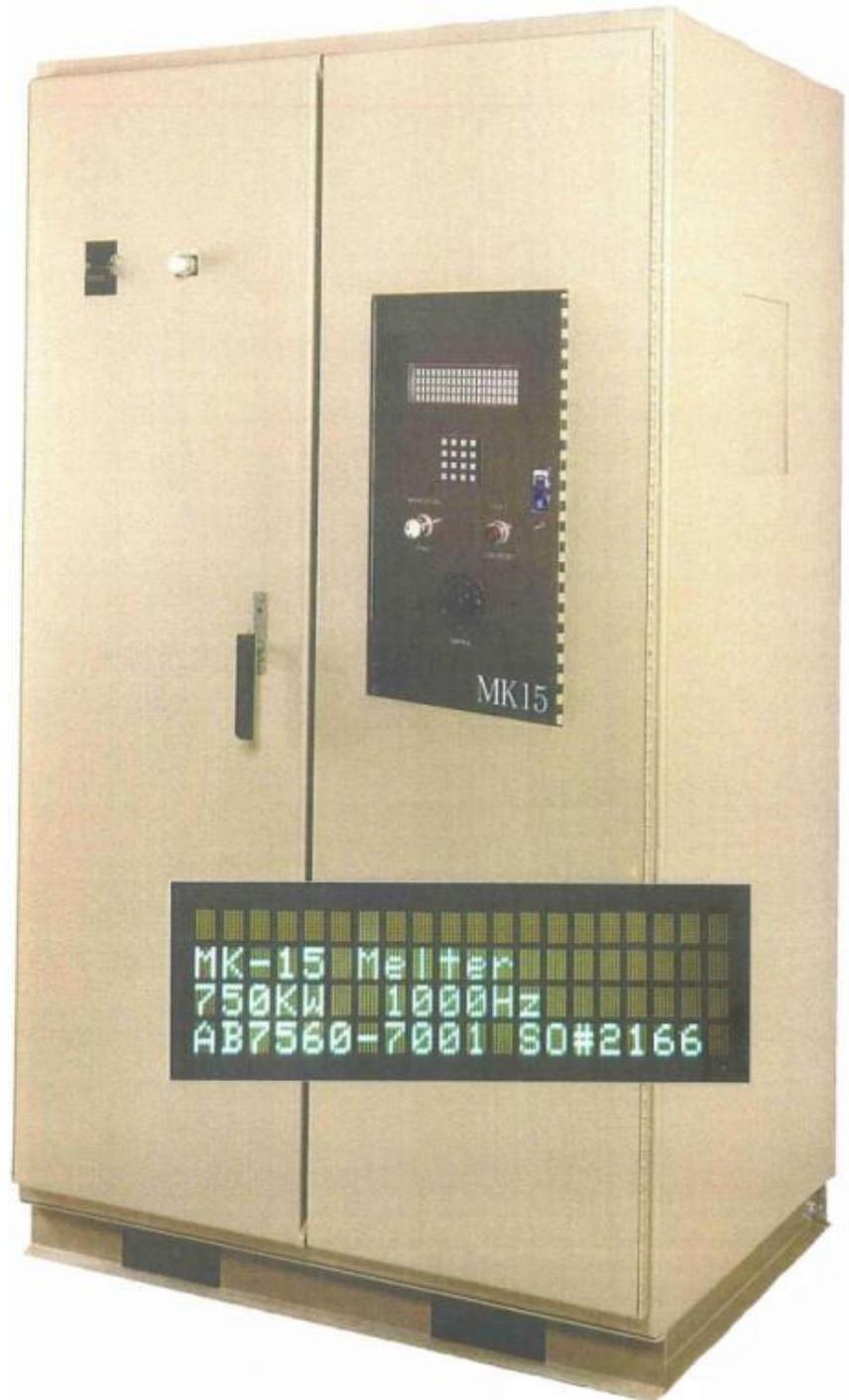


MK-15 Features & Specifications



Standard Features

- Direct replacement for Tripler and SCR technology
- IGBT Insulated Gate Bipolar Transistor Modules
- 98% conversion efficiency
- Very wide matching range
- Single Main Control Board, within a separate lockable control circuitry door. This eliminates the need to enter the high voltage section.
- Microprocessor Control with: Temperature Profile Sintering, Target Temperature Control, Cold Start Capability, KWHr Count, Fault Logging (500 events), Cooling System Auto Showdown
- DC injection Ground Fault Protection with a desensitizing circuit for sintering
- Fiber Optic Firing and Sensing
- Ability to turn On/Off with Full Power set
- Designed to survive Shorted Output at Full Power and Full Voltage
- Continuous Water Conductivity Sensor
- Constant Voltage control circuit transformer
- Line Over/Under Voltage Trip
- Single side access for servicing



Large 4 line alphanumeric display with 16 key, hermetically sealed, keypad

Operator Interface

- Simple On/Off control in Manual Mode
- Screen selection of:
 - Manual Mode
 - Auto Sinter
 - Cold Start
 - Water Shutdown
 - Auto Melt
 - Furnace Selection
- Fault and Limit identification displays
- Fault Log. (500 events)
- Interactive diagnostic prompt screens for fault and limit corrections
- Key Pad input of:
 - Charge Weight
 - Target Temperature
 - Metal Type
 - Sintering Temperature/Time

- Set Points (9)
 - Furnace Selection

Power Circuit Specifications

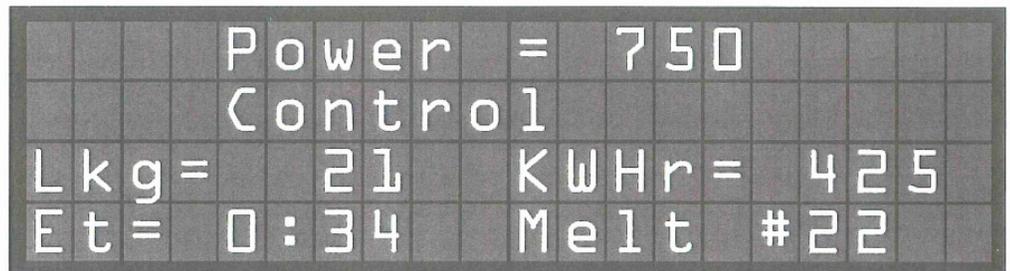
- Power circuit is voltage source, series tuned utilizing IGBT transistors in the inverter
- SCR rectifier, for soft start and very rapid shutdown
- Constant input power factor 0.95 or better
- Minimum power level is <5% rated KW output
- Selectable output regulation accuracy $\pm 1\%$
- Full power output with input voltage variation of $\pm 10\%$
- Conversion efficiency of 98%
- Ground fault detection

Optional Features

- Remote operator's panel (local and remote)
- 4-20 mA interface
- Integral or remote heat stations
- Data output terminal to monitor internal functions remotely
- CE and ETL certification

Utilities

- 115 °F (46°C) maximum water inlet temperature
- Water inlet and outlet fittings on top of cabinet
- Water conductivity sensing circuit
- Water temperature sensing circuits
- Power devices cooled by parallel water circuits



Below: Auto Melt Mode Screen, showing:
 Power = 750 Kilowatts in Power Control Limit
 Target Temperature (TT) = 2700 °F
 Earth Leakage (Lkg) = 21 Milliamps
 Kilowatt Hour count to Target Temperature (KWHr-TT) = 36 KWHr
 Estimate Time to Finish (ETF) = 6 minutes

Above: Manual Mode Screen, showing:
 Power = 750 Kilowatts in Power Control Limit
 Earth Leakage (Lkg) = 21 Milliamps
 Kilowatt Hour Count = 425 KWHr
 Elapse Time (Et) = 34 minutes
 Melt Number (In this lining) = 22



* Specifications subject to change without notice.

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