



REVISED April 18, 2023

Bourns Releases New Current Sense Transformers

Model PCS020 and PCS040 Series

Riverside, California – July 28, 2022 – Bourns Custom Magnetics Product Line is introducing the new [Model PCS020 and PCS040 Series Current Sense Transformers](#). Both series are ideal for use in a variety of applications such as switched-mode power supplies, motor control, overload sensing, and other AC current applications.

The PCS020 and PCS040 series have a current rating of 20 A and 40 A respectively, are ideal for frequencies up to 1 MHz, and have an operating temperature range from -40 °C to +125 °C. The isolation between windings is designed at 500 V_{RMS} for the PCS020 and 800 V_{RMS} for the PCS040 series. Both series are RoHS compliant*. Please see the table below for additional information regarding the available part numbers for these transformers.

Bourns Part Number	Turns Ratio Pri. : Sec.	Secondary Inductance Min. (mH)	Pri. Ref. (mΩ)	Sec. Max. (Ω)	Volt-time Product on Sec. Max. (V-μsec)	Terminating Resistance (1 V Sec./40 A Pri.) (Ω)
PCS020-EE05081S	1:20	0.081	7	0.4	10.8	1
PCS020-EE05180S	1:30	0.18	7	0.87	16.2	1.5
PCS020-EE05320S	1:40	0.32	7	1.14	21.6	2
PCS020-EE05500S	1:50	0.5	7	1.5	27	2.5
PCS020-EE05730S	1:60	0.73	7	1.98	32.4	3
PCS020-EE05980S	1:70	0.98	7	4.75	37.8	3.5
PCS020-EE0502KS	1:100	2.0	7	5.5	54	5
PCS020-EE0503KS	1:125	3.0	7	7	67.5	6.25

~ continued on page 2 ~

IC22075REV

Bourns Part Number	Turns Ratio Pri. : Sec.	Secondary Inductance Min. (mH)	Pri. Ref. (mΩ)	Sec. Max. (Ω)	Volt-time Product on Sec. Max. (V-μsec)	Terminating Resistance (1 V Sec./40 A Pri.) (Ω)
PCS040-EF13340S	1:20	0.34	1	0.18	50.8	0.5
PCS040-EF13760S	1:30	0.76	1	0.265	76.2	0.8
PCS040-EF1301KS	1:40	1.36	1	0.56	101.6	1
PCS040-EF1302KS	1:50	2.12	1	0.705	127	1.3
PCS040-EF1303KS	1:60	3.06	1	0.85	152.4	1.5
PCS040-EF1304KS	1:70	4.16	1	1	177.8	1.8
PCS040-EF1305KS	1:80	5.44	1	1.15	203.2	2
PCS040-EF1308KS	1:100	8.5	1	1.45	254	2.5
PCS040-EF1313KS	1:125	13.3	1	1.85	317.5	3.1
PCS040-EF1319KS	1:150	19.2	1	2.25	381	3.8
PCS040-EF1334KS	1:200	34	1	4.06	508	5

Samples and production quantities are now available.

For additional details on Bourns® transformers, visit the Bourns website at www.bourns.com/products/magnetic-products/transformers-power.

If you have questions or need additional information, please feel free to contact [Bourns Customer Service/Inside Sales](#).

Features

- Rated current on primary up to 20 A (PCS020) and 40 A (PCS040)
- Surface mount
- Frequency up to 1 MHz
- Operating temperature range: -40 to +125 °C
- RoHS compliant*

Applications

- Switched-mode power supplies
- Motor control
- Overload sensing
- AC current applications

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.