

Barrington Consultants Inc.

March 21, 2006**<http://www.barringtoninc.com> ** Fax 707-542-9730 ** Phone 707-527-8254 **

2239 Valdes Court, Santa Rosa, CA 95403 USA

BCI PRODUCT BULLETIN

Product	Description	Case	Input	Output
	<p>A calibrating source for ammeters and voltmeters at electric utility generation, transmission and distribution substations. Determining minimum pick-up and drop-out of auxiliary relays. Variable voltage and current source</p>	<p>Portable weather resistant carry case 16 lbs. 8"x12"x16"</p>	<p>AC 110-125V (+ or -) 10% 50/60Hz (option 220-240 VAC)</p>	<p>AC 0.00- 10.00 amps; 0-110% AC input voltage. Digital meter accuracy rating 0.025%.</p>
 <p>Model CBS (Circuit Breaker Simulator)</p>	<p>A light weight alternative to operating high voltage circuit breakers while testing the operation of substation protection relays.</p>	<p>Portable weather resistant carry case 9 lbs. 14"x 10"x 7"</p>	<p>Operational with 125VDC and 48VDC systems</p>	<p>Indicating lamps 3 N.O. contacts and 3 N.C. contacts</p>
 <p>Temperature Differential Monitor TDM System 3 Transformer differential monitor between main tank and LTC</p>	<p>TDM-System 3 monitors temperatures from the main transformer tank and the LTC compartment via surface mounted 75LB pull magnetic surface mount platinum 100 Ohm RTDs and provides alarms.</p> <p>Maintenance intervals and risk can be reduced as TDM differential detects heating in LTC providing advance warning of failure.</p>	<p>NEMA 4x windowed case 8"x10"x6" ambient - 40 C to +70 C</p>	<p>120 or 230 VAC 50/60 Hz supply, surface mount RTD, 1 each for main tank oil and LTC tank</p>	<p>Communications: SCADA ready, dry contacts for alarm functions, and RS232/485 port, analog 0-5 VDC or 4-20 mA or 0-1 mA selectable, representing range -40 to 180 C differential temperatures.</p>

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 <p>Dual Tank Temperature Differential Monitor TD-2</p>	<p>Complete with 3ea. 75LB magnetic (lift) temperature sensors and 24ft SJT UV treated connector cables. SCADA ready outputs for main tank, LTC#1 compartment, LTC#2 compartment, and differential temperatures, Two adjustable dry contacts for temperature differential alarms, One adjustable dry contact for high oil temperature, Six temperature display readout with Main Tank, LTC1, LTC2, Differential 1, Differential 2, Valley 1, Valley 2, and Main Tank (peak) temperatures</p> <p><u>Option:</u> TD-2-AC/DC, input, universal 110-270 VAC/VDC power supply \$1,723 USD</p>	<p>NEMA type 4 windowed case 8"x10"x6" ambient - 40 C to +70 C.</p>	<p>120/240 VAC input power 50/60 Hz supply; surface mount RTD, 1 each for main tank oil and each LTC tank (2)</p>	<p>Communications: SCADA ready, dry contacts for alarm functions, and RS232/485 port, analog 0-5 VDC or 4-20 mA or 0-1 mA selectable, representing range -40 to 180 C differential temperatures.</p>
 <p>TTM AC/DC Transformer Temperature Monitor and Cooling Control System</p> <p>Transformer monitor, alarm, transformer cooling fan and pump control</p>	<p>Microprocessor controlled device monitors transformer top oil, calculates winding temperature using oil temperature and snap on CTs to measure load of transformer and cooling stage auxiliaries. Five day memory & look back feature enhances cooling stage control. The TTM monitors, alarms, and controls the cooling stage devices. It is fail-safe as it will turn on the cooling devices and alarm if the power supply to the TTM fails. The memory and look back features allow a head start on cooling when sequential hot days are experienced. Display is 2 line, 16 character.</p> <p><u>Option:</u> TTM-AC/DC-T with trip function.</p> <p><u>Option:</u> TTM-48DC 48VDC model .</p>	<p>NEMA 4 windowed case 8"x10"x6" ambient - 40 C to +70 C</p>	<p>85-260 VAC/DC supply, top oil RTD, 2 sets of snap on CTs</p> <p>1 each for 2 cooling stages</p> <p>3 each for power & main transformer amps</p>	<p>Communications: SCADA ready, dry contacts for control and alarm functions, and RS232/485 port, analog 0-5 VDC or 4-20 mA or 0-1 mA selectable, representing range -40 to 180 C transformer temperatures.</p>

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Product	Description	Case	Input	Output
 <p>On-line Temperature Variance Monitor TV3 Temperature variance monitor</p>	<p>Using three 75LB pull magnetic surface mount platinum 100 Ohm RTD sensors, the TV3 compares temperatures between the 3 units (such as 3 single phase tanks for regulators, LTCs, CBs or other equipment), providing alarm indication resulting from any one variance between the average mean temperature and the temperature of any of the 3 inputs. Display provides for indication of each of the 3 average and peak variance temperatures. Alarm points for each of the three inputs are adjustable individually.</p>	<p>NEMA 4x fiberglass windowed case 8"x10"x6" ambient - 40 C to +70 C</p>	<p>115 VAC or 230 VAC 50/60 Hz, 3 each 100 Ohm surface mount Pt.385 RTDs</p>	<p>Communications: SCADA ready, dry contacts for alarm functions, and RS232/485 port, analog 0-5 VDC or 4-20 mA or 0-1 mA selectable, representing range -40 to 180 C differential temperatures.</p>
 <p>Slow Trip Alarm Relay STAR 10000 Slow time monitor & alarm relay</p>	<p>This timing device monitors and alarms for devices (such as CBs) that do not operate within the prescribed time span after initiation. The Star 10000 can monitor either the opening or closing time of a CB (selectable). This device is ideal for detecting slow tripping of a CB or slow closing of a generator CB in order to provide early warning for a maintenance program. The adjustable parameters make this an ideal device for power or industrial applications. Stores last eight operating times. Timing range 0-9999 milliseconds.</p>	<p>Plastic case designed for mounting inside another enclosure</p>	<p>Power supply 48-140 VDC. 48-140 VAC 50/60 Hz or 24-140 VDC timing inputs for start/stop timing</p>	<p>Communications: SCADA ready, dry contacts for alarm functions and SCADA interface.</p>