ATC *eX* 2070N1 NEMA Controller

Overview

McCain's ATC eX 2070N1 NEMA Controller, TS 2 Type 2 compatible, is designed in full compliance with ATC (Advanced Transportation Controller) 5.2b standards and Caltrans Transportation Electrical Equipment Specifications (TEES) 2009. The ATC eX 2070N1 is a ruggedized, multitasking field processor and communications system based on the 2070 ATC CPU, 2070 2-B, and 2070-8 modules that are easily configurable for a variety of traffic management applications in a shelf mount configuration. This unit is available as a complete ATC eX 2070N1 controller, or the 2070 ATC CPU module can be used with your existing McCain 2070LN1 controller to create a ATC eX 2070N1.

Benefits

- NEMA TS 1 and NEMA TS 2 Type 2 compatible
- NEMA, ATC and Caltrans standards compliant
- Controller's multitasking operating system supports a variety of applications
- Open architecture promotes compatibility with off-the-shelf products
- Easily upgrades current intersection hardware
- Available with McCain's NTCIP-compliant *Omni eX*® intersection control firmware

Product Description

The McCain ATC eX 2070N1 Controller's primary function is intersection control but can be used for a multitude of applications determined by the control software. Expanded applications include: ramp metering, variable message signs, sprinklers, pumps, and changeable lane control.

Compliant with NEMA TS 1 and NEMA TS 2 Type 2, the ATC eX 2070N1 features full I/O capability with A, B and C connectors, as well as the D connector as defined by Caltrans TEES.

The ATC eX 2070N1 NEMA Controller design is based on three major assemblies: the 2070 Controller, 2070 ATC CPU, and the 2070-8 NEMA base. The 2070 ATC CPU module conforms to ATC and Caltrans standards, providing a robust, flexible, and expandable platform that is compatible with application software from multiple vendors.

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Standard Features

Modules (standard, included)

- 2070 ATC CPU module
- 2070-2B field I/O module
- 2070-3B LCD front panel module
- 2070-4N (A) power supply
- 2070-8 NEMA adapter

Operating System

- Linux

Microprocessors

- Freescale PowerQUICC II Pro microprocessor

Memory

- 16MB Flash memory
- 128MB DDR RAM (expandable)
- 2MB non-volatile SRAM

Backup real-time clock (RTC)

Applicable standards

- ATC 5.2b
- Caltrans TEES (where applicable)
- All applicable NTCIP base standards
- NEMA TS 2

2070 ATC CPU Module

Interfaces

Communication interfaces

- SDLC ports (2)
- Serial (asynchronous) (4)
- ENET 1: 100 Base-T Ethernet switch, 1 uplink and 3 additional ports
- ENET 2: 100 Base-T Ethernet port dedicated for local communications (i.e. laptop or similar)
- USB ports (2)

Front panel interface

- Display: 8 lines x 40 characters
- Keyboards: 3 x 4 navigation and 4 x 4 data entry keypads

Cabinet interfaces

- Rear connector C12S
- NEMA connectors A, B, & C
- D connector with standard TEES pinout

Software

Available with McCain's NTCIP compliant *Omni eX* intersection control software. Also compatible with third-party NTCIP compliant software. (All software products sold separately. See separate data sheets for details on McCain's software control programs).

General Specifications

Dimensions:	12″ H x 17″W x 12″ D (rounded to the nearest inch)
Form Factor:	Shelf mount configuration
Power:	90 VAC to 135 VAC, 60 Hz (± 3 Hz) +5.0 VDC 1.0 A 10.0 A +12.0 VDC Serial 0.1 A 0.5 A –12.0 VDC Serial 0.1 A 0.5 A +12.0 VDC ISO 0.1 A 1.0 A
Environment:	Operating Temperature: -37° C to +74° C Humidity: 0 to 95% (non-condensing)
Weight:	± 20 lbs (based on final module selection)

Options

- McCain control software
- Available modules
  - 2070-3A large 4 x 40 character display
  - 2070-6A dual 1200 baud modem
  - 2070-6B dual 9600 baud modem
  - 2070-7A dual RS232 serial ports
  - 2070-7B dual RS485 serial ports

To learn more about McCain's Integrated Traffic Solutions, please contact info@mccain-inc.com or call (760) 727-8100