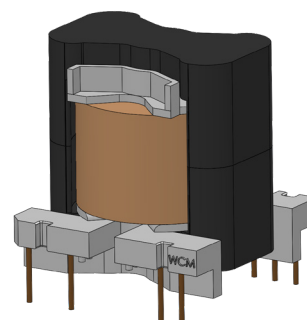


WCM420-40 WCM420-20 WCM420-30 WCM420-10

Switch Mode Transformers

Product Description

This new series was designed for applications where board space is at a minimum. Featuring a finite element optimized core geometry to equalize flux distribution throughout the core cross section, the WCM420-10, -20, -30 and -40 core and bobbin sets feature outstanding power density at power levels up to 5 kW. This series is also available with two core material options, one for traditional SMPS frequencies up to 500 kHz and a new low permeability MnZn material with very low loss at frequencies over 500 kHz. As usual with WCM geometries, standoff between core and bobbin has creepage and clearance values which will meet the most stringent medical device standards.



Output Power vs Frequency of Operation (Watts)

Product Code	Frequency	100 kHz	200 kHz	400 kHz	600 kHz	1 MHz
WCM420-40	Power Rating	2700	3400	4000	4700	5600
WCM420-30	Power Rating	1800	2400	2800	3300	4000
WCM420-20	Power Rating	1200	1800	2200	2600	3000
WCM420-10	Power Rating	500	660	850	1100	1500

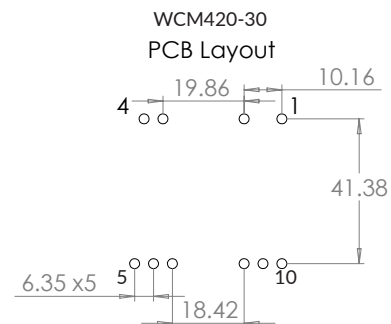
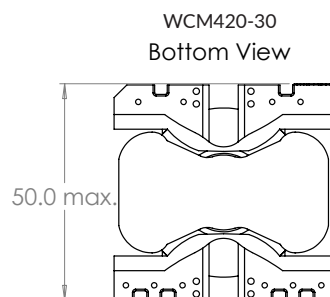
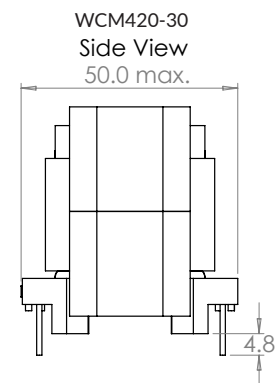
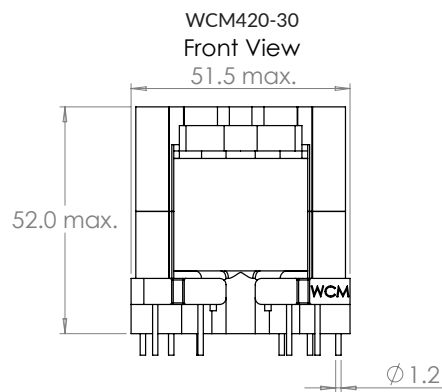
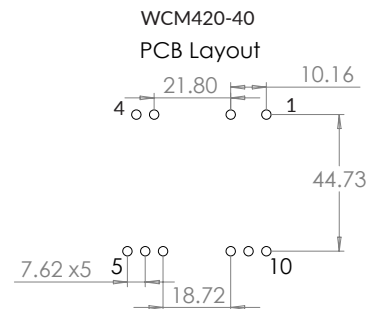
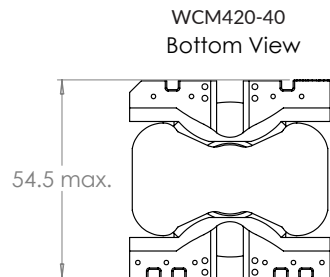
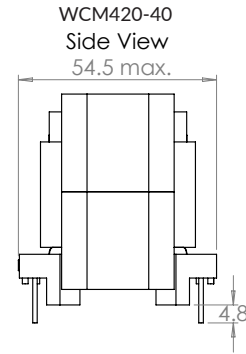
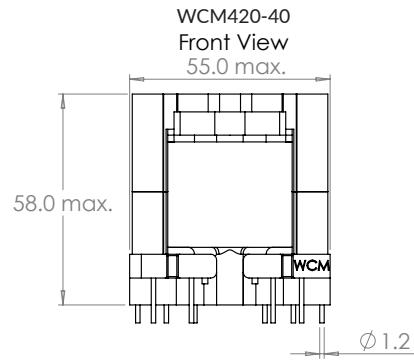
Engineering Data

Product Code	AL (nH/ N2)	Ae Core Area (mm ²)	Le magnetic path length (mm)	Ve core volume (mm ³)	Wa bobbin winding area (mm ²)	WaAc Core area winding area (mm ⁴)	Bobbin window width (mm)	Bobbin window height (mm)	Mean length per turn (mm)	Core material 25KHZ to 500KHZ	Core material 500KHZ to 1000KHZ
WCM420-40	10384	276.0	100.2	42335	269.2	74302	28.2	9.6	100.1	WCM-F200	WCM-FM400
WCM420-30	9329	223.2	90.2	30958	220.5	49224	25.2	8.8	91.7	WCM-F200	WCM-FM400
WCM420-20	8218	173.9	79.7	21285	169.3	29442	22.2	7.6	80.6	WCM-F200	WCM-FM400
WCM420-10	6414	107.7	63.3	10625	103.3	11123	17.5	5.9	63.8	WCM-F200	WCM-FM400



Schematics

WCM420-40 and WCM420-30



Dimensions:

Inches
mm

Tolerance:

Inches

x.xx ± 0.020 "

x.xxx ± 0.005 "

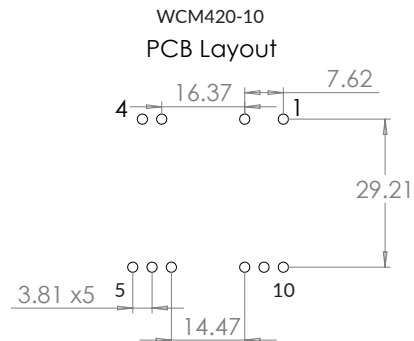
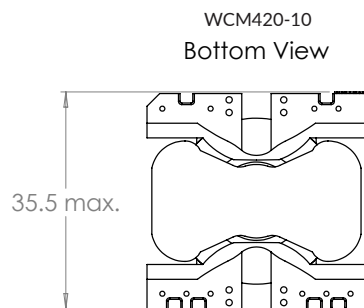
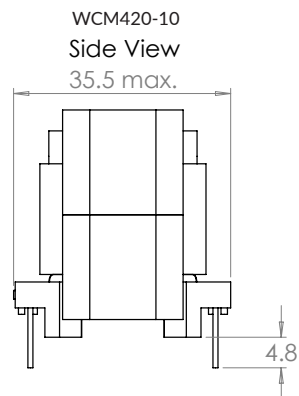
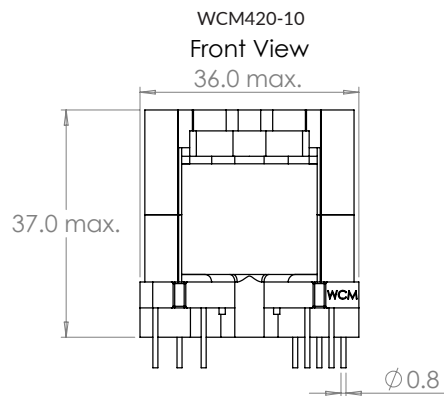
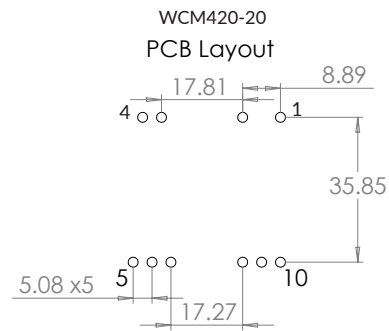
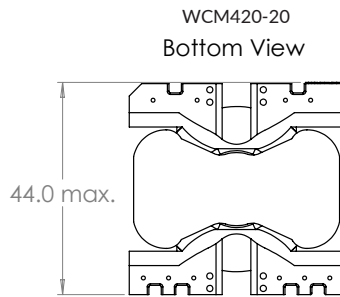
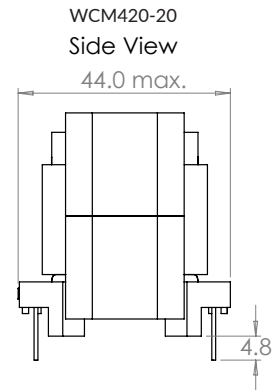
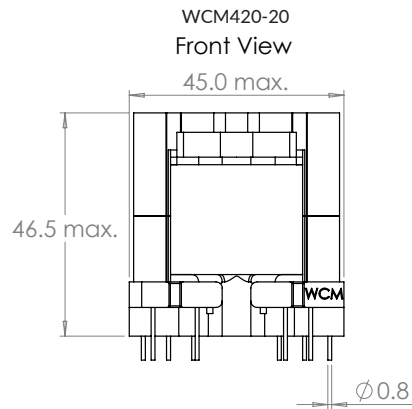
Millimeters

x.x ± 0.25 mm

x.xx ± 0.13 mm

Schematics

WCM420-20 and WCM420-10



Dimensions:

Inches
mm

Tolerance:

Inches

x.xx ± 0.020"

x.xxx ± 0.005"

Millimeters

x.x ± 0.25mm

x.xx ± 0.13mm