

|                   |   |           |             |
|-------------------|---|-----------|-------------|
| <b>DATA SHEET</b> |   | Date      | Nov.21,1996 |
| Model             | LDA300W-5                                   | Temp.     | 25 °C       |
| Test              | Static electricity immunity test<br>静電気放電試験 | Humid.    | 45 %Rh      |
|                   |   | Tested by | T.Mano      |

1. Method — according to EN61000-4-2 —
- (1) Points to be applied voltage  
電圧印加箇所  
1) Input/Output/FG terminal, Enclosure  
入力/出力/FG端子, ケース
  - (2) Testing shall be satisfied at the lower levels given below  
印加電圧はレベル1から4まで順次実施(下表参照)
  - (3) Change the polarity (+/-) of applied voltage  
印加極性 +/- の条件でそれぞれ実施
  - (4) For the time interval between successive single discharges an initial value of 1s. is recommended.  
On preselected points at least ten single discharges shall be applied.  
1秒以上の間隔で各ポイント10回実施
  - (5) Contact discharge method  
接触放電で実施

Test levels of EN61000-4-2

| Level                  | 1 | 2 | 3 | 4  | X       |
|------------------------|---|---|---|----|---------|
| Contact discharge [kV] | 2 | 4 | 6 | 8  | Special |
| Air discharge [kV]     | 2 | 4 | 8 | 15 | Special |

2. Conditions
- (1) Input : AC240V
  - (2) Output : Rated output
  - (3) Ambient temp. : 25 ± 10°C
3. Conditions of Acceptability  
According to EN50082-2 (EN61000-4-2 Level 2)  
EN50082-2(EN61000-4-2 レベル2)を満足すること
4. Result

| No. | Level | Voltage [kV] | Polarity | Terminal to be tested |       |    |        |        |
|-----|-------|--------------|----------|-----------------------|-------|----|--------|--------|
|     |       |              |          | AC(L)                 | AC(N) | FG | OUT(+) | OUT(-) |
| 1   | 1     | 2            | +        | OK                    | OK    | OK | OK     | OK     |
| 2   |       |              | -        | OK                    | OK    | OK | OK     | OK     |
| 3   | 2     | 4            | +        | OK                    | OK    | OK | OK     | OK     |
| 4   |       |              | -        | OK                    | OK    | OK | OK     | OK     |
| 5   | 3     | 6            | +        | OK                    | OK    | OK | OK     | OK     |
| 6   |       |              | -        | OK                    | OK    | OK | OK     | OK     |
| 7   | 4     | 8            | +        | OK                    | OK    | OK | OK     | OK     |
| 8   |       |              | -        | OK                    | OK    | OK | OK     | OK     |

All are satisfactory to item 3: OK

| DATA SHEET |   | Date      | June 11,1997 |
|------------|---|-----------|--------------|
| Model      | LDA300W-5   | Temp.     | 27 °C        |
| Test       | Radiated, radio-frequency, electromagnetic field immunity test<br>放射無線周波電磁界免疫試験 | Humid.    | 55 %Rh       |
|            |   | Tested by | T.Aoi        |

1. Method — according to ENV50140 —

These tests are defined for measuring the effect that electromagnetic radiation has on the equipment connected. The tests shall be made in a shielded enclosure.

対象機器に対する電磁放射の影響を測定する。試験はシールドルームで行われること。

(1) Frequency band : 80MHz to 1000MHz

周波数範囲 : 80MHz から 1000MHz

(2) Test levels

試験レベル

Test levels of ENV50140

| Level | Testing field strength V/m |
|-------|----------------------------|
| 1     | 1                          |
| 2     | 3                          |
| 3     | 10                         |
| X     | Special                    |

2. Conditions

- (1) Input : AC230V
- (2) Output : Rated output
- (3) Ambient temp. : 25 ± 10°C

3. Conditions of Acceptability

According to EN50082-2 (ENV50140 Level 3)

EN50082-2 (ENV50140 レベル3)を満足すること

4. Result

| No. | Level | Testing field strength [V/m] | Result |
|-----|-------|------------------------------|--------|
| 1   | 1     | 1                            | OK     |
| 2   | 2     | 3                            | OK     |
| 3   | 3     | 10                           | OK     |

All are satisfactory to item 3: OK

| DATA SHEET |   | Date      | Nov.21,1996 |
|------------|---|-----------|-------------|
| Model      | LDA300W-5   | Temp.     | 25 °C       |
| Test       | Electrical fast transient/burst immunity test<br>電氣的ファーストランジェントバースト試験 | Humid.    | 55 %Rh      |
|            |   | Tested by | T.Mano      |

1. Method — according to EN61000-4-4 —
- (1) Points to be applied voltage  
電圧印加箇所
- 1) Between input terminal(L) and ground plane  
入力端子(L) — グラントプレーン間
  - 2) Between input terminal(N) and ground plane  
入力端子(N) — グラントプレーン間
  - 3) Between FG terminal and ground plane  
FG端子 — グラントプレーン間
  - 4) Between output terminal and ground plane  
出力端子 — グラントプレーン間
- (2) Testing shall be satisfied at the lower levels given below  
印加電圧はレベル1から4まで順次実施(下表参照)
- (3) Change the polarity (+/-) of applied voltage  
印加極性 +/-の条件でそれぞれ実施
- (4) The period of applied voltage is 1 minute  
電圧印加時間は1分間

Test levels of EN61000-4-4

| Level                 | 1   | 2 | 3 | 4   | X       |
|-----------------------|-----|---|---|-----|---------|
| Voltage peak [kV]     | 0.5 | 1 | 2 | 4   | Special |
| Repetition rate [kHz] | 5   | 5 | 5 | 2.5 | Special |

2. Conditions
- (1) Input : AC230V
  - (2) Output : Rated output
  - (3) Ambient temp. : 25±10°C
3. Conditions of Acceptability  
According to EN50082-2 (EN61000-4-4 Level 3)  
EN50082-2(EN61000-4-4 レベル3)を満足すること
4. Result

| No. | Level | Voltage [kV] | Polarity | Terminal to be tested |       |    |        |        |
|-----|-------|--------------|----------|-----------------------|-------|----|--------|--------|
|     |       |              |          | AC(L)                 | AC(N) | FG | OUT(+) | OUT(-) |
| 1   | 1     | 0.5          | +        | OK                    | OK    | OK | OK     | OK     |
| 2   |       |              | -        | OK                    | OK    | OK | OK     | OK     |
| 3   | 2     | 1            | +        | OK                    | OK    | OK | OK     | OK     |
| 4   |       |              | -        | OK                    | OK    | OK | OK     | OK     |
| 5   | 3     | 2            | +        | OK                    | OK    | OK | OK     | OK     |
| 6   |       |              | -        | OK                    | OK    | OK | OK     | OK     |
| 7   | 4     | 4            | +        | OK                    | OK    | OK | OK     | OK     |
| 8   |       |              | -        | OK                    | OK    | OK | OK     | OK     |

All are satisfactory to item 3: OK

| DATA SHEET |                                | Date      | July.3,1998 |
|------------|--------------------------------|-----------|-------------|
| Model      | LDA300W-5                      | Temp.     | 26 °C       |
| Test       | Surge immunity test<br>サージ免疫試験 | Humid.    | 45 %Rh      |
|            |                                | Tested by | J.Uchida    |

1. Method — according to EN61000-4-5 —
  - (1) Points to be applied voltage  
電圧印加箇所  
- Line to line (ライン - ライン間 : ノーマル) -
    - 1) Between input terminal (L) and input terminal (N)  
入力端子(L) - 入力端子(N)
    - Line to FG (ライン - FG間 : コモン) -
      - 2) Between input terminal (L) and FG terminal  
入力端子(L) - FG端子
      - 3) Between input terminal (N) and FG terminal  
入力端子(N) - FG端子
  - (2) Test at the selected levels shown below  
印加電圧(レベル)は、下表に従う
  - (3) Change the polarity (+/-) of applied voltage  
印加極性 +/- の条件でそれぞれ実施
  - (4) Number of tests : Six positive and six negative at selected points.  
試験の回数 : それぞれの印加箇所で、正負各6回試験する
  - (5) Repetition rate : maximum 1/min.  
繰り返し速度 : 最大1回/分 (1分以上の間隔をおく)

Test levels of EN61000-4-5

| Level             | 1   | 2 | 3 | 4 | X       |
|-------------------|-----|---|---|---|---------|
| Test voltage [kV] | 0.5 | 1 | 2 | 4 | Special |

2. Conditions

- (1) Input : AC230V
- (2) Output : Rated output
- (3) Ambient temp. : 25±10°C

3. Conditions of Acceptability

- Line to line : According to EN50082-2 (EN61000-4-5 Level 3)  
ライン - ライン間 (ノーマル) : EN50082-2(EN61000-4-5 レベル3)を満足すること
- Line to earth : According to EN50082-2 (EN61000-4-5 Level 4)  
ライン - FG間 (コモン) : EN50082-2(EN61000-4-5 レベル4)を満足すること

4. Result

| No. | Voltage [kV] | Polarity | Line (L) - Line (N) |
|-----|--------------|----------|---------------------|
| 1   | 0.5          | +        | OK                  |
| 2   |              | -        | OK                  |
| 3   | 1            | +        | OK                  |
| 4   |              | -        | OK                  |
| 5   | 2            | +        | OK                  |
| 6   |              | -        | OK                  |

| No. | Voltage [kV] | Polarity | Line (L) - FG | Line (N) - FG |
|-----|--------------|----------|---------------|---------------|
| 1   | 1            | +        | OK            | OK            |
| 2   |              | -        | OK            | OK            |
| 3   | 2            | +        | OK            | OK            |
| 4   |              | -        | OK            | OK            |
| 5   | 4            | +        | OK            | OK            |
| 6   |              | -        | OK            | OK            |

Surge Absorbers should be installed between L-N,L-FG and N-FG.

Surge Absorber : ENE471D-14A

Manufacturer : Model designation FUJI ELECTRIC

All are satisfactory to item 3: OK

| DATA SHEET |  | Date      | July 11, 1997 |
|------------|--|-----------|---------------|
| Model      | LDA300W-5  | Temp.     | 25 °C         |
| Test       | Immunity to conducted disturbances, induced by radio-frequency fields<br>伝導性無線周波数電磁界イミュニティ試験 | Humid.    | 55 %Rh        |
|            |  | Tested by | T.Aoi         |

1. Method — according to ENV50141 —
- (1) Points to be applied signals  
信号印加箇所  
1) Between input terminal(L) and terminal(N)  
入力端子(L) — 入力端子(N)間
- (2) Testing shall be satisfied at the lower levels given below  
印加信号はレベル1から3まで順次実施(下表参照)

Test levels of ENV50141

| No. | Level | Frequency range 150kHz - 80MHz |        |
|-----|-------|--------------------------------|--------|
|     |       | Voltage level (e.m.f.)         |        |
|     |       | Vo [dB(μV)]                    | Vo [V] |
| 1   | 1     | 120                            | 1      |
| 2   | 2     | 130                            | 3      |
| 3   | 3     | 140                            | 10     |
| 4   | X     | Special                        |        |

2. Conditions

- (1) Input : AC230V  
 (2) Output : Rated output  
 (3) Ambient temp. : 25 ± 10°C

3. Conditions of Acceptability

According to EN50082-2 (ENV50141 Level 3) - IEC61000-4-6  
 EN50082-2(ENV50141 レベル3) - IEC61000-4-6を満足すること

4. Result

| No. | Level | Frequency range 150kHz - 80MHz |        | Result |
|-----|-------|--------------------------------|--------|--------|
|     |       | Voltage level (e.m.f.)         |        |        |
|     |       | Vo [dB(μV)]                    | Vo [V] |        |
| 1   | 1     | 120                            | 1      | OK     |
| 2   | 2     | 130                            | 3      | OK     |
| 3   | 3     | 140                            | 10     | OK     |

All are satisfactory to item 3: OK