

Q2V Driving Quality

Even more versatile and reliable

The Q2 family offers a compact
AC drive that combines easy operation with high-efficiency control for almost any motor type. The result is a robust product designed for maintenance free long-term operation.

Minimize commissioning & operating costs

The Q2V is designed to provide more convenient commissioning: All I/Os come with screwless terminals and the hardware is simplified thanks to a built-in EMC filter and STO function.

The benefit is cost-effectiveness due to less wiring effort.



Improve energy efficiency

The Q2V series improves the energy efficiency of all the components in the loop. Firstly, it is able to drive efficient motors such as PMs, secondly by driving them in the most efficient way with special motor control methods like the EZ Vector for pumps and fans, and finally thanks to the dedicated energy saving functions.

Reduce machine downtime

By providing data acquisition at device level, you can prevent potential failures by avoiding unplanned downtimes. The Q2V can trace and record data to the local SD card or provide data to IT systems via the NX/NJ machine controller.



Driving Quality

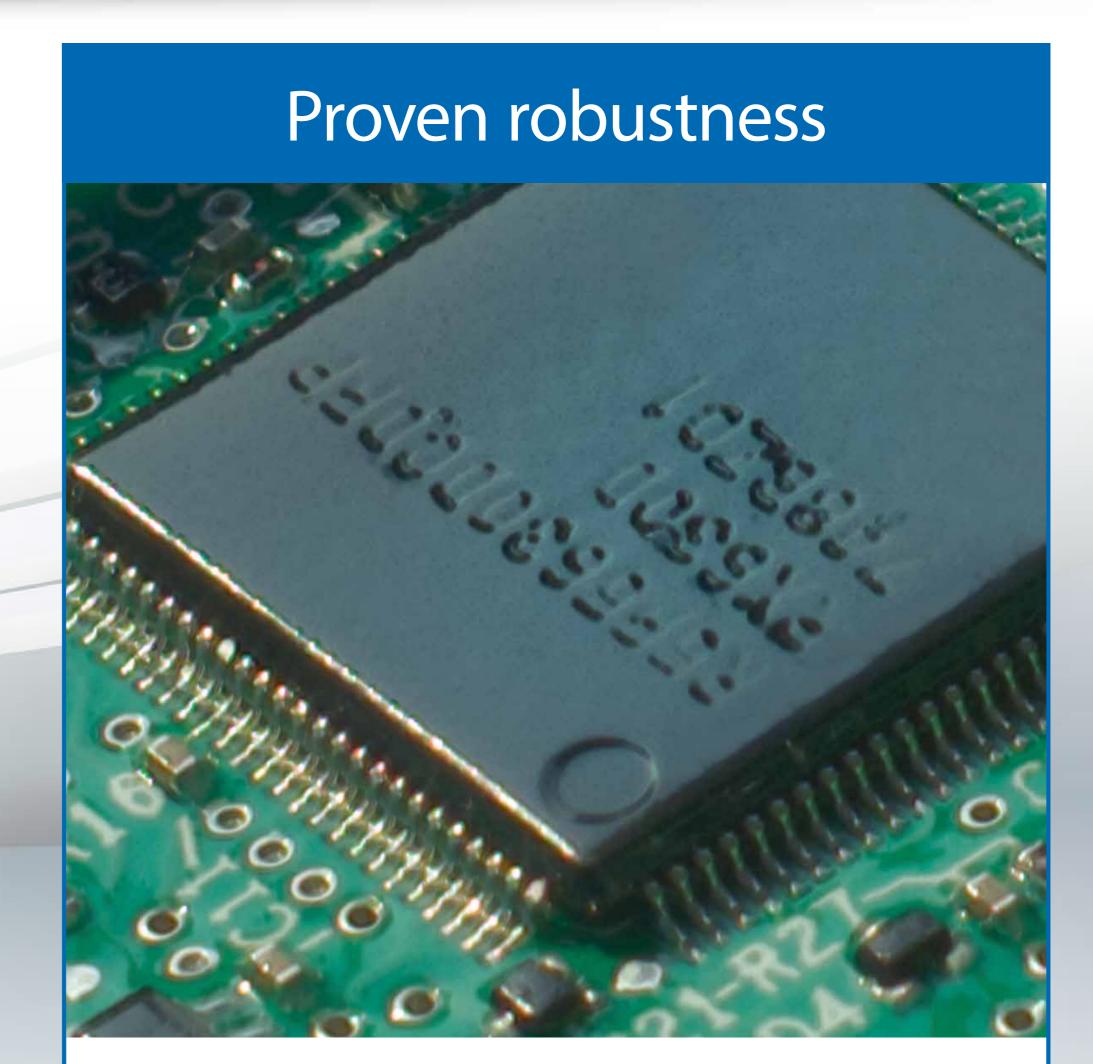


- Optimize space by compact size and size by size mounting.
- Save hardware and installation time thanks to built-in EMC, braking chopper, safety STO and Screw-less terminals.
- Save engineering and commissioning time with software/app tools and Wizards.

Application versatility



- Use just one drive for any kind of motor.
- Save energy thanks to new motor technologies (PM & SynRM motors).
- Customize your drive to your application by dedicated menu, parameters & Wizards
- Develop your own programs keeping your knowhow inside the company.



- Reduce machine downtime thanks to higher protection from dust and humidity.
- Install and forget thanks to 10 years maintenance free use design.
- Be proactive against potential failures by network connectivity and data reporting).
- Experience matters: More than 10 Million inverters installed.



Easy installation & set-up

Size space saving



• Hardware simplification thanks to a built-in EMC filter and the STO (Safe



Mobile app



For set-up and monitoring.

Compact size

Side by side mounting.

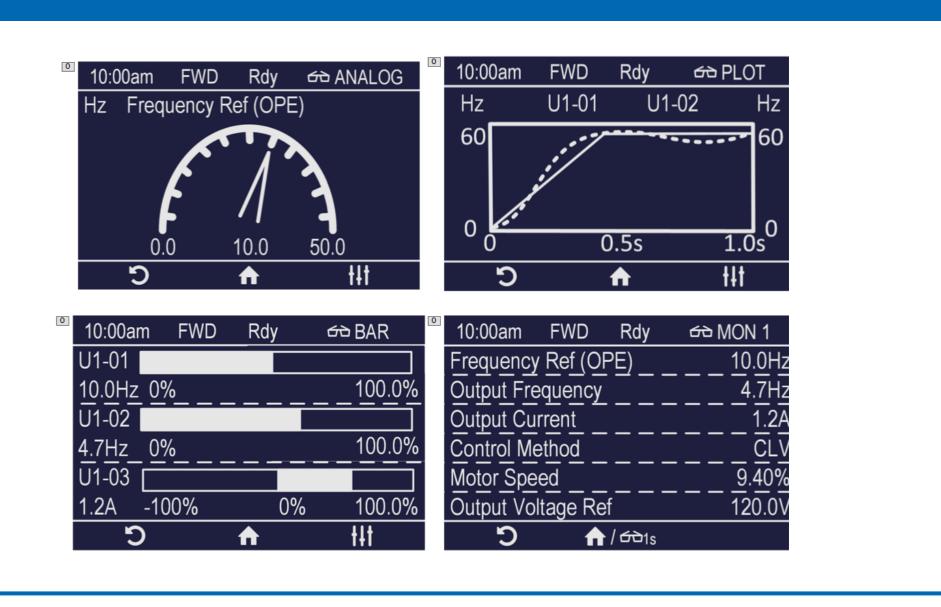
Optional graphical LCD display

- High resolution
- Copy function

Torque Off) safety

function.

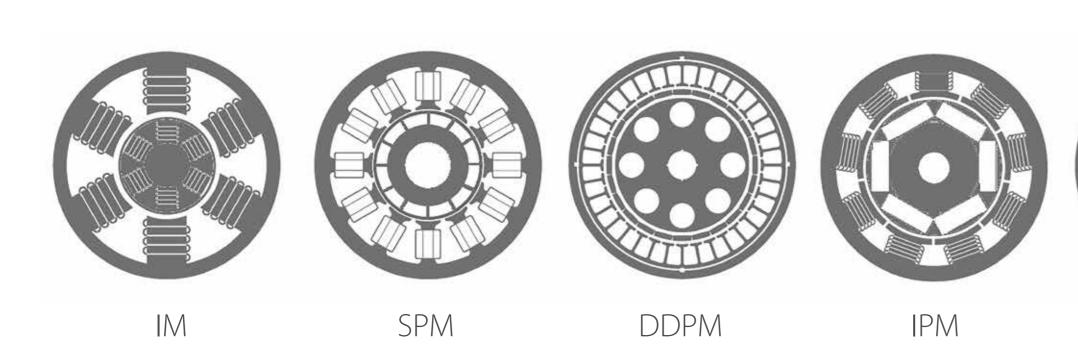
- Automatic parameter backup
- Multi-language display
- Micro SD for Data storage
- Real time clock
- Optional keypad with Bluetooth.





Application versatility

Flexible motor control



• IM, PM, SynRM.

SynRM

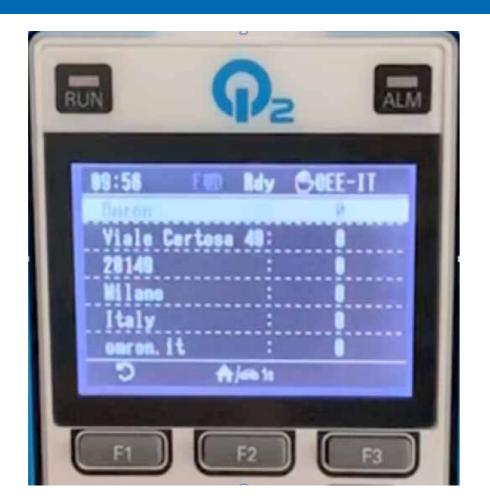
Flexible motor control method





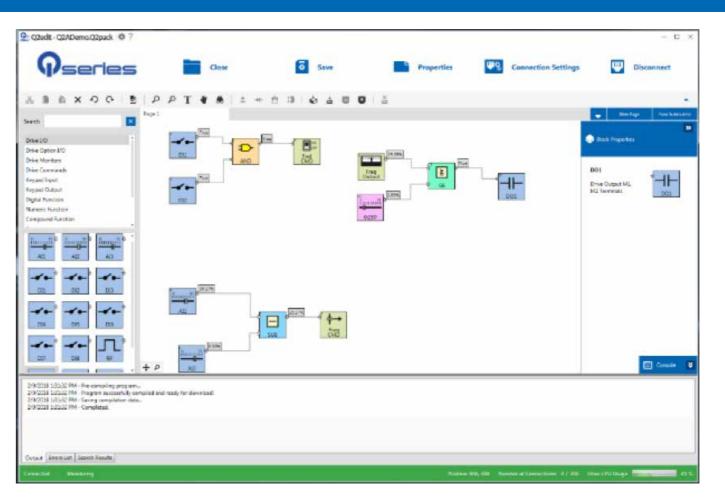
- V/f and Sensorless vector (current/voltage) motor.
 - Speed and torque control in open loop

Product customization



• Customized functions with application wizards.

Programming software tool.

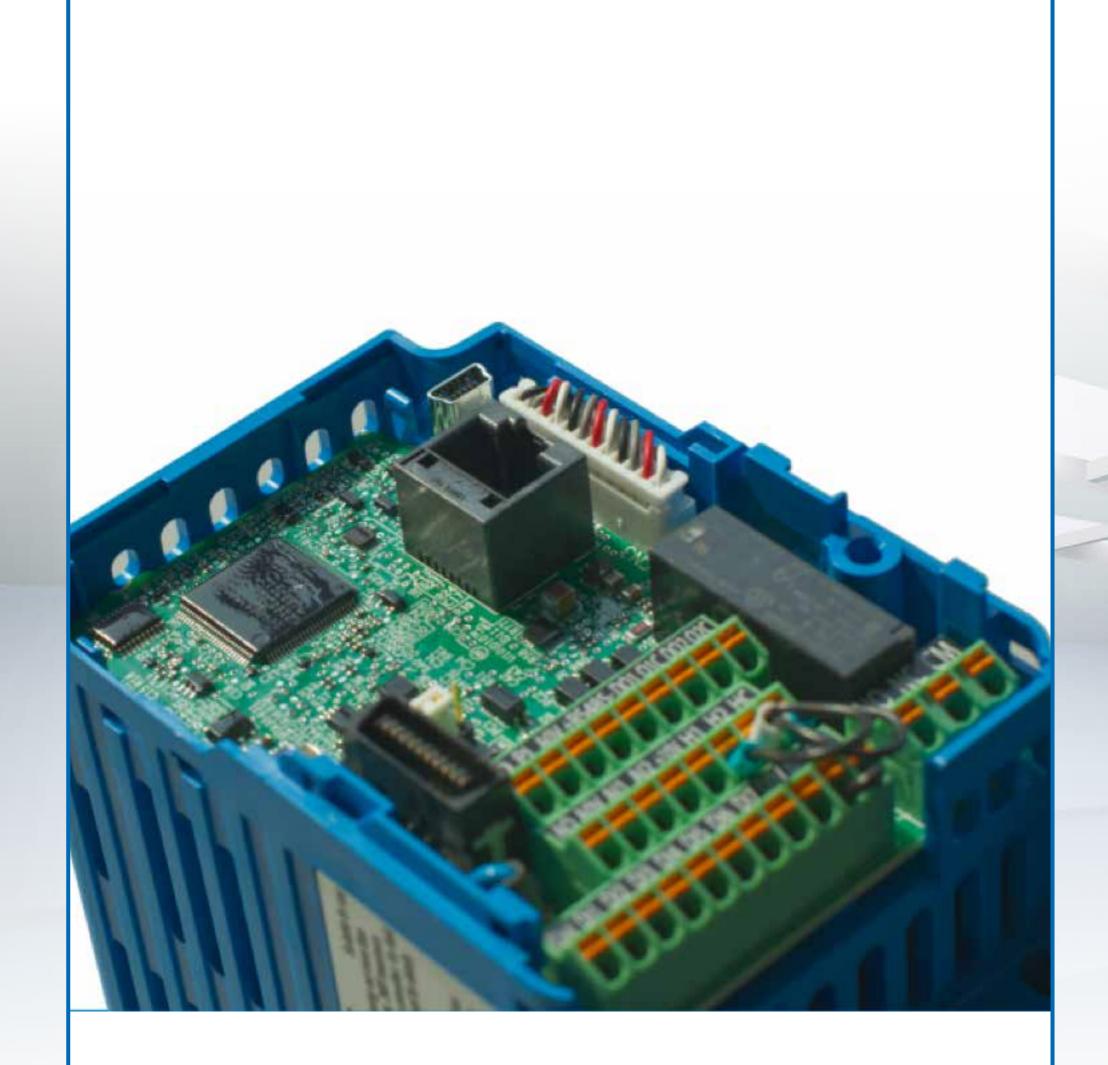


• Graphic development tool allows you to create your own program.



Proven robustness

Coated PCB boards



 Reduce machine downtime thanks to higher protection from dust and humidity.

Be proactive against potential failures



 Be proactive against potential failures by network connectivity and data reporting

Proven Quality



- Designed for 10 years maintenance free use.
- Experience matters: more than 10-million drives installed

OMRON

Q2A applications

Material Handling



Conveyors, Feeders, stackers, Hoist.

High Torque & High Inertia



Centrifuges, Mixers, Compressors.

Advance Machine Functionalities



Winder, Feeders, Rotative table, Press.

Classic Applications



Hoist, Press, Spindle, home lift.

Variable Torque Applications



• HVAC, Pumps, Fans.



Additional features:

- Flexible motor control: IM, PM, SynRM
- V/f and Sensorless vector motor control
- Speed and torque control in open loop
- Embedded STO (Safe Torque Off) safety function, SIL3/PLe
- Built-in C1/C2/C3 class EMC filter
- Built-in braking transistor
- Quick and easy setup with optional remote LCD keypad with Micro SD card for data storage
- 24 VDC power supply input for control board
- Communication options: EtherCAT, EtherNet/IP,
 PROFINET, Modbus TCP/IP, POWERLINK
- Up to 5 Q2V with a single communication option card
- Q2dev: Intuitive drag and drop programming
- Q2app: Mobile app for setup and monitoring
- CE, UL, cUL, EAC, REACH, RoHS



Portfolio



Voltage	Heavy Duty (HD)		Normal Duty (HD)		Order code
	Max motor (kW)	Rated current (A)	Max motor (kW)	Rated current (A)	Order code
Single-phase 200 V	0.1	0.8	0.18	1.2	Q2V-AB001-AAA
	0.25	1.6	0.37	1.9	Q2V-AB002-AAA
	0.55	3.0	0.75	3.5	Q2V-AB004-AAA
	1.1	5.0	1.1	6.0	Q2V-AB006-AAA
	1.5	8.0	2.2	9.6	Q2V-AB010-AAA
	2.2	11	3.0	12.2	Q2V-AB012-AAA
	4.0	17.6	-	-	Q2V-AB018-AAA
Three-phase 200 V	0.1	0.8	0.18	1.2	Q2V-A2001-AAA
	0.25	1.6	0.37	1.9	Q2V-A2002-AAA
	0.55	2.9	0.75	3.9	Q2V-A2004-AAA
	1.1	5.8	1.1	7.3	Q2V-A2006-AAA
	1.5	7.5	2.2	10.8	Q2V-A2010-AAA
	2.2	11	3.0	13.9	Q2V-A2012-AAA
	4.0	18.9	5.5	24	Q2V-A2021-AAA
	5.5	24	7.5	37	Q2V-A2030-AAA
	7.5	37	11	52	Q2V-A2042-AAA
	11	52	15	68	Q2V-A2056-AAA
	15	68	18.5	80	Q2V-A2070-AAA
	18.5	96	22	114	Q2V-A2082-AAA

Voltage	Heavy Duty (HD)		Normal Duty (HD)		Order code
	Max motor (kW)	Rated current (A)	Max motor (kW)	Rated current (A)	Oracl code
	0.37	1.2	0.37	1.2	Q2V-A4001-AAA
	0.55	1.8	0.75	2.1	Q2V-A4000-AAA
	1.1	3.2	1.5	4.3	Q2V-A4004-AAA
	1.5	4.4	2.2	5.9	Q2V-A4005-AAA
	2.2	6.0	3.0	8.1	Q2V-A4007-AAA
	3.0	8.2	4.0	9.4	Q2V-A4009-AAA
Three-phase 400 V	4.0	10.4	5.5	14	Q2V-A4012-AAA
	5.5	15	7.5	20	Q2V-A4018-AAA
	7.5	20	11	24	Q2V-A4023-AAA
	11	29	15	38	Q2V-A4031-AAA
	15	39	18.5	44	Q2V-A4038-AAA
	18.5	50.5	22	59.7	Q2V-A4044-AAA
	22	59.7	30	80.7	Q2V-A4060-AAA

Would you like to know more?

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