KELD

DRIVES - STARK

Made for the motor.
Built for harsh environments.

Motor-mounted and wall-mounted drives for IM, PM, BLDC and SynRM motors. They keep working where dust, heat and vibration are normal.



STARK

Motor control · IM + PM + BLDC + SynRM · Sensorless FOC · 2 models · Motor or wall mounting · Modbus RS-485 · IP55

CE

RoHS

Single phase · Three phase — IP55 · aluminium enclosure

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THE MANUFACTURER'S CHALLENGE

Built for the machine, not the cabinet.

STARK mounts on the motor or nearby wall for easy integration. Its robust design works reliably in dust, heat and vibration, even where space is limited.



THE RANGE AT A GLANCE

Two ways to mount

On the motor with natural cooling, or on the wall with the ventilation kit.

Set it at the machine

LCD panel with F1/F2 presets, autotune and schedules. No PC needed to start.

One drive, four motor types

Runs IM, PM, BLDC and SynRM motors with sensorless control.

IP55 aluminium enclosure

Sealed and robust. Made for harsh industrial environments.

WHAT IT MEANS FOR YOU

Choose **motor or wall mounting** to suit your machine design. Its compact **aluminium housing** and **cooling options** make integration easier and help **reduce mechanical changes**

Control IM, PM, BLDC and SynRM motors with the same platform. Sensorless FOC provides smooth and stable performance across different applications.

The **LCD interface makes setup clear**, while **Modbus RS-485 supports easy system integration.** Two function programs help you adapt the drive quickly to different machines and operating needs.

THE PRODUCT IN DETAIL

A closer look



1. **Integrated LCD panel with F1/F2 preset programs**
2. **External alarm LED**
3. **IP55 aluminium enclosure**
4. **Cable glands for mains and motor**

CORE FEATURES

- Sensorless vector control (FOC)
- Sinusoidal output to the motor
- Natural cooling, or forced-air with the kit
- Modbus RS-485 (RTU) communication
- Full protection set (see specifications)
- >95% efficiency at 230 V / 2.2 kW

MOTOR TYPES

IM **PM** **BLDC** **SynRM**

ONE DRIVE, TWO WAYS TO MOUNT

Choose the cooling setup that fits the machine.

Use motor mount for natural cooling, with no fan or extra parts. Use wall mount with the ventilation kit when the drive needs more airflow or must be separated from the motor.

Motor mount
→ Natural cooling

Wall mount
→ Ventilation kit

Ventilation kit: KMD-VENTKIT · fits all STARK models

KEY FIGURES

IP55
Aluminium enclosure

>95%
Efficiency at 230 V

0–400 Hz
Output frequency

4 motor types
IM · PM · BLDC · SynRM

2 mounting options
Motor mount · Wall mount

RS-485
Modbus RTU communication

Certifications: E · RoHS · Operating temperature: –10 to 40 °C (1PH) / –10 to 50 °C (3PH)

MODEL RANGE

	Single phase	Three phase
Model code	KMDF1L08A5A	KMDF3H04A5N
Supply	200–240 V · 1PH	190–480 V · 3PH
Voltage range	90–265 Vac	190–480 Vac
Power output	2.2 kW / 3.0 HP	2.2 kW / 3.0 HP
Output current	8.4 Arms	4.5 Arms
Power factor	>99% Active PFC	No active PFC
Operating temp.	–10 to 40 °C	–10 to 50 °C

Choose single phase for a 230 V supply, three phase for a 400 V network. Both share one frame, the same control, I/O and protections.

CONNECTIVITY & WIRING

Power supply
1PH / 3PH input

→

STARK drive
MOTOR CONTROL

→

Motor
IM · PM · BLDC · SynRM

Control and interface

LCD keypad

Modbus RS-485 RTU

F1 / F2 programs

Motor or wall mount

WHERE IT WORKS

- **Fans and blowers**
- **Pumps**
- **Compressors**
- **Refrigeration**
- **HVAC in harsh settings**

WHY KELD

Your engineering and manufacturing partner

Co-engineering from day one. We design with your team, not for it — from a small firmware change to a full custom controller.

Quality you can audit. Structured APQP planning, validation and full traceability, from component to serial number.

Made in Zaragoza since 1972. Design, production and test under one roof. Short lines, fast answers, stable supply.

Lifecycle support. Controlled firmware and documented change management through the product life.

Review your STARK application with a KELD engineer.

Tell us about your motor, your enclosure and your environment. We will help you choose the right STARK — single or three phase, motor mount or wall.

Book a technical review →

ABOUT KELD

Electrónica KELD has designed and manufactured custom electronics for industrial manufacturers since 1972. Controllers, drives and HVAC electronics — engineered, produced and tested in Zaragoza, Spain, for clients across Europe and the United States.

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