EFC Series
Networkable
Fan Coil Controller

The fan coil package consists of 2 parts, the thermostat and the EFC controller module. The controller incorporates a configurable fan coil algorithm, variable three speed fan control and either modulating or digital heating and cooling outputs.

- Fully configurable application specific controller
- Connects to room thermostat via 3 wires
- Native BACnet MS/TP or Modbus communication (selectable)
- 24, 120 or 240Vac
- Up to 11 inputs and 15 outputs

The Next Generation Is Here

NEW

- BACnet scheduler
- Firmware upgradeable via BACnet
- Copy and paste configuration via BACnet
- COV (change of value)
- BACnet or Modbus communication protocol selectable via thermostat menu
- Select direction on analog outputs
- Select thermostat's default display
- More outputs: 4 Triac and 4 Analog outputs
- And more...

Control Features

- Inputs:
  - 4 analog inputs (0-10Vdc or 10K Ohms)
  - 3 dedicated analog sensor inputs
  - 4 dedicated digital sensor inputs
- Outputs:
  - 4 analog outputs (configurable)
  - 4 TRIAC outputs (configurable)
  - 3 fan outputs
  - Up to 4 digital outputs (configurable)
- Real Time Clock (RTC) with 24 hour backup
- Configurable PI (Proportional-Integral) function
- Selectable proportional control band and dead band
- 3-speed or ECM (analog) fan control
- Selectable internal or external temperature sensor (10KΩ)
- Change over by contact or external temperature sensor
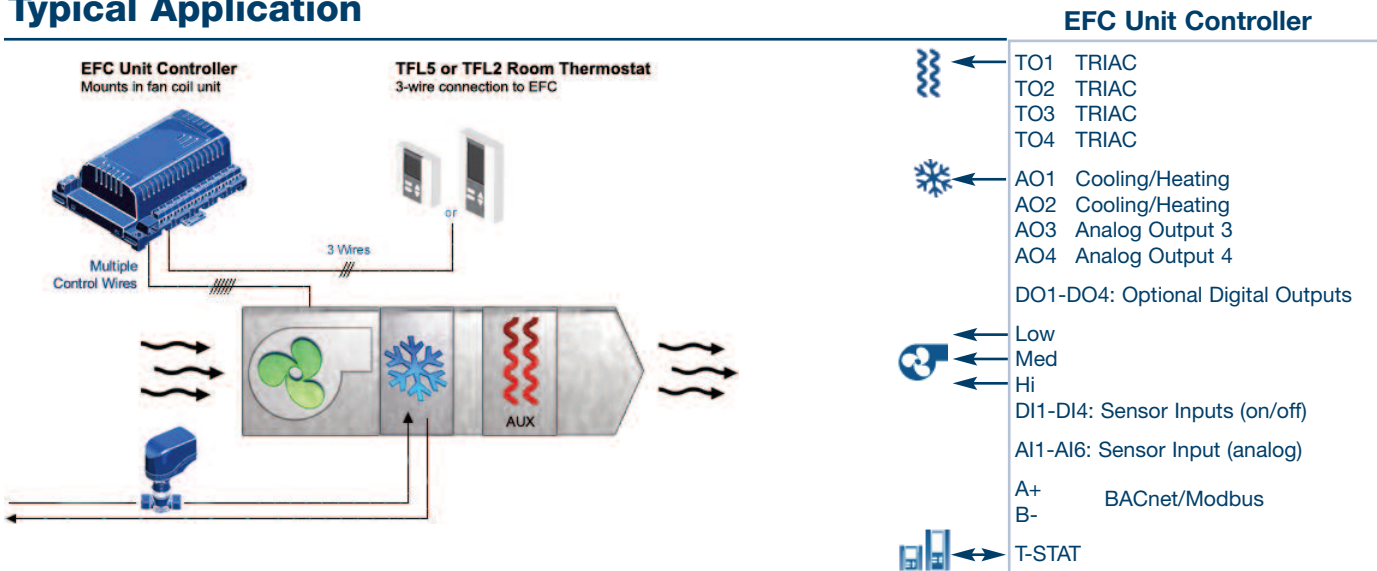- Freeze protection

Models

Model	Supply	DO (3A)	TO	AO	DI	AI
EFCB10TU2	24Vac	2				
EFCB10TU4	24Vac	4				
EFCB11TU2	120Vac	2				
EFCB11TU4	120Vac	4	4	4	4	6
EFCB12TU2	240Vac	2				
EFCB12TU4	240Vac	4				

Thermostats

TFL24	2x4 Thermostat
TFLH24	2x4 Thermostat with Humidity
TFL54	3x3 Thermostat
TFLH54	3x3 Thermostat with Humidity

- Backlit LCD with simple icon and text driven menus
- Selectable Fahrenheit or Celsius scale
- Manual night set back or no occupancy override
- Multi level lockable access menu
- Lockable setpoint

Typical Application

EFC Unit Controller
Mounts in fan coil unit

TFL5 or TFL2 Room Thermostat
3-wire connection to EFC

Multiple Control Wires

3 Wires

AUX

EFC Unit Controller

TO1	TRIAC
TO2	TRIAC
TO3	TRIAC
TO4	TRIAC

AO1	Cooling/Heating
AO2	Cooling/Heating
AO3	Analog Output 3
AO4	Analog Output 4

DO1-DO4: Optional Digital Outputs

Low
Med
Hi
DI1-DI4: Sensor Inputs (on/off)

AI1-AI6: Sensor Input (analog)

A+   BACnet/Modbus
B-

T-STAT

BACnet Application Specific Controllers

BACnet Scheduler
Configure a weekly schedule with up to 6 events per day.

Firmware Upgradeable
Upgrade the controller version via BACnet to access new features and/or updates.

Copy and Paste Configuration
Copy the controller's entire configuration and broadcast it to other controllers of the same type on the same network. This can be done via menu or via BACnet.

COV (change of value)
Increase precision and reduce traffic by defining certain objects to communicate as soon as the value is changed.

Select Analog Output Direction
You can now select direct or reverse acting analog outputs

Configurable Thermostat Display
Define the thermostat's display to meet your needs:
- Temperature and demand
- Setpoint and demand
- Temperature only
- Setpoint only
- No display

Two MAC Address Configuration Methods
Set MAC address via user friendly menu on thermostat or locally on unit via DIP switches.

Auto Device Instance Configuration
The controller automatically configures its device instance to a default value + MAC address.

Auto Baud Rate Detection
The controller automatically configures its baud rate by detecting the network speed upon connection.

Over 150 BACnet Objects
Thanks to this open protocol, we provide over 150 BACnet Objects per controller so you can read, write information as you monitor and trend status of operation, alarms and schedules.

Service Display
If you are searching for a specific device, enabling the service mode will flash the device to easily locate the device.

Member of
BACnet
International

BTL