

APPLICATION NOTE

PFC500 / PDC500 Series Diode Option "D" (24 V Output Models)

Note: This application note applies only to 24 V PFC500 and PDC500 models.
The applicable models are PFC500-1024D, PFC500-1024DF, PDC500-1024D and PDC500-1024DF.

This application note provides additional information on the 24 V models having an isolation diode.
Noise & Ripple on models with the "D" option can be as high as 4% of the nominal input value.

NOISE AND RIPPLE REDUCTION

The following external capacitors are needed to reduce the output ripple and noise to less than 1% of nominal voltage.

MODEL NUMBER	CAPACITANCE MIN. VALUE AND VOLTAGE RATING	MAX. EQUIVALENT SERIES RESISTANCE (ESR)
PFC500-1024D PFC500-1024DF	5000 μ F, 35 V	7 m Ω *
PDC500-1024D PDC500-1024DF	5000 μ F, 35 V	7 m Ω *

* Five Nichicon capacitors (P/N UPL1V102MHH1AA or equivalent)

Note: Other standard models not mentioned in this applications note do not require external capacitors to meet the 1% noise and ripple specification.

POWER GOOD SIGNAL PULL-UP RESISTOR

The above models have a 475 Ω pull-up resistor for the Power Good signal. Other standard models have a 1 k Ω pull-up resistor. The source voltage for this signal is 5V on all models.

LOAD REGULATION

Due to noise and ripple present on the units having the D option, the following specifications apply:

- a) 0.5% with remote sense
- b) 1.0% without remote sense