



High Frequency Inverter ACO5000



Helping you build a better machine, faster.

Features

Highlights

- PAM Pulse Amplitude Modulation – a technology with regulated intermediate DC bus
- SHS Modulation – Selective Harmonic Suppression modulation
- Windows based programming software
- Can be operated via **Terminal Block**, dedicated **KeyPad**, or **PROFIBUS**
- Large number of free programmable parameters
- 32 complete sets of motor parameters can be stored and selected
- CE and UL

Modular concept

Power supply module

- Input voltage 200 – 480 VAC, +10 % / -15 %, 50/60 Hz, auto-ranging
- DC power output max. 36 A/45A
- Power IN connector to the bottom
- Integrated dynamic braking resistor
- Possibility to add an external braking resistor module
- 24 VDC, auxiliary power input supplied by customer, 2 to 4 A depending of the number of axis
- USB port, internally interconnected to the drive(s)
- RS485 port dedicated to remote Keypad

Power Drive module

- Internal connections to the power module
- Motor power OUT connect to the bottom
- Plugable screw terminals see “Control terminals description”
- All “Control terminals” are opto-insulated
- PROFIBUS port (Option)
- Sensor feedback connector (not compulsory to drive a motor)
- 7 segments status display
- 5 power ratings: 5, 8, 12, 20 and 30 A, 2 physical sizes
- Max output frequency 5000 Hz

External braking resistor module

- Same dimensions as the power supply module
- Internal connection to the power supply module
- Used when full braking power is required



Power ratings

Drive	Nominal current	Peak current	Max. Output Power @ 230 V	Max. Output Power @ 400 VAC
ACO5005D	5 A	7.5 A	3 kVA	5 kVA
ACO5008D	8 A	12 A	5 kVA	8 kVA
ACO5012D	12 A	18 A	7 kVA	12 kVA
ACO5020D	20 A	30 A	12 kVA	20 kVA
ACO5030D	30 A	45 A	19 kVA	30 kVA

Control terminals description

The +24 VDC OUT are common to the 24 VDC supplied and short-circuit protected

Hardware enable input from PLC in accordance with the EN954-1 standard
24 VDC to power safety relay

Safety relay floating contact, closed when drive is enabled

Drive failure output. Floating contact, closed when ready

+24V_OUT	1	16	+24V_OUT
ENABLE	2	17	IN1
	3	18	IN2
	4	19	IN3
	5	20	IN4
	6	21	IN5
START	7	22	IN6
STOP	8	23	IN7
RESET	9	24	IN8
0V	10	25	0V

8 programmable digital inputs

Function allocated by user

2 programmable analog outputs 0 ... 10 V

Internal 10 VDC and analog input 0 ... 10 V for speed reference

A_OUT1	11	26	OUT1
A_OUT2	12	27	OUT2
+10V DC	13	28	OUT3
A_IN	14	29	OUT4
0V	15	30	0V

4 programmable digital outputs

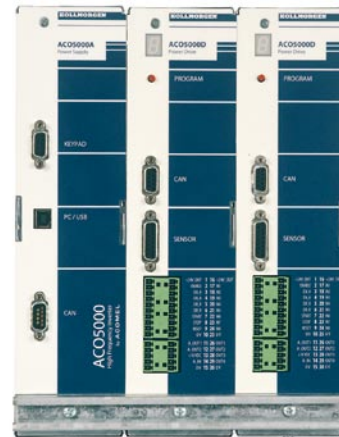
Function allocated by user

All "0 V" are inter-connected

Multi-axis configurations

Any combination up to 4 axis so far the total current needed at a time does not exceed 36 A current. That means the system can have maximum 6 modules with a width of 426 mm (i.e. 6*71 mm plus 3 mm backplate), as follow:

- 1 power module
- 1 External braking resistor module
- 4 small drives, or 2 small and one large, or 2 large ones



Dimensions

Type	Description	Width	Height	Depth
AC05005A	Power supply module	71	329	298.5
AC05005D	Drive module 5A	71	329	298.5
AC05008D	Drive module 8A	71	329	298.5
AC05012D	Drive module 12A	142	329	298.5
AC05020D	Drive module 20A	142	329	298.5
AC05030D	Drive module 30A	223	329	298.5
AC05000R (R1)	External braking resistor module	71	329	298.5

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