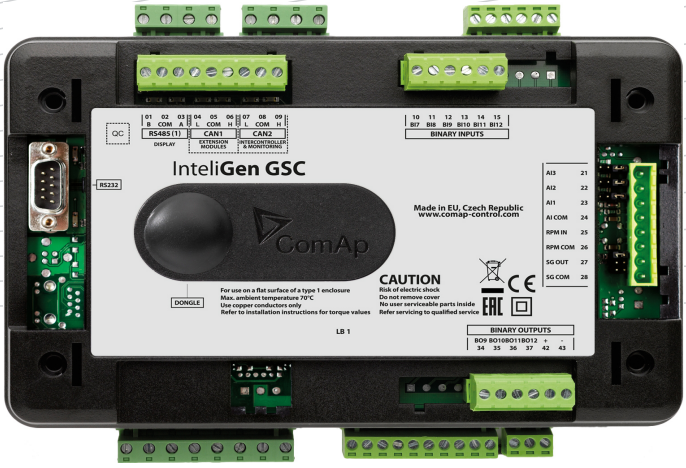
ComAp
The heart of smart control

InteliGen GSC



Order code: IG2GSCXXBAB

Gen-set controller compliant to latest EU Grid codes

Datasheet

Product description

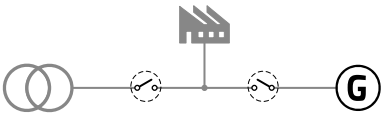
- The InteliGen GSC is a powerful controller for single and multiple paralleling applications.
- Pre-configured gen-set functions, scalable and configurable I/Os, communication capabilities and in-built PLC interpreter guarantee flexibility and easy to use.

Key features

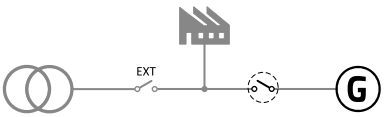
- Compliant to the European Requirements for Generators (also known as Grid Codes or RfG) for all EU countries including German's VDE-AR-N 4105:2018, VDE-AR-N 4110:2018 and United Kingdom G99
- Predefined, adjustable functions for gen-set control allows easy and fast gen-set commissioning.
- Built-in PLC interpreter allows flexible and easy adaptation to customer needs without extra effort.
- Support of wide range applications – from single to multiple, from island to network parallel operation.
- Support of wide range of electrical engines, ECUs.
- Powerful power management function optimizing number of running gen-sets.
- Automatic Load and Var sharing over CAN line (requires HW dongle).
- Plug&Play support of ComAp InteliVision display family.
- Automatic synchronization and power control.
- Event-based History allows easy troubleshooting.

Application overview

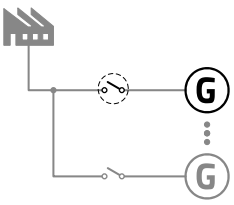
SPtM
Mains & Generator Circuit Breaker



SPI
Generator Circuit Breaker



MINT
Generator Circuit Breaker



Technical data

Power supply

Power supply range	8-36 V DC
Power consumption	0.4 A / 8 V DC 0.15 A / 24 VDC 0.1 A / 36 V DC
RTC battery	10 years (replaceable by official service)
Fusing	2 A (without BOUT consumption)
Max. Power Dissipation	16 W

Operating conditions

Operating temperature	-40 ˚C to +70 ˚C
Storage temperature	-40 ˚C to +80 ˚C
Max. operating altitude	2000 m above sea level 4000 m above sea level for max Ph-Ph voltage 400V AC
Operating humidity	95 % non-condensing (EN 60068-2-30)
Vibration	5-25 Hz, ± 1.6 mm 25-100 Hz, a = 4 g
Shocks	a=200 m/s^2
Heat radiation	16 W

Voltage measurement

Measurement inputs	3 ph-n Gen voltage 3 ph-n Mains voltage/Bus voltage
Measurement range	277 V
Max allowed voltage	125 % ph-n
Accuracy	1 % of 277 V
Frequency range	40-70 Hz (accuracy 0.1 Hz) 45-65 Hz (accuracy <0.01 Hz)
Input impedance	0.6 MΩ ph-ph, 0.3 MΩ ph-n

Current measurement

Measurement inputs	3 ph Gen current 1 ph Mains current
Measurement range	5 A
Max allowed continuous current	200 %
Accuracy	2 % of 5 A
Input impedance	<0.1 Ω

Binary inputs

Number	12 non-isolated
Input resistance	4.7 kΩ
Close/Open indication	0-2 V DC close contact >4 V DC open contact

Binary outputs

Number	12 non-isolated
Max current	0.5 A (2 A per group)
Switching to	Negative/positive supply terminal

Analog inputs

Number	3 non-isolated
Type	Switchable (Voltage, Resistance, Current)
Resolution	10 bits, max 4 decimals
Range	0-5 V DC / 0-2500 Ω / 0-20 mA
Input impedance	>100 kΩ / >100 kΩ / 180 Ω
Accuracy	±1 % of meas. value ±5 mV ±2 % of meas value ±2 Ω ±1 % of meas value ±0.5 mA

Magnetic pick-up

Voltage input range	2 Vpk-pk to 50 Veff
Frequency input range	4 Hz to 15 kHz
Frequency measurement tolerance	0.2 %

Voltage regulator output

Type	5 V TTL PWM / ± 10 V DC with IG-AVRi interface

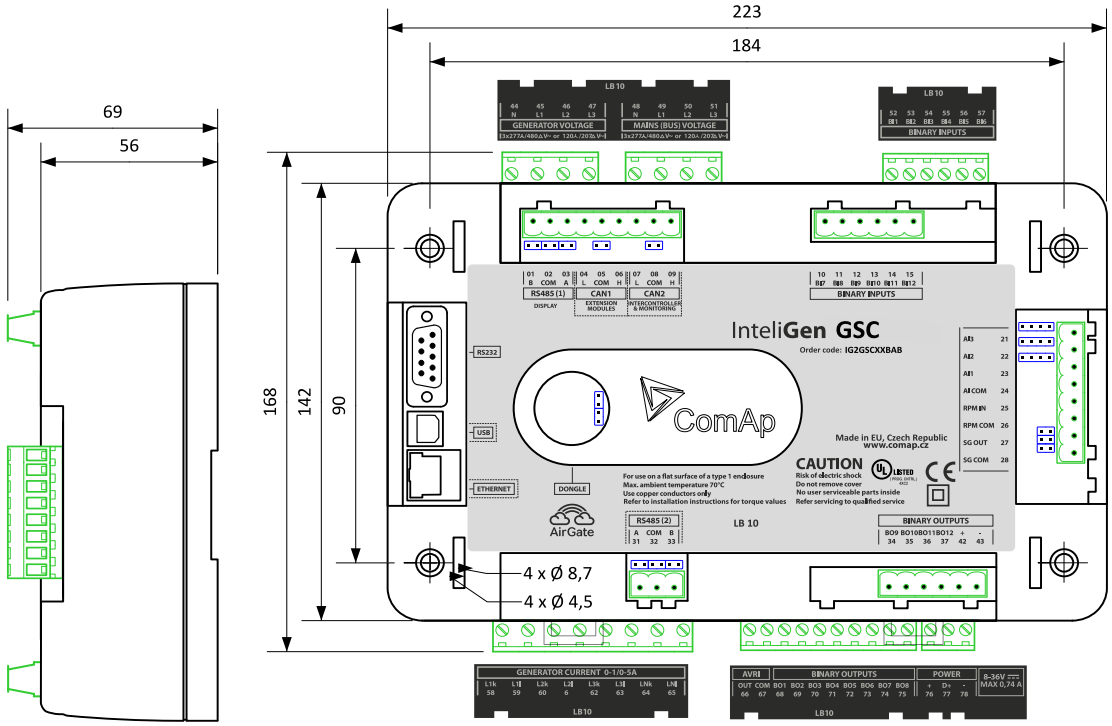
Speed governor output

Voltage output	±10 V DC / max.10 mA
Voltage output via resistor	±10 V DC via 10 kΩ resistor / max . 1 mA
PWM	500÷3000 Hz / 5V / max. 10mA

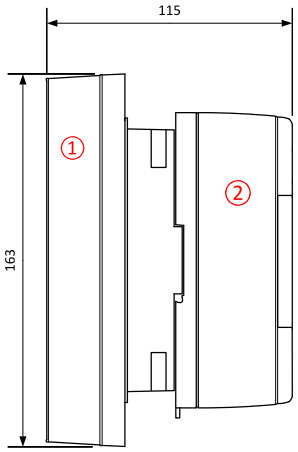
Communications

RS232	Direct/Modbus, non-isolated
Display port	non-isolated RS485, only terminal connection
CAN1	External modules 250 kbps, max 200 m, Isolated
CAN2	Intercontroller and comm extensions 250 / 50kbps, max 200 / 1000m, Isolated

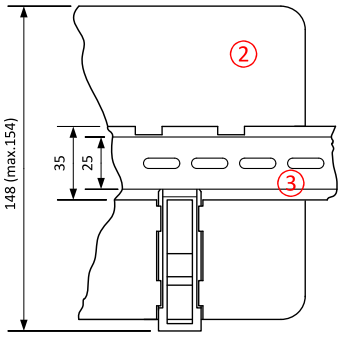
Dimensions, terminals and mounting



Panel door mounting with InteliVision 5

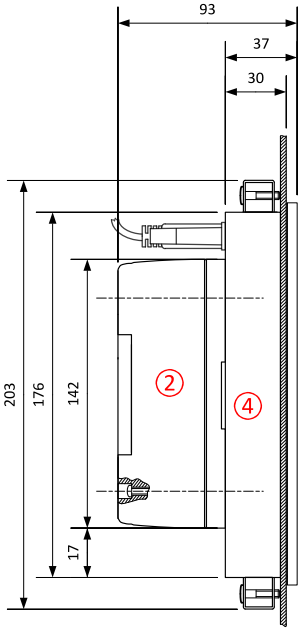


DIN-rail mounting



① InteliVision5
② InteliGen GSC
③ DIN-rail
④ InteliVision 8

Panel door mounting with InteliVision 8



Available extension modules

Product	Description	Order code
Inteli IO8/8	8 Binary inputs, 8 Binary outputs and 2 Analog outputs in a small unit (HW switchable to IO16/0)	I-IO8/8
Inteli IO8/8	HW switchableto IO16/0 - 16 Binary inputs packed in a small unit	I-IO8/8
Inteli AIN8	8 Analog inputs (R, I, V) and 1 pulse/frequency input in a small unit	I-AIN8
Inteli AIN8TC	8 Thermocouple Analog inputs in a small unit	I-AIN8TC
Inteli AIO9/1	9 Analog inputs (4x DC, 4x thermocouples, 1x R) in a small unit	I-AIO9/1
IS-AIN8	8 Analog inputs packed in a rugged metal unit	IS-AIN8
IGS-PTM	8 Binary inputs, 8 Binary outputs, 4 Analog inputs and 1 Analog output in a unit	IGS-PTM
IGL-RA15	15 Binary LED output (3 colors) packed in a rugged metal unit	IGL-RA15
I-AOUT8	8 Analog outputs packed in a rugged metal unit	I-AOUT8
InternetBridge-NT	Multiple Internet connections (PC and Modbus) to all controllers on CAN2 or RS485	IB-NT
I-LB+	Direct connection (PC) to all controllers on CAN2 or RS485	I-LB+

Related products

Product	Description	Order code
InteliVision 5	Color 5.6" display for monitoring and control	INTELIVISION 5
InteliVision 8	Color 8" display for advanced monitoring, control & trending, USB capable	INTELIVISION 8
InteliVision 12Touch	Color 12" touch display for advanced monitoring, control & trending, USB capable	RD1IV12TBZH
InteliVision 18Touch	Color 18“ touchscreen display designed for complete monitoring and control of multiple controllers or cogeneration installation.	RD31840PBIE

Functions and protections

Description	ANSI code	Description	ANSI code	Description	ANSI code	Description	ANSI code
Synchronism check	25	Excitation loss	40	Overcurrent (IDMT)	51	AC reclosing	79
Undervoltage	27	Current unbalance	46	Earth fault current IDMT	51N+64	Overfrequency	81H

Certificates and standards

This product is CE compliant.	This product is compliant to:	
▶ EN 60068-2-6 ed.2:2008 ▶ EN 60068-2-27 ed.2:2010 ▶ EN 60068-2-30:2005 25/55°C, RH 95%, 48hours ▶ EN 61010-1:2003	▶ European Requirements for Generators ▶ VDE-AR-N-4105:2018, VDE-AR-N-4110:2018	

ComAp
The heart of smart control

Manufacturer:
ComAp a.s.
Czech Republic
Phone: +420 246 012 111
E-mail: info@comap-control.com
Web: www.comap-control.com