



SC A1
Rotating Electrical Machines



SC A1 : Rotating Electrical Machines

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Report di sintesi

Membro nazionale Italiano:

Alessandro OLDRATI

alessandro.oldrati@ansaldoenergia.com



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Struttura

Chairman:
Secretary:
Special Reporters

Nico Smit
Peter Wiehe
Kevin Mayor
Howard Sedding
Johnny Rocha

nw.smit@eskom.co.za
peter.wiehe@hydro.com.au
kevin.mayor@power.alstom.com
howard.sedding@ieee.org
johnny.rocha@power.alstom.com

Advisory Group

A1.01 Turboalternatori
A1.02 Idrogeneratori
A1.05 Nuove Tecnologie
A1.06 Grandi Motori
A1.T Tutorials

Juergen Weidner
Remi Tremblay
Luis Rouco
Erli Ferreira Figuereido
Arezki Merkhouf

juergen.r.weidner@siemens.com
tremblay.remi@hydro.qc.ca
rouco@iit.upcomillas.es
erli.figuereido@uol.com.br
merkhouf.arezki@ireq.ca

Membro italiano
Segretario

Alessandro Oldrati
Francesco Guastavino

alessandro.oldrati@ansaldoenergia.com
francesco.guastavino@unige.it



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PRINCIPALI NUOVE PROPOSTE PER ARGOMENTI DI STUDIO

A1.01 Turbogenerators

Quality Assurance Testing Requirements for Turbo Generator Components - Stator core plates & Stator core assembly .

Generator Stator Radial Wedges Testing Methods.

Design Requirements of Turbo Generator for Synchronous Condenser (FACTS device) Application

Guide on Generator Termination and Phase Sequence

A1.02 Hydrogenerators

Core joint inspection with ELCID

Maintenance generator improvement in terms of worker health and safety

Design and quality control of rotor and stator high current joints

Hydrogenerators technical specifications

Phase and neutral terminals inversion

Rotor winding condition assessment inside generator pit

Customer Requirements for Qualification of HV Stator Winding Insulation

A1.05 New Technologies

Voltage-reactive power control of wind generation

Insulation issues in wind generators

Trends on electric machines for renewable generation

A1.06 Large motors

METHODS FOR DETECTION OF BROKEN BARS IN SQUIRREL CAGE INDUCTION MOTORS

GUIDE FOR SPECIFICATION AND SELECTION OF MOTORS FOR VARIOUS INDUSTRY APPLICATIONS

GUIDE FOR SPECIFICATION AND DESIGN OF LARGE SYNCHRONOUS COMPENSATORS

STARTING AND SPEED/TORQUE CONTROL METHODS FOR LARGE THREE PHASE INDUCTION MOTORS

AVAILABILITY, EXPERIENCE AND STRUCTURE OF NEW MOTOR TEST EQUIPMENTS.

GUIDE FOR SPECIFICATIONS OF TERMINATION ARRANGEMENT OF LARGE MOTORS

GUIDE FOR SPECIFICATION OF A. C. MOTORS FOR CONVERTER SUPPLY EVALUATION OF INFLUENCE OF TORQUE PULSATIONS ON SHAFT BREAKAGE DURING STARTING OF SYNCHRONOUS MOTORS

LOW INRUSH CURRENT MOTOR DESIGN

REQUIREMENTS FOR MOTORS BUILT FOR OPERATION IN EXPLOSIVE ENVIRONMENT.



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PAPER SESSION

| PS1 Developments of Rotating Electrical Machines | PS2 Asset Management of Electrical Machines | PS3 Generation Mix of the Future |
|--|--|---|
| <ul style="list-style-type: none">• Latest design, specification, materials, manufacture, maintenance and performance improvements in generators and motors.• Operational experience: Failures, root cause analysis, design improvements, recovery options, cost and time reduction initiatives.• Efficiency, operation, control and design of motors for power stations and dispersed generation. | <ul style="list-style-type: none">• Experience with refurbishment, replacement, power up-rating and efficiency improvement of aged generators.• Novel techniques to overcome known operational and design problems.• Optimised condition monitoring, diagnosis, prognosis and maintenance practises to improve reliability and extend operational life at conventional and new volatile grid conditions. | <ul style="list-style-type: none">• Design improvements and technological developments required for rotating electrical machines to withstand the impact of increased variable loading at highly flexible grid demands due to fluctuating feed-in of renewable energy (Weidner)• Impact and effect of increasing renewable power mix on existing legacy generators, generator auxiliaries and motors• Evolution and trends in designs of machines for renewable generation. (Wind power, micro-turbine, wave and tidal power, bulb units, small hydro power plants) |



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PANELIST

| NOME | COGNOME | AZIENDA | WG | INDIRIZZO E-MAIL |
|------------|-------------|--------------------------|--------------------------|--|
| Francesco | Guastavino | Università Genova | | Francesco.guastavino@unige.it |
| Claudia | Imposimato | RSE | | claudia.imposimata@rse-web.it |
| Alessandro | Oldrati | Ansaldo Energia | A1.37 - A1.43 | alessandro.oldrati@aen.ansaldo.it |
| Boris | Grieco | Ansaldo Energia | A1.39 | boris.grieco@ansaldoenergia.com |
| Giancarlo | Montanari | Università di Bologna | A1.61 | giancarlo.montanari@unibo.it |
| Massimo | Rebolini | Terna | | massimo.rebolini@terna.it |
| Diego | Terrascone | Ansaldo Energia | A1.50 - A1.59 | Diego.terrascone@ansaldoenergia.com |
| Roberto | Suffredini | Enel | | roberto.suffredini@enel.it |
| Vincenzo | Tartaglione | Ansaldo Energia | A1.57 | vincenzo.tartaglione@aen.ansaldo.it |
| Enzo | Tortello | - | A1.34 - A1.54 – A1.46 | enzo.tortello@alice.it |
| Lapo | Vecchione | Enel | | lapo.vecchione@enel.com |
| Gianfranco | Zocco | Nidec-Asi | | gianfranco.zocco@nidec-asi.com |
| Roberto | Ravazzini | Ansaldo Energia | A1.59 – A1.56 | Roberto.ravazzini@ansaldoenergia.com |
| Gabriele | Cresta | Ansaldo Energia | A1.44 | Gabriele.cresta@ansaldoenergia.com |
| Federico | Albertoni | Ansaldo Energia | A1.55 | Federico.Albertoni@ansaldoenergia.com |

In rosso i nuovi inserimenti. Mancano rappresentanti del mondo «motori».

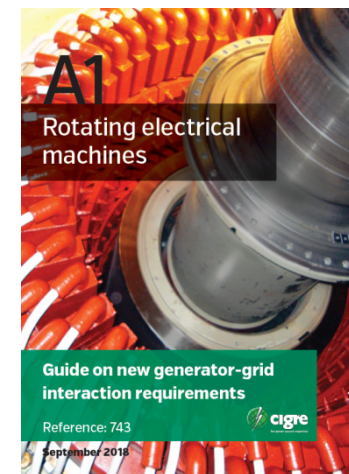


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TECHNICAL BROCHURES

- TB 665 «Hydrogenerators behavior under transient conditions».
- TB 682 «Survey on hydrogenerator instrumentation and monitoring».
- TB 690 «Vibration and stability problems met in new, old and refurbished hydrogenerators : root causes and consequences».
- TB 729 «Technological feasibility studies for super and ultra premium efficient motors».
- TB 743 «Guide on new generator-grid interaction requirements».





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TUTORIAL

Revisiting the fundamentals of magnetic saturation in salient pole synchronous generators

Dr. J. Johnny Rocha E. - SC A1 Rotating electrical machines
Paris - 30 August 2018





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NEXT MEETING

SC A1 2019 MEETING IN INDIA :
HOTEL TAJ VIVANTA – NEW DELHI

SITE VISIT OF DADRI PP