DEDICATED HVAC DRIVES

INOMAX

MAX600

Control comfort.

Manage water. Move air.



HVAC & WATER SYSTEMS

Fans / Pumps / Ventilation
Dedicated control functions

PRODUCT CATALOG

www.inomaxtechnology.com

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MAX600 dedicated HVAC frequency drives

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Dedicated HVAC drives / Functions, selection and INOMAX project experience.

About INOMAX

Variable Frequency Drives / Solar Pump Inverters / Soft Starters



2016
YEAR ESTABLISHED

30,000
m² FACTORY AREA

208
EMPLOYEES

26
R&D ENGINEERS

20,000+
PCS / ANNUAL OUTPUT

Founded in 2016, Shenzhen Inomax technology Co.,Ltd is a professional manufacturer of Variable Frequency Drives (VFDs), Solar Pump Inverters and Soft Starters, providing reliable and high-performance drive solutions for industrial automation, water pumping, machinery, steel, mining, marine, cranes, oil & gas, test benches and other demanding applications worldwide.

With strong engineering, customization and project support capabilities, INOMAX works closely with distributors, system integrators, OEMs and industrial customers across global markets.

Our products and solutions have been applied in projects involving leading industrial companies and organizations, including CRCC, CRRC, NLMK, SANY, Shougang Group, SIEMAG TECBERG, XCMG, ZPMC, CNPC, Sinopec, Ansteel, China Baowu, AVL and ZF, among others.

INOMAX — Built on Technology. Proven by Applications. Driven by Partnership.



Research & Development



Production & Assembly



Testing & Inspection

Certificates & Approvals



ISO 9001:2015

Quality management



ISO 14001:2015

Environmental management



ISO 45001:2018

Occupational health & safety



CE / LVD

Low Voltage Directive



CE / EMC

Electromagnetic compatibility



EAC

Eurasian conformity



CCS

China Classification Society



RS

Russian Maritime Register of Shipping

Product approvals apply to the models and scope listed in the respective certificates.

Built for HVAC.

Dedicated control for water supply, fans and ventilation.



Water-system control

Dedicated PID control, sleep and wake-up, soft pipe filling and pump-system monitoring.

Motor operation

Induction and synchronous motor support, speed-tracking restart and configurable acceleration profiles.

System integration

Analog and digital interfaces, programmable relays and RS485 communication.

A complete drive selection

Choose the voltage class and rating from the following model tables. Match the drive to motor current, load duty, enclosure and installation conditions.

Multi-pump operation requires suitable relay expansion, external contactors and application-specific configuration.

Intelligent water control

From stable pressure to controlled pipe filling.



01 Dedicated PID regulation

Adjust pump speed using pressure feedback to follow the setpoint as demand changes.

Pressure setpoint → **Sensor feedback** → **Speed adjustment**

PID1 controls drive frequency. PID2 provides an auxiliary analog output.

02 Automatic sleep & wake-up

Enter sleep when configured low-demand conditions persist. Restart automatically when wake-up conditions are met.

RUN / SLEEP / WAKE

Configurable thresholds and delay times.





03 Soft pipe filling

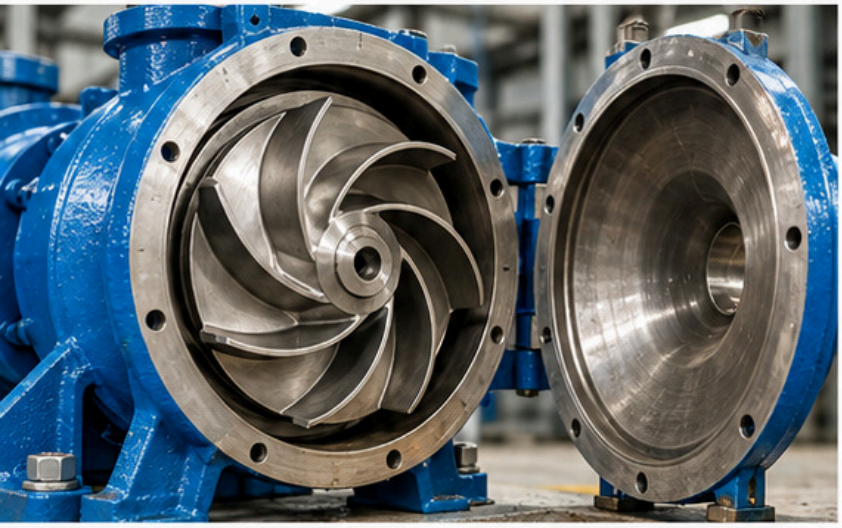
Fill empty pipes at a controlled frequency before transferring to PID regulation, helping reduce water hammer at startup.

1. Controlled fill
2. Time or feedback threshold
3. PID control

PID: H90 / H91 | **Sleep:** H94 | **Soft fill:** H96.03-H96.06

Protection for pump systems

Cleaning routines and monitoring functions for water applications.



04 Pump cleaning cycle

A configurable forward-stop-reverse-stop sequence supports pump cleaning. The routine is triggered from the stopped state.

FORWARD → STOP → REVERSE → STOP

Apply only where the pump system permits reverse rotation.

05 Pipe burst detection

When enabled, the drive monitors configured detection conditions and stops the system if they persist for the set delay.

Adjustable detection level and time.

MONITOR → DELAY → STOP





06 Frost protection

With a connected temperature sensor, the drive can run the motor at a preset frequency when the measured temperature falls below the configured threshold.

Temperature feedback: PT100 / PT1000 / KTY84.

Requires sensor connection and function setup.

Cleaning: H96.20-H96.27 | **Pipe burst:** H96.00-H96.02 | **Frost:** H96.10-H96.14

Coordinated pump operation

Flexible sequencing and motor care for water systems.



07 Multi-pump coordination

Add or remove pumps according to demand using the dedicated water-supply PID1 controller.

Requires optional relay expansion and external contactors. Use motors with the same rated power.

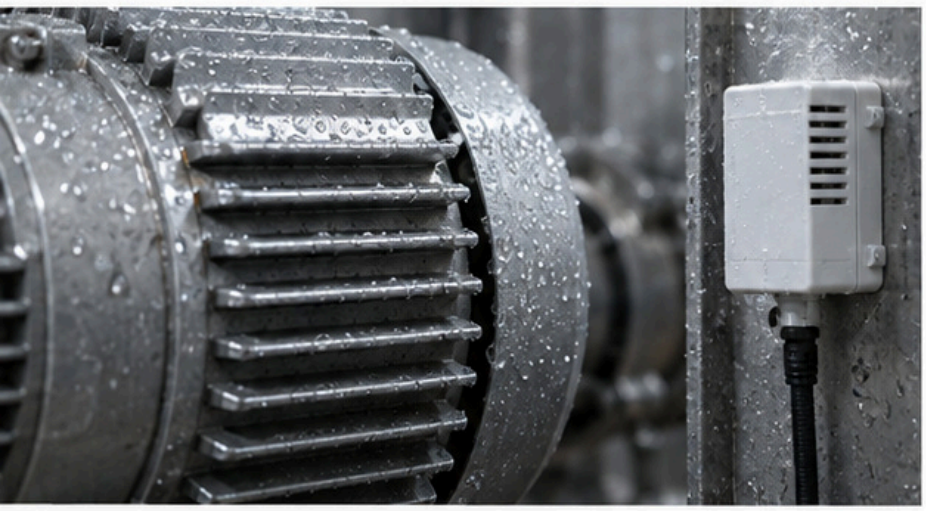
The manual does not recommend this function for drives rated 30 kW and above.

08 Automatic pump rotation

Rotate the controlled pump at configured intervals to help balance operating hours and avoid prolonged idle periods.

Configurable cycle period: H94.34





09 Condensation protection

An external signal triggers DC injection to warm the motor during downtime and help reduce condensation.

40-second heating cycle

Requires an external trigger signal and parameter setup.

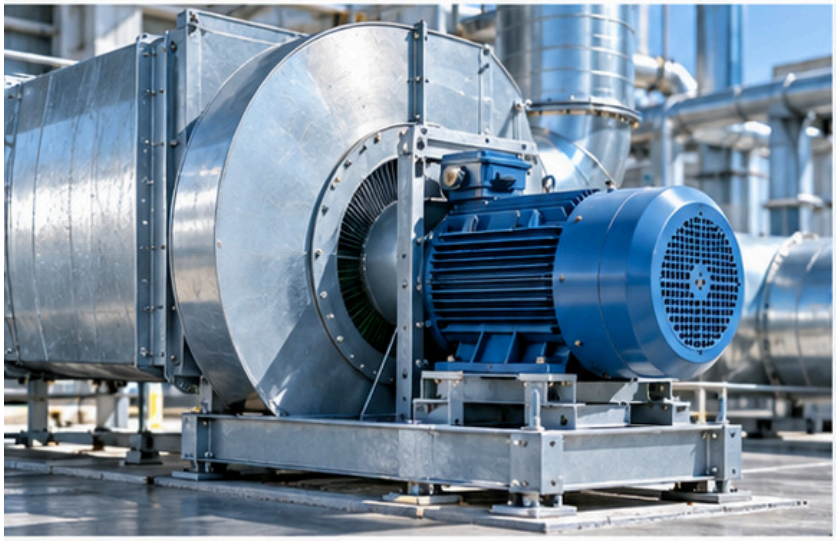
Multi-pump: H94 | Rotation: H94.34-H94.35 | Condensation: H96.15

INOMAX

MAX600

Smarter motor operation

Light-load efficiency, smooth restart and resonance avoidance.



10 Automatic energy-saving control

Automatically adjusts output voltage under light-load conditions to support energy-efficient motor operation.

Automatic voltage adjustment at light load

H04.26

11 Speed-tracking restart

Tracks a rotating motor before restarting to support a smoother transition back to driven operation.

For asynchronous motors, speed tracking is not supported in SVC 0 mode.

TRACK / MATCH / RESTART

H01.00 / H01.35-H01.41





12 Three skip-frequency settings

Configure three skip-frequency points and their widths to avoid continuous operation in mechanical resonance bands.

3 configurable skip-frequency points

H08.09-H08.14

Control with service in mind

Pump availability, smoother changeover and load monitoring.



13 Pump maintenance mode

Exclude a selected pump from the multi-pump sequence using a configured digital input.

Sequence exclusion is not electrical isolation. Isolate power before servicing.

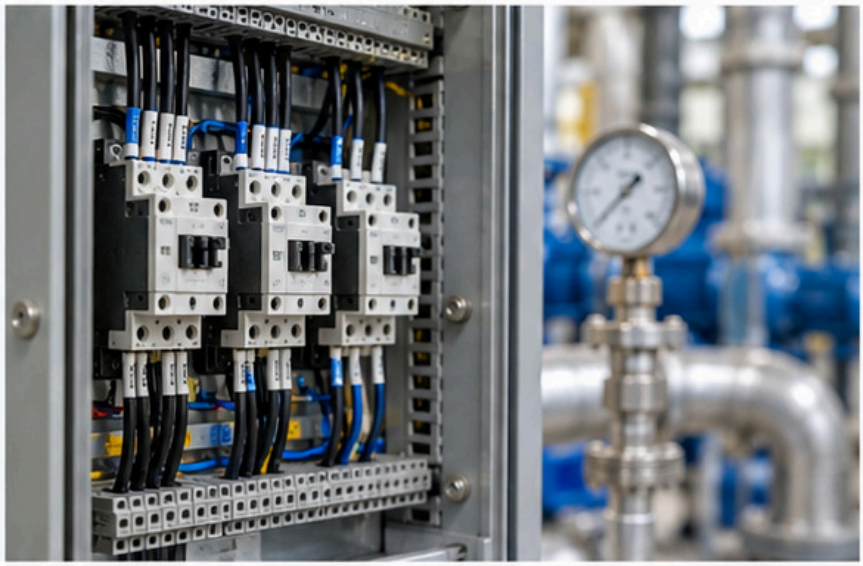
Digital input functions: 104-106

14 Smooth pump changeover

Set the changeover frequency before transferring a pump from variable-speed to mains-frequency operation, helping limit pressure dips.

Configurable changeover frequency: H94.22

Requires correctly configured multi-pump switching hardware.





15 Underload pre-alarm

Issue a pre-alarm when output current stays below the configured threshold for longer than the set delay.

CURRENT | THRESHOLD | DELAY

H11.11-H11.12

Multi-pump functions: optional relay expansion and external contactors required; equal-rated motors. Not recommended by the manual for drives rated 30 kW and above.

Flexible everyday control.

Preset speeds, smoother transitions and voltage regulation.



16 | 16 preset speed steps

Configure speed references for steps 0-15 to suit different operating conditions.

Multi-step speed settings / H10 group

LOW DEMAND | NORMAL | HIGH DEMAND

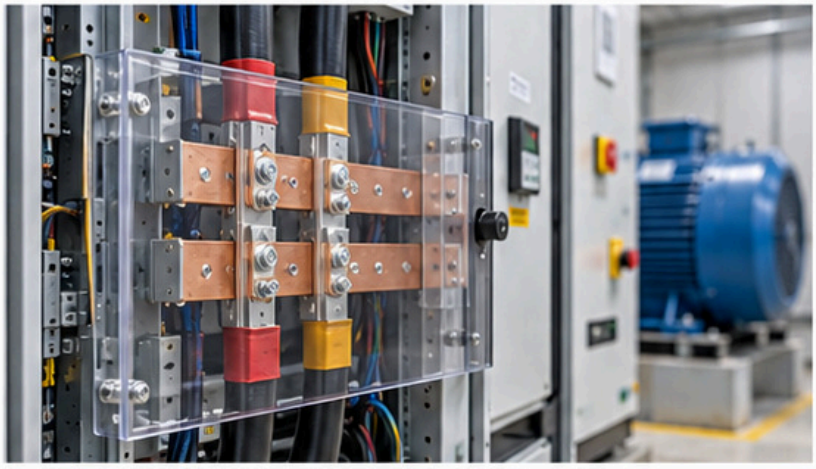
17 | Linear or S-curve ramps

Select linear or S-curve acceleration and deceleration to tailor motor speed transitions to the application.

S-curve ramps support smoother starts and stops.

ACC/DEC mode: H01.05





18 | Automatic voltage regulation

Automatically adjusts the drive output to reduce the effect of DC bus voltage fluctuations on output voltage.

AVR can be enabled through H00.16.

This function does not provide backup power during an outage.

Commission with confidence.

Motor setup, stopping control and fault history.



19 Motor parameter autotuning

Choose rotary or static autotuning to identify motor parameters for the installation.

Static tuning is available when the motor cannot be disconnected from its load.

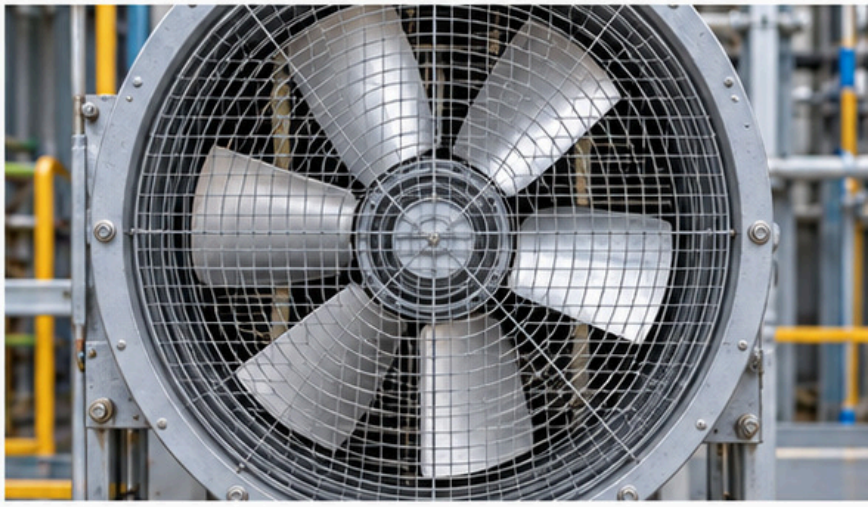
Motor autotuning: **H00.15**

20 Adjustable DC braking

Apply DC braking during the final stage of deceleration, with configurable starting frequency, waiting time, current and duration.

DC braking time for stop: 0-50 s

DC braking: **H01.09-H01.12**





21 Fault history for diagnosis

Review the present fault and the five previous fault types to support troubleshooting and maintenance.

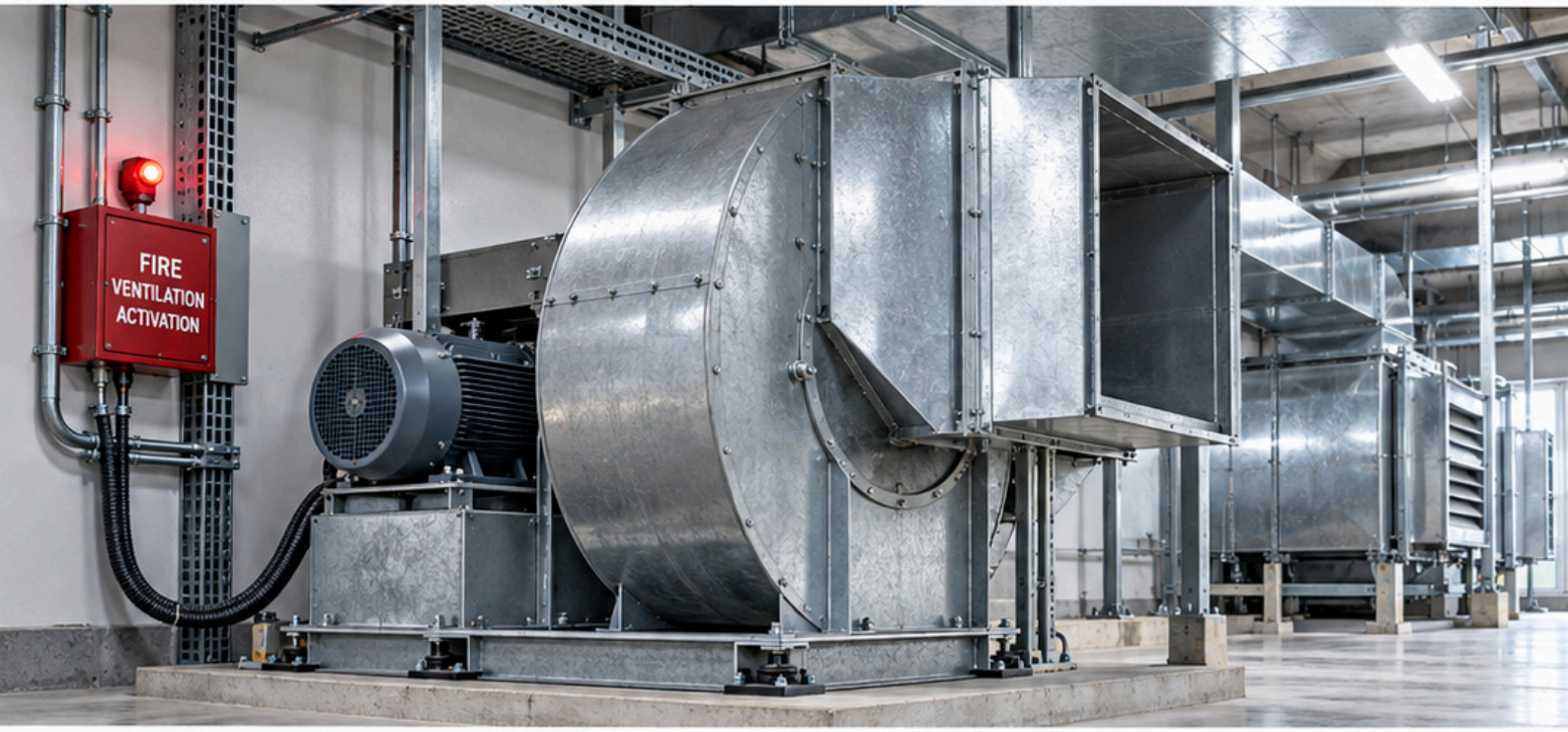
PRESENT FAULT

5 PREVIOUS FAULT TYPES

Fault history: **H07.27-H07.32**

Fire-mode operation

Configurable drive behavior for emergency ventilation applications.



External trigger

When enabled, an active fire signal switches the drive to fire-mode operation.

Preset frequency

Set the fire-mode running frequency through H93.01.

Selectable direction

Choose the default or opposite running direction through H93.02.

Two operating modes / H93.00

MODE 1	Prioritizes continued operation until drive damage prevents running.
MODE 2	Continues operation except for the fault conditions listed in the manual.

Application note

Fire mode overrides normal fault-stop behavior and can expose the drive and motor to damage. Configure only as part of an engineered emergency ventilation system. Review the manual for fault exceptions and warranty conditions.

Drive functionality does not by itself certify a complete smoke-control system.

Select your MAX600

Three-phase input & output | 380-480 V | 50/60 Hz

0.75-75 kW

Ratings and dimensions

MAX600 SERIES

Part 1 / Three-phase 400 V class

Model	Input	Output	Motor power		Dimensions
	A	A	kW	HP	H x W x D (mm)
MAX600-R75GT4	3.4	2.1	0.75	1	152 x 91 x 123
MAX600-1R5GT4	5	3.8	1.5	2	152 x 91 x 123
MAX600-2R2GT4	5.8	5.1	2.2	3	152 x 91 x 123
MAX600-3R7GT4	10.5	9	3.7	5	185 x 118 x 167
MAX600-5R5G/7R5PT4	14.6	13	5.5	7.5	185 x 118 x 187
MAX600-7R5G/011PT4	20.5	17	7.5	10	247 x 160 x 190
MAX600-011G/015PT4	26	25	11	15	247 x 160 x 190
MAX600-015G/018PT4	35	32	15	20	320 x 220 x 205
MAX600-018G/022PT4	38.5	37	18.5	25	320 x 220 x 205
MAX600-022/030PGT4	46.5	45	22	30	320 x 220 x 205
MAX600-030G/037PT4	62	60	30	40	432 x 255 x 235
MAX600-037G/045PT4	76	75	37	50	432 x 255 x 235
MAX600-045G/055PT4	92	91	45	60	453 x 275 x 235
MAX600-055G/075PT4	113	112	55	75	518 x 300 x 260
MAX600-075G/090PT4	157	150	75	100	518 x 300 x 260

DIMENSIONS

H = Height / W = Width / D = Depth

Higher-power models continue on the following selection page.

Select your MAX600

Three-phase input & output | 380-480 V | 50/60 Hz

90-710 kW

Up to 630 kW (G) / 710 kW (P)

MAX600 SERIES

Part 2 / Three-phase 400 V class

Model	Input	Output	Motor power		Dimensions
	A	A	kW	HP	H x W x D (mm)
MAX600-090G/110PT4	180	176	90	125	620 x 390 x 300
MAX600-110G/132PT4	214	210	110	150	620 x 390 x 300
MAX600-132G/160PT4	256	253	132	175	620 x 390 x 300
MAX600-160G/185PT4	307	304	160	210	780 x 480 x 360
MAX600-185G/200PT4	340	335	185	250	1274 x 480 x 361
MAX600-200G/220PT4	385	377	200	260	1274 x 480 x 361
MAX600-220G/250PT4	430	426	220	300	1274 x 480 x 361
MAX600-250G/280PT4	468	465	250	350	1274 x 480 x 361
MAX600-280G/315PT4	525	520	280	370	1320 x 650 x 418
MAX600-315G/355PT4	590	585	315	420	1320 x 650 x 418
MAX600-355G/400PT4	665	650	355	470	1720 x 800 x 490
MAX600-400G/450PT4	785	725	400	530	1720 x 800 x 490
MAX600-450G/500PT4	883	820	450	600	1720 x 800 x 490
MAX600-500G/560PT4	1000	930	500	660	1720 x 800 x 490
MAX600-560G/630PT4	1100	1080	560	750	1850 x 1060 x 500
MAX600-630G/710PT4	1200	1120	630	850	1850 x 1060 x 500

RATING GUIDE

Motor power shown: G (heavy duty). P = light-duty rating in model code.

MAX600-630G/710PT4: 630 kW heavy duty / 710 kW light duty.

Select your MAX600

220 V class | Single-phase and three-phase input | 50/60 Hz

Single-phase input / 220 V

Model	Input	Output	Motor power		Dimensions
	A	A	kW	HP	H x W x D (mm)
MAX600-R75GS2	8.2	5	0.75	1	152 x 91 x 123
MAX600-1R5GS2	14	7	1.5	2	152 x 91 x 123
MAX600-2R2GS2	23	11	2.2	3	152 x 91 x 123

Three-phase input / 220 V

Model	Input	Output	Motor power		Dimensions
	A	A	kW	HP	H x W x D (mm)
MAX600-0R4GT2	3.4	3.5	0.4	0.5	152 x 91 x 123
MAX600-R75GT2	5	5	0.75	1	152 x 91 x 123
MAX600-1R5GT2	5.8	7	1.5	2	152 x 91 x 123
MAX600-2R2GT2	10.5	11	2.2	3	152 x 91 x 123
MAX600-3R7GT2	14.6	17	3.7	5	185 x 118 x 187
MAX600-5R5GT2	26	25	5.5	7.5	247 x 160 x 190
MAX600-7R5GT2	35	32	7.5	10	320 x 220 x 205
MAX600-011GT2	46.5	45	11	15	320 x 220 x 205
MAX600-015GT2	62	60	15	20	432 x 255 x 235
MAX600-018GT2	76	75	18.5	25	432 x 255 x 235
MAX600-022GT2	92	91	22	30	453 x 275 x 235
MAX600-030GT2	113	112	30	40	518 x 300 x 260
MAX600-037GT2	157	150	37	50	518 x 300 x 260
MAX600-045GT2	180	176	45	60	620 x 390 x 300
MAX600-055GT2	214	210	55	75	620 x 390 x 300
MAX600-075GT2	307	304	75	100	780 x 480 x 360

Dimensions: H = Height / W = Width / D = Depth

Technical specifications

Electrical ratings, control performance and operating conditions

0-400 Hz
Output frequency

±0.2%
SVC speed accuracy

120% / 60 s
Overload capability

01 / ELECTRICAL & CONTROL	
Input supply	AC three-phase 220-480 V; tolerance: -15% to +10%
Input / output frequency	Input: 50/60 Hz (47-63 Hz); output: 0-400 Hz
Control modes / motors	Space voltage vector control and sensorless vector control (SVC); asynchronous and synchronous motors
Speed range (SVC)	Asynchronous motors: 1:200; synchronous motors: 1:20
Speed performance (SVC)	Accuracy: ±0.2%; fluctuation: ±0.3%
Torque performance (SVC)	Response: <20 ms; control accuracy: ±10%
Overload capacity	120% of rated current for 1 minute; one overload permitted every 5 minutes

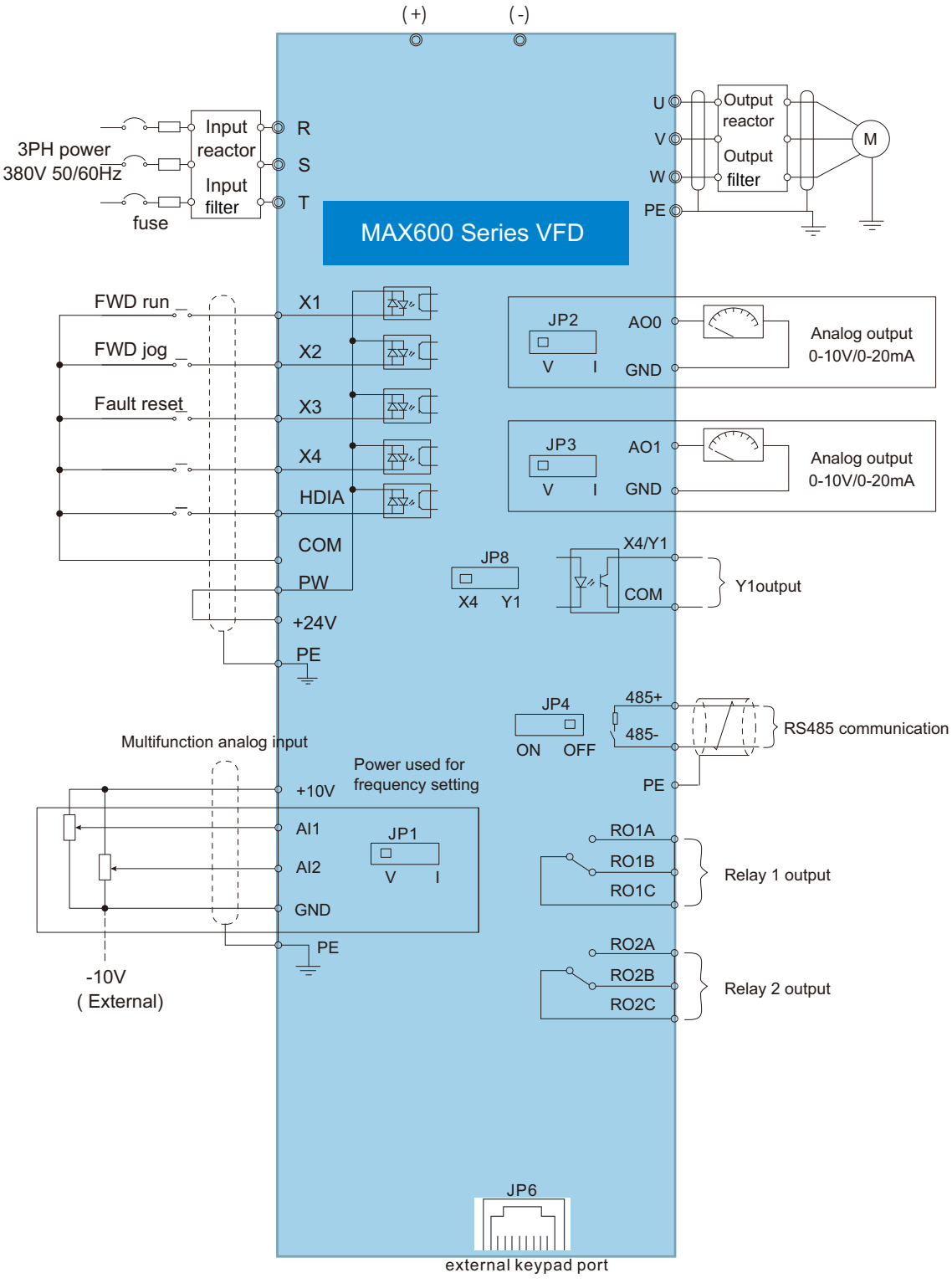
02 / OPERATION & PROTECTION	
Frequency reference	Digital, analog, pulse, multi-step speed, simple PLC, PID and communication; combined / switchable sources
Voltage regulation / restart	Automatic output voltage regulation; speed-tracking restart for smooth starting of rotating motors
Protective functions	Overcurrent, overvoltage, undervoltage, overtemperature and phase-loss protection

03 / INSTALLATION & ENVIRONMENT	
Mounting	Wall: 1.5-250 kW; floor: 185-630 kW
Ambient temperature	-10°C to +50°C; derate above 40°C
Enclosure / cooling	Standard IP20; optional IP55 / IP65. Pollution degree 2; forced-air cooling

Interfaces & wiring

Power, control signals and communication connections

ANALOG I/O | RELAY OUTPUTS | RS485 | EXTERNAL KEYPAD



Interface specifications

Signal ranges, relay ratings and standard / optional configurations

2 AI / 2 AO
Analog interfaces

2 RELAYS
Programmable outputs

RS485
Communication interface

01 / ANALOG INTERFACES	
Analog inputs	Two channels: AI1 and AI2
AI1 input range	0 (2)-10 V or 0 (4)-20 mA
AI2 input range	-10 V to +10 V
Analog outputs	Two channels: AO0 and AO1
AO0 / AO1 range	0 (2)-10 V or 0 (4)-20 mA

02 / DIGITAL & RELAY INTERFACES	
Digital inputs	Five regular inputs: up to 1 kHz; input impedance 3.3 kOhm. One high-speed input: up to 50 kHz.
Digital output	One open-collector output; shared input/output function selected by jumper.
Relay outputs	Two programmable relays: RO1 and RO2
Relay contact terminals	RO1A / RO2A: normally open (NO) RO1B / RO2B: normally closed (NC) RO1C / RO2C: common
Contact capacity	3 A at 250 V AC; 1 A at 30 V DC

03 / KEYPAD & EMC CONFIGURATION	
Keypad	Standard LED keypad; external keypad port shown in the wiring diagram.
C3 EMC filter: 1.5-132 kW	Optional built-in C3 filter
C3 EMC filter: 160 kW+	Built-in C3 filter supplied as standard

Water-sector experience

Seawater desalination & urban water supply



PHILIPPINES

In*** / P*** Water

Seawater desalination

110-450 kW
105 units
2025-01

CHILE

Es***

Urban water supply

15-250 kW
120 units
2025-02

MORE SELECTED REFERENCES / 2025

Company	Country	Application	kW	Qty
O**	Morocco	Desalination	75-400	70
De*** Engineering	Pakistan	Urban water supply	11-220	225
Ra***	Russia	Urban water supply	2.2-315	320
E** Engineering	Bangladesh	Urban water supply	2.2-132	290

Source: INOMAX 2025 water-project list. Drive series are not specified in the source.
This is visual design proposal of selected cases, not a complete 29-record list.

Experience across water systems

Wastewater treatment & agricultural irrigation



TUNISIA

E***

Wastewater treatment

5.5-160 kW

2,500 units

2025-06

PAKISTAN

K** Pumps

Agricultural irrigation

1.5-75 kW

162 units

2025-05

MORE SELECTED REFERENCES / 2025

Company	Country	Application	kW	Qty
Si*** Engineers	Bangladesh	Wastewater	55-500	110
S***	Morocco	Wastewater	37-560	88
Aguas Ar***	Chile	Wastewater	75-710	36
No*** Pumps	Egypt	Irrigation	1.5-250	165

Source: INOMAX 2025 water-project list. Drive series are not specified in the source.
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INOMAX

Built your trust of Technology from China



SHENZHEN INOMAX TECHNOLOGY CO., LTD

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