

Subject

#### **OB6566 Demo Board Manual**

Board Model: OP400V0.3A6566.01 Doc. No.: OB\_DOC\_DBM\_656601



#### Key features:

- Transition Mode (TM) Operation
- Works without Transformer ZCD Winding
- Low Start-up Current and Operating Current
- Cycle-by-Cycle Current Limiting
- Dynamic OVP &Static OVP function
- System Open Loop Protection
- Inductor short protection
- Very Precise Adjustable Output Overvoltage Protection

## **Revision History**

| Revise Date | Version | Reason/Issue         |
|-------------|---------|----------------------|
| 2017-02-28  | 00      |                      |
| 2019-05-27  | 01      | Performance improved |

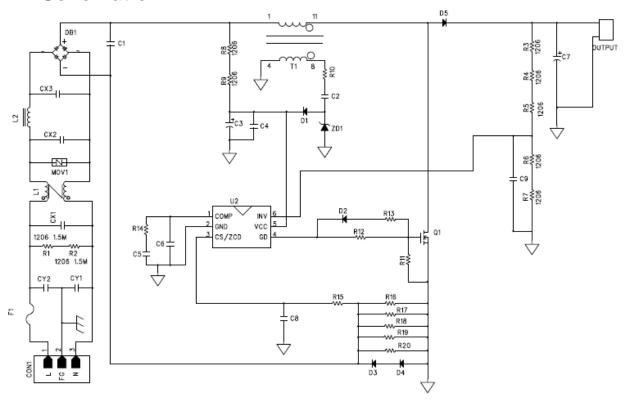


# 1 System Specifications and Test Results

| Items                    | Specifications & Test Conditions                  | Test Resuls |
|--------------------------|---|-------------|
| 1. Input Characteristic  |   |             |
| Input Voltage Range      | 90Vac to 264Vac @ Full load                       | PASS        |
| AC Input Frequency       | 47Hz to 63Hz @ Full load                          | PASS        |
| Maximum input current    | 2.0 A Max. @ 90Vac, Full load                     | 1.4A        |
| Input power factor       | >0.9 @ Full load, 90~264Vac                       | Min. 0.955  |
| Input current THD        | <10% @ Full load, 90~264Vac                       | Max. 6.93%  |
| Efficiency               | >90% @ Full load, 90~264Vac                       | 93.92%      |
| 2 .Output Characteristic |   | •           |
| Output Voltage           | 400±10V @ 0~100% load, 90~264Vac                  | PASS        |
| Line regulation          | <1% @ 0~100% load, 90~264Vac                      | PASS        |
| Load regulation          | <5% @ 0~100% load, 90~264Vac                      | PASS        |
| Output Current Range     | 0 to 0.2A @ 90~264Vac                             | PASS        |
| Ripple voltage           | <20Vp-p Max. @ 0~100% load, 90~264Vac             | Max. 11V    |
| Output Voltage Overshoot | Peak Output Voltage<450V @ 0~100% load, 90~264Vac | Max. 430V   |

# **2 System Information**

## 2.1 Schematic

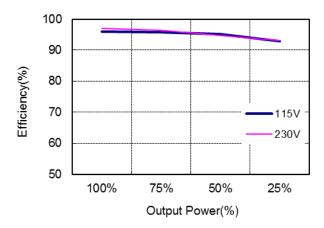


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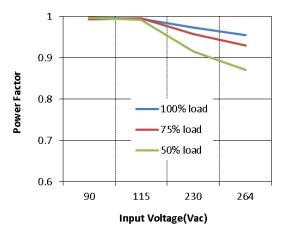


# 3 Performance Evaluation

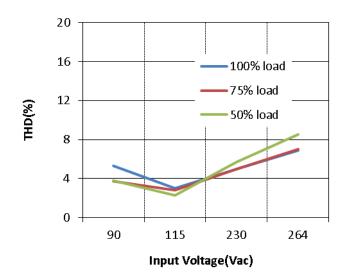
# 3.1 Efficiency



## 3.2 Power Factor



### 3.3 Total Harmonic Distortion



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