



# BRUSHLESS SYNCHRONOUS GENERATOR CONTROL DATA SHEET

CANADIAN GENERAL ELECTRIC COMPANY LIMITED

CUSTOMER 1100 NAVAIDS - Halifax Shipyards Ltd. Requisition 9280-253-200

GENERATOR Eng'g Notice 139533 Serial No. 1044821, -22, 23 Control Req.

EXCITER Eng. Notice 139482 Serial No. 1044827, -28, -29

## RATING

Type AT1 Poles 8 KW 2100 KVA 2625 RPM 900 Volts 600 Phases 3  
Hz 60 PF 0.8 Amps 2526 Temperature rise 75 °C by Res.  
Overload 10 % for 2 Hours Driven by Bombardier 16 Cyl. Diesel

\*Including 12-OHM  
External Resistor.

## EXCITER FIELD DATA

Field amps at rated load 3.3 Resistance at 25 °C 29.1\* Ohms

Rated Excitation Volts 116 Ceiling Volts 360.\*

Minimum Field amps † 1.40 Minimum Field volts (cold) 41\*

Overload field amps 3.5 Overload Field volts (hot) 123\*

Limit Field Amp to Limit IAC on 3-phase short circuit to 3.5% for 30 sec.

## REGULATOR DATA

Manufacturer Basler Electric

Type AVR SR250H3 PAR'L CT BE11976-001

CBS 377 MIN/MAX Excitation Limiter

SBS BE14032001(2) UV Relay BE1-27(2)

UFOV 260A/X & CCT Breaker

## GENERATOR STATOR DATA

Stator amps at rated load 2526 Stator amps at overload 2779

Suggested temperature settings for protection equipment using embedded stator RTD's \*\*

alarm 125 °C trip 135 °C

## SPECIAL DATA \*

Xd 74 X'd 115 Xd'(sat) 103 X''d 087 X''d(sat) 083

Xq 380 X''q 086 X''q(sat) 082 X0 036 X2 086 SCR 1.92

T'd0 5.03 sec T'd 78 sec T''d 031 sec Tao sec

$\frac{X}{R}$  Ratio =  $\frac{X''d}{ra} = 21.1$

Notes: † Minimum excitation volts is that required to give 80% rated AC volts at no load rated speed with cold field unless some other requirement is stated.

\* All reactances and time constants are for unsaturated conditions unless otherwise noted.

- Changes since last issue.

\*\* Based on 40 °C ambient cooling air and temperature rise by RTD, at full or S.F. load whichever is greater

Prepared by J.R. Fleming

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