

SOLID STATE INDUCTION POWER UNIT

TYPE **GI 55**

TECHNICAL DATA

ELECTRICAL

POWER REGULATIONS	5 - 100%
CONVERTER EFFICIENCY	93%
MAINS STANDARD	3x400 V +/-10 %
FREQUENCY RANGE	17 - 40kHz
COIL VOLTAGE	100 - 200V rms
COIL CURRENT	1000 - 2000A rms
TRANSFORMER RATIO	1:5, 1:8, 1:10

MECHANICAL

AMBIENT TEMPERATURE	5 - 40°C
COOLING	WATER
WATER INLET TEMP.	MAX 40°C
WATER PRESSURE	3 - 6 bar
ENCLOSURE 1)	IP21 GENERALLY FOR CABINET MOUNTING
COIL	NUMBER OF TURNS AND DIAMETR AGRID WITH PRODUCER



GENERATOR GI 55

¹⁾ THE OTHER TYPE OF ENCLOSURE COULD BE DELIVERED ON REQUEST

GENERATOR TYPE	OUTPUT POWER / COIL CURRENT	DIMENSIONS GENERATOR TRANSFORMER	WEIGHT GENERAT. TRANSF.	OPTIONS
GI 20	20 kW 1000 A rms	400x 270 x 310 mm with no transformer	25 kg 14 kg	INTERNAL CLOSED CIRCUIT COOLING SYSTEM 12 l/min
GI 30	30 kW 1400 A rms	400x 270 x 310 mm with no transformer	25 kg 14 kg	INTERNAL CLOSED CIRCUIT COOLING SYSTEM 12 l/min
GI 55	55 kW 2800 A rms	800 x 220 x 450 mm incl. transformer	65 kg	EXTERNAL COOLING SYSTEM 18 l/min

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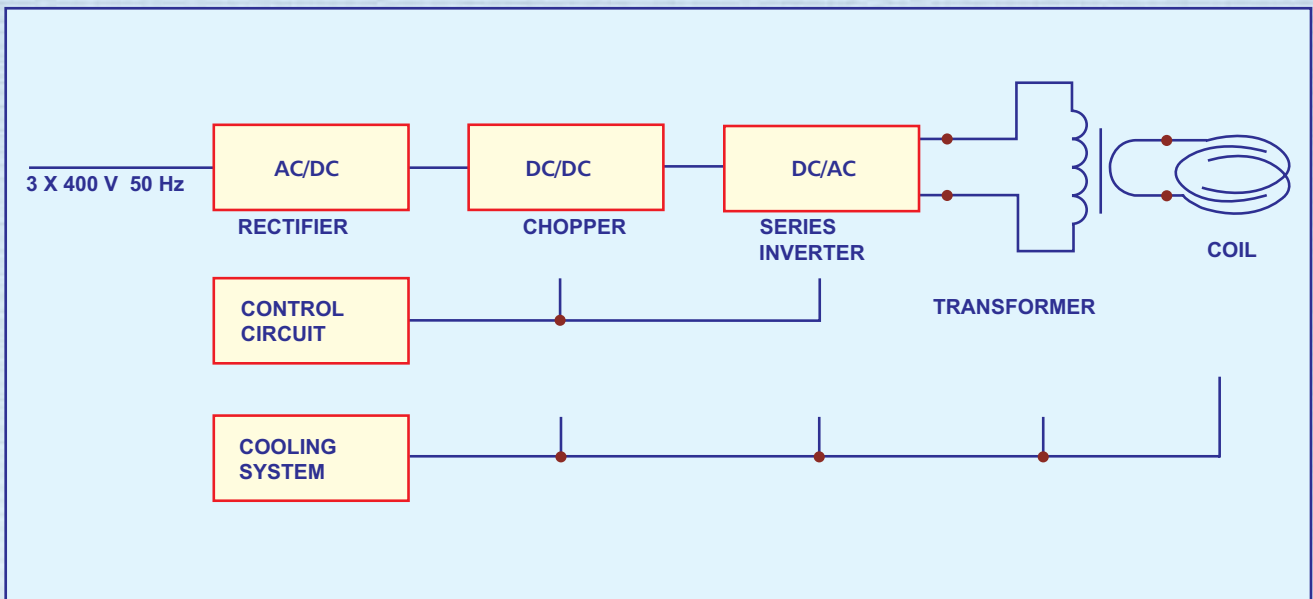
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Induction heating units G20, GI30, GI55 are designed for brazing, soldering, hardening, forging etc. GI units could be installed in a mobile and customised machines for special applications. The coil should be connected as close as possible to transformer terminals in order to eliminate an extra inductance and high capacitor voltages. Due small dimensions and small weight units could be installed directly in place of heating process.

Generator is based on series resonance voltage fed inverter topology, working with triple energy conversion AC/DC/ACHF. High efficiency (about 93%) of device is obtained due new IGBT technology used. Water cooling requirements are kept minimum, since all cooled components are on low voltage side of matching transformer. The output power can be continuously controlled either manually or by external signals.



BLOCK DIAGRAM OF GI55 GENERATORS

All protection functions are provided as a standard in control circuit therefore over currents, over voltages, underflow of cooling water etc. are detected and monitored continuously.



VIEW OF CONNECTION OF THE WORKING COIL



MOBILE HEATING UNIT WITH GI55 GENERATOR