ERESCO 300 MF4-R

Portable High-Magnification X-ray Unit 300 kV Directional Radiating Tube Head

The ERESCO 300 MF4-R combines the advantage of a high voltage range up to 300 kV with a by a factor 3 smaller focal spot compared to GE´s conventional MF4 ERESCO tubes.

This offers excellent penetration, sharper results and shorter exposures as well as geometric magnification inspection to facilitate higher productivity and quality in day-to-day inspection routines.

The X-ray tube head consists of a sturdy metal-ceramic X-ray tube and high voltage generator integrated into a rugged compact housing. The air-cooled 300 KV/ 900 W end-grounded X-ray tube is thermally protected for extended life.

The high voltage generator generates high-stability constant potential voltage at higher efficiency than conventional line frequency equipment.

The unit offers factor 3-5 times exposure time reduction for radioscopic applications respectively for applications with CR/Film where geometric enlargement is required.

The performance of the X-ray tube and the high voltage generator is continuously monitored for protection and operational safety. An on-board real time clock facilitates fully automatic warm-up routines for optimized and time-saving tube conditioning. The flexible connecting cable is heavy-duty and light weight.

Additional Features

- Water / dust resistant in accordance with protection class IP65
- Gas insulated high voltage section reduces size & weight
- End-grounded, Be-window, metal-ceramic X-ray tube
- DC voltage operation
- Modern power electronics provides high stability
- On-board real time clock supports fully automatic warm-up
- Extended operating range from 5 kV to 300 kV enables flexible use
- Small 1 mm focal spot for sharper results and higher geometric magnification
- Large 30° x 60° emergent beam
- Optimized air-flow cooling for efficient heat dissipation
- 100% duty cycle at 30° Celsius (86° F) for max. operation time 1h
- Built-in fail-safe warning lamp
- CE certification according to EMC and Low Voltage Directives
- French Standard NFC 74 100 compliance requested
- BfS certification (PTB approval requested)
- Based on the design of ERESCO 65 MF4, duty cycle and robustness
- Improved image resolution for field inspection with geometric magnification and use of portable digital detectors like DXR250C-W and DXR250U-W
- Produced under ISO 9001 certified quality management system

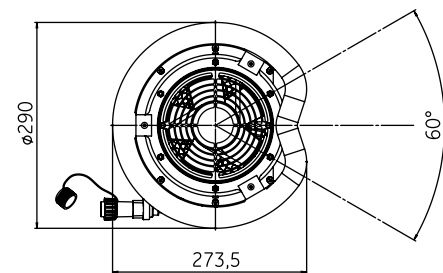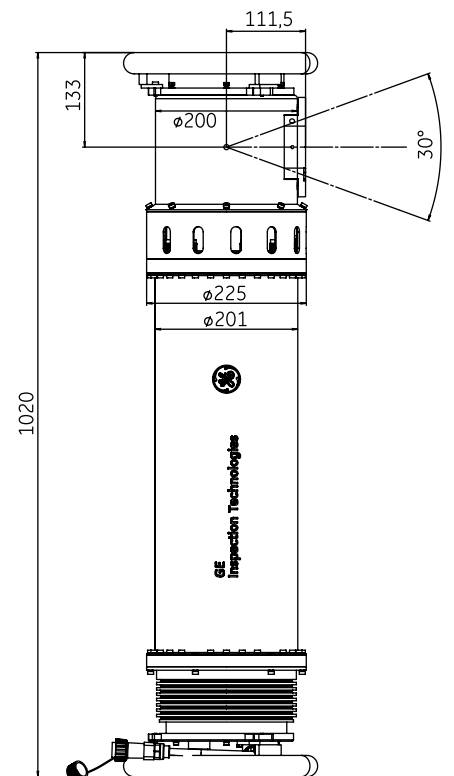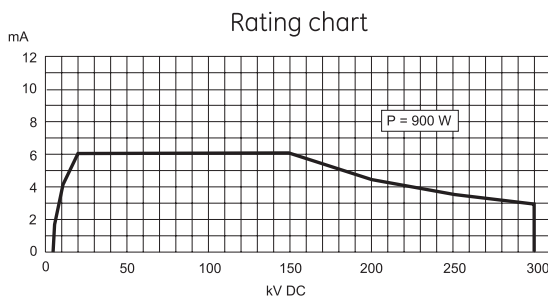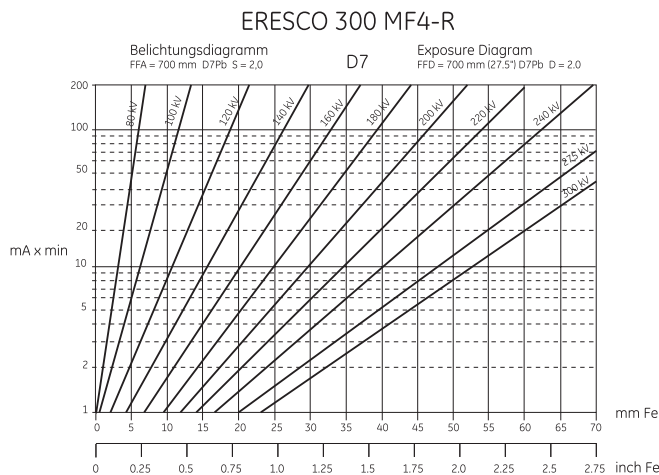## Standard Delivery Scope
See product info "ERESCO MF4 Control"

Technical Data

X-ray tube type	300 kV metal-ceramic with Tungsten (W) anode
kV range	5 - 300 kV (acc. to rating chart)
Target angle	15°
Inherent filtration	0.8 mm ± 0.1 mm, Be
Emergent beam	30° x 60°, elliptical
Focal spot size (EN 12 543)	1.0 mm (EN 12543)
Tube current	0.5 - 6 mA (3.0 mA /300 kV)
Anode temperature, max.	100 °C
Current and voltage stability	± 1%
Continuous rating	900 W
Duty cycle (δ_{amb} = 30° C)	100 % (up to 60 min continuous operation)
Power input, max.	2.0 kVA
Weight	40 kg (88.2 lbs)
	37.5 kg (82.7 lbs) (without rings)
Tube head diameter	290 mm (11.42")
	225 mm (8.87") (without rings)
Protection class	IP65
Operating Temperature	-20°C to +50°C
Storage Temperature	-30°C to +80°C

Options

- Carrying cradle
- Diaphragm / collimator attachments
- Laser centering device
- Telescope centering device
- Transport and positioning cart
- Fail-safe flashing warning lamp
- Stands and mounting kits
- Aluminium transport box

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Belichtungsdiagramm
FFA = 700 mm D7Pb S = 2,0

D7

Exposure Diagram
FFD = 700 mm (27.5") D7Pb D = 2.0

mA x min

mm Fe

inch Fe

Rating chart

mA

P = 900 W

kV DC

drawings not true to scale

www.ge-mcs.com/x-ray