Fan Failure and Temperature Detection Unit (FFTDU)
CMSC – 7773

Fan Failure and Temperature Detection Unit (FFTDU) CMSC – 7773 is an integrated intelligent programmable & compact unit, designed to ensure monitoring of 4 Nos. of AC impedance protected cooling fans & internal panel temperature in a most cost effective and reliable way.

- **Wide input Voltage range – 88 VAC – 257 VAC**
  It can be connected to non-UPS power source.
- **Programmable Fan voltage (230 VAC / 110 VAC) with in-built protection fan protection.**
  CMSC-7773 can be programmed to control fans with 230 VAC input voltage as well as 110VAC input voltage. CMSC-7773 also protects 110VAC fans by switching off the output voltage to the fans if 230VAC input voltage is connected inadvertently.
- **Auto-characterizing of individual AC fans**
  In the data sheet of AC Impedance protected fans, the input current values specified are with a tolerance of 10%-20% depending of the manufacturer and the batch of production. Also, AC impedance protected fans have minimal difference between stall current and nominal current. Therefore, Century Make CMSC-7773 offers unique feature of auto-characterization of each fan input current, thus eliminates the need for entering the current rating of each cooling fan motor.
- **Individual control of cooling fans (4 Relay Output)**
  CMSC-7773 is versatile can be programmed for use with 1 No. to 4 No. of cooling fans. Thus CMSC-7773 reduces to requirement of maintaining inventory of different types of FTDDU's.
- **Programmable fan operating condition**
  CMSC-7773 can be programmed to ensure operation of cooling fans in most cost effective manner, the unit can be programmed to switch on cooling fans, if the ambient temperature is higher than the desired ambient temperature of PLC/DSC panels. Thus it reduces to operating costs and provides longer operating life for the AC impedance protected cooling fans.
- **Continuous Evaluation of cooling fan motors**
  The cooling fans motor current also varies given the input voltage variation. CMSC-7773 intelligent program monitors current drawn by individual fan motors with respect to input voltage variation and thus identifies fan stall condition independent of input voltage variations. CMSC-7773 checks fan motor status every 60 seconds to ensure quick diagnosis of fan motor status.
- **Ease of interfacing with supervisory control system with programmable output status (NO / NC contact)**
  1 No. for potential free relay output for over temperature indication
  1 No. of Potential free relay output for fan failure condition (OPEN / STALL)
- **User friendly interface for Easy programming**
  Temperature set values, functional parameters & operating values of CMSC-7773 can be easily programmed through Four Nos of capacitive touch sensitive keys (Increase – Decrease – Scroll – Enter) & 3 Digit seven segment LED display.

CENTURY METERING SYSTEMS & CONTROLS
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- **In-built User Operational safety**

  CMSC-7773 is designed with assured galvanic isolation of user interface in case of interchange of phase & neutral at the input.

- **For Quick Diagnosis of fan status**

  6 No. of red LED indicators

  4 Nos. of LED indicates status of each cooling fan

  1 No. ofLED indicator for fan STALL status, which is common for all 4 fans.

  1 No. of LED indicator for fan OPEN status, which is common for all 4 fans.

- **Ambient Temperature Measurement**

  FFTDU CMSC-7773 has integrated temperature sensor and unique mechanical design of enclosure & mounting location ensure reliable measurement of internal temperature of PLC/DCS panels. Optional isolated 4-20mA signal (output impedance of 500Ω) provides easy connection with supervisory control system over long distance.

- **For Quick Diagnosis of temperature status**

  1 No. of RED LED indicator for High Temperature Alarm

  1 No. of GREEN LED Indicator for Normal Temperature condition (Fan running Condition)

  1 No. of Yellow LED indicator for ambient temperature lower than set value.

- **Audio Alarm for quick response**

  Buzzer for over-temperature annunciation.

- **Easy of Mounting**

  CMSC-7773 has compact size (45mm X 78mm X 180 mm - excluding DIN rail mount) Mounted on standard DIN Rail Profile weighing less than 600 gms provides ease of installation at any location in the PLC/DCS panels.

Technical Specifications

Operating Voltage		88 V to 257 V.
Operating Temperature Range	:	0 to 85 deg C
Input / Output terminals	:	Screw connections with Plug-in terminal blocks
Ambient Temperature	:	0 – 70 Deg.C.
Ambient Humidity	:	0 – 90% Relative Humidity (non-condensing)
Temperature Measurement Accuracy		
		With Semiconductor Sensor
Range		0 to 70 deg C
Accuracy		+/- 2 deg C
Optional Output Temperature signal Specifications		
Range	:	4 to 20 mA
Signal accuracy	:	+/- 0.5 %
Maximum Load Resistance	:	500 Ohms

Ordering Information

Model No.		Description
CMSC 7773-S		With Semiconductor Temperature sensor & Without 4-20mA O/P
CMSC 7773-S/4-20mA		With Semiconductor Temperature sensor & with 4-20mA O/P
CMSC 7773-RoHs		With Semiconductor Temp. Measurement & Without 4-20mA O/P
CMSC 7773-RoHs/4-20mA		With Semiconductor Temp. Measurement & 4-20mA O/P
CMSC 7908 – MODBUS		With MODBUS and Semiconductor Temperature sensor

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CMSC 7913		With Semiconductor Temperature sensor, Without Stall & Without 4-20mA O/P
CMSC 7913/4-20mA		With Semiconductor Temperature sensor, Without Stall & with 4-20mA O/P
CMSC 7913 - MODBUS		With Semiconductor Temperature sensor, Without Stall & Without 4-20mA O/P
CMSC 7916 – DC		With Semiconductor Temperature sensor, With Stall
CMSC 7795 – DC		Without Display, Without Semiconductor Temperature, With Stall

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