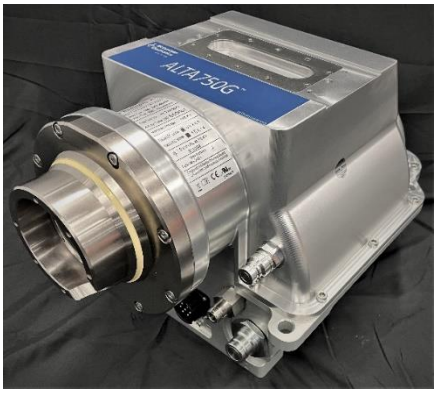


ALTA750G®
X-RAY TUBE HOUSING

PRODUCT DESCRIPTION
The ALTA750G® is an x-ray tube housing assembly specifically designed for use with CT Scanners. This tube housing assembly consists of the ALTA750G® Tube loaded into the Richardson ALTA750G® Housing or reloaded into the Varex* B-805H Housing. The Richardson G Heat Exchanger or the Varex* HE-978 Exchanger can be used with this tube housing assembly.

INTENDED USE
The ALTA750G® X-Ray Tube Housing Assemblies are designed to emit ionizing radiation and are intended to be used as a component of a CT system which is used for diagnostic and interventional X-Ray applications.

INCLUDED INFORMATION AND SPECIFICATIONS
- Tube Specifications
- Housing Assembly Specifications
- Volumetric / Helical Scan Ratings
- Cathode Emission Characteristics
- Housing Diagram
- Housing Wiring
- Disposal Information

Originally written in English.

Additional copies and alternate language versions available upon request from techdata@rell.com

*This product is not affiliated with, endorsed by, or sponsored by Varex Imaging.

TUBE SPECIFICATIONS

Nominal X-ray Tube Voltage	kV	140
Anode Diameter	mm	200
Anode Material		ReW-TZM-C
Anode Angle	Degrees	7
Nominal Focal Spot – Small IEC 60336 Loading Factor 120kV x 200mA	IEC 60336	0.9 x 0.8
Nominal Focal Spot – Large IEC 60336 Loading Factor 120kV x 200mA	IEC 60336	1.6 x 1.4
Anode Heat Content (Maximum)	MJ	5.4
Nominal Anode Input Power – Large IEC 60613	kW	72
Nominal Anode Input Power – Small IEC 06013	kW	42
Nominal CT Scan Power Index – Large IEC 60613	kW	69.5
Nominal CT Scan Power Index – Small IEC 60613	kW	42
Anode Heat Dissipation (Maximum)	W	12,000
Maximum Filament Current - Large	A	5
Maximum Filament Voltage - Large	V	14.4
Maximum Filament Current - Small	A	4.8
Maximum Filament Voltage - Small	V	12.3

HOUSING ASSEMBLY SPECIFICATIONS

Maximum Heat Content	MJ	3.6
Maximum Continuous Heat Dissipation	kW	4.0
Maximum Housing Temperature	Degrees C	78
Permanent Filtration IEC 60522	mm AL	1.0
Temperature Limits for Transport and Storage	Degrees C	-20 to 75
Temperature Limits for Operation	Degrees C	5 to 40
Weight of Assembly	kg	60.5
Leakage Radiation @140 kV, 29 mA, 1 m	mGy/hr	0.57

ADDITIONAL HOUSING ASSEMBLY SPECIFICATIONS

Humidity Limits for Transport and Storage: 10% to 90% RH
Pressure Limits for Transport and Storage: 70 to 106 kPa
Humidity Limits for Normal Operation: 40 to 80% RH
Pressure Limits for Normal Operation: 70 to 106 kPa
Classification per IEC 60601-1: Class 1 Type B
Degree of Protection Against Ingress of Water is IPX0
Mode of Operation: Intermittent (non-continuous)
Device Classification: U.S FDA = Class 1, EU = Class IIb

VOLUMETRIC / HELICAL SCAN RATINGS IEC 60613

3Ø 50 Hz
0.9 x 0.8 Focal Spot
7 Degree Target

Volume Scan Time (Seconds)	Maximum Allowed Tube Current (mA) as a Function of the Following Starting Heat Storage and Tube Voltages								
	Starting Heat Storage 40%			Starting Heat Storage 55%			Starting Heat Storage 70%		
	100 kV	120 kV	135 kV	100 kV	120 kV	135 kV	100 kV	120 kV	135 kV
4	300	250	225	300	250	225	300	250	225
10	300	250	225	300	250	225	300	250	225
15	300	250	225	300	250	225	300	250	225
20	300	250	225	300	250	225	300	250	225
30	300	250	225	300	250	225	300	250	225
45	300	250	225	300	250	225	300	250	225
60	300	250	225	300	250	225	250	200	175
75	300	250	225	300	250	225	225	175	150
80	300	250	225	300	250	225	200	175	150
90	300	250	225	275	225	200	200	150	150

3Ø 50 Hz
1.6 x 1.4 Focal Spot
7 Degree Target

Volume Scan Time (Seconds)	Maximum Allowed Tube Current (mA) as a Function of the Following Starting Heat Storage and Tube Voltages								
	Starting Heat Storage 40%			Starting Heat Storage 55%			Starting Heat Storage 70%		
	100 kV	120 kV	135 kV	100 kV	120 kV	135 kV	100 kV	120 kV	135 kV
4	670	560	500	670	560	500	670	560	500
10	670	560	500	670	560	500	670	560	490
15	670	560	500	670	560	500	640	530	470
20	670	560	500	670	560	500	610	510	450
30	600	500	440	600	500	440	440	360	320
45	540	450	400	480	400	350	320	270	240
60	450	370	330	380	310	280	260	220	190
75	410	340	300	310	260	230	230	190	170
80	380	320	280	300	250	220	220	180	160
90	350	290	260	270	230	200	200	170	150

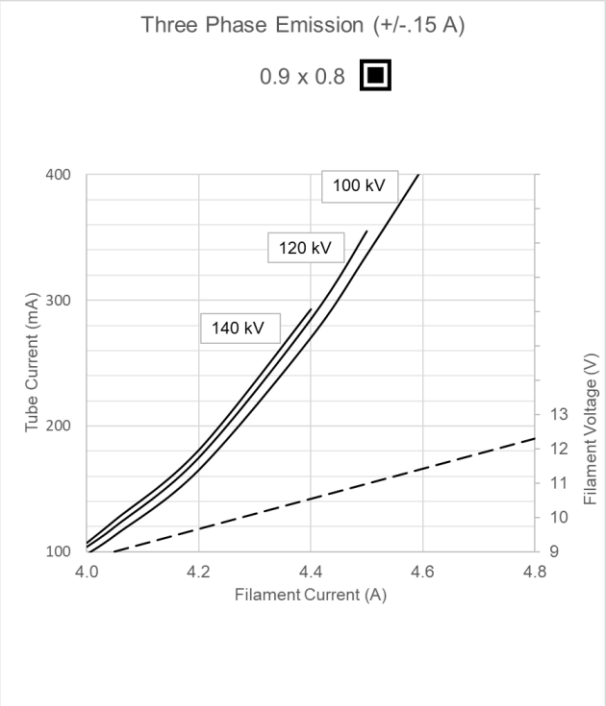
3Ø 100 Hz
0.9 x 0.8 Focal Spot
7 Degree Target

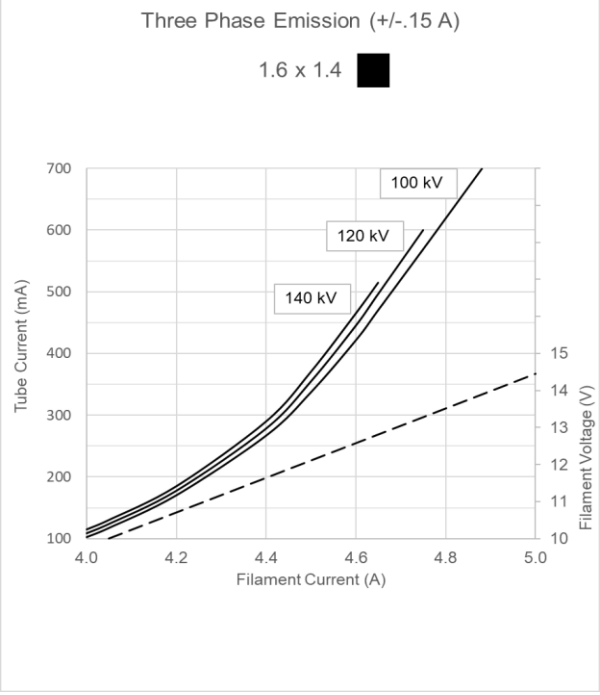
Volume Scan Time (Seconds)	Maximum Allowed Tube Current (mA) as a Function of the Following Starting Heat Storage and Tube Voltages								
	Starting Heat Storage 40%			Starting Heat Storage 55%			Starting Heat Storage 70%		
	100 kV	120 kV	135 kV	100 kV	120 kV	135 kV	100 kV	120 kV	135 kV
4	425	350	300	425	350	300	425	350	300
10	425	350	300	425	350	300	425	350	300
15	425	350	300	425	350	300	425	350	300
20	425	350	300	425	350	300	425	350	300
30	425	350	300	425	350	300	400	325	300
45	425	350	300	425	350	300	300	250	225
60	425	350	300	375	300	275	250	200	175
75	400	325	300	3000	250	225	225	175	150
80	375	300	275	300	250	225	200	175	150
90	350	275	250	275	225	200	200	150	150

3Ø 100 Hz
1.6 x 1.4 Focal Spot
7 Degree Target

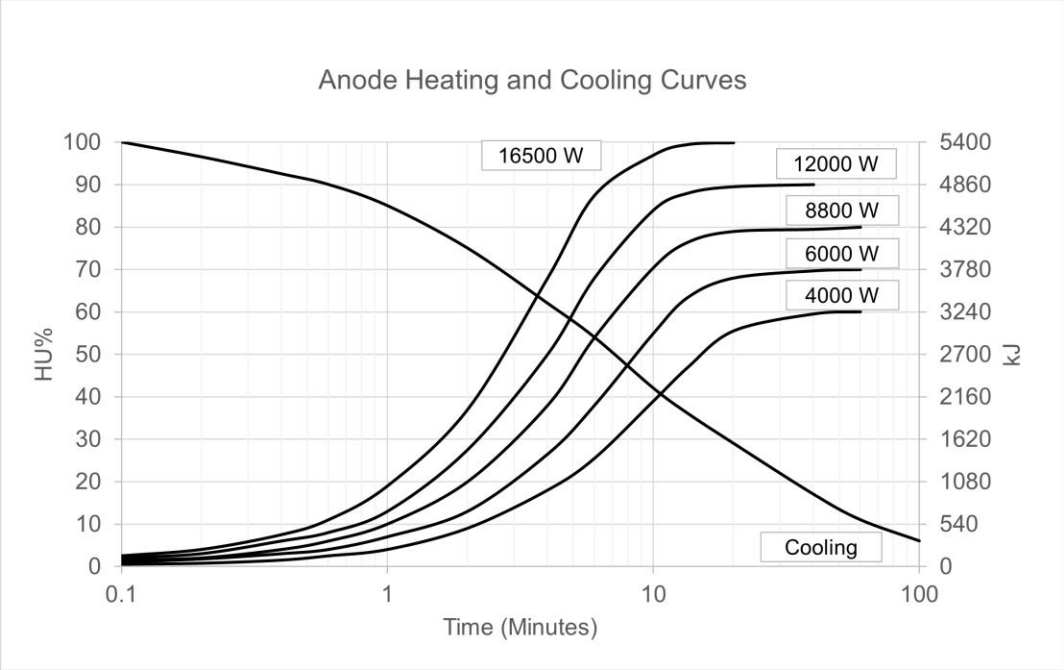
Volume Scan Time (Seconds)	Maximum Allowed Tube Current (mA) as a Function of the Following Starting Heat Storage and Tube Voltages								
	Starting Heat Storage 40%			Starting Heat Storage 55%			Starting Heat Storage 70%		
	100 kV	120 kV	135 kV	100 kV	120 kV	135 kV	100 kV	120 kV	135 kV
4	720	600	530	720	600	530	720	600	530
10	720	600	530	720	600	530	720	600	530
15	720	600	530	720	600	530	720	600	530
20	720	600	530	720	600	530	610	510	450
30	600	500	440	600	500	440	440	360	320
45	540	450	400	480	400	350	320	270	240
60	450	370	330	380	310	280	260	220	190
75	410	340	300	310	260	230	230	190	170
80	380	320	280	300	250	220	220	180	160
90	350	290	260	270	230	200	200	170	150

CATHODE EMISSION CHARACTERISTICS IEC 60613

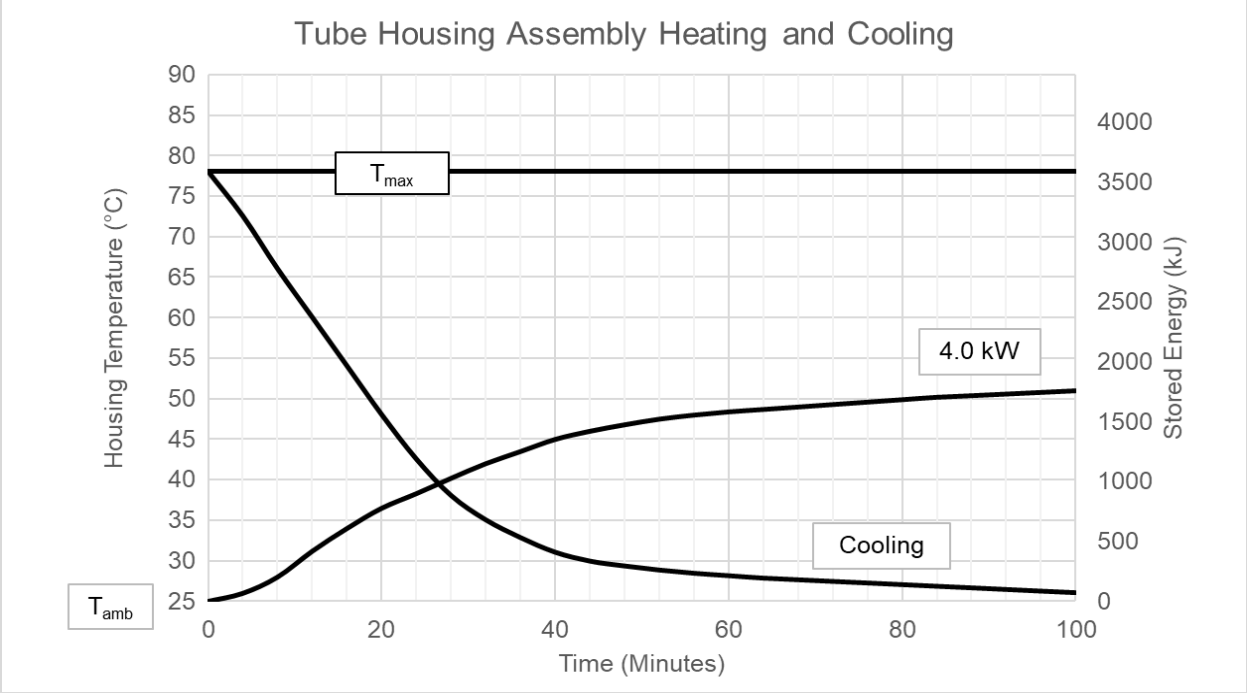




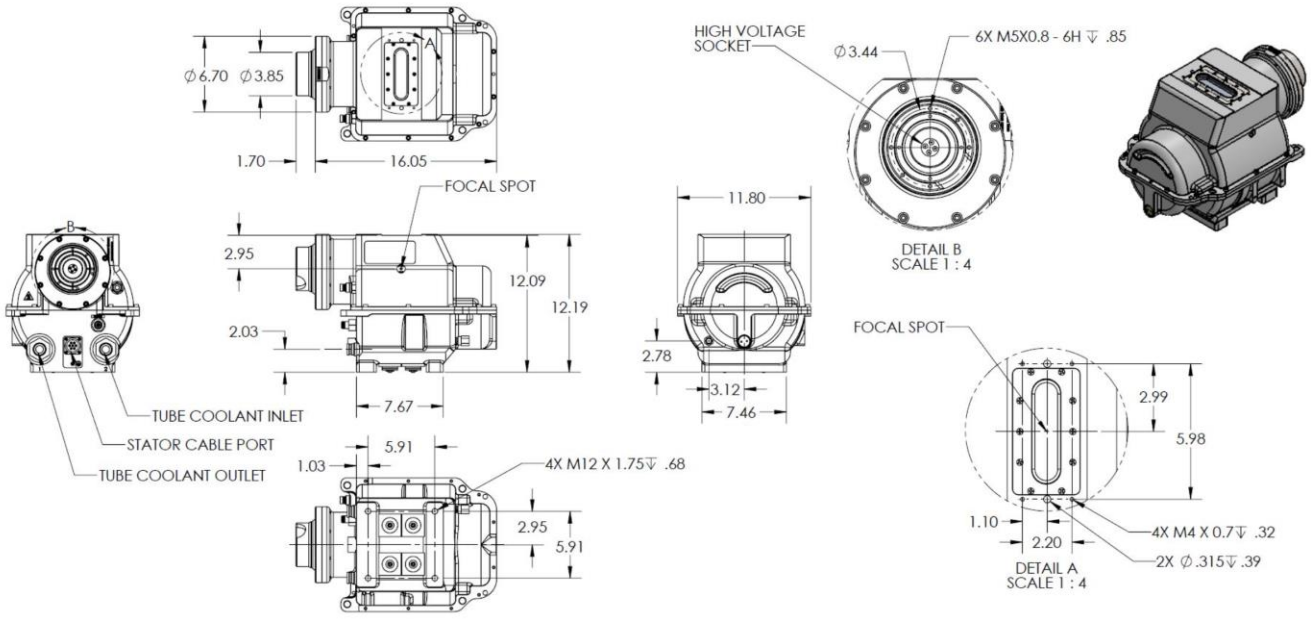
ANODE HEATING AND COOLING CURVES IEC 60613



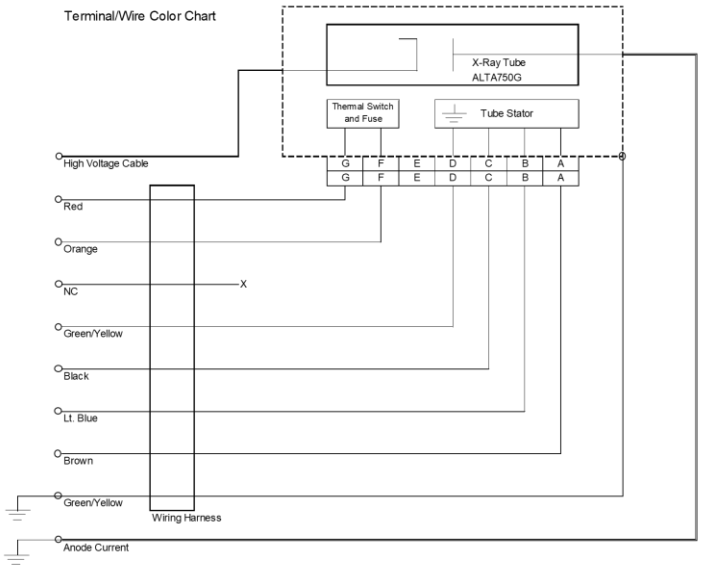
TUBE HOUSING ASSEMBLY HEATING AND COOLING CURVES



HOUSING DIAGRAM



HOUSING WIRING



DISPOSAL INFORMATION

Take back, proper disposal and recovery of medical devices takes place in accordance with European WEEE directive and the requirements of national legislation.

The x-ray tube contains beryllium. The x-ray tube housing assembly contains lead for radiation shielding and mineral oil. The x-ray tube and x-ray tube housing must not be disposed in domestic or industrial waste; they must be disposed in accordance with local regulation.

The tube and housing assembly may be returned to Richardson Electronics, Ltd. for proper disposal.

Richardson Electronics, Ltd strives to be environmentally conscious. Select materials and components are recycled. Controls are in place to assure that all product meet specifications and safety requirements.

Richardson Electronics, Ltd. | 40W267 Keslinger Road P.O. Box 393 | LaFox, IL 60147-0393 | (630) 208-2200