



VXT AC Variable Speed Inverter Drives

0.4kW-315kW (0.5HP-420HP)



A solution for every **application**



The drive for perfection

- Integral PLC logic Function - 200 Steps
- STO with SIL3 / PLe safety circuit
- Modbus RTU and CANOpen Communication as standard
- Sensorless Dynamic Torque Vector
- Quadruple Ratings for 400V/3ph models
- Extended range from 0.4kW to 315kW



VXT AC Variable Speed Drives

Since its inception in 1984, the IMO Jaguar has represented the cutting-edge of AC inverter design and the latest IMO Jaguar VXT represents the most advanced high performance AC inverter we have ever produced. Packed with features including onboard 200 step PLC functionality, STO (Safe Torque Off) and advanced communications protocols, the Jaguar VXT sets the standard for AC inverter technology letting the user maximise performance whilst minimising additional component requirements in the overall application design.

With IMO's unique 5 Year Warranty and the support of its extensive technical resources around the world, the IMO Jaguar VXT is the natural choice for today's engineer creating tomorrow's design.

- Motor auto-tune for system optimization
- Carrier frequency up to 16kHz
- Switch between two motors
- Optimum energy control
- Supports PM DC Motor Operation
- Sink/source logic
- Inputs inverse operation
- 0-20mA/4-20mA input
- RS485/Modbus RTU/CANopen as standard
- Internal RJ45 socket for comms/keyboard connectivity
- Internal brake chopper to 22kW
- DC injection braking
- Filtered/unfiltered models
- RoHS & CE compliant
- UL/cUL approvals
- STO with SIL3 / PLe



Integrated PLC Logic Function

The VXT inverter has onboard PLC logic functionality as standard with 200 steps for digital and analogue function blocks allowing the inverter to be programmed for most applications quickly and easily using the IMO Visual Customiser software.

The integrated PLC function reduces the time and cost involved in panel engineering, wiring and machine assembly. It also introduces “future proofing” into the design by allowing the user to amend and customise functions for future requirements easily and economically with minimal changes to the system. IMO can support the development of programme templates for dedicated applications such as hoists and solar pumping.

Example: Chain Hoist Application

Programming the Jaguar VXT main unit with the required logic for controlling a chain hoist

1. Set the speed program
2. Reset the alarm by using the push-button switch
3. Mechanical limit switch function
4. Detect load
5. Automatic speed drive when no load is detected
6. Overload stop function



Dedicated/specialised functions for hoist application implemented by using customisable logic

Unparalleled Functionality

Keypads

The VXT comes with 4 segment LED Keypad fitted as standard. This allows direct programming of all parameters and can be panel mounted with standard ethernet cable if required.

The optional USB Keypad allows general set-up and provides direct connection to laptop/PC via the Mini USB port for more efficient set-up, maintenance and troubleshooting using the IMO Loader software.

The optional multi-function keypad has high resolution LCD screen offering advanced HMI/PLC functionality and program copy feature making set-up and maintenance of multiple inverters simple.



Standard keypad



USB keypad

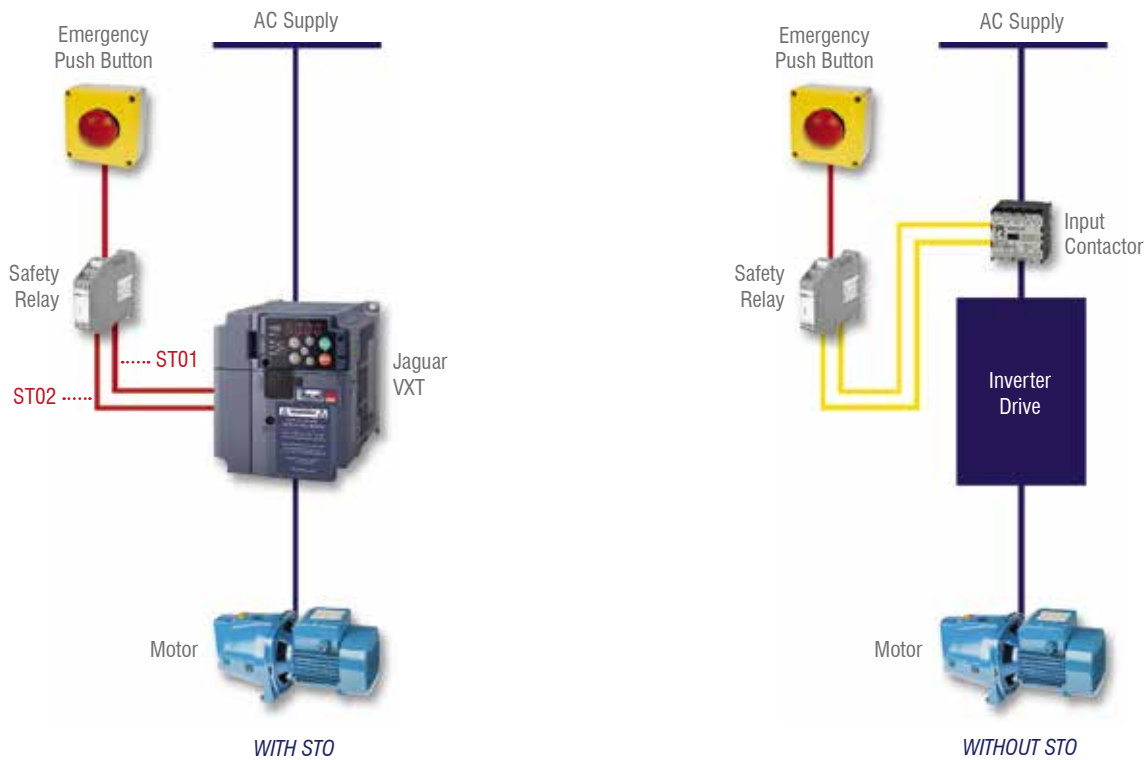


Multi-function keypad with LCD screen



SIL3 / PLe

STO safety functionality is standard on the VXT inverter with a two channel input and one channel output which complies with SIL3 safety. With STO, the input contactor is not required. The VXT can also be monitored via communication and software for troubleshooting.



Communication

A dual channel RS485 port for protocols such as Modbus RTU and CANOpen is standard and many other communication protocols are available as options ensuring that the VXT inverter is primed and ready for today's factory networking environment.



10 Years Lifetime Design

Jaguar VXT components have a design life of ten years. A longer maintenance cycle also helps to reduce running costs.

Design life *2	Main circuit capacitor	10 years *1	
	Electrolytic capacitors on PCB	10 years *1	
	Cooling fan	10 years *1	
	Life conditions	Ambient temperature	+40°C (104°F)
		Load rate	100% (HHD specifications) 80% (HND/HD/ND specifications)

*1 ND specifications have a rated current two sizes higher than HHD specifications, so calculated Design Life is reduced.

*2 The Design Life is estimated and not guaranteed.

VXT Application Examples

With a diverse range of advanced features and options, the VXT is suited for use in virtually any application, whether it be industrial, commercial or domestic. The following are just a few examples of applications where the VXT excels:-



Rating Selection Tables

Three Phase 400V Quadruple Rated

Pumps & Fans					
Motor Power		ND (40°C)		HND (50°C)	
kW	HP	Model	Output Current	Model	Output Current
0.4	0.5	-	-	-	-
0.75	1.0	VXT-2A-4	2.1A	VXT-2A-4	1.8A
1.1	1.5	-	-	VXT-4A-4	3.4A
1.5	2.0	VXT-4A-4	4.1A	-	-
2.2	3.0	VXT-6A-4	5.5A	VXT-6A-4	5A
3	4.0	VXT-7A-4	6.9A	VXT-7A-4	6.3A
5.5	7.5	VXT-12A-4	12A	VXT-12A-4	11.1A
7.5	10	-	-	VXT-22A-4	17.5A
11	15	VXT-22A-4	21.5A	VXT-29A-4	23A
15	20	VXT-29A-4	28.5A	VXT-37A-4	31A
18.5	25	VXT-37A-4	37A	VXT-44A-4	38A
22	30	VXT-44A-4	44A	VXT-59A-4	45A
30	40	VXT-59A-4	59A	VXT-72A-4	60A
37	50	VXT-72A-4	72A	VXT-85A-4	75A
45	60	VXT-85A-4	85A	VXT-105A-4	91A
55	75	VXT-105A-4	105A	VXT-139A-4	112A
75	100	VXT-139A-4	139A	VXT-168A-4	150A
90	125	VXT-168A-4	168A	VXT-203A-4	176A
110	150	VXT-203A-4	203A	VXT-240A-4	210A
132	175	VXT-240A-4	240A	VXT-290A-4	253A
160	215	VXT-290A-4	290A	VXT-361A-4	304A
200	270	VXT-361A-4	361A	VXT-415A-4	377A
220	300	VXT-415A-4	415A	VXT-520A-4	415A
280	375	VXT-520A-4	520A	VXT-590A-4	520A
315	420	VXT-590A-4	590A	-	-
Overload		120% - 1min			

Three Phase 400V Quadruple Rated

General Purpose & Heavy Duty					
Motor Power		HD (40°C)		HHD (50°C)	
kW	HP	Model	Output Current	Model	Output Current
0.4	0.5	-	-	VXT-2A-4	1.5A
0.75	1.0	VXT-2A-4	1.8A	VXT-4A-4	2.5A
1.1	1.5	VXT-4A-4	3.4A	-	-
1.5	2.0	-	-	VXT-6A-4	4.2A
2.2	3.0	VXT-6A-4	5A	VXT-7A-4	5.5A
3	4.0	VXT-7A-4	6.3A	-	-
4	5.5	-	-	VXT-12A-4	9A
5.5	7.5	VXT-12A-4	11.1A	VXT-22A-4	13A
7.5	10	VXT-22A-4	17.5A	VXT-29A-4	18A
11	15	VXT-29A-4	23A	VXT-37A-4	24A
15	20	VXT-37A-4	31A	VXT-44A-4	30A
18.5	25	VXT-44A-4	38A	VXT-59A-4	39A
22	30	VXT-59A-4	45A	VXT-72A-4	45A
30	40	VXT-72A-4	60A	VXT-85A-4	60A
37	50	VXT-85A-4	75A	VXT-105A-4	75A
45	60	VXT-105A-4	91A	VXT-139A-4	91A
55	75	VXT-139A-4	112A	VXT-168A-4	112A
75	100	VXT-168A-4	150A	VXT-203A-4	150A
90	125	VXT-203A-4	176A	VXT-240A-4	176A
110	150	VXT-240A-4	210A	VXT-290A-4	210A
132	175	VXT-290A-4	253A	VXT-361A-4	253A
160	215	VXT-361A-4	304A	VXT-415A-4	304A
200	270	VXT-415A-4	377A	VXT-520A-4	377A
220	300	VXT-520A-4	415A	VXT-590A-4	415A
250	335	VXT-590A-4	477A	-	-
Overload		150% - 1min		150% - 1min, 200% - 0.5sec	

Three Phase 200V Dual Rated

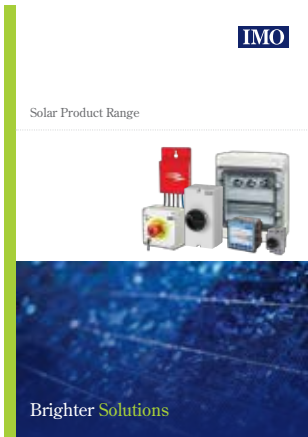
		Pumps & Fans		Gen. Purpose & Heavy Duty	
Motor Power		HND (50°C)		HHD (50°C)	
kW	HP	Model	Output Current	Model	Output Current
0.4	0.5	VXT-2A-2	2A	VXT-4A-2	3A
0.75	1.0	VXT-4A-2	3.5A	VXT-6A-2	5A
1.1	1.5	VXT-6A-2	6A	-	-
1.5	2.0	-	-	VXT-10A-2	8A
2.2	3.0	VXT-10A-2	9.6A	VXT-12A-2	11A
3	4.0	VXT-12A-2	12A	-	-
4	5.5	-	-	VXT-20A-2	17.5A
5.5	7.5	VXT-20A-2	19.6A	VXT-30A-2	25A
7.5	10	VXT-30A-2	30A	VXT-40A-2	33A
11	15	VXT-40A-2	40A	VXT-56A-2	47A
15	20	VXT-56A-2	56A	VXT-69A-2	60A
18.5	25	VXT-69A-2	69A	VXT-88A-2	76A
22	30	VXT-88A-2	88A	VXT-115A-2	90A
30	40	VXT-115A-2	115A	-	-
Overload		120% - 1min		150% - 1min, 200% - 0.5sec	

Single Phase 200V Single Rated

General Purpose & Heavy Duty			
Motor Power		HHD (50°C)	
kW	HP	Model	Output Current
0.4	0.5	VXT-3A-1	3A
0.75	1.0	VXT-5A-1	5A
1.5	2.0	VXT-8A-1	8A
2.2	3.0	VXT-11A-1	11A
Overload		150% - 1min, 200% - 0.5sec	

Also Available From IMO

From a single product to a complete application solution, IMO has the product range and knowledge to meet today's most demanding application requirements...



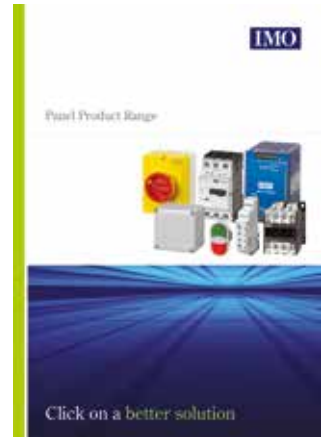
Solar Product Range



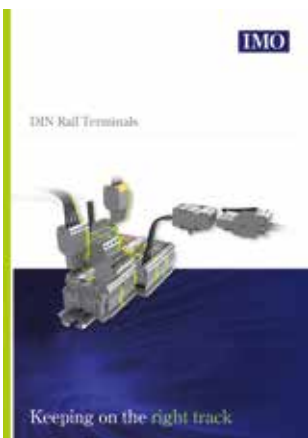
PCB Terminal Blocks



Miniature Circuit Breakers



Panel Product Range



DIN Rail Terminals



UL Approved MCBs



iView Advanced HMI



AC Variable Speed Drives



HD2 AC Variable Speed Drives



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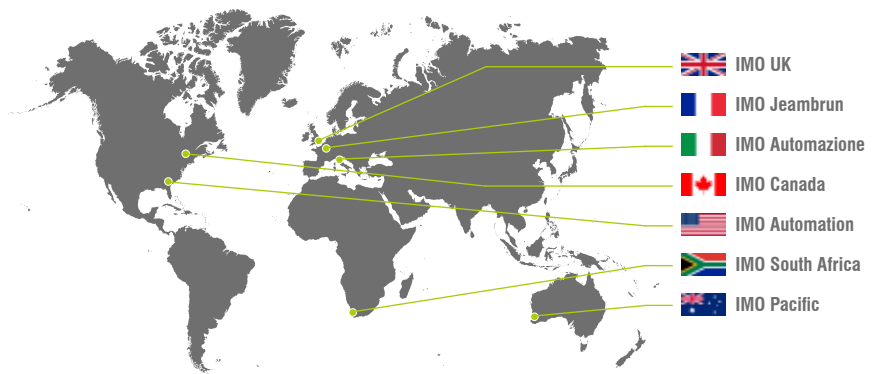
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