TOSHIBA

Toshiba E3327 Manual

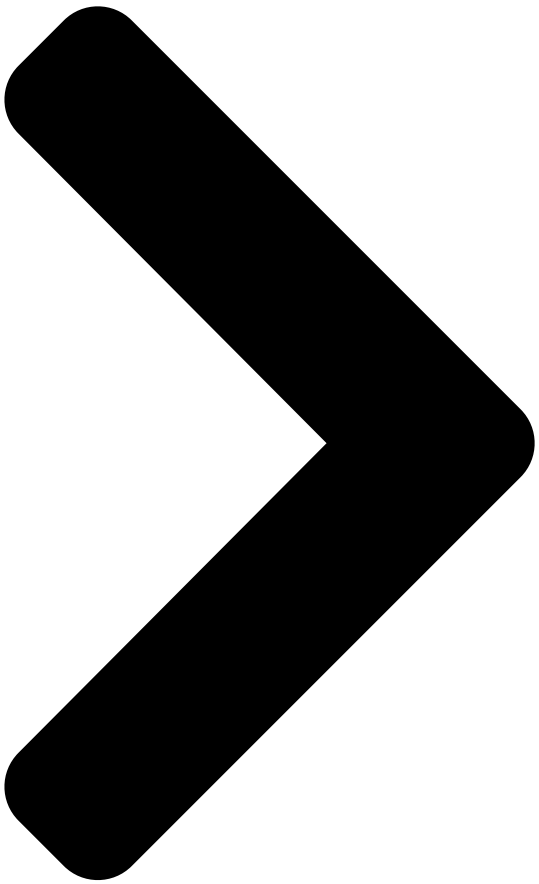
Industrial magnetron

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

PAGE
1

-

Bookmarks



TOSHIBA Industrial Magnetron E3327

TOSHIBA E3327 is a fixed frequency continuous wave magnetron intended for use in the industrial microwave heating applications.

The average output power is 5 to 6 kW in the frequency range from 2450 to 2470 MHz.
And this output power can be obtained by adjusting the load VSWR and its phase.
The tube is a packaged magnet type, and sub-electromagnet for stabilizing and controlling the output power is also installed in the tube. Water cooling for anode, forced air cooling for output antenna and filter box are required.
Low pass filter for suppressing spurious leakage from the cathode stem is set in the filter box. The output is fed into a rectangular waveguide or into an oven directly.

FEATURES

(1) High efficiency
(2) Compact size and light weight
(3) Quick start
(4) Easy power controlling

note) Information in this document is subject to change without notice.

Total weight including magnets is 4.3 kg.
Operation can be started after 10 s preheating.
Power level can be easily varied by changing the electromagnet current.

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Next Page

1
2
3
4
5

Related Manuals for Toshiba E3327

Industrial Equipment Toshiba TOSNUC 92 Connection Manual

(141 pages)

Industrial Equipment Toshiba GRB200 Instruction Manual

Replica setting procedure for centralized busbar protection ied (70 pages)

Industrial Equipment Toshiba JK Series Instruction Manual

Medium voltage controllers, oem power cells - fixed and withdrawable types, 360a, 7.2kv maximum (32 pages)

Industrial Equipment Toshiba VN-M1500HE Installation Manual

Air to air heat exchanger (28 pages)

Industrial Equipment Toshiba GSC1000-C Operation Manual

Substation automation system (402 pages)

Industrial Equipment Toshiba TH650A Maintenance Manual

Industrial robot (112 pages)

Industrial Equipment Toshiba TOSVERT VF-AS3 Instruction Manual

Pid control instruction manual (62 pages)

Industrial Equipment Toshiba Q9 Plus Bypass ASD Installation & Operation Manual

(434 pages)

Industrial Equipment Toshiba CV-10HB Instruction Manual

High-voltage vacuum contactors (21 pages)

Industrial Equipment Toshiba WX9 ASD Installation & Operation Manual

(226 pages)

Industrial Equipment Toshiba TH180 Maintenance Manual

Industrial robot (69 pages)

Industrial Equipment Toshiba TOSVERT VF-AS Instruction Manual

Optional rom for hoist & crane (54 pages)

Industrial Equipment Toshiba CV-10HB Instruction Manual

High-voltage vacuum contactors 12 13.8 kv-400a-5ka (21 pages)

Summary of Contents for Toshiba E3327

Page 1 TOSHIBA Industrial Magnetron E3327 TOSHIBA E3327 is a fixed frequency continuous wave magnetron intended for use in the industrial microwave heating applications. The average output power is 5 to 6 kW in the frequency range from 2450 to 2470 MHz.

Page 2 TOSHIBA Industrial Magnetron E3327 ABSOLUTE MAXIMUM RATINGS ELECTRICAL (1) (2) Unit Filament voltage (pre-heat) Frequency (matched load) 2460±10 V ac Filament surge current Filament voltage A ac Filament Current Cathode pre-heating time Filament voltage (operating) Vn-0.2 Vn+0.2 V ac Note 3 Cathode pre-heating time Ω...

Page 3 TOSHIBA Industrial Magnetron E3327 Notes (1) None of the absolute maximum ratings should be TYPICAL OPERATION (2) (5) exceeded under any circumstances even for an instant or a transient, since to do so may cause damage to the tube. A combination of the...

Page 4 NEGATIVE FACTORS AFFECTING THE LIFE OF MAGNETRON Life of the magnetron is

strongly affected by the operating conditions. E3327 should be operated under the typical operating conditions. We also recommend strongly that E3327 is operated substantially continuously. Tube users should give next operating conditions that affect the life negatively their careful considerations.

Page 5 TOSHIBA Industrial Magnetron E3327 Fig. 1 Note (1) I-mag should be set 4.0 A just before ebm is applied. However, it is not good to run the tube electromagnet always I mag with Imag of 4.0A because of the ctromagnet temperature rise of it.

Page 6 TOSHIBA Industrial Magnetron E3327 Fig. 2 Pressure drop and Fig. 3 Pressure drop for Output antenna and maximum inlet temperature Filter box cooling vs. anode cooling water flow vs. anode cooling water flow note) Information in this document is subject to change without notice.

Page 7 TOSHIBA Industrial Magnetron E3327 Fig. 4 Optimum filament voltage Fig. 5 Performance Chart vs. Average anode current Operating conditions : +0.2V Power supply : Three phase full wave rectified with choke coil to suppress -0.2V the peak anode current. Filament voltage : In accordance with Fig.

Page 8 TOSHIBA Industrial Magnetron E3327 Fig. 7 Typical Character of Leakage magnetic field Fig. 6 Rieke Diagram Notes (1) Directions of leakage magnetic field are shown in Fig 8. (2) Operating condition Imag (Electromagnet current) = 0A Operating conditions : Power supply : Three phase full wave rectified with choke coil to suppress the peak anode current.

Page 9 TOSHIBA Industrial Magnetron E3327 Unit : mm Fig. 8 Dimensional Outline 153Max 149±1 Direction of leakage magnettic field 92Max I-mag connection Imag (+) di r ecti o n of I m ag i s defi n ed by the arrow adove.

Page 10 Note: This is not an accessory part nor optional part. Note (1) This drawing is to show the main dimensions of standard output coupler suitable for Toshiba E3327. (2) This is not an accessory part nor optional part. note) Information in this document is subject to change without notice.

Page 11: Precautions For Safety

Toshiba Hokuto Electronics Corporation (here after THD) (3) This product is not designed, intended, or permitted for use in cannot be responsible for the interpretation of this information, nor can it equipment whose failure or malfunction may directly threaten be assumed any liability in connection with its use.

Page 12 TOSHIBA Industrial Magnetron E3327 5. Radiation leakage 7. Magnet Care should be taken for radiation leaked from the magnetron, This magnetron has both the permanent magnet and electromagnet. though the leakage from the input part of magnetron is suppressed to This permanent field is over 0.15T(1500 gauss).

Page 13 TOSHIBA Industrial Magnetron E3327 9. Warning and caution [Manufacturing, installation, and operation of the equipment] Before operating the magnetron, be sure to read this operation manual carefully. This operation manual describes important The manufacturing, installation, and operation of systems which incorporate this equipment and transmit...

Page 14 TOSHIBA Industrial Magnetron E3327 WARNING CAUTION ■ Provide a protective fence preventing contact with the high-voltage section. ■ Do not lift or carry objects with a weight of more than 20 kg on your own. If you approach or touch the electrode section or lead wires while power is Otherwise, there is danger of back injury during lifting or injury due to falling.

Page 15 TOSHIBA Industrial Magnetron E3327 10. Protection device required 11. Storage of magnetron (1) The magnetron should be taking care to handle by the mine body (1)The magnetron must be Stored in a dry location (relative humidity and not by the leads wires. There are damage of breakage of the <...

Page 16 TOSHIBA Industrial Magnetron E3327 About product liability 2 Limitations on the amount of damages Due to a defect in this product, if this product or your product incorporating this product causes damage to the life, body or property 1 Scope of responsibility...