Ground Fault Protection for 110Vac Powered Drives

Rectifier

110Vac Mains

DC bus capacitor

Inverter

24V

Non-inverting amplifier and boost

Hi-side current sense

OPA2370

Ina549

Low-side current sense

OPA2370

Low-side current sensing

and output level shifting

difference amplifier

High and low side current

sensor voltages are summed

together and provided to

comparator

TLC372

TLC372

Power supply and

references (REF2033)

3.3V

5V

Motor

Ground Fail

INT_24

ADC0

ADC1

MCU

Designed for:

Public Release

Assembly Variant:

001

Sheet:

http://www.ti.com

Contact:

http://www.ti.com/support

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Version control disabled

SVN Rev:

TIDA-00439

Number:

E2

TID #:

Orderable:

N/A

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Drawn By:
Pawan N

Engineer:
Pawan N

Public Release

Public Release

Public Release

Public Release
Ground Fault Protection for 110Vac Powered Drives

Assembly Note
ZZ1
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

PCB Number: TIDA-00439
PCB Rev: E2

Label Table

<table>
<thead>
<tr>
<th>Variant</th>
<th>Label Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>ChangeMe!</td>
</tr>
<tr>
<td>002</td>
<td>ChangeMe!</td>
</tr>
</tbody>
</table>

Label Assembly Note

This Assembly Note is for PCB labels only.

ZZ2
These assemblies are ESD sensitive. ESD precautions shall be observed.

ZZ3
These assemblies must be clean and free from flux and all contaminants. Use of no-clean flux is not acceptable.

ZZ4
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.
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