



Polydoros ACX

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Features and benefits

Polydoros ACX

The Polydoros ACX high-voltage generator is designed for integration into fluoroscopy and angiography systems. The generator uses an intermediate circuit and inverter to provide a clean, stable and precise voltage/current to the X-ray tube assembly to generate the required X-ray pulses.

The generator provides accurate and stable control of voltage and current, supporting consistent imaging performance across different clinical modes. Its short readiness time enables system manufacturers to offer hospital staff efficient workflow conditions, contributing to predictable operation and smooth patient handling.

The use of SiC (silicon carbide) technology supports efficient power conversion and enables a compact design. Modern communication interfaces and protocol allow flexible system design and simplify integration.

The Polydoros ACX includes the following modules and functions:

- Wide-range mains input (380 Vac to 480 Vac, 50/60 Hz)
- Mains rectifier with intermediate circuit
- Inverter
- Rotating-anode drive
- Filament control
- Generator control
- High-voltage tank
- Grid control for X-ray tube assembly with grid functionality

Generator control communication:

- CANopen
- X-ray triggering via hardware signal, including brightness-related control by the system



Product benefits for medical system manufacturers:

- Compact design
- Internal diagnostic functions facilitate maintenance and troubleshooting
- SiC-based power electronics contribute to efficient power management

Technical data

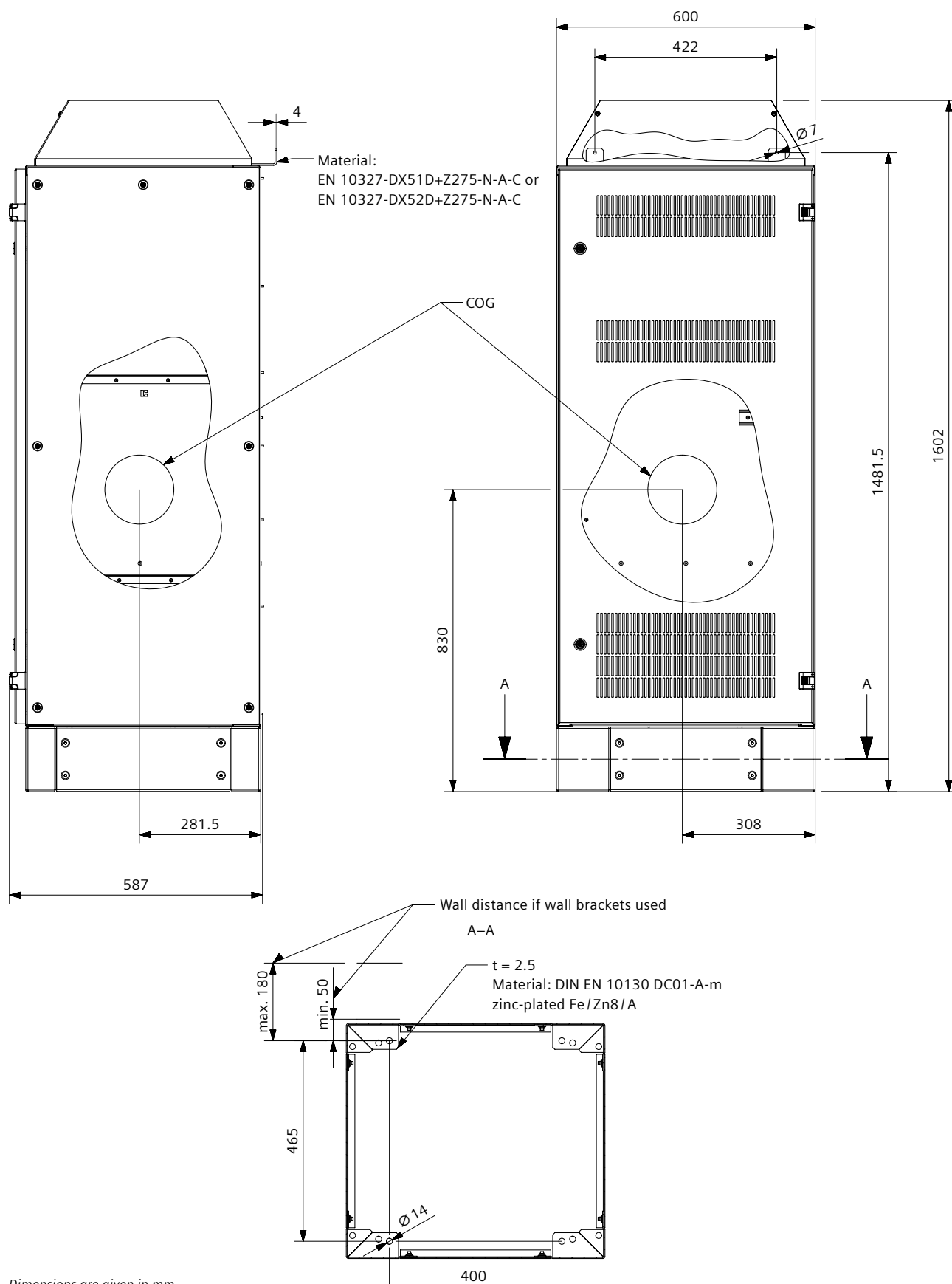
Parameter	Polydoros ACX	
Max. power [kW]	100	
Nom. voltage [kV]	40–125 with 0.05 kV steps	
Tube current [mA]	0.5–1000 with 0.01 mA steps	
kV rise time [ms]	Without grid: ≤ 1 ms @ ≤ 125 kV	With grid: ≤ 0.2 ms @ ≤ 125 kV
High-voltage cable length for Angiolux [m]	28.0 m (Anode) 36.4 m (Anode)	31.2 m (Cathode) 36.4 m (Cathode)
High-voltage cable length for Megalix Cat [m]	28.0 m (Anode)	31.2 m (Cathode)
Pulse time [ms]	10–1000 mA: 3.2 ms – unlimited (continuous mode) 0.5–9.99 mA: 100 ms – unlimited (continuous mode) ¹	
Pulse frequency [P/s]	0.5 to 200 or continuous mode	
Exposure time tube current product [mAs]	System-controlled	
Line input voltage and frequency	380–480 V (± 10%) 50/60 Hz (± 3 Hz)	
Generator polarity	Bipolar	
Dimensions [mm]	600 (l) × 600 (w) × 1600 (h)	
Weight [kg]	< 220	
Communication interface	CAN/RS422/Ethernet (for update)	

Material numbers

Model generator	Mat.-No.
Polydoros ACX	11011822
Supported X-ray tube assembly	
Angiolux 3-80	11568453
Angiolux 2-90	11568452
Megalix Cat 125/35/80 125 GW	10756860
Megalix Cat 125/15/40/80 122 GW	5765222

¹ Pulse widths below 3.2 ms are possible, but without tube current control. Therefore, specified accuracies for tube current and tube voltages do not apply in this case.

Dimensions



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