													
Cooling method			Natural cooling			Fan cooling										
Weight/Mass [kg]		IP21/IP55	10	10	10	10	10	10	18	18	18	18	23	23	TBD	TBD

Item			Specifications													
Model	VXA#**-4E		150	176	210	253	304	377	415	520	585	650	740	960	1170	1370
Applicable standard motor (rated output) [kW] *1			75	90	110	132	160	200	220	280	315	355	400	500	630	710
Output ratings	Rated capacity [kVA] *2		114	134	160	192	231	287	316	396	445	495	563	731	891	1044
	Voltage [V] *3		3-phase, 380 to 480V (with AVR function)													
	Rated current [A]		150	176	210	253	304	377	415	520	585	650	740	960	1170	1370
	Overload current rating		110% -1min (Overload tolerated interval: compliant with IEC 61800-2)													
	Rated frequency [Hz]		50, 60Hz													
Input Power Supply	Main power supply (No. of phase, voltage, freguency)		3-phase, 380 to 480V, 50/60Hz													
	Control power supply auxiliary-input (No. of phase, voltage, freguency)		Single phase, 380 to 480V, 50/60Hz													
	Voltage, frequency variations		Voltage: +10 to -15% (Unbalance rate between phases is within 2%) *4 Frequency: +5 to -5%													
	Rated input current [A]		136	162	201	238	286	357	390	500	559	628	705	881	1115	1256
	Required power supply capacity [kVA]		95	113	140	165	199	248	271	347	388	436	489	611	773	871
Braking	Braking torque [%] *5		10 to 15													
	DC braking		Braking starting frequency: 0.0 to 60.0Hz, Braking time: 0.0 to 30.0s, Braking level: 0 to 60%													
EMC filter			Built-in [Compliant with EMC standard (IEC/EN61800-3:2004)]													
DC reactor (DCR)			Built-in		Standard accessory (IEC/EN61000-3-2, IEC/EN61000-3-12)											
Compliant with Electrical Safety Standards			UL508C, C22.2No.14, IEC/EN61800-5-1:2007													
"#" Enclosure(IEC/EN60529)			IP21/IP55		IP00											
Cooling method			Fan cooling													
Weight/Mass [kg]		IP21/IP55	TBD	TBD												
		IP00			62	64	94	98	129	140	245	245	245	330	530	530

Option - USB port equipped, three types of optional board can be mounted!!

- Relay output card (2 × 1c)/(7 × 1a)
- Analog input/output interface card
- Pt100 temperature sensor input card
- PROFIBUS-DP communication card
- CC-Link communication card
- LONWORKS communication card
- DeviceNet communication card
- CANopen communication card
- Ethernet communication card

*1) Applicable standard motors are the case of IMO -pole standard motors.
*2) The rated capacity indicates the case of 440V ratings.
*3) Output voltage cannnot exceed the power supply voltage.
*4) Interphase voltage unbalance ratio [%] = (max. voltage [V] - min. voltage [V])/3-phase average voltage [V]× 67 (See IEC61800-3.) When unbalance ratio is between 2 and 3% please use optional AC reactor (ACR).
*5) Average braking torque obtained by use of a motor.(Varies with the efficiency of the motor)