WEST COAST MAGNETICS

WCM410-88 WCM410-60 WCM410-70 WCM410-50

switch mode transformers

PRODUCT DESCRIPTION

West Coast Magnetics' new WCM410-88,-70,-60,-50 series raise the bar for high power switch mode transformers. This new series was designed in order to achieve 50% more power density than other geometries currently available on the market, without sacrificing isolation. The core and bobbin are also suitable for safe UL/CSA/VDE coupling with medical grade isolation standards.

OUTPUT POWER VS FREQUENCY OF OPERATION

Size Code	Frequency	25kHz	50kHz	100kHz	200kHz	500kHz	1MHZ
WCM410-88	Power Rating	1.8kW	2.7kW	3.7kW	4.4kW	5.1kW	–
WCM410-70	Power Rating	1.1kW	1.8kW	2.4kW	2.8kW	3.2kW	–
WCM410-60	Power Rating	–	–	1.0kW	1.2kW	1.9kW	2.2kW
WCM410-50	Power Rating	–	–	550W	660W	1.0kW	1.2kW

ENGINEERING DATA

Size Code	*Al (ungapped, nH/T^2)*	*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*
WCM410-88	5500	404.0	169.4	69,292	385.2	155,765	45.00	8.56	140.9	WCM-F100
WCM410-70	4400	245.0	129.0	31,600	201.6	49,392	31.75	6.35	108.0	WCM-F100
WCM410-60	3600	158.6	102.6	15,755	137.0	21,728	26.50	5.17	86.1	WCM-F300
WCM410-50	2100	106.7	89.2	9913	112.1	11,958	24.00	4.67	68.0	WCM-F300

Power rating is based on 40°C Temperature rise, unpotted, no forced air or cold plate cooling. Power rating will increase significantly with potted transformer and external cooling available.

9001:2008 certified ISO

13485:2003 certified ISO

RoHS compliant

WCM410-88 WCM410-60 WCM410-70 WCM410-50 *p.2*

Dimensions: inches / mm

switch mode transformers

410-88 Front View

410-88 Side View

410-88 Bottom View

410-88 PCB Layout

Tolerance:

Inches

x.xx ± 0.020"

x.xxx ± 0.005"

Millimeters

x.x ± 0.25 mm

x.xx ± 0.13 mm

410-70 Front View

410-70 Side View

410-70 Bottom View

410-70 PCB Layout

Dimensions: inches / mm

switch mode transformers

410-60 Front View

410-60 Side View

410-60 Bottom View

410-60 PCB Layout

Tolerance:

Inches

x.xx ± 0.020"

x.xxx ± 0.005"

Millimeters

x.x ± 0.25 mm

x.xx ± 0.13 mm

410-50 Front View

410-50 Side View

410-50 Bottom View

410-50 PCB Layout