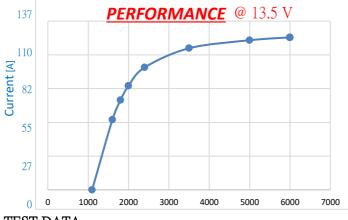
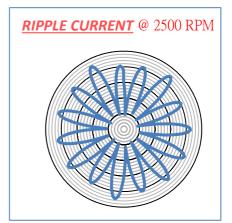
## PERFORMANCE TEST REPORT

| Tester ID |                    | Test Na | ıme | Standard_Sweep_Test |      |        |          |          | PASS   |   |
|-----------|--------------------|---------|-----|---------------------|------|--------|----------|----------|--------|---|
| Part No   | IN450 (12V/100A/N) |         |     | Alternator Family   |      |        |          | Order No |        |   |
| Serial No | 19.218.0036        |         |     | Regulator Type      |      |        | Internal |          | Lot No |   |
| Test Date | 06/08/2019         | Time    | 06  | :41                 | Temp | 28.4°C | Shift    | В        | User   | T |

| Parameter                       | LCL   | Value | UCL   | LIN                            | LCL                    | CL Value |              | UCL  |
|---------------------------------|-------|-------|-------|--------------------------------|------------------------|----------|--------------|------|
| Voltage Setpoint [V]            | 14.04 | 14.60 | 15.04 | Vset (Control)[V]              | Vset (Control)[V] 13.8 |          | <b></b> 14.8 |      |
| Voltage Set Point external [V]  | 14.04 | 14.60 | 15.04 | Vset (Reduced)[V]              | ed)[V] 12.3 -          |          |              | 13.3 |
| Turn ON Speed [RPM]             | 0     | 1179  | 1500  | PWM (Full Load)[%              | /M (Full Load)[% 90    |          |              | 100  |
| Cut In Speed [RPM]              | 0     | 1097  | 1200  | PWM @ Stop Read[ 10            |                        | i        | <b></b> 30   |      |
| Ripple Current [A]              | 0     | 18.7  | 28.5  | PWM (Stop)[%] 0                |                        | -        |              | 11   |
| Field Current [A]               | 3     | 3.29  | 5     | Electrical Fault (Operation) - |                        |          |              |      |
| Leakage [mA]                    | 0     | 0.41  | 2.51  | Mechancial Fault (Operation)   |                        |          |              |      |
| Stator Voltage [V]              | 6     |       | 7     | Mech.nical Fault (Stop)        |                        |          |              |      |
| Stator Imbalance [%]            | 0     |       | 5.8   | Over Temperature Fault         |                        |          |              |      |
| Tacho Frequency [Hz]            | 240   |       | 260   | Regulator Manufacturer Read    |                        |          |              |      |
| LRC Delay [sec]                 | 4     |       | 6     | Regulator Model Read           |                        |          |              |      |
| Soft Start Freq. Duty Cycle [%] | 0     |       | 10    | Vacuum test in [mBar]          |                        |          |              |      |
| Lamp Status (Operation)         |       | ON    | ON    | Vac. at 3000 RPM 0 -           |                        | i        |              | 0    |
| Lamp Status (Stop)              |       | ON    | ON    | Vac. at 6000 RPM 0             |                        | ·        |              | 0    |
| LampDriver V drop [V]           | 0.09  | 0.18  | 0.32  | Max Vacuum OUT 0               |                        | i        |              | 0    |
| Rectifier Vdrop (+ Side) [V]    | 0     |       | 2     | Vac Leak for 10s 0             |                        | i        |              | 0    |
| Rectifier Vdrop (- Side) [V]    | 0     |       | 2     |                                |                        |          |              |      |
| Feedback Voltage High Level     | 10    |       | 16    |                                |                        |          |              |      |
| Feedback Voltage Low Level      | 0     |       | 1     |                                |                        |          |              |      |
| Feedback PWM & Full Load [%]    | 90    |       | 100   |                                |                        |          |              |      |
| Feedback PWM & Stop [%]         | 20    |       | 35    | _                              |                        |          |              |      |
| Feedback PWM & Operation [%]    | 40    |       | 60    |                                |                        |          |              |      |
| Feedback Frequency[Hz]          | 200   |       | 500   |                                |                        |          |              |      |





| IESI DATA            |      |      |       |       |       |       |       |  |  |
|----------------------|------|------|-------|-------|-------|-------|-------|--|--|
| Speed [RPM]          | 1600 | 1800 | 2000  | 2400  | 3500  | 5000  | 6000  |  |  |
| Load Current [A]     | 57.0 | 72.8 | 84.5  | 99.4  | 115.0 | 121.5 | 123.8 |  |  |
| Load Current [A] LCL | 45.0 | 57.0 | 67.0  | 79.0  | 92.0  | 98.0  | 100.0 |  |  |
| Load Current [A] UCL | 70.0 | 88.0 | 103.0 | 122.0 | 143.0 | 152.0 | 155.0 |  |  |

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