

AKODuo

The new generation of controllers
for compressor racks



AKODuo Compressors and condensers station, up to 18 outputs



Energy savings through floating condensation.

Electronic controllers for regulating capacity in refrigeration stations, designed for more efficient management. Regulation in proportional band and neutral zone. Compressor rotation by operating hours. Up to 6 compressors can be managed with 2 partialisations. They have a 4-20 mA output for controlling the frequency variator of the condenser fans. Viewing of information on double multi-colour graphic screen. Rapid, intuitive menus with programming assistance and help on screen. Reading and programming configurable by pressure or temperature. Modular, robust system. Speed and ease of maintenance. Based on PLC technology.

Application: Cold installations.

- AKODUO: an electronic controller based on PLC technology for capacity regulation in cooling racks and condenser fans.

It comprises two units:

- DUOControl: efficiently manages the central unit, thanks to its floating condensing algorithm (DIN rail-mounted).
- DUOVisión: double-screen colour graphic display providing fast and accurate reading of all system variables.

• Key Features:

- Adjustment in the neutral zone or proportional band.
- Rotation of compressors by hours of operation or sequential activation.
- Control of fans by stages or by frequency variation
- Fast, user-friendly menus, grouped by functionality, with on-screen help and reading/programming wizard configurable by pressure (bar) or temperature (°C).
- Energy saving via activation of floating condensation algorithm and double evaporation pressure setting.

Key Features:

	AKO-21006	AKO-21012	AKO-21018	Function
DIGITAL INPUTS	8	10	12	Three fixed for PA, PB and AUTO/MAN sel.
DIGITAL OUTPUTS	6	12	18	Compressors and Fans
INPUTS 4-20 mA	3			Two pressure probes (HP & LP) and one exterior temp. probe
OUTPUTS 4-20 mA	1			Fans controlled by variable frequency

- Integrated RS485 communications. MODBUS protocol
- Compatible gases: R22, R134 A, R404 A, R507 A, R717 A (NH3) y R744 A (CO2).
- 24 VDC supply

Reference	Description	Family	Pack
AKO-21006	DUOControl 6 stages	1560	1 Unit
AKO-21012	DUOControl12 stages	1560	1 Unit
AKO-21018	DUOControl18 stages	1560	1 Unit
AKO-21701*	DUOVisión, Viewer with double display, panel-mounted	1560	1 Unit
AKO-21901	Power supply 100-240 Vac/24 Vdc, 0,75 A	1560	1 Unit
AKO-21902	Power supply 100-240 Vac/24 Vdc, 1,25 A	1560	1 Unit.
AKO-21904**	Communication cable RS485 for AKODuo	1580	1 Unit
AKO-5006	DUOAssistant, Software for off-line AKODuo configuration	1580	1 Unit

* DUOVisión must be ordered together with DUOControl 6, 12 or 18.

** Required for connecting the AKODUO controller to the communication hub (see AKOSOFT range diagram).

DuoDrive Standard frequency converters for HVAC applications



Low voltage frequency converters

Smart and intuitive frequency converters to improve energy efficiency. It provides tools to calculate energy savings, investment payback period, commissioning and diagnosis and remote access.

Application: Refrigerated facilities..

• Main characteristics:

- EMC filters for buildings, class C2 (1st environment)
- RFI filters
- Interactive maintenance and diagnosis wizard
- Fault logger
- Reduction of audible noise
- Special parameter menu for HVAC applications
- Variable self-inductance reactances: up to 25% less harmonics
- Variety of references from 0.75 to 37 kW

Reference	Description	Family	Pack
AKO-21202	DUODrive, 0,75 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21203	DUODrive, 1,1 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21204	DUODrive, 1,5 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21205	DUODrive, 2,2 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21206	DUODrive, 3 Kw, 380 Vac with Modbus Communication & RFI filters	1560	1 Unit
AKO-21208	DUODrive, 4 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21212	DUODrive, 5,5 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21215	DUODrive, 7,5 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21223	DUODrive, 11 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21231	DUODrive, 15 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21238	DUODrive, 18,5 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21245	DUODrive, 22 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21259	DUODrive, 30 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit
AKO-21272	DUODrive, 37 Kw, 380 Vac with Modbus Communication & RFI filter	1560	1 Unit

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