

Type:	SGC 110, SGC 120, SGC 121 (also including MKII models) SGC 410, SGC 420, SGC 421 (also including MKII models)
-------	--

Technical specifications	
Operating temperature:	-20 to 65 °C (-4 to +149 °F) (operating) (SGC 110, SGC 120, SGC 4xx) -20 to 60 °C (-4 to +140 °F) (operating) (SGC 121) -30 to +75 °C (-22 to +167 °F) (storage)
* Measuring voltage:	32 to 277 V AC RMS (+ 25%) (phase-neutral) 32 to 480 V AC RMS (+ 25%) (phase-phase)
** Measuring current:	5 A Consumption max. 0,25VA / phase
Measuring frequency:	5 to 75 Hz
Digital inputs:	Negative sensing (connect to ground for activation)
Analogue resistive inputs:	10 to 5000 Ω Above 5.5 kΩ open circuit detection 10 to 1000 Ω Above 1.5 kΩ open circuit detection
** Analogue voltage/current input:	0 to 5 V DC 4 to 20 mA
** Magnetic pick-up inputs:	10 to 10000 Hz 200 mV to 45 V AC RMS
D+ Charger alternator	0 to VBATT, VBATT = 8 to 28 V DC Excitation PWM (power limited to 3 W, 12 V/250 mA)
Digital outputs:	DC outputs SGC 1xx: 6 x 500mA, Total max.: 1 A SGC 4xx : 2 x 5A + 5 x 1A
** Actuator outputs:	Stepper motor drive Max. current 800 mA
** Earth Leakage/Fan Current Monitoring:	5 A Consumption max. 0,25VA / phase
Communication:	USB 2.0 (type B connector) RS-485 **, CAN **
Auxiliary supply:	12 / 24 VDC (SGC 1xx operating range 8 to 28V DC) (SGC4xx operating range 8 to 32V DC)
* Max. current consumption:	~200 mA (excluding the current load for the DC outputs and EGov**)
Standby current consumption:	124 mA @ 12 V DC 123 mA @ 24 V DC (SGC 1XX, backlight off) 180 mA @ 12 V DC 140 mA @ 24 V DC (SGC 4XX)
Size :	SGC 1XX: 114 x 139 x 38,3 mm (4.49 x 5.47 x 1.51 in) SGC 4XX: 173 x 233 x 38,5 mm (6.81 x 9.17 x 1.52 in)

*) Tested on all units according to specifications. Remaining specifications are tested regularly by test sampling

**) If port is available on model

Type test specifications		Tested according to:
Temperature:	-20 to 65 °C (operating) (SGC 110, SGC 120, SGC 4xx) -20 to 60 °C (operating) (SGC 121) -30 to +75 °C (-22 to +167 °F) (storage)	IEC 60068-2-1 IEC 60068-2-2
Battery voltage accuracy:	±1 % full scale	
Battery voltage resolution:	0.1 V	

**DEIF A/S****Type Certificate**

4124030087B / ref. HEJ

Type test specifications		Tested according to:
Voltage accuracy:	±2 % of full scale for phase-to-phase (SGC 110) ±1 % of full scale for phase-to-neutral ±2 % of full scale for phase-to-phase (SGC 120 & SGC 121) ±1 % of full scale for phase-to-neutral ±1.5 % of full scale for phase-to-phase (SGC 410) ±2 % of full scale for phase-to-neutral ±2.5 % of full scale for phase-to-phase (SGC 420 & SGC 421)	
Voltage resolution:	1 V AC RMS for phase-to-neutral 2 V AC RMS for phase-to-phase	
Frequency accuracy:	0.25 % of full scale voltage	
Frequency resolution:	0.1 Hz	
Current accuracy:	±1.4 % of nominal	
Input accuracy:	±2 % of full scale voltage ±1.25 % of full scale current	
D+ Charger alternator accuracy:	±1 % of full scale voltage (SGC 1xx) ±2 % of full scale voltage (SGC 4xx)	
Humidity:	0 - 95% RH non condensing	IEC 60068-2-78
Vibration:	8 to 500Hz: 2G (X, Y and Z axes)	IEC 60068-2-6
Shock:	Panel mounted 15g, 11msec. half sine	IEC 60068-2-27
Electrical safety:	Installation cat. III 300V Pollution degree 2	EN 61010-1
UL:		UL 6200:2015 Issue No. 2 (O.o.I) ULC 6200:2019, 1.ed (pending)
EMC:		EN 61000-6-2 / EN 61000-6-4
Materials:	All plastic parts are self-extinguishing	UL94-V0
Protection:	Unit: IP20 (rear) Front: IP65	IEC/EN 60529

July 18th 2024

DEIF A/S


Jesper Flyvholm
Certification Manager