The VP-EC-DCIM-BCM-84 is a complete 84 breaker panel branch current monitoring system. Up to 2 VP-EC-BCM-42CT Interfaces can be connected for a total of 84 breakers. Each interface transmits its current readings to the gateway via Modbus RTU RS485 protocol. The VP-EC-BCM-Gateway's built in web server allows the user to program all alarm and operating settings for the breaker variables. Email alerts are programmed for Warning, High, and Zero Load Alarm.

Standard Features of the VP-EC-DCIM Gateway:

- DIN Rail Mount Enclosure for simple installation
- Low Power 12VDC (External 120 VAC to 12 VDC Power Supply supplied with every Gateway)
- LCD Display, Menu Pushbuttons and Status LEDs
- Ethernet TCP/IP Port for connection to the Enviro-Cloud application
- 2 Local RS485 Modbus Ports for connecting VP-EC-BCM-42CT Interfaces
- Remote RS485 Modbus Port for optional connection to building management systems
- Optional RS485 port for remote LCD display (VP-EC-RDU)
- One optional RS845 ports
- Built in web server for local access for programming and data display
- Email Alerts
- Programmable Breaker Alarms
- Standard Gateway can be programmable for up to 84 Breakers
  (24, 30, 36, 42, 60, 72 and 84 Breakers)

The Enviro Cloud Web App

VP Process Inc.
West Kelowna, BC, Canada
www.vpprocess.com
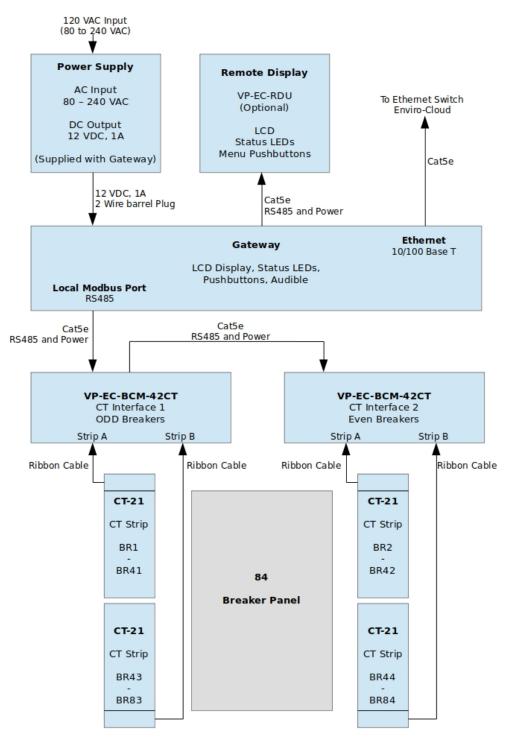info@vpprocess.com
(250) 769-8220

Specifications

Power:
12 VDC, 1A via external AC (80 to 240VAC) to DC Power Supply
(Supplied with Gateway)
All attached VP-TX-DCIM Hubs are powered from the same 12 VDC via the Cat5e cable
connection that carries the RS485 communication lines

Ethernet:
10/100 Base T RJ45 Connector (Enviro-Cloud connection)
Gateway Web Server provides complete programability
(Please refer to the User Manual for information)

Remote Modbus:
Connection Port for remote access to all environment data
RS485, 19200 Baud (N,8,1)
RJ45 Jack (2) Power 12VDC supplied over Cat5e Cable
MODBUS over TCP/IP via Ethernet Connector

Breaker Port 1:
VP-EC-BCM-42CT Interface Port
Used for breaker panels up to 42 Breakers
RS485, 19200 BAUD (8,N,1), RJ45 Connector (Power Over Cat5e Cable)

Breaker Port 2
VP-EC-BCM-42CT Interface Port
Used for breaker panels up to 84 Breakers
RS485, 19200 BAUD (8,N,1), RJ45 Connector (Power Over Cat5e Cable)

Status LEDs:
Power ON LED: Blue LED Indicator (Always ON)
Status LEDs (2)   :   Normally GREEN for Status OK, Amber for CAUTION Alarm, RED
                        for CRITICAL Alarm

User Interface:
Character LCD: 2 Line x 16 Charater (White on Blue)
4 Pushbuttons: MENU, UP, DOWN, ENTER

Audible:
Internal Audible (75 db), Programmable On or Off

Enclosure:
Dimensions: 6.25" wide x 3.6" high x 2.3" deep
Material: ABS, UL94-5VA
Mounting: DIN Rail

Environmental:
-20 Deg C to +60 °C Operating Temperature
-45 Deg C to +85 °C Storage Temperature

Options:
Model VP-EC-RDU Remote LCD Display
LCD Display: 4 line x 20 Charater
4 Pushbuttons: MENU, UP, DOWN, ENTER
Status LEDs (2):   Blue Powere LED, 2 Red-Green Status LEDs
Dimensions: 6" x 4" x 1.25"

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Block Diagram and Field Connections

120 VAC Input
(80 to 240 VAC)

Power Supply

AC Input
80 – 240 VAC

DC Output
12 VDC, 1A

(Supplied with Gateway)

Remote Display

VP-EC-RDU
(Optional)

LCD
Status LEDs
Menu Pushbuttons

To Ethernet Switch
Enviro-Cloud

Cat5e

12 VDC, 1A
2 Wire barrel Plug

Cat5e
RS485 and Power

Gateway

LCD Display, Status LEDs,
Pushbuttons, Audible

Ethernet
10/100 Base T

Local Modbus Port
RS485

Cat5e
RS485 and Power

Cat5e
RS485 and Power

VP-EC-BCM-42CT
CT Interface 1
ODD Breakers

Strip A   Strip B

VP-EC-BCM-42CT
CT Interface 2
Even Breakers

Strip A   Strip B

Ribbon Cable   Ribbon Cable   Ribbon Cable   Ribbon Cable

CT-21

CT Strip

BR1
-
BR41

CT-21

CT Strip

BR2
-
BR42

84

Breaker Panel

CT-21

CT Strip

BR43
-
BR83

CT-21

CT Strip

BR44
-
BR84

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