MCH Series Drives

Efficient, simple, versatile, powerful!

Lenze
AC Tech

MCH Series | For HVAC Professionals

Designed for HVAC Systems

The MCH Series variable frequency drive is designed specifically for the control of variable torque HVAC loads:

- Fan and Blower applications
- Centrifugal Pumps
- Cooling Towers

Whether you specify, install or operate HVAC systems, you can rely on the drive built specifically for HVAC professionals.

Specify with Confidence

AC Tech has tens of thousands of HVAC installations throughout the world. When the MCH is specified, it delivers proven technology, performance and reliability.

HVAC specific product range:

- 1 to 250 Horsepower
- 208V, 240V, 400V, 480V and 600V input supplies
- Compact NEMA 1 and NEMA 12 enclosures

HVAC specific functions:

- Set-point (PID) control of temperature, pressure & flow
- V/Hz profile for centrifugal loads
- Compliant to IEEE 519 standard
- Serial communications for building automation
- 66 programmable parameters for complete flexibility

HVAC specific solutions:

AC Tech offers “contractor ready” solutions for the most common drive configurations used in HVAC applications. Factory installed options include:

- 3-phase AC line reactor
- Line disconnect or circuit breaker
- Three contactor drive bypass (manual or automatic)
- Drive fuses and bypass motor fuses
- 24 volt DC power supply for customer use
- Up to three programmable status relays (form-C)

Install with Confidence

Management of labor and material costs is essential in every HVAC installation. The MCH addresses both through aggressive pricing and “contractor ready” packaging.

- Standardized designs shorten lead times
- Oversized terminals simplify control wiring
- Generous space for wire runs
- Top and bottom conduit knockouts for easy entry
- Hinged doors provide easy access to all connections
- Plain English programming for smooth start-up

Operate with Confidence

The installation of an MCH series drive typically pays for itself within a few months! The MCH is built to impeccable quality standards aimed at 100% customer satisfaction.

Robust designs:

- Rugged steel enclosures
- State-of-the-art circuit designs

Efficient operation:

- Improved system performance
- Cool motor operation extends motor life

Building Management Integration:

- Modbus RTU (standard)
- Metasys N2 (option)
- BACnet (option)
- Siemens P1 (option)
- LonWorks (option)

Intuitive operator interface:

- 32 character plain English display
- Easily viewed operating windows

Display that makes sense

The MCH Series keypad display has been designed to make it easy to understand what is happening with the AC motor that is driving your equipment. Motor frequency (Hz) may not make as much sense to your operator as motor speed (rpm) or airflow (cpm) or system head (ft). Displays can be configured to show what you need to see, in the units that you need to see them in. Because our displays are in English, programming the MCH is easy to understand, often eliminating the need to have the manual in one hand while programming with the other!

MCH Series | Standard Features

Line voltage calibration:
Automatically optimizes current and voltage protection

Anti-stall frequency fold back:
Current limit to 120% for one minute

Motor thermal overload:
Inverse I^2t motor thermal protection

Critical frequency avoidance:
- Two adjustable ranges
- Adjustable bandwidth to 10 Hz

Four preset speeds

Independent Accel and Decel

DC injection braking:
- Timed or continuous
- Adjustable voltage level

Low frequency voltage boost
For high starting torque

Adjustable carrier frequency
For quiet and efficient motor operation (2.5 to14 kHz)

Easy to read display:
- 32 character backlit LCD
- 2 line display
- Intuitive HOA keypad

Hand speed reference select:
Keypad, 0-10 VDC,4-20 mA, preset speeds or MOP

Auto speed reference select:
0-10 VDC,4-20 mA, preset speeds or MOP

Hand and Auto mode:
Enable or disable

Password protection:
Enable/disable and setting (0000-9999)

Standards:
UL, cUL, CE(LVD)

Two Year Warranty

Conduit knockouts:
- Sized per NEC standards
- Top or bottom entry

Two scalable analog outputs:
- Proportional to speed and load
- 0-10 VDC or 2-10 VDC Signals
- 2-10 VDC is convertible to 4-20 mA

Analog output calibration

Serial communication:
- Modbus RTU
- Metasys N2 (option)
- BACnet (option)
- Siemens P1 (option)
- LonWorks (option)

Programmable fault terminal:
- External trip activation
- Inverse trip activation
- Manual reset

Fault history:
View log of eight previous trips with status at the time of trip

Flying restart:
Speed synchronized automatic restart after fault

Coast or ramp to stop

Loss of follower signal action:
Fault or go to preset speed

PID set-point control:
- Remote enable/disable
- Direct or reverse acting
- Transducer calibration
- High/Low level alarm

Available display units:
Hz, RPM, %, /SEC, /MIN, /HR, PSI, CFM, GPM, FPM, IN, FT

TechLink software:
For off-line or on-line programing and setup. Available free from the AC Tech web site:

AC Tech: Meeting Customer needs through Innovation

Since its inception, AC Technology Corporation has had one mission—to design and manufacture AC variable speed drives that will provide the greatest value to its customers.

AC Tech's growth far outpaces the industry average, a strong affirmation of its commitment to excellence and customer service. A privately-held corporation where all employees, from senior management to the assembly line teams, from Research and Development to Shipping and Receiving, take pride in every installed drive.

AC Tech's commitment to quality, innovation and value is a personal one. AC Tech has pioneered developments such as 575-Volt models, NEMA 4 and 4X enclosed inverters, plain English programming and drive designs using intelligent power modules (IPM's).

AC Tech takes total ownership of the design and manufacture of the drives that carry its name. Multiple product quality inspections and tests assure that the drive you receive will work out of the box and for years to come. What this means to you is consistent, high quality product at a surprisingly low cost.

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