

INV

Industrial DC/AC Inverter

DC/AC industrial IGBT inverter for industrial applications

SATRON INV is Industrial, Heavy Duty Inverters designed to supply critical AC Loads with stabilised continues voltage. Products can be easily customized depending on the peculiar Customer request. Transformer for AC/DC galvanic separation is included Microprocessor control and Digital control panels.

HIGHLIGHTS

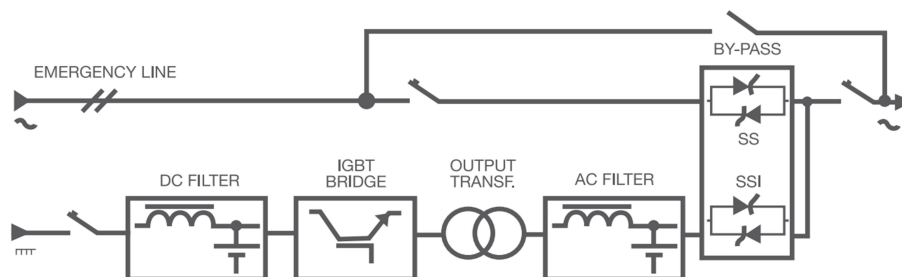
- IGBT-based digital inverter with PWM control logic to guarantee a stable voltage and a pure AC output sine wave output, including with non-linear load
- INV operating modes: "On-Line", where the inverter is in operation and supplies power to the load, "Line- Interactive", where the output voltage is supplied by the emergency mains through the bypass to increase the efficiency of the system, and the inverter remains in hot stand-by for emergency
- Wide range of output AC voltage
- SATRON INV is an engineered product, fully customizable and with a wide range of options, to comply with Client technical specifications

FEATURES

- Industrial Layout
- Static Conversion
- Microprocessor control
- Digital control panel
- Reduced output THD with not linear load
- IGBT technology bridge (PWM)
- Natural convection cooling
- Easy maintenance/front access
- Insulation: input/output galvanic insulation

APPLICATIONS

- Utilities & Power generation (power plant, transmission, distribution)
- Water (desalination, treatment)
- Hydroelectric and Geothermal plant
- Instrumentation & Process control (chemical, mining, steel, paper)



Single Line Diagram

INV DC/AC TECHNICAL SPECIFICATIONS

Input	
Rated input DC voltage	110, 220 Vdc
Rated input DC voltage	±20%
Rated input AC voltage (bypass)	1Ph 115 Vac, 3Ph 190 Vac, 1Ph 230 Vac, 3Ph 400 Vac
AC voltage tolerance (bypass)	-20%, +10%
Frequency (bypass)	50-60 Hz
Frequency tolerance (bypass)	±10%
Output	
Rated output voltage	1Ph 115 Vac, 3Ph 190 Vac, 1Ph 230 Vac, 3Ph 400 Vac
Output power	From 5 to 120 kVA
AC waveform	Sinewave with voltage THD <1%
Voltage regulation	±10%
Frequency regulation	Frequency regulation
Overload admitted	100-110% for 2 hours, 110-125% for 10 min, 125-150% for 10s
Battery	
Type	VRLA, AGM, Gel, NiCd
Back-up time	As required (from few minutes to several hours)
Inverter technology	
Type	IGBT full bridge with PWM control logic
Cooling	Forced, two levels of fan speed
Efficiency at 100% load	
On-Line mode	>92%
Line-Interactive mode	>98%
Instrumentation	
Display	LCD panel
Communication interfaces	Modbus, Ethernet, dry contacts SPDT module
Static switch	
Technology	SCR
Max overload current for 10 ms	10x IN
Transfer time	<2 ms
General data	
Acoustic noise at 1 m	<60 dBA
Maximum altitude	1000 m
Cabinet cooling	1000 m
Cabinet IP degree	IP20 (open and closed door), IP42 (closed door, optional)
Metal standard thickness	2,5 mm (frame), 2,0 mm (door)
Cabinet type	Standard modular cabinet RAL7035 2100mm hig
Humidity range	From 10% to 95% not condensated
Cable entry	From the bottom
Operating temperature	From 0°C up to +55°C
Storing temperature	From -25°C to +70°C (battery excluded)
Relevant IEC	IEC 62040-1, IEC 62040-2, IEC 62040-3, IEC 62040-4

MODELS AVAILABLE

Input voltage	Output voltage	Output power
110 Vdc	1 Ph - 115 Vac / 230 Vac	5 – 60 kVA
	3 Ph - 190 Vac / 400 Vac	5 – 60 kVA
220 Vdc	1 Ph - 115 Vac / 230 Va	5 – 120 kVA
	3 Ph - 190 Vac / 400 Vac	10 – 120 kVA



SATRON Power Solutions
Approach your local SATRON Power Solutions representative for further support.
Contact details can be found on:
www.satronpower.com