

# ***GSPL 22.5kW/15kW***

***EMI***

***DATA***

DWG: IA992-58-02		
APPD	CHK	DWG
Yaniv Nisinman 22/09/2022	Barak Marmor 21/09/2022	Amit Zehavi 10/07/2022

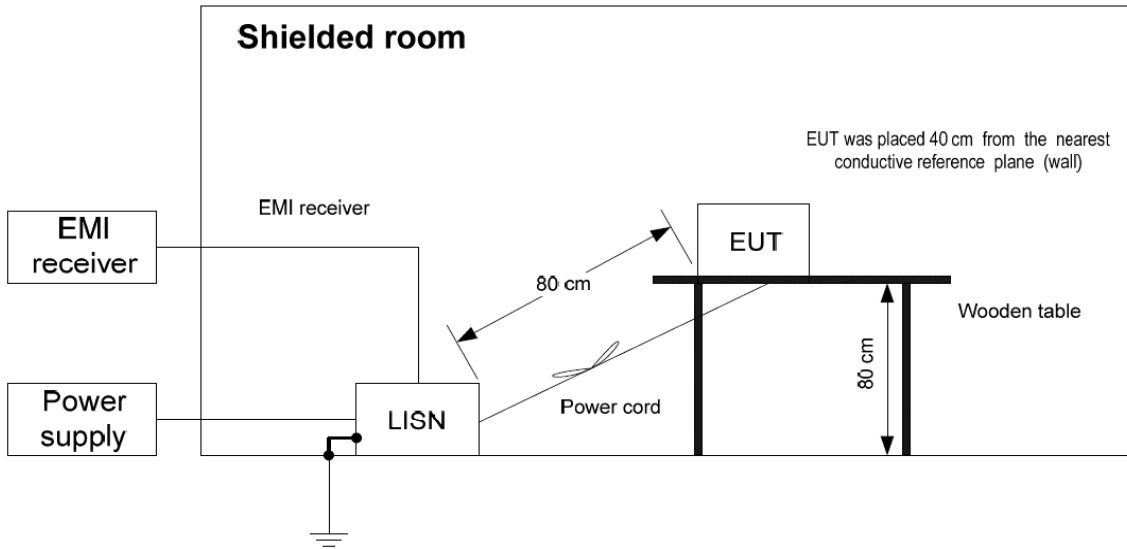
INDEX	PAGE
1. TEST METHOD	
1-1. Conducted emission -----	R-1
1-2. Radiated emission -----	R-1
2. TEST DATA	
2-1. Conducted emission -----	R-2~17
2-2. Radiated emission -----	R-18~25

The above data is typical value data.

The values are considered to be actual capability data.

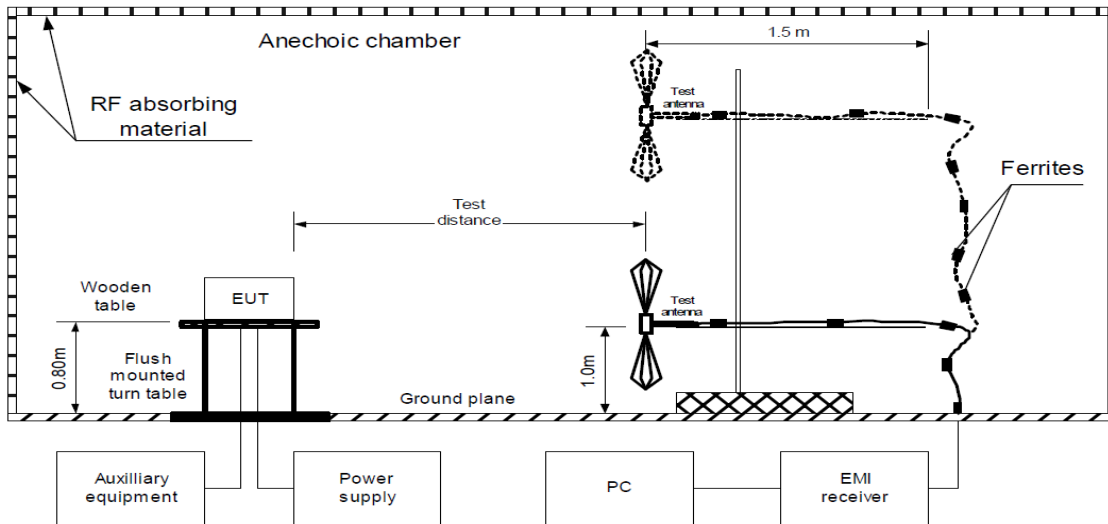
# 1. Test Method

## (1) Conducted Emission



EMI TEST RECEIVER	ESPI	(ROHDE & SCHWARZ)
LISN	ENV4200	(ROHDE & SCHWARZ)

## (2) Radiated Emission



SPECTRUM ANALYZER	MS2601A	(ANRITSU)
EMI TEST RECEIVER	85462A	(HEWLETT. PACKARD)
BICONICAL ANTENNA	3110BA30/200	(EMCO)
LOG-PERIODIC ANTENNA	LP200000	(ELECTROMETRIX)
	LPA2530	(ELECTROMETRIX)

## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL20-1125 3P208**

(1) Test condition

Input voltage/frequency: 3PHASE 200VAC/50Hz  
 Output current: 100%  
 Output voltage: 100%  
 Ambient temperature: 25°C  
 Regulation: FCC 47 CFR part 15 Class A, EN/IEC 61204-3, industrial environment

(2) Test results

Under the above test condition, emission level was below the limit line.  
 Refer to the following interference wave list and next page for spectrum data.

Inteference wave list

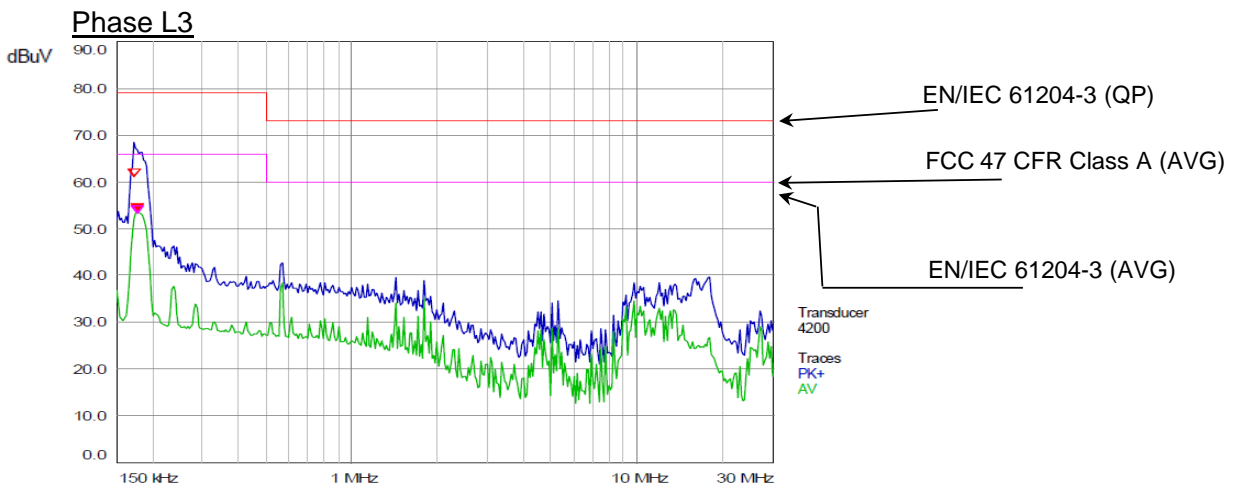
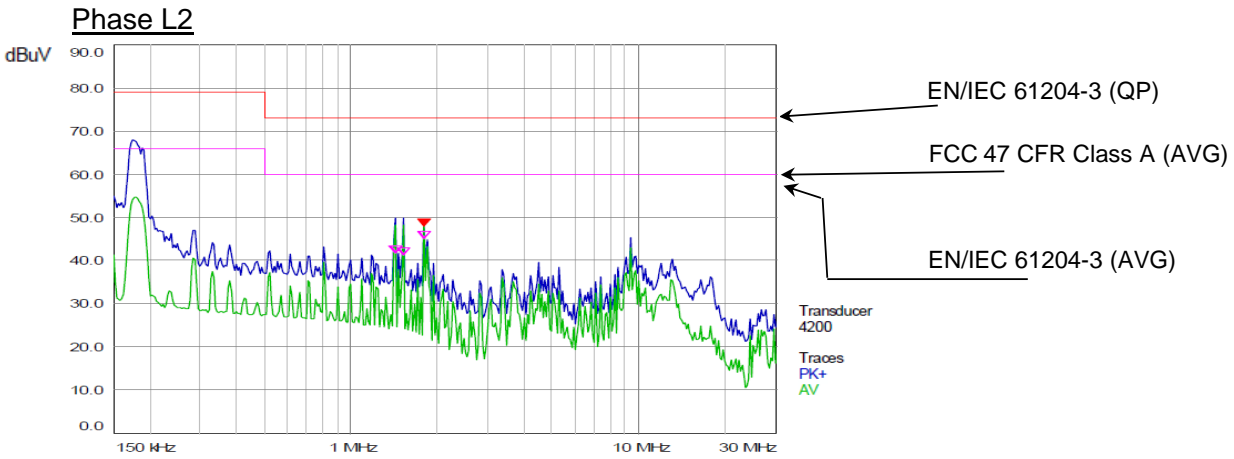
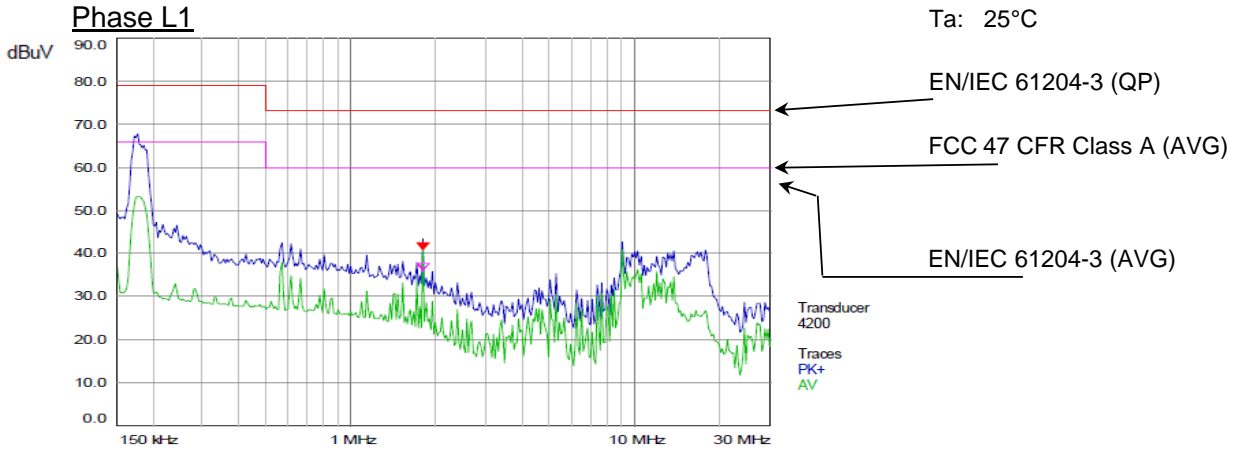
FCC 47 CFR part 15 Class A, EN/IEC 61204-3				
PHASE	FREQ	RESULT	LIMIT	MARGIN
		AV	AV	AV
	MHz	dBµV	dBµV	dBµV
L1	1.8033	36.03	60.00	23.97
L2	1.4229	41.87	60.00	18.13
L2	1.5185	41.34	60.00	18.66
L2	1.8033	45.05	60.00	14.95
L3	0.1765	53.27	66.00	12.73

## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL20-1125 3P208**

Conditions: Vin: 3PHASE 200VAC  
Iout: 100%  
Vout: 100%  
Ta: 25°C



## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL20-1125 3P480**

(1) Test condition

Input voltage/frequency: 3PHASE 400VAC/50Hz  
 Output current: 100%  
 Output voltage: 100%  
 Ambient temperature: 25°C  
 Regulation: FCC 47 CFR part 15 Class A, EN/IEC 61204-3, industrial environment

(2) Test results

Under the above test condition, emission level was below the limit line.  
 Refer to the following interference wave list and next page for spectrum data.

Inteference wave list

FCC 47 CFR part 15 Class A, EN/IEC 61204-3				
PHASE	FREQ	RESULT	LIMIT	MARGIN
		AV	AV	AV
	MHz	dBµV	dBµV	dBµV
L1	1.4258	37.05	60.00	22.95
L2	1.8051	36.01	60.00	23.99
L3	1.8033	40.60	60.00	19.40

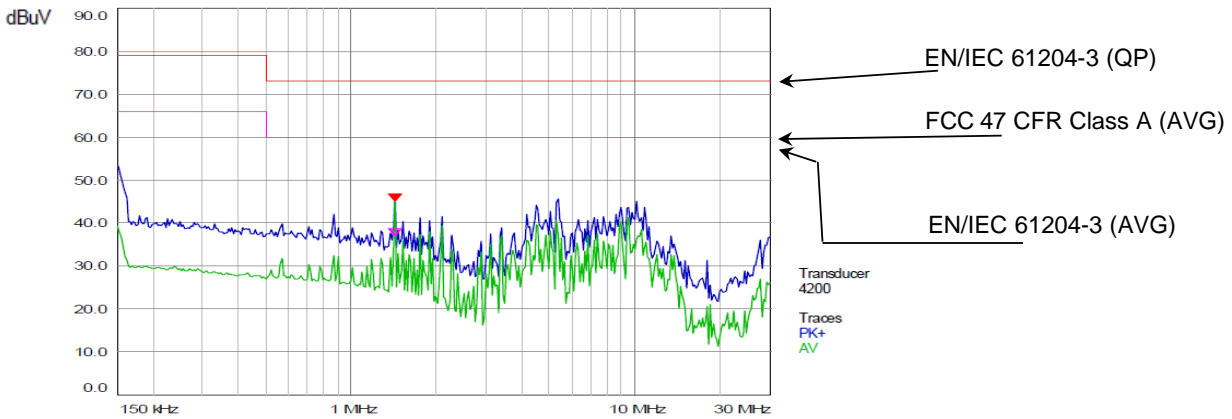
**2. Test Data**

**2.1 Conducted Emission**

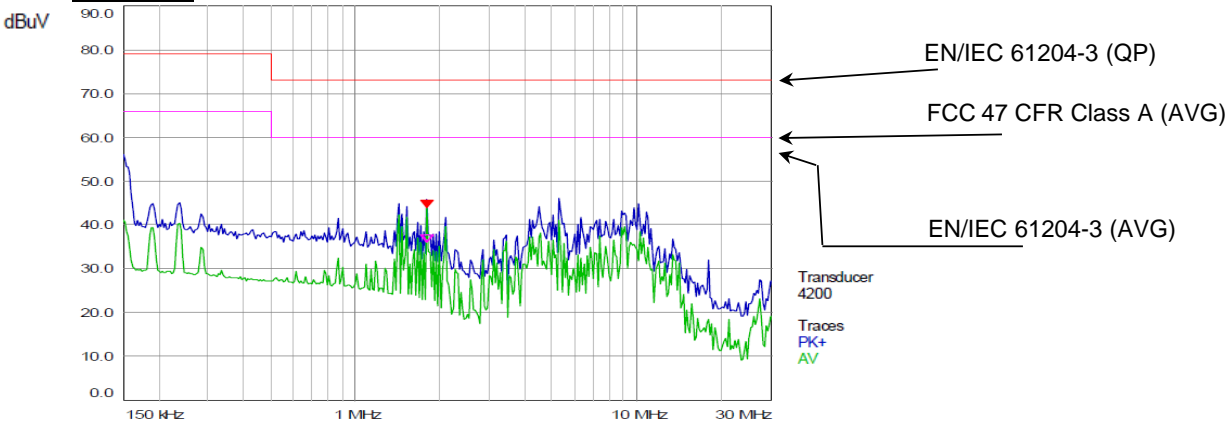
**MODEL: GSPL20-1125 3P480**

Conditions: Vin: 3PHASE 400VAC  
Iout: 100%  
Vout: 100%  
Ta: 25°C

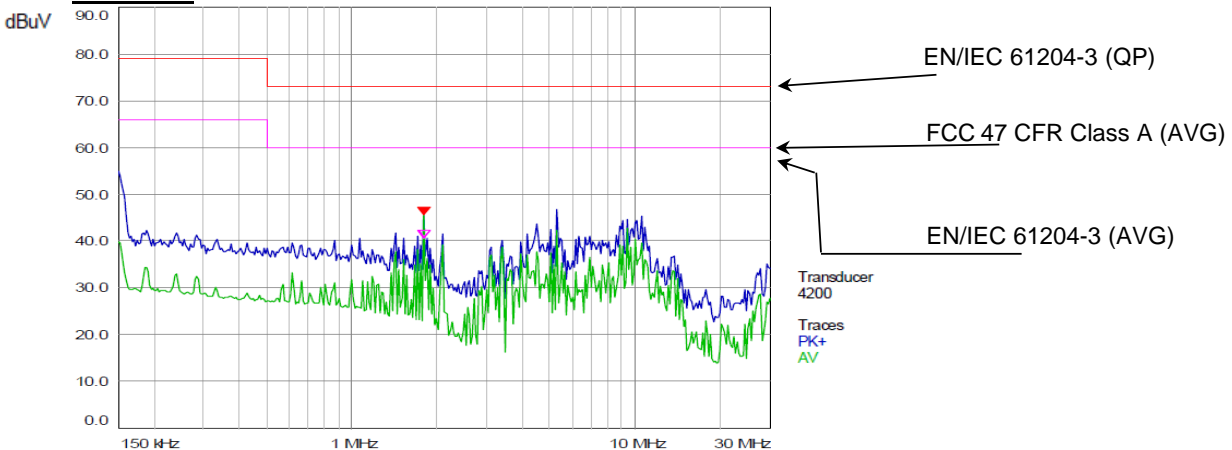
**Phase L1**



**Phase L2**



**Phase L3**



## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL100-225 3P208**

(1) Test condition

Input voltage/frequency: 3PHASE 200VAC/50Hz  
 Output current: 100%  
 Output voltage: 100%  
 Ambient temperature: 25°C  
 Regulation: FCC 47 CFR part 15 Class A, EN/IEC 61204-3, industrial environment

(2) Test results

Under the above test condition, emission level was below the limit line.  
 Refer to the following interference wave list and next page for spectrum data.

Inteference wave list

FCC 47 CFR part 15 Class A, EN/IEC 61204-3				
PHASE	FREQ	RESULT	LIMIT	MARGIN
		AV	AV	AV
	MHz	dBμV	dBμV	dBμV
L1	0.1763	53.09	66.00	12.91
L2	0.1793	54.22	66.00	11.78
L2	2.0845	46.56	60.00	13.44
L3	0.1786	53.12	66.00	12.88

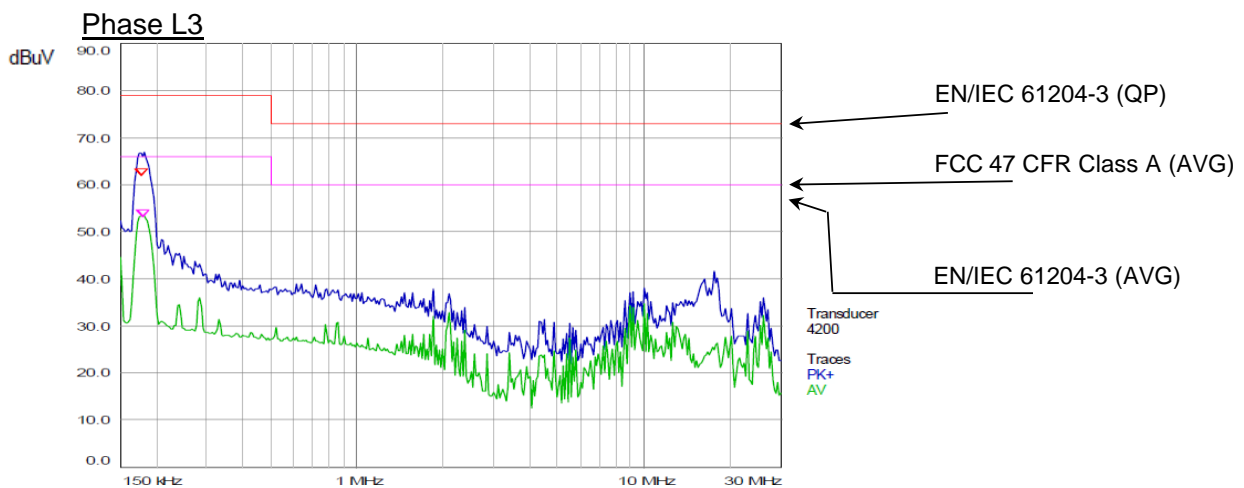
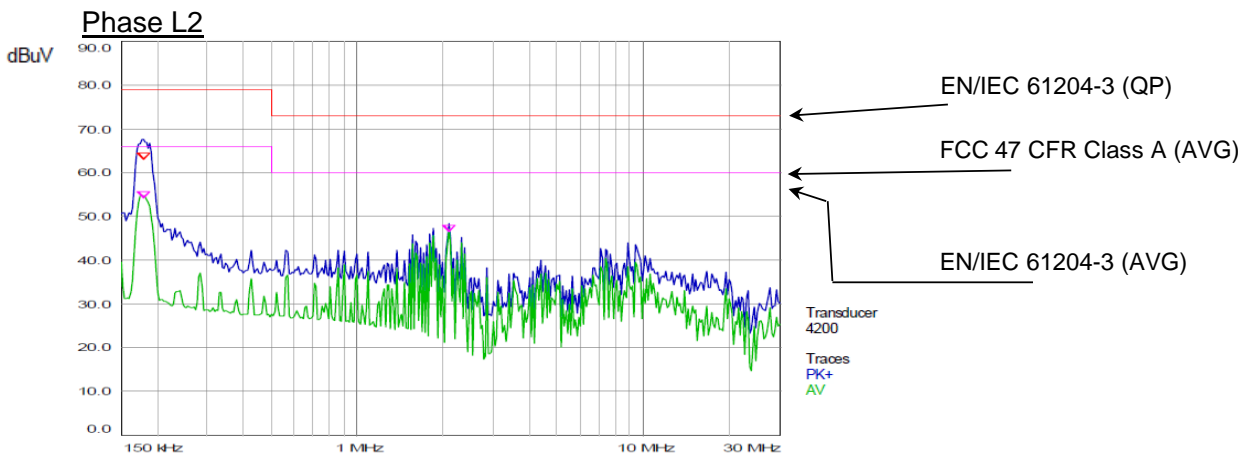
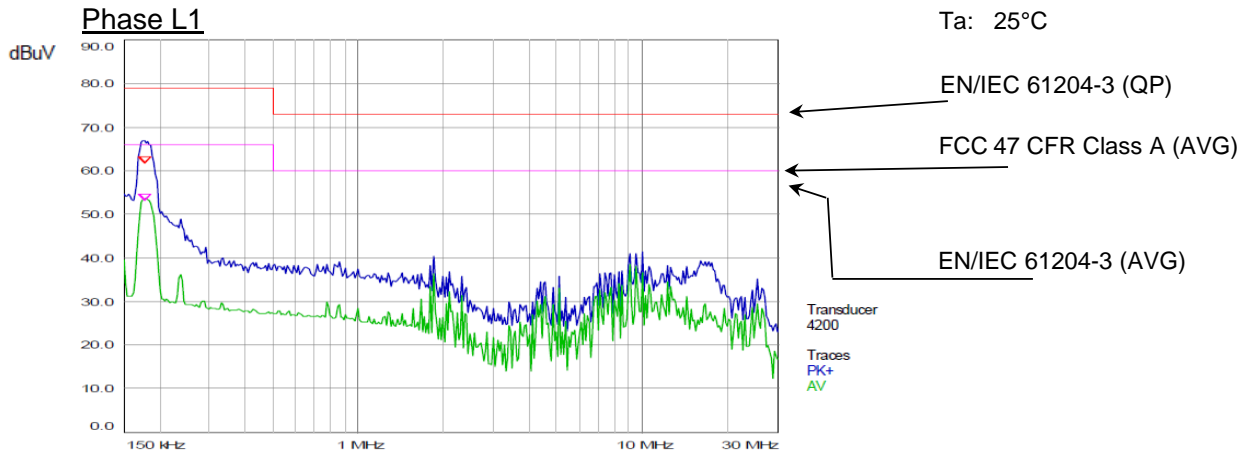


## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL100-225 3P208**

Conditions: Vin: 3PHASE 200VAC  
Iout: 100%  
Vout: 100%  
Ta: 25°C



## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL100-225 3P480**

(1) Test condition

Input voltage/frequency: 3PHASE 400VAC/50Hz  
 Output current: 100%  
 Output voltage: 100%  
 Ambient temperature: 25°C  
 Regulation: FCC 47 CFR part 15 Class A, EN/IEC 61204-3, industrial environment

(2) Test results

Under the above test condition, emission level was below the limit line.  
 Refer to the following interference wave list and next page for spectrum data.

Intefereance wave list

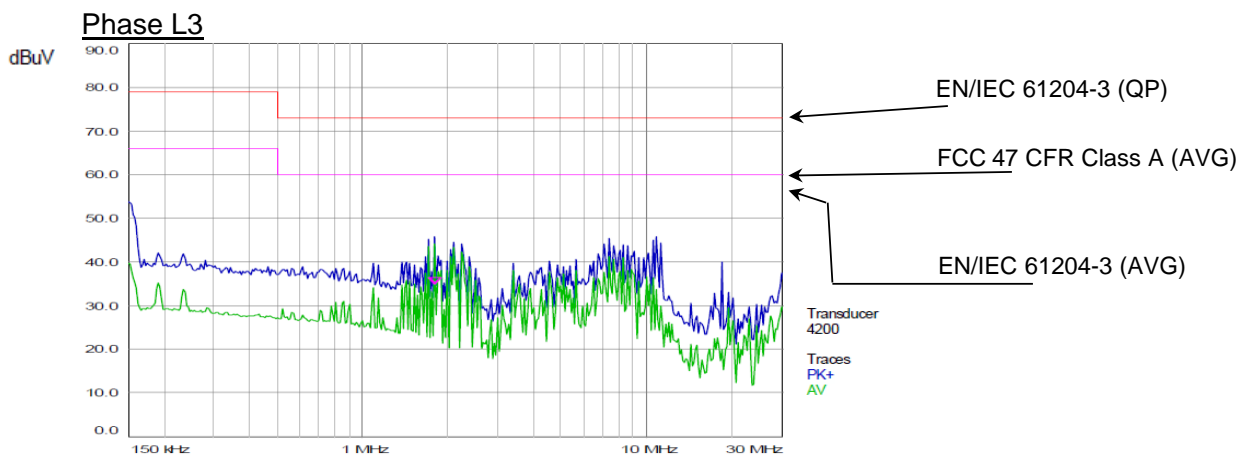
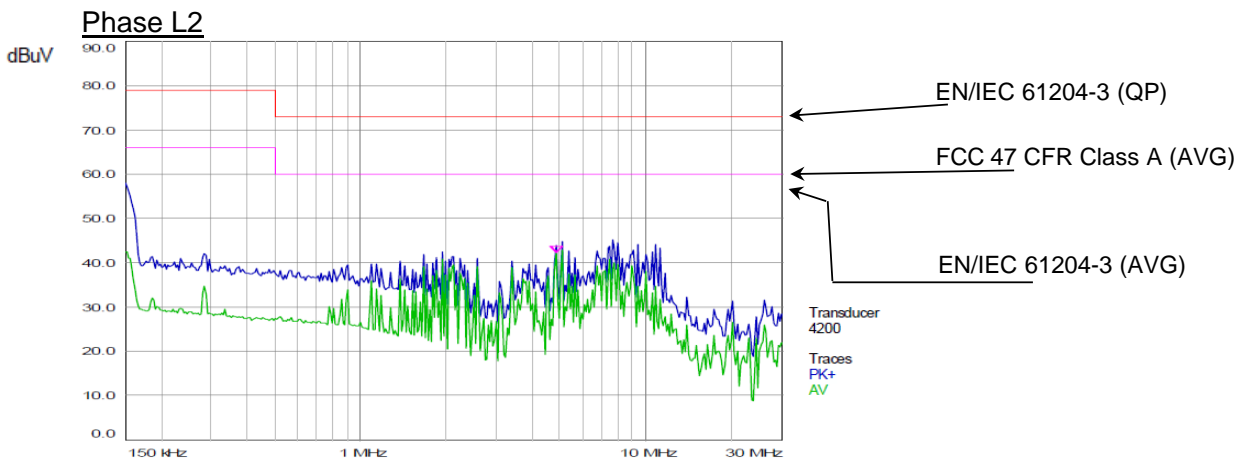
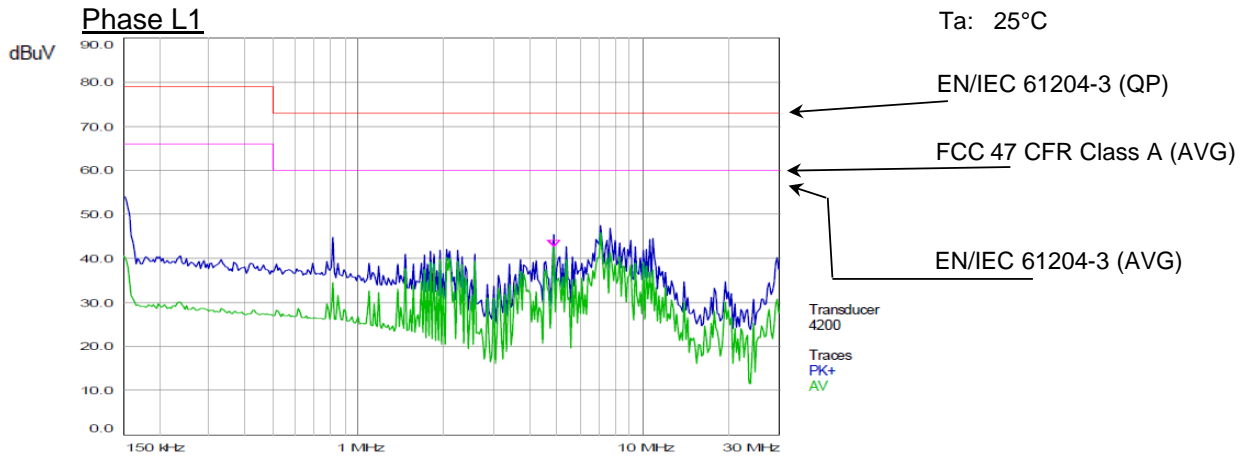
FCC 47 CFR part 15 Class A, EN/IEC 61204-3				
PHASE	FREQ	RESULT	LIMIT	MARGIN
		AV	AV	AV
	MHz	dBµV	dBµV	dBµV
L1	4.8314	42.73	60.00	17.27
L2	4.8314	42.33	60.00	17.67
L3	1.8051	35.05	60.00	24.95

**2. Test Data**

**2.1 Conducted Emission**

**MODEL: GSPL100-225 3P480**

Conditions: Vin: 3PHASE 400VAC  
Iout: 100%  
Vout: 100%  
Ta: 25°C



## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL600-37.5 3P208**

(1) Test condition

Input voltage/frequency: 3PHASE 200VAC/50Hz  
 Output current: 100%  
 Output voltage: 100%  
 Ambient temperature: 25°C  
 Regulation: FCC 47 CFR part 15 Class A, EN/IEC 61204-3, industrial environment

(2) Test results

Under the above test condition, emission level was below the limit line.  
 Refer to the following interference wave list and next page for spectrum data.

Inteference wave list

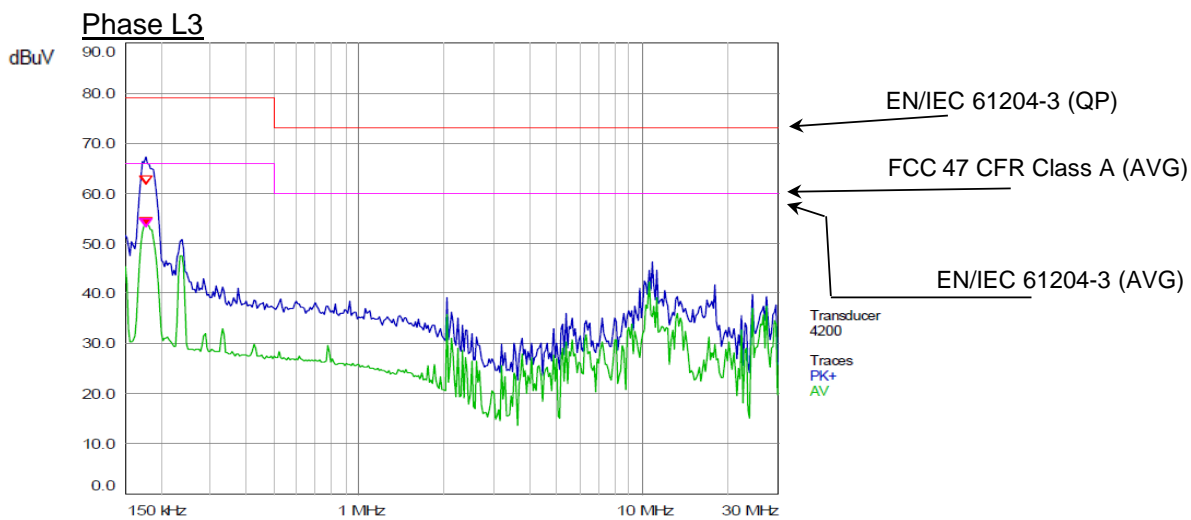
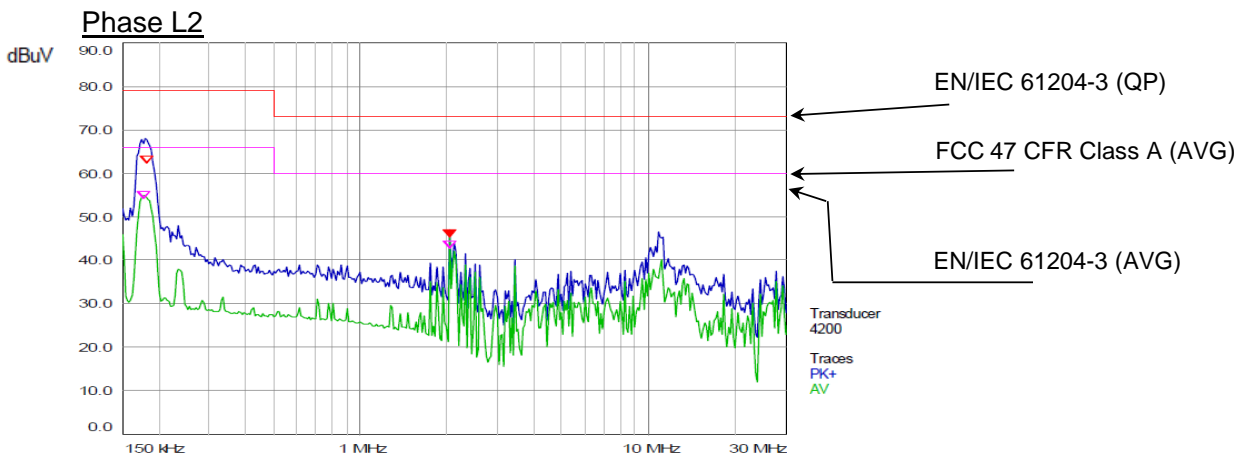
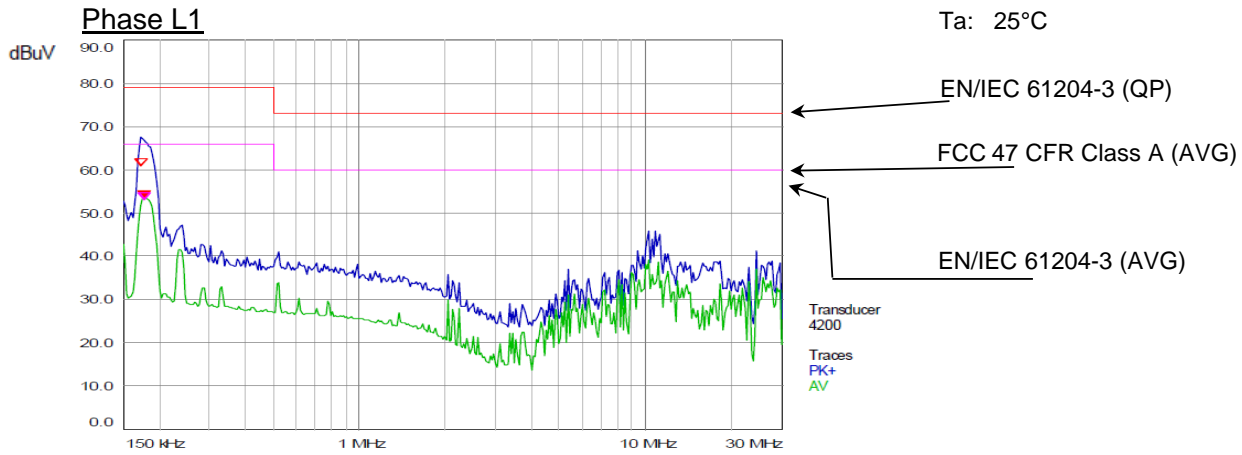
FCC 47 CFR part 15 Class A, EN/IEC 61204-3				
PHASE	FREQ	RESULT	LIMIT	MARGIN
		AV	AV	AV
	MHz	dBμV	dBμV	dBμV
L1	0.1768	52.98	66.00	13.02
L2	0.1767	54.29	66.00	11.71
L2	2.0371	42.72	60.00	17.28
L3	0.1768	53.18	66.00	12.82

**2. Test Data**

**2.1 Conducted Emission**

**MODEL: GSPL600-37.5 3P208**

Conditions: Vin: 3PHASE 200VAC  
Iout: 100%  
Vout: 100%  
Ta: 25°C



## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL600-37.5 3P480**

(1) Test condition

Input voltage/frequency: 3PHASE 400VAC/50Hz  
 Output current: 100%  
 Output voltage: 100%  
 Ambient temperature: 25°C  
 Regulation: FCC 47 CFR part 15 Class A, EN/IEC 61204-3, industrial environment

(2) Test results

Under the above test condition, emission level was below the limit line.  
 Refer to the following interference wave list and next page for spectrum data.

Inteference wave list

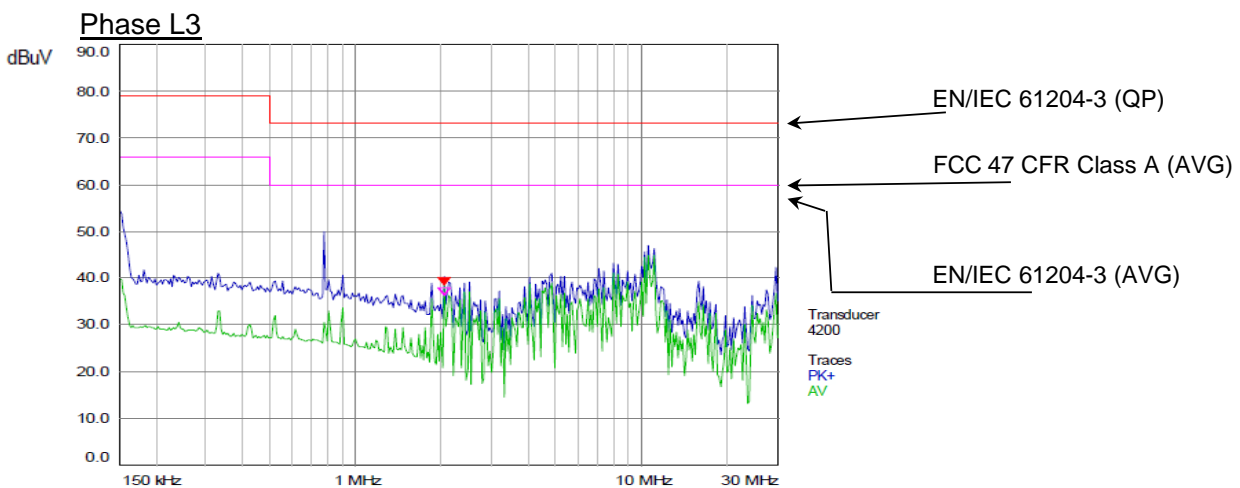
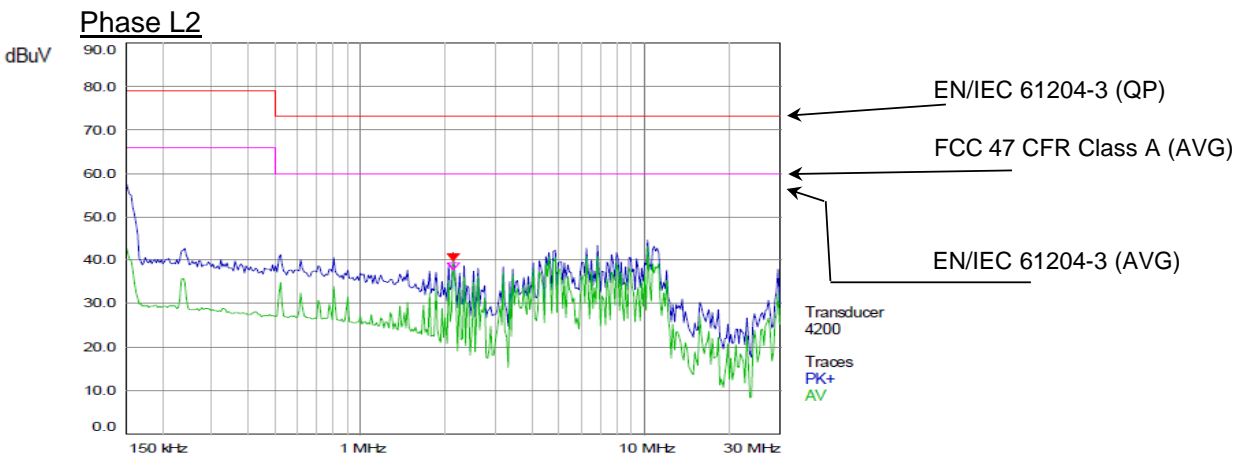
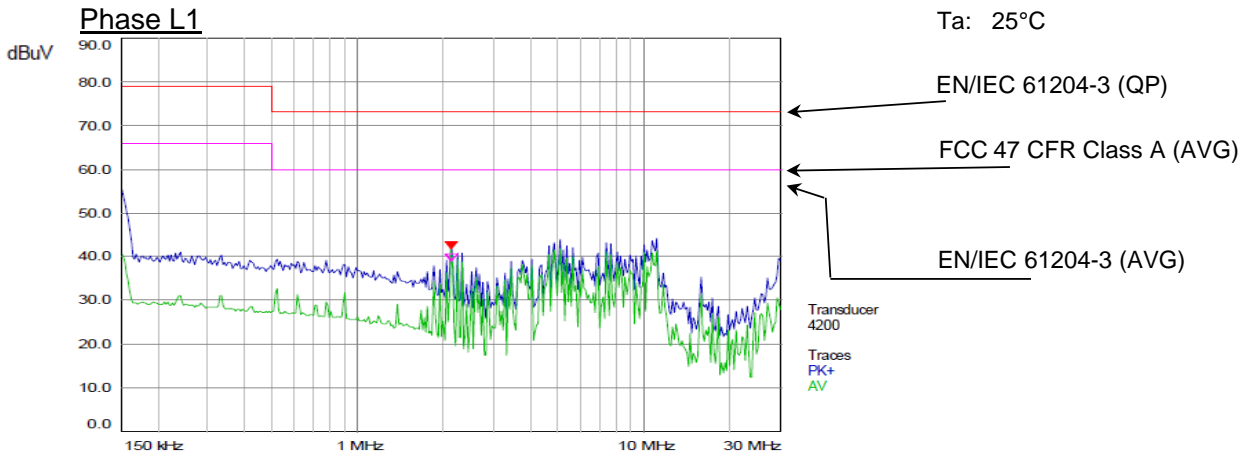
FCC 47 CFR part 15 Class A, EN/IEC 61204-3				
PHASE	FREQ	RESULT	LIMIT	MARGIN
		AV	AV	AV
	MHz	dBµV	dBµV	dBµV
L1	2.1309	38.96	60.00	21.04
L2	2.1309	37.76	60.00	22.24
L3	2.0371	36.30	60.00	23.70

**2. Test Data**

**2.1 Conducted Emission**

**MODEL: GSPL600-37.5 3P480**

Conditions: Vin: 3PHASE 400VAC  
Iout: 100%  
Vout: 100%  
Ta: 25°C



## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL1500-15 3P208**

(1) Test condition

Input voltage/frequency: 3PHASE 200VAC/50Hz  
 Output current: 100%  
 Output voltage: 100%  
 Ambient temperature: 25°C  
 Regulation: FCC 47 CFR part 15 Class A, EN/IEC 61204-3, industrial environment

(2) Test results

Under the above test condition, emission level was below the limit line.  
 Refer to the following interference wave list and next page for spectrum data.

Inteference wave list

FCC 47 CFR part 15 Class A, EN/IEC 61204-3				
PHASE	FREQ	RESULT	LIMIT	MARGIN
		AV	AV	AV
	MHz	dBµV	dBµV	dBµV
L1	0.1801	52.47	66.00	13.53
L1	0.2370	44.09	66.00	21.91
L2	0.1786	53.92	66.00	12.08
L2	0.2349	47.84	66.00	18.16
L3	0.1784	52.93	66.00	13.07
L3	0.2349	47.37	66.00	18.63

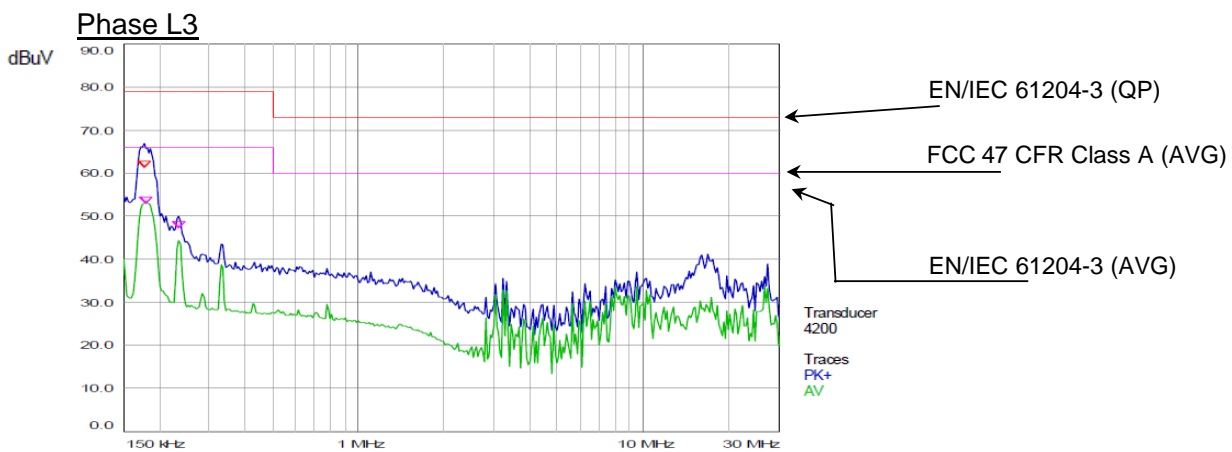
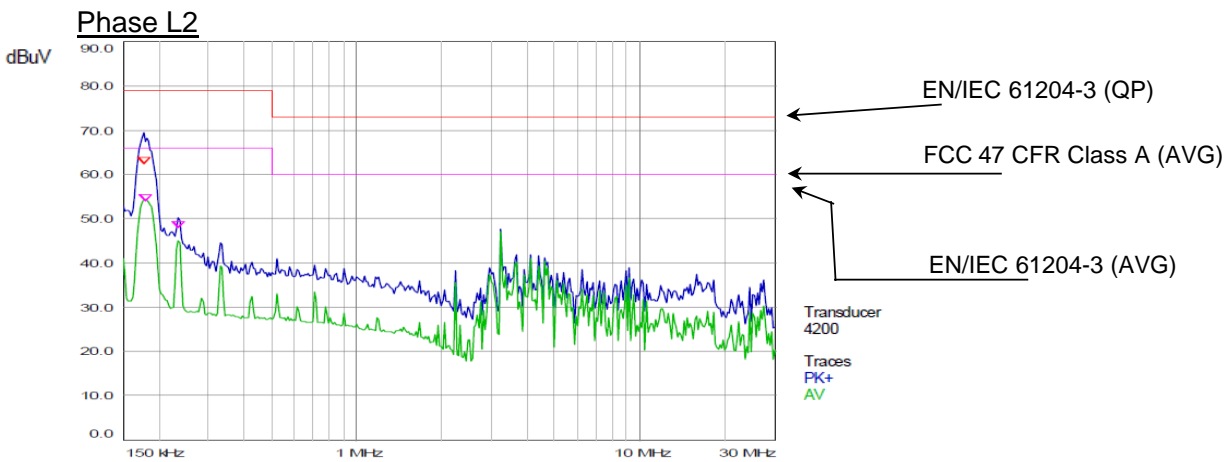
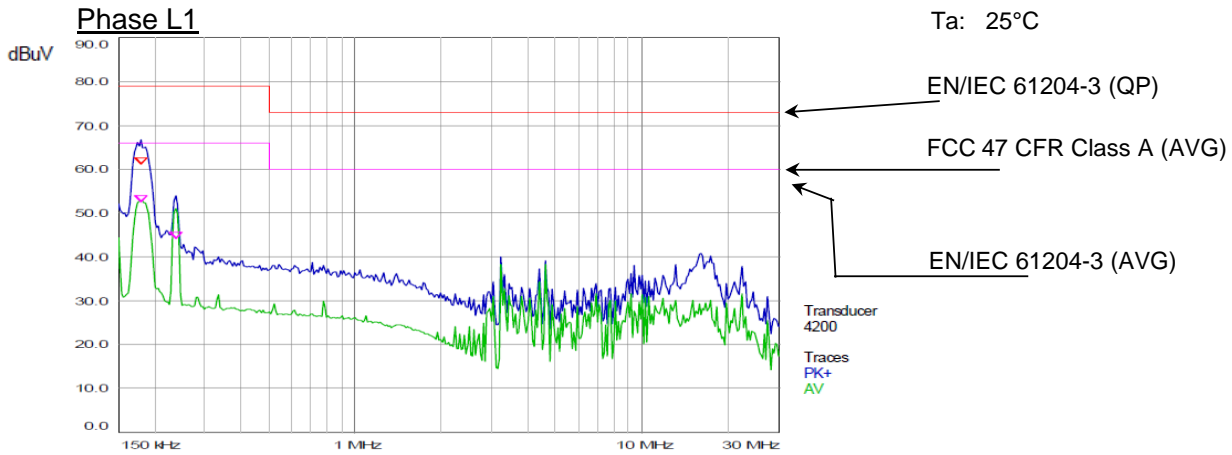


**2. Test Data**

**2.1 Conducted Emission**

**MODEL: GSPL1500-15 3P208**

Conditions: Vin: 3PHASE 200VAC  
 Iout: 100%  
 Vout: 100%  
 Ta: 25°C



## 2. Test Data

### 2.1 Conducted Emission

**MODEL: GSPL1500-15 3P480**

(1) Test condition

Input voltage/frequency: 3PHASE 400VAC/50Hz  
 Output current: 100%  
 Output voltage: 100%  
 Ambient temperature: 25°C  
 Regulation: FCC 47 CFR part 15 Class A, EN/IEC 61204-3, industrial environment

(2) Test results

Under the above test condition, emission level was below the limit line.  
 Refer to the following interference wave list and next page for spectrum data.

Inteference wave list

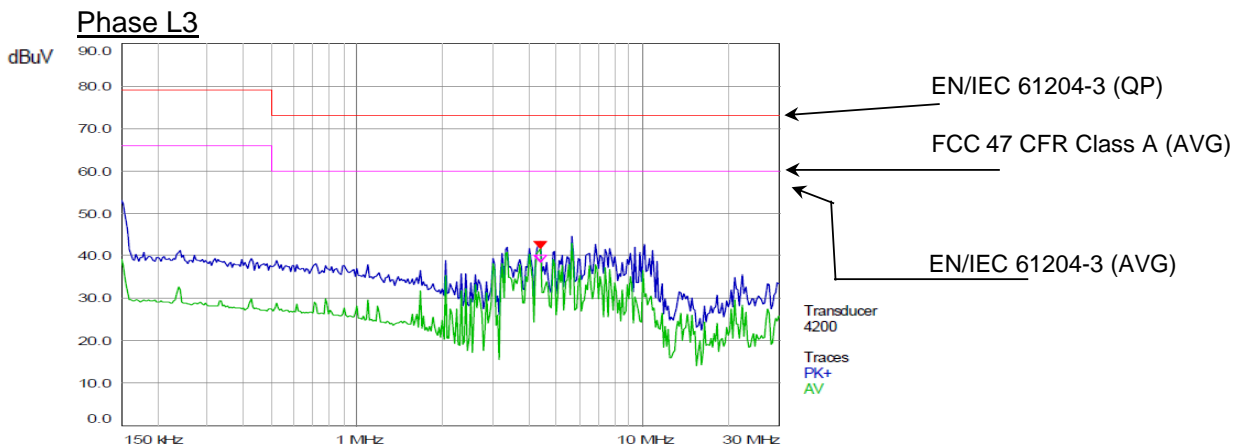
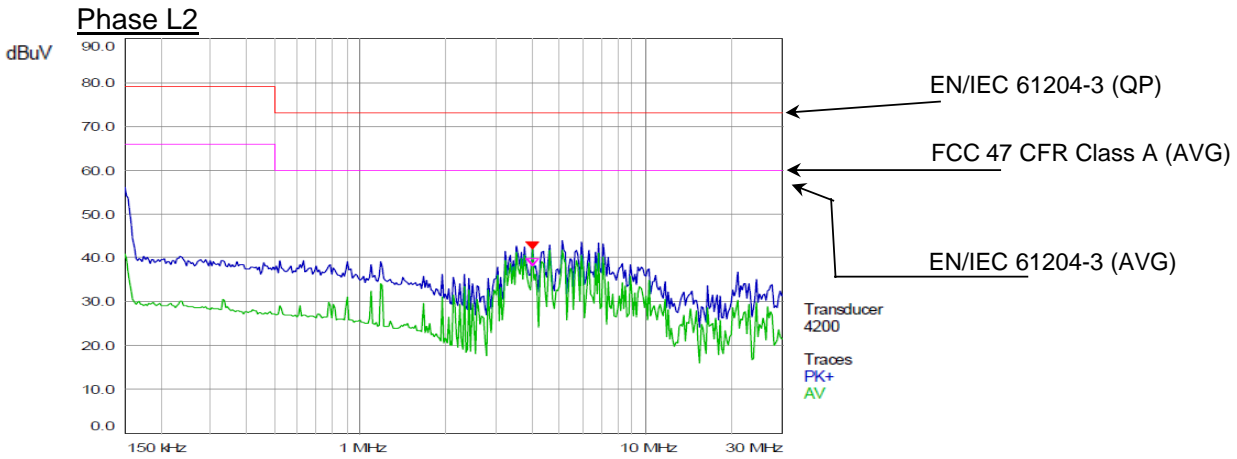
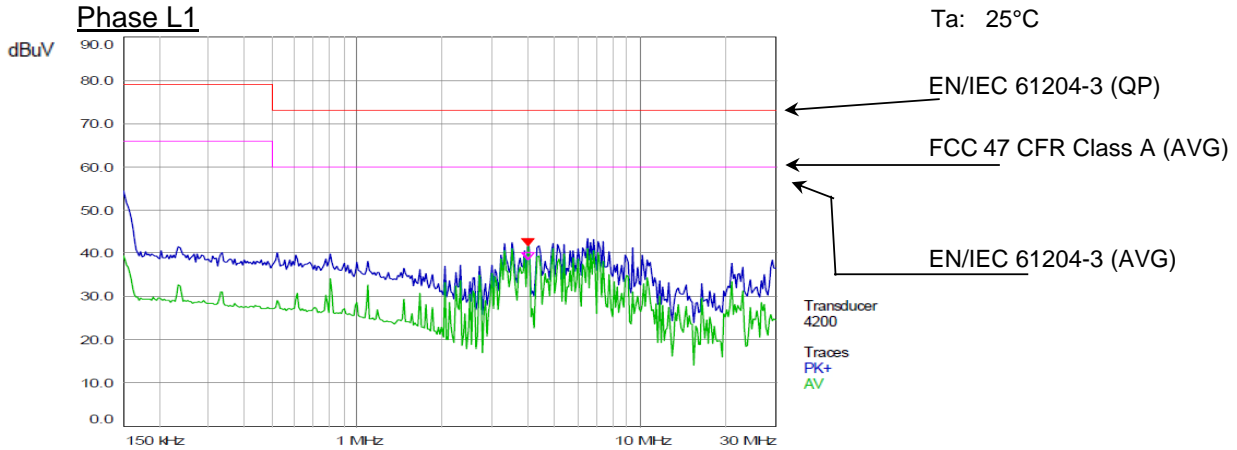
FCC 47 CFR part 15 Class A, EN/IEC 61204-3				
PHASE	FREQ	RESULT	LIMIT	MARGIN
		AV	AV	AV
	MHz	dBμV	dBμV	dBμV
L1	4.02780	38.32	60.00	21.68
L2	4.02780	38.21	60.00	21.79
L3	4.35870	38.34	60.00	21.66

**2. Test Data**

**2.1 Conducted Emission**

**MODEL: GSPL1500-15 3P480**

Conditions: Vin: 3PHASE 400VAC  
 Iout: 100%  
 Vout: 100%  
 Ta: 25°C



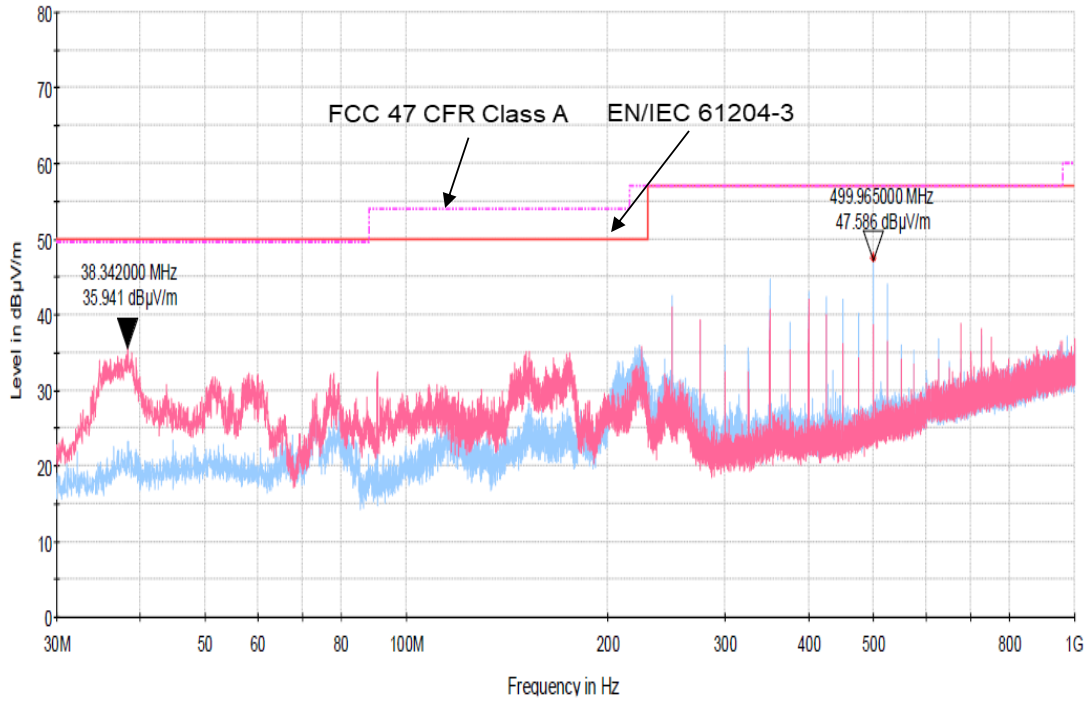
**2. Test Data**

**2.2 Radiated Emission**

**MODEL: GSPL20-1125 3P208**

Conditions: Vin: 200Vac (L-L)  
 Vout: 100%  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL and VERTICAL



PINK- VERTICAL  
 BLUE- HORIZONTAL

Final Result						
FREQ	Quasi Peak	LIMIT	MARGIN	Hight	Pol	Azimuth
MHz	dBµV/m	dBµV/m	dB	cm		deg
38.342000	34.24	49.50	15.26	100.0	V	-102.0
499.965000	44.29	56.90	12.61	100.0	H	151.0

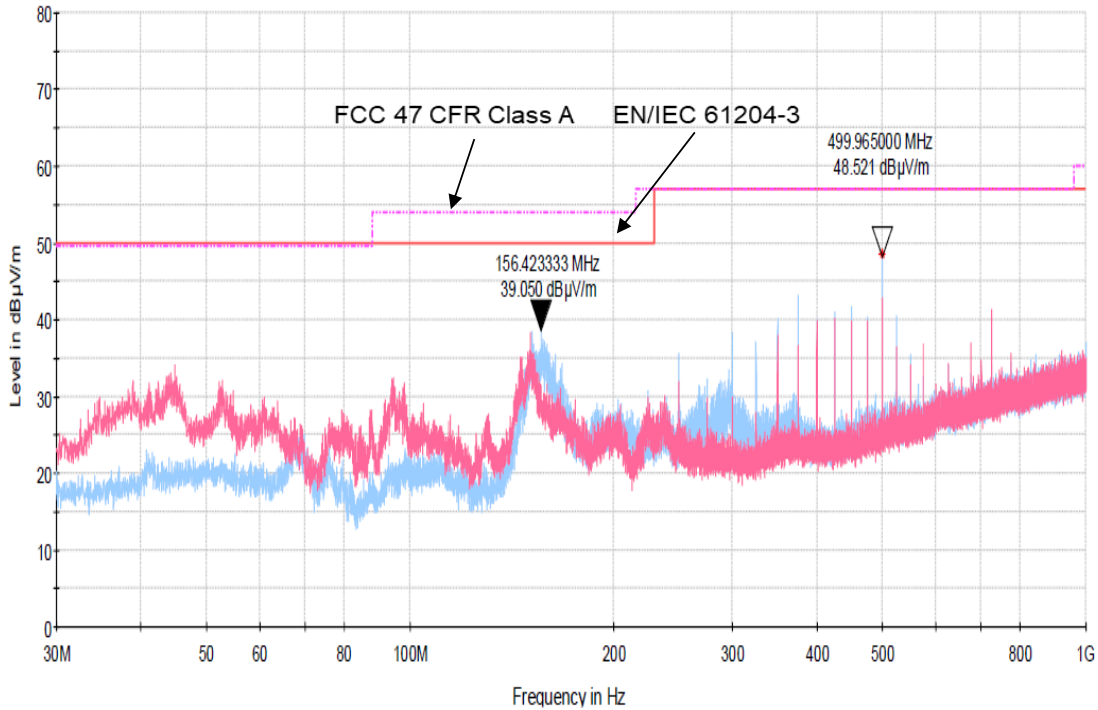
**2. Test Data**

**2.2 Radiated Emission**

**MODEL: GSPL20-1125 3P480**

Conditions: Vin: 400Vac (L-L)  
 Vout: 100%  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL and VERTICAL



PINK- VERTICAL  
 BLUE- HORIZONTAL

Final Result						
FREQ	Quasi Peak	LIMIT	MARGIN	Hight	Pol	Azimuth
MHz	dBµV/m	dBµV/m	dB	cm		deg
156.423333	37.65	50.00	12.35	100.0	H	84.0
499.965000	44.92	57.00	12.08	100.0	H	62.0

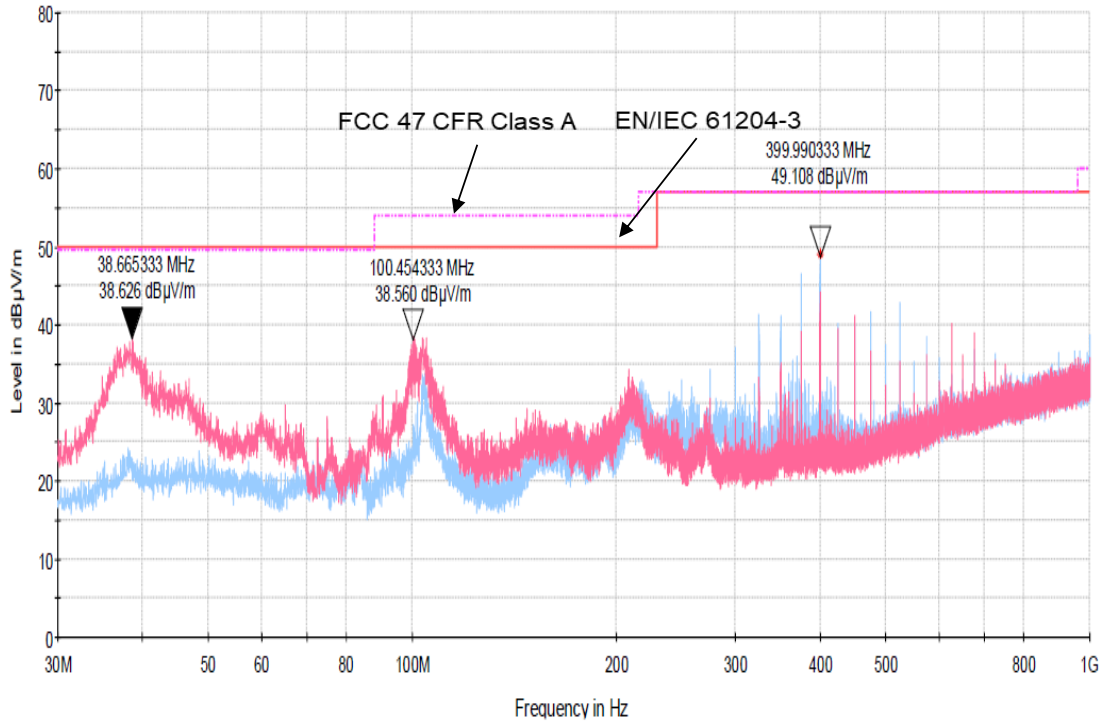
**2. Test Data**

**2.2 Radiated Emission**

**MODEL: GSPL100-225 3P208**

Conditions: Vin: 200Vac (L-L)  
 Vout: 100%  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL and VERTICAL



PINK- VERTICAL  
 BLUE- HORIZONTAL

Final Result						
FREQ	Quasi Peak	LIMIT	MARGIN	Hight	Pol	Azimuth
MHz	dBµV/m	dBµV/m	dB	cm		deg
38.665333	37.53	49.50	11.97	100.0	V	15.0
100.454333	36.06	50.00	13.94	100.0	V	-67.0
399.990333	44.81	56.90	12.09	100.0	H	180.0

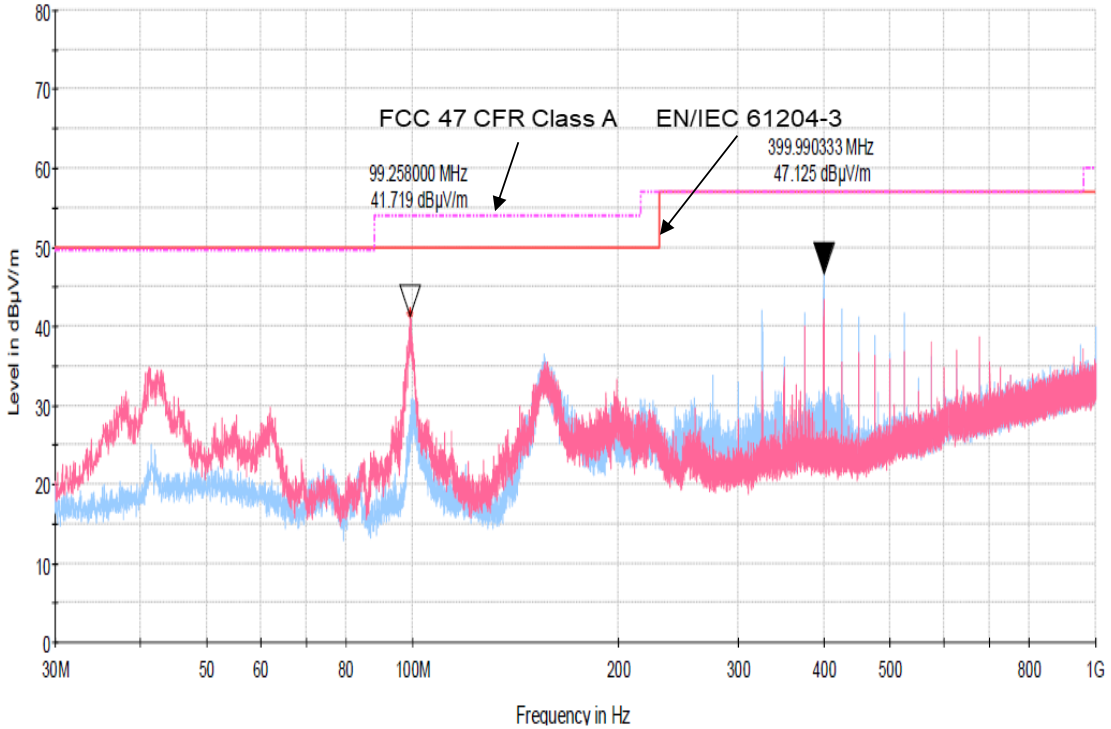
**2. Test Data**

**2.2 Radiated Emission**

**MODEL: GSPL100-225 3P480**

Conditions: Vin: 400Vac (L-L)  
 Vout: 100%  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL and VERTICAL



PINK- VERTICAL  
 BLUE- HORIZONTAL

Final Result						
FREQ	Quasi Peak	LIMIT	MARGIN	Hight	Pol	Azimuth
MHz	dBµV/m	dBµV/m	dB	cm		deg
99.258000	39.22	50.00	10.78	100.0	V	147.0
399.990333	43.53	50.00	6.48	100.0	H	-88.0

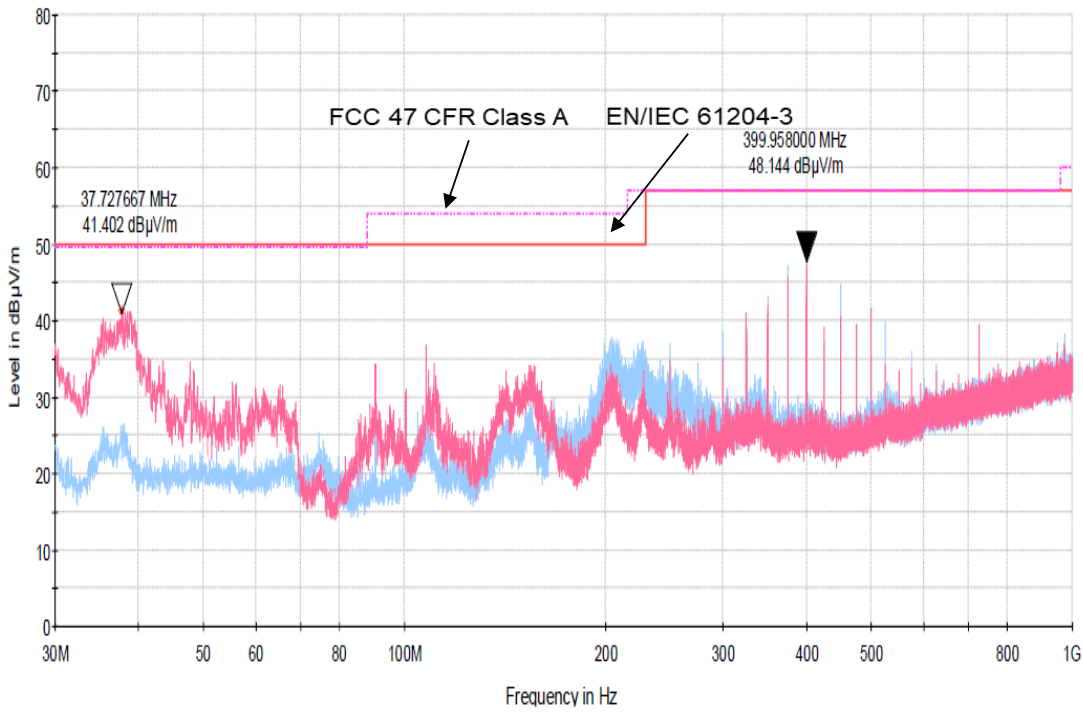
**2. Test Data**

**2.2 Radiated Emission**

**MODEL: GSPL600-37.5 3P208**

Conditions: Vin: 200Vac (L-L)  
 Vout: 100%  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL and VERTICAL



PINK- VERTICAL  
 BLUE- HORIZONTAL

Final Result						
FREQ	Quasi Peak	LIMIT	MARGIN	Hight	Pol	Azimuth
MHz	dBµV/m	dBµV/m	dB	cm		deg
37.727667	40.30	49.50	9.20	100.0	V	-153.0
399.958000	43.84	56.90	13.06	100.0	H	84.0



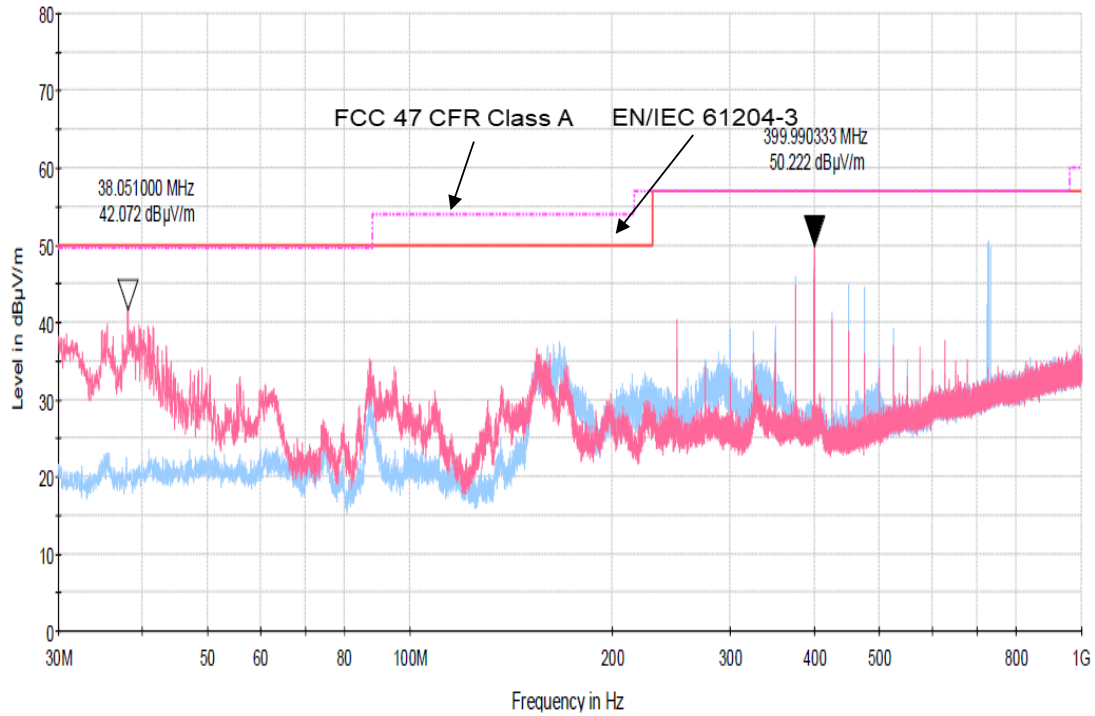
## 2. Test Data

### 2.2 Radiated Emission

**MODEL: GSPL600-37.5 3P480**

Conditions: Vin: 400Vac (L-L)  
 Vout: 100%  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL and VERTICAL



PINK- VERTICAL  
 BLUE- HORIZONTAL

Final Result						
FREQ	Quasi Peak	LIMIT	MARGIN	Hight	Pol	Azimuth
MHz	dBµV/m	dBµV/m	dB	cm		deg
38.051000	39.67	49.50	9.83	100.0	V	-161.0
399.990333	45.62	56.90	11.28	100.0	V	77.0

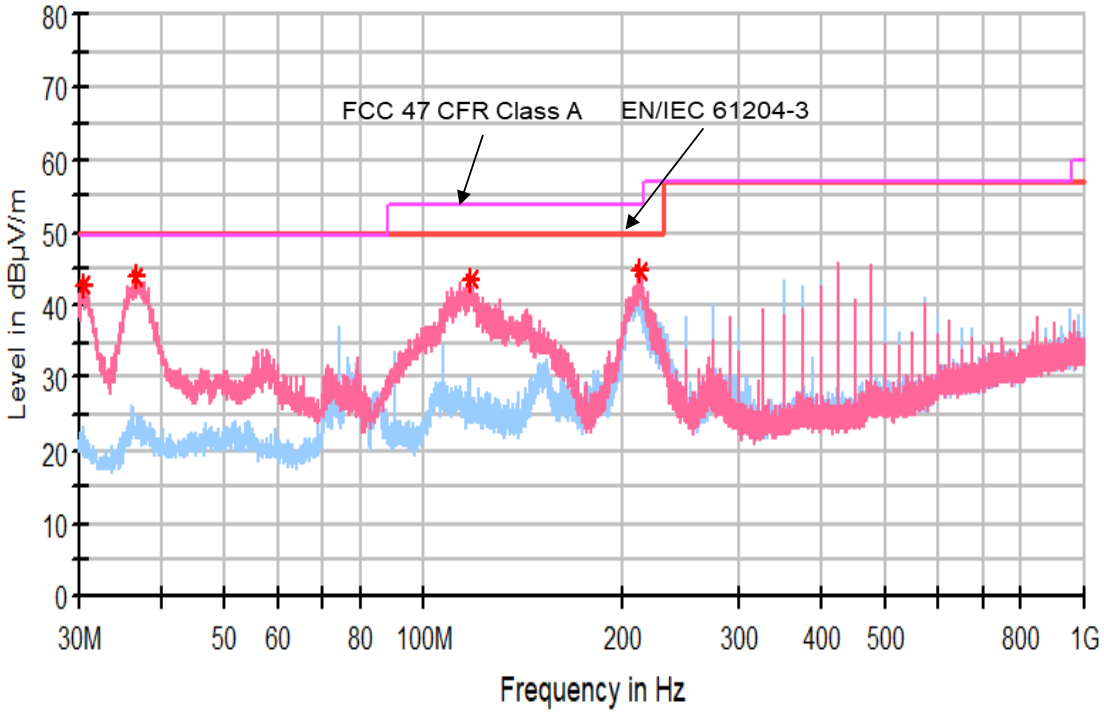
**2. Test Data**

**2.2 Radiated Emission**

**MODEL: GSPL1500-15 3P208**

Conditions: Vin: 200Vac (L-L)  
 Vout: 100%  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL and VERTICAL



PINK- VERTICAL  
 BLUE- HORIZONTAL

Final Result						
FREQ	Quasi Peak	LIMIT	MARGIN	Hight	Pol	Azimuth
MHz	dBµV/m	dBµV/m	dB	cm		deg
30.517333	39.52	49.50	9.98	100.0	V	65.0
36.628333	40.14	49.50	9.36	100.0	V	180.0
117.817333	41.37	50.00	8.63	100.0	V	180.0
211.875000	41.10	50.00	8.90	100.0	V	-43.0

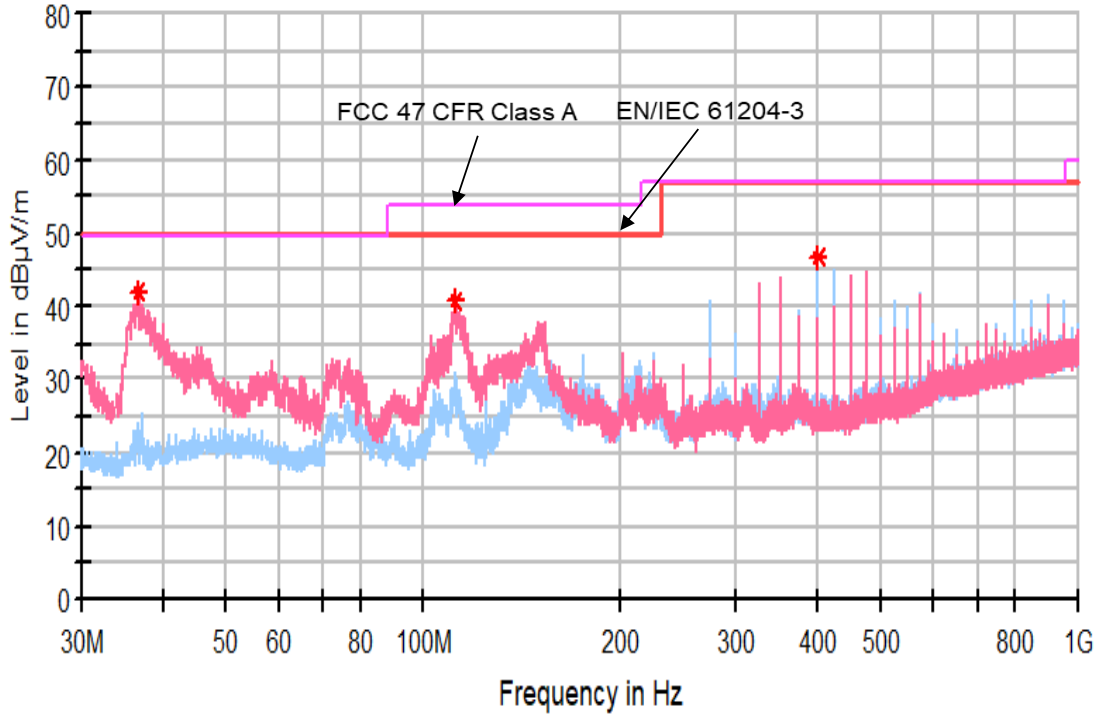
**2. Test Data**

**2.2 Radiated Emission**

**MODEL: GSPL1500-15 3P480**

Conditions: Vin: 400Vac (L-L)  
 Vout: 100%  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL and VERTICAL



PINK- VERTICAL  
 BLUE- HORIZONTAL

Final Result						
FREQ	Quasi Peak	LIMIT	MARGIN	Hight	Pol	Azimuth
MHz	dBµV/m	dBµV/m	dB	cm		deg
36.693000	39.60	50.00	10.40	100.0	V	64.0
111.674000	38.86	50.00	11.14	100.0	V	64.0
399.990333	43.09	57.00	13.91	100.0	H	-64.0