

Design for reliable and stable operation



Advanced functionality cooling fan

Auto-speed regulation based on the temperature, without the need for additional settings (automatic rotation when the ambient temperature exceeds 40°C). The alarm will prompt when the fan stops rotating unexpectedly. With the built-in algorithm, the MD630 AC Drive can predict fan life, achieve forward and reverse rotation to clean the air duct, prevent fan blockage and shutdown, for applications with dust and cotton.

Built-in EMC filter

Ensure stable operation, for application with high EMC requirements.

Up to 60°C operation temperature

Maximum operating ambient temperature 60°C, with derating above 50°C.

Various accessories for harsh environments



Junction box protection kit, for anti-conductive dust



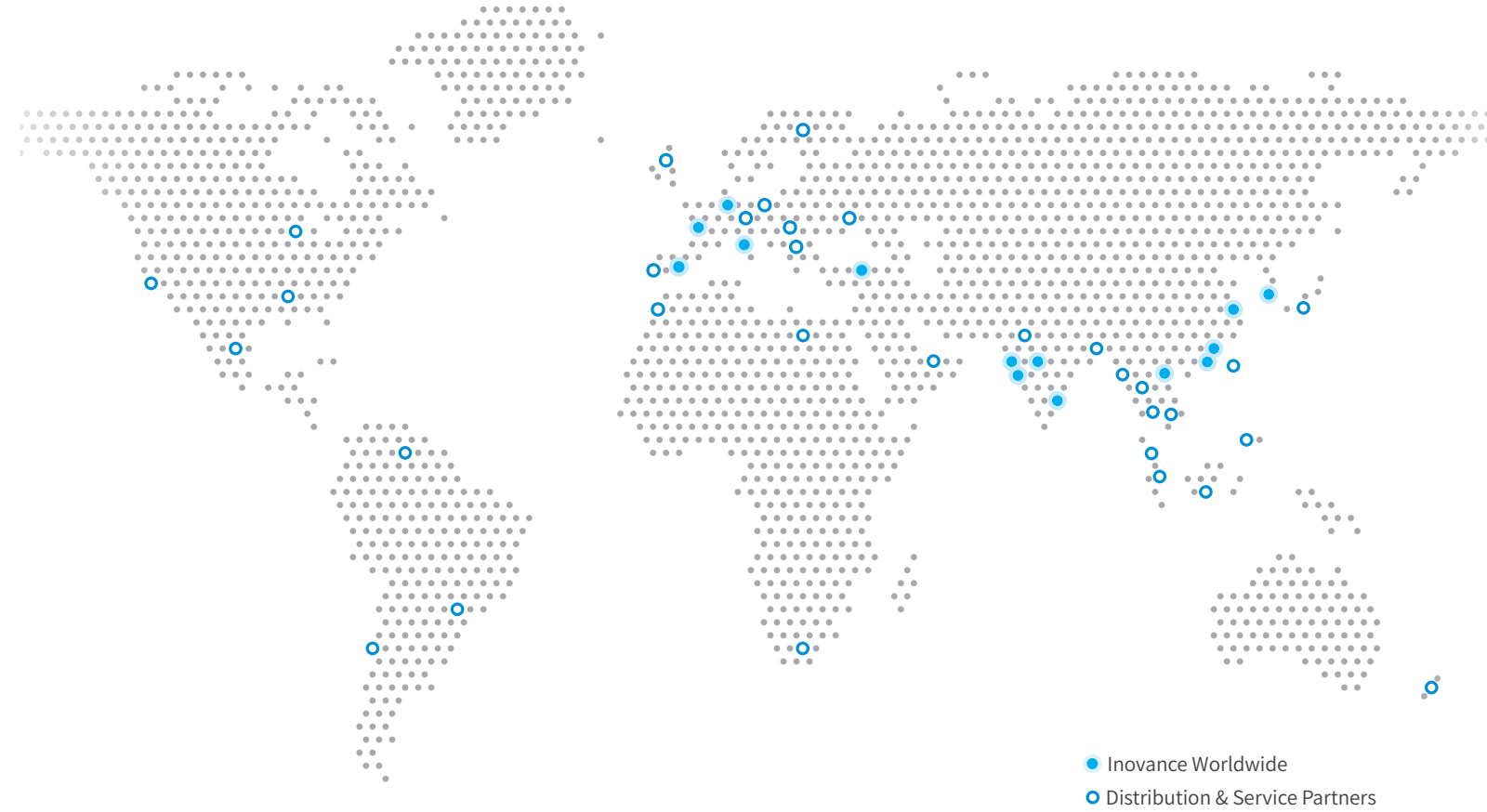
360° shield bracket, enhance anti-interference ability



Vibration damping bracket, enhance anti-vibration ability

Designed for compact installation

- The 22kW and below models support seamless side-by-side installation.
- Taking the 1.5kW model as an example:
By seamless side-by-side installation, compare MD630 with MD520, the volume reduced by 34%, the footprint reduced by 41%.



Advancing industrial technology, for a better world

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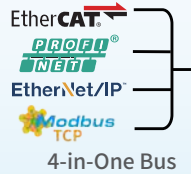
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MD630 Series Advanced Compact AC Drive High Functionality & Flexibility





-20°C to 60°C
Harsh Environments



EtherCAT
PROFINET
EtherNet/IP
Modbus TCP
4-in-One Bus



iFA
Predictive Maintenance



Close-loop control supported



Features & Functions

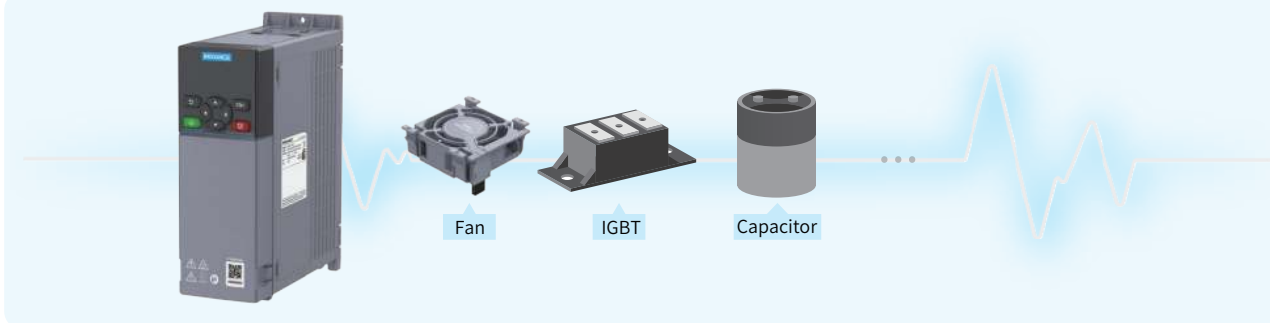
4-in-One Fieldbus Onboard

- The MD630N supports 4-in-one fieldbus: EtherCAT, PROFINET, EtherNet/IP and Modbus TCP.



Life-time estimation for predictive maintenance

- Life-time prediction for the main components of the drive, like Fan, IGBT, capacitor.
- Identify the health status of the AC drive and provide early warning before failure.



New generation iFA software for easy debugging

- Compatible with frequency converters and servos, and can be integrated with controller for debugging through FA software.



Function diagram guided debugging

Graphical free programming

Features & Functions

MD630N - Ethernet communication model

MD630S - serial communication model

Control Interfaces

+24 VDC auxiliary control supply
I/Os: 2x DI, 2x AI, 1x DO, 1x RO
1x Ethernet port: EtherCAT, PROFINET and EtherNet/IP Modbus TCP communication

Common Features

Human-machine interface

Easy to read colour LED keypad (5-bit digital display)
USB Type-C commissioning port
1 × RS485 commissioning port (for PC or external keypad connection)

Control functions

Induction, PM synchronous and synchronous reluctance motor in open loop and closed loop

Interface expansion

1x Option card slot (motor feedback interface, I/O expansion, CANopen interface)
Complete functionality

Complete functionality

STO SIL 3 PL e
Built-in braking transistor

Environmental features

IP20 rating
Operating ambient temperature: -20 to +60°C
Built-in EMC filter (C3 for 10 m)

Control Interfaces

I/Os: 7x DI, 2x AI, 1x DO, 1x RO, 1x AO, 1x PO
1x RS485 serial port: Modbus RTU protocole

Ordering code

MD630 S - 4T 2R1 B S - INT
① ② ③ ④ ⑤ ⑥ ⑦

① Product category: MD630 Series AC drive	④ Rated output current* 1R5: 1.5A 2R1: 2.1A 3R8: 3.8A ... 9R0: 9.0A ... 045: 45A	⑤ Braking unit B: with braking unit
② Model type: S: serial communication N: Ethernet communication		⑥ Version: S: with STO function
③ Voltage class 4T: three-phase 380V to 480V		⑦ Variant: INT: International variant

* Note: the value indicates the rated output current for heavy duty, with two digits and the letter R that represents the decimal point, or 3 three digits.

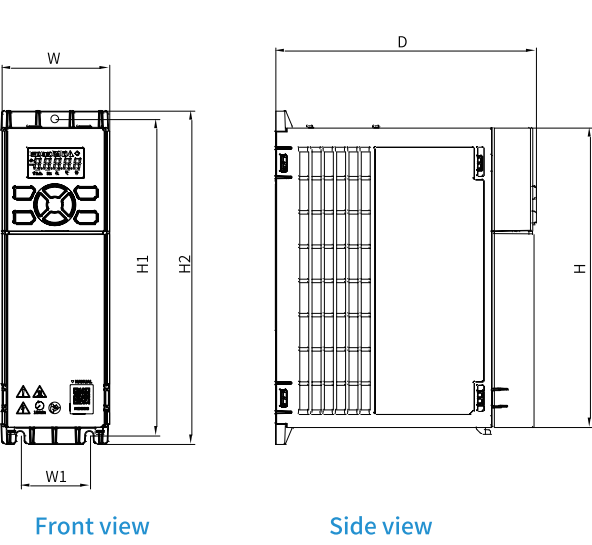
Accessories

Frame size	Description	Model
T1-T5	MD6X0-multifunctional IO expansion card	MD-IO-M1
T1-T5	MD6X0-digital PG expansion card[1]	MD-PG-AU1
T1-T5	MD6X0-resolver PG expansion card	MD-PG-R1
T1-T5	MD6X0- sin-cos PG expansion card	MD-PG-S1
T1-T2	MD630-rail mounting bracket-T1&T2	MD630-AZJ-A4T1
T4	MD630-middle mounting	MD630-AZJ-A1T4
T5	MD630-middle mounting bracket-T5	MD630-AZJ-A1T5
T1-T3	MD630-punch damping bracket-T1-T3	MD630-AZJ-A2T1
T4-T5	MD630-punch damping bracket-T4&T5	MD630-AZJ-A2T4
T1-T2	MD630-junction box protection options-T1&T2	MD630-JXH-A5T1
T3	MD630-junction box protection options-T3	MD630-JXH-A5T3
T4	MD630- junction box protection options-T4	MD630-JXH-A5T4
T5	MD630- junction box protection options-T5	MD630-JXH-A5T5
T1-T2	MD630- shield bracket-T1&T2	MD630-AZJ-A3T1
T3	MD630- shield bracket-T3	MD630-AZJ-A3T3
T4	MD630- shield bracket-T4	MD630-AZJ-A3T4
T5	MD630- shield bracket-T5	MD630-AZJ-A3T5

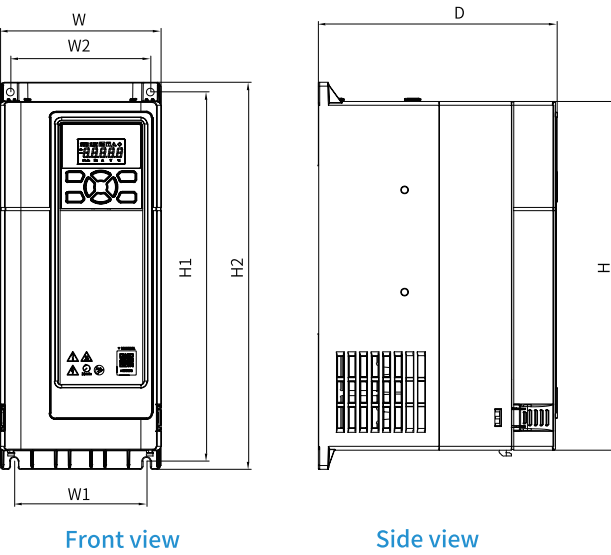
Note: Considering grid voltage fluctuations, the power supply capacities for 400V and 480V grids are calculated under the conditions of 440V AC and 528V AC, respectively.

Dimensions

T1~T3 frames



T4~T5 frames



MD630S-4T □□□ BS-INT		1R5	2R1	3R8	5R1	7R2	9R0	013	017	025	032	037	045
Part no.		0101CQ45	0101CJ14	0101CJ15	0101CJ16	0101CJ17	0101CJ18	0101CJ19	0101CJ20	0101CJ21	0101CJ22	0101CJ23	0101CJ24
MD630N-4T □□□ BS-INT		1R5	2R1	3R8	5R1	7R2	9R0	013	017	025	032	037	045
Part no.		0101CQ43	0101CJ26	0101CJ27	0101CJ28	0101CJ29	0101CJ30	0101CJ31	0101CJ32	0101CJ33	0101CJ34	0101CJ35	0101CJ36
Supply Voltage		3 phase 400 V AC (380~480V, -15%~+10%), 50Hz/60Hz (±5%)											
Rated power(kW)	Heavy duty	0.37	0.75	1.5	2.2	3.0	4.0	5.5	7.5	11.0	15.0	18.5	22.0
	Normal duty	0.75	1.5	2.2	3.0	4.0	5.5	7.5	11.0	15.0	18.5	22.0	30.0
Rated input current (A)	Heavy duty	1.7	2.4	4.6	6.3	8.9	11.4	16.8	22.0	32.4	41.6	48.7	58.5
	Normal duty	2.4	4.6	6.4	9.0	11.4	17.0	22.7	33.4	42.1	49.1	60.1	71.6
Rated output current(A)	Heavy duty	1.5	2.1	3.8	5.1	7.2	9.0	13.0	17.0	25.0	32.0	37.0	45.0
	Normal duty	2.1	3.8	5.1	7.2	9.0	13.0	17.0	25.0	32.0	37.0	45.0	60.0
Frame		T1			T2			T3		T4		T5	
W × H2 × D (mm)		70 × 217 × 169.5			75 × 217 × 169.5			90 × 262 × 190		125 × 303 × 186		165 × 330 × 200	
Mass (kg)		1.25			1.36			2.08		4.01		5.94	
Minimum braking resistance (Ohm)		96	96	96	64	64	32	32	32	24	24	24	24
RFI filter (category C2)		FN 3287-10-44	FN 3287-10-44	FN 3287-10-44	FN 3287-10-44	FN 3287-10-44	FN 3287-16-44	FN 3287-25-33	FN 3287-40-33	FN 3287-50-33	FN 3287-50-33	FN 3287-63-53	FN 3287-80-53
Grounding shield bracket	Part no.	01040316			01040316			01040318		01040310		01040309	
	Model	MD630-AZJ-A3T1			MD630-AZJ-A3T1			MD630-AZJ-A3T3		MD630-AZJ-A3T4		MD630-AZJ-A3T5	