



San Francisco Chapter Meeting Notice: Tuesday - September 28, 2004

Chair: Finn Schenck Square D Company

925.730.3148 finn.schenck@us.schneider-electric.com

Vice-Chair: Richard Miller RNM Engineering

415.307.5106 rickmiller@rnm-eng.com

Treasurer: Dave Roybal Cutler Hammer

925.454.3754 daviddroybal@eaton.com

Publicity & Sonny Siu EYP Mission Critical Facilities®, Inc.

Membership: 415.901.4318 ssiu@eypmcf.com

Interrupting Capacity and Short-Time Current Ratings

Overview:

Low-voltage circuit breakers have interrupting capacity ratings and short-time current ratings that an engineer uses for their application. Interrupting capacity and short-time current ratings define different circuit breaker performance characteristics. A good understanding of interrupting capacity and short-time current ratings allows the electrical engineer to make a proper comparison of various circuit breaker designs. While interrupting capacity rating levels of circuit breakers are somewhat consistent throughout the electrical industry, short-time current rating levels are often inconsistent. It is important to understand the performance characteristics of the specific device in order to apply it properly. The present emphasis on higher interrupting ratings, current limiting, and series ratings has impacted the short-time current ratings of circuit breakers. The presentation will examine the interrupting capacity and short-time current ratings of molded-case circuit breakers, insulated-case circuit breakers, and low-voltage power circuit breakers and their effect on time-current coordination. We will review resistive and reactive X/R ratios and explain the short-time current and instantaneous trip characteristics of microprocessor-based trip units.

David D. Roybal received the Bachelor of Science degree in electrical engineering from Santa Clara University, Santa Clara, California, in 1969. He is a Fellow Application Engineer with Eaton Electrical in Livermore, California. He previously was an engineer with Westinghouse for more than 24 years.

Mr. Roybal is a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE). He has served as an officer of the San Francisco chapter of the IEEE Industry Applications Society, the San Francisco IEEE Section, and the IEEE Bay Area Council. He is a member of the National Fire Protection Association (NFPA), the National Society of Professional Engineers (NSPE), the International Association of Electrical Inspectors (IAEI), the California Electrical Inspectors (CEI) Executive Board, and chairman of the NEMA California Safety Regulations Advisory Committee. He is a registered professional engineer in the State of California. The Westinghouse Board of Directors awarded him the Westinghouse Order of Merit in 1993. He was a recipient of the IEEE Third Millennium Medal in the year 2000.



Date: Tuesday September 28, 2004

Time: 5:30 pm (Attitude Adjustment)

6:00 pm (Meeting) 7:00 pm (Dinner)

Location: Sinbad's Restaurant

Pier 2 Embarcadero Street San Francisco, CA 94111

415.781.2555

Cost: \$25 (At the door)

\$25 (email pre-registration qualifies for drawing of IEEE Color Book at dinner)

Contact: Sonny Siu

EYP Mission Critical Facilities®, Inc. ssiu@eypmcf.com 415.901.4318