

DATA SHEET		Date	Jan.21,1999
Model	YAW5	Temp.	25 ℃
Test	Static electricity immunity test 静電気放電試験	Humid.	44 %Rh
		Tested by	Kyu

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 : AC230V
  - (2) Output : Rated output
  - (3) Ambient temp. : 25±10℃
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	Jan.18,1999
Model	YAW5	Temp.	27 °C
Test	Radiated, radio-frequency, electromagnetic field immunity test 放射無線周波電磁界イミュニティ試験	Humid.	55 %Rh
		Tested by	J.Uchida

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	Jan. 19, 1999
Model	YAW5	Temp.	25 °C
Test	Electrical fast transient/burst immunity test 電氣的ファーストランジエントバースト試験	Humid.	45 %Rh
		Tested by	Kyu

## 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	Jan.21,1999
Model	YAW5	Temp.	25 °C
Test	Surge immunity test サージ・immunity試験	Humid.	50 %Rh
		Tested by	Kyu

## 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、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

All are satisfactory to item 3: OK

DATA SHEET		Date	Jan.18,1999
Model	YAW5	Temp.	25 °C
Test	Immunity to conducted disturbances, induced by radio-frequency fields 伝導性無線周波数電磁界イミュニティ試験	Humid.	55 %Rh
		Tested by	J.uchida

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.	Frequency range 150kHz - 80MHz		
	Level	Voltage level (e.m.f.)	
		Vo[dB( $\mu$ V)]	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 $\pm$ 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.	Frequency range 150kHz - 80MHz			Result
	Level	Voltage level (e.m.f.)		
		Vo[dB(μ V)]	Vo[V]	
1	1	120	1	OK
2	2	130	3	OK
3	3	140	10	OK

All are satisfactory to item 3: OK