

GENESYS™
GH1.5kW
EVALUATION
DATA

DWG: IA762-53-01		
APPD	CHK	DWG
Crane 19/08/19	Uri m 19/8/19	MICHAEL G. 18.08.2019

TDK-LAMBDA

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TERMINOLOGY USED

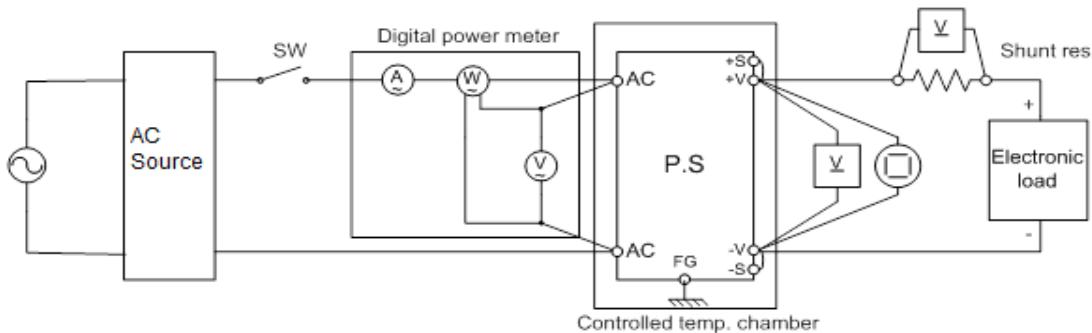
Definition

Vin	Input voltage
Vout	Output voltage
Iin	Input current
Iout	Output current
Ta	Ambient temperature
C.V	Constant voltage mode
C.C	Constant current mode

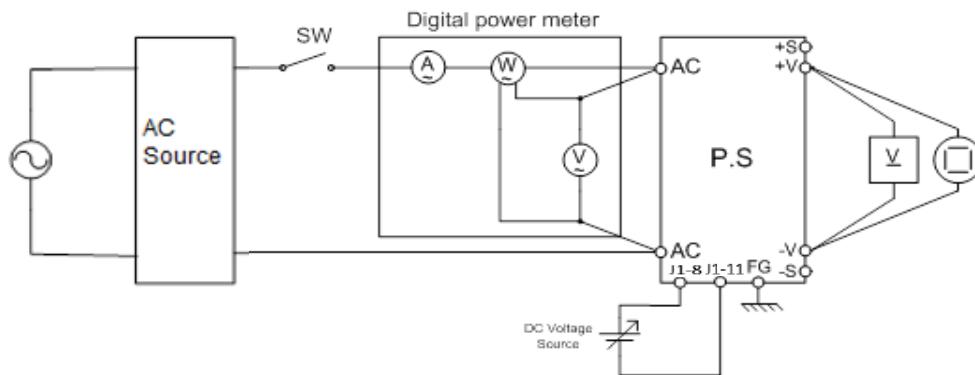
1. EVALUATION METHOD

1.1 Circuit used for determination

(1) Steady state data

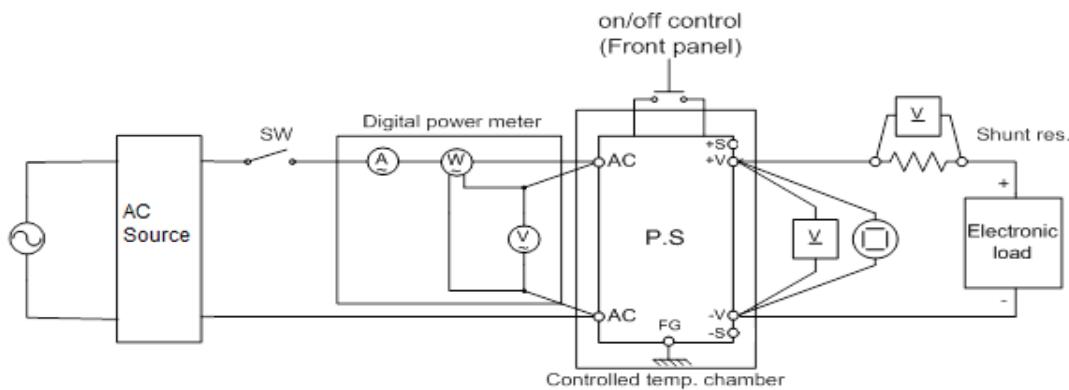


(2) Over voltage protection (OVP) characteristics

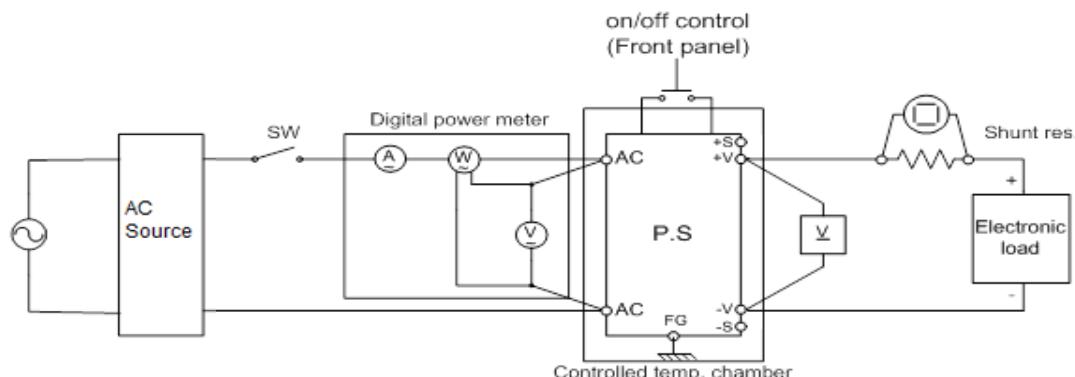


(3) Output rise/fall characteristics

Constant Voltage mode

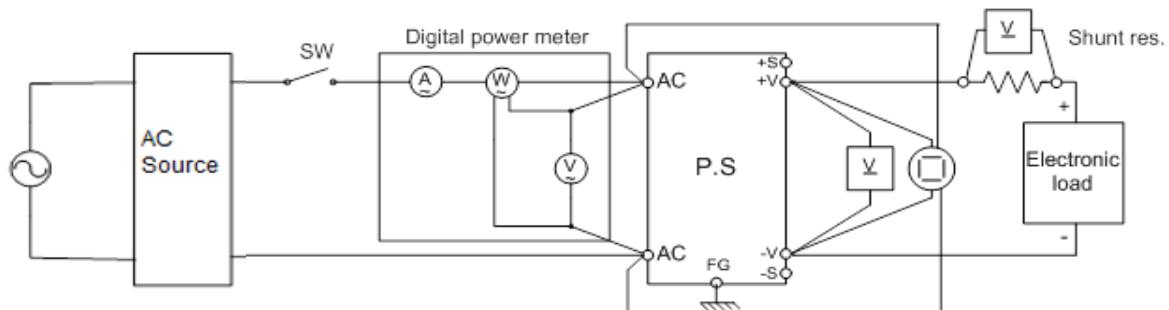


Constant Current mode

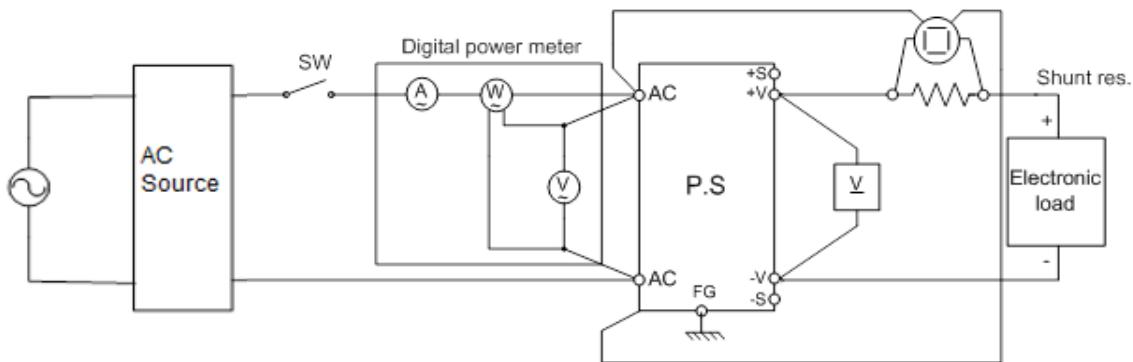


(4) Dynamic line response characteristics

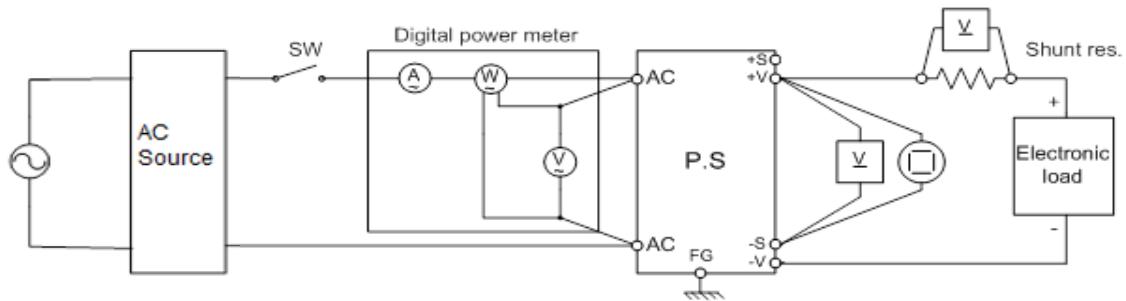
Constant Voltage mode



Constant Current mode

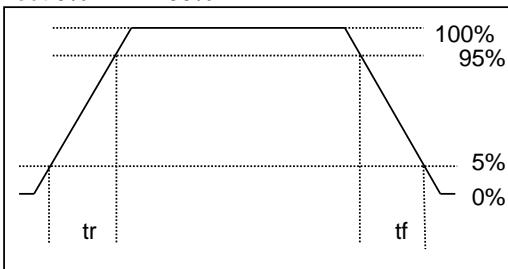


(5) Dynamic load response characteristics



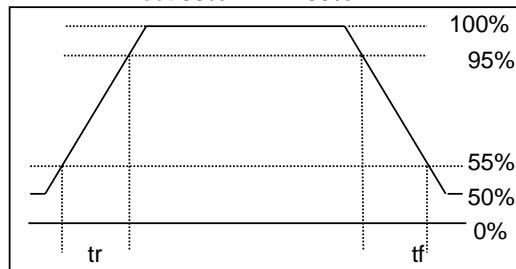
Output current waveform

Iout 0% <--> 100%



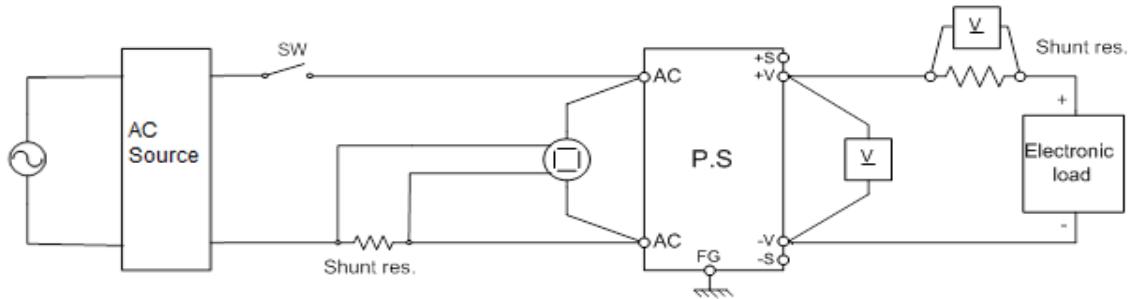
Output current waveform

Iout 50% <--> 100%

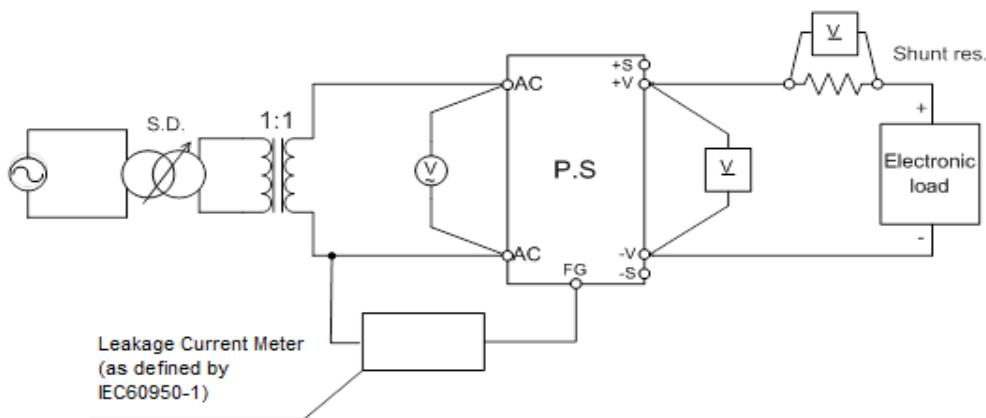


(6) Inrush current characteristics

Constant Voltage mode

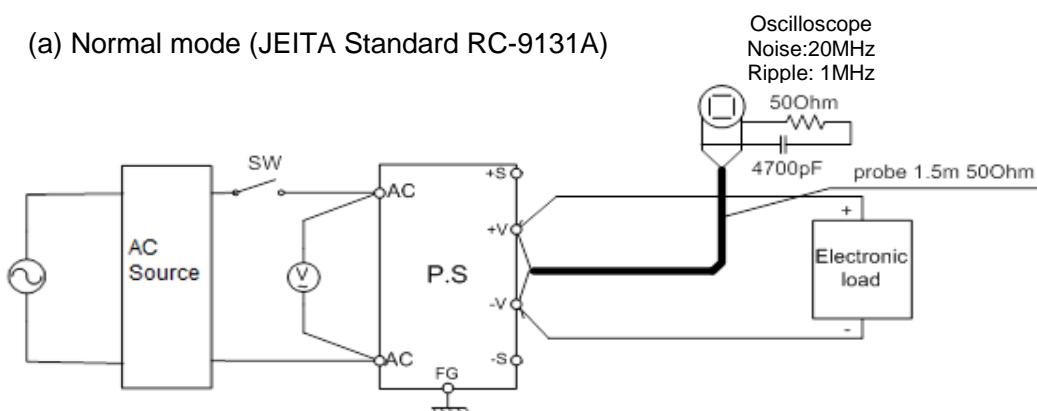


(7) Leakage current characteristics



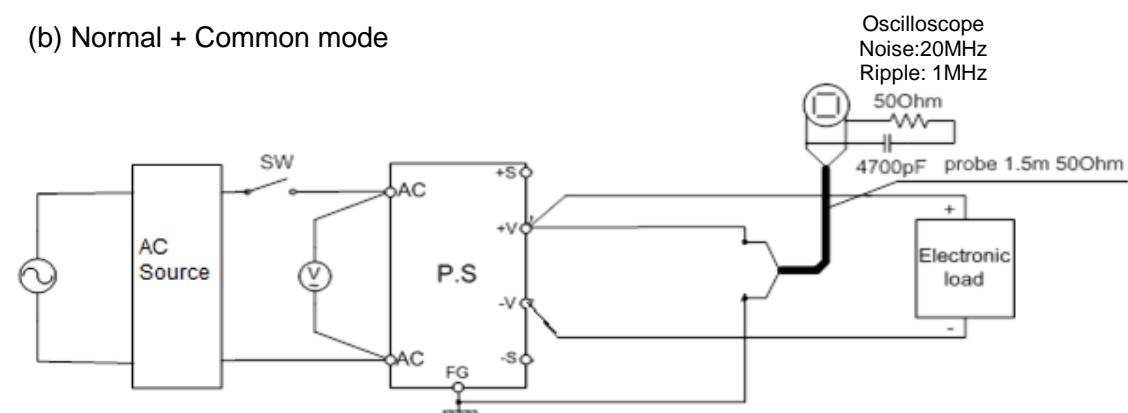
(8) Output ripple & noise waveform (10V to 300V models)

(a) Normal mode (JEITA Standard RC-9131A)



Oscilloscope
Noise:20MHz
Ripple: 1MHz

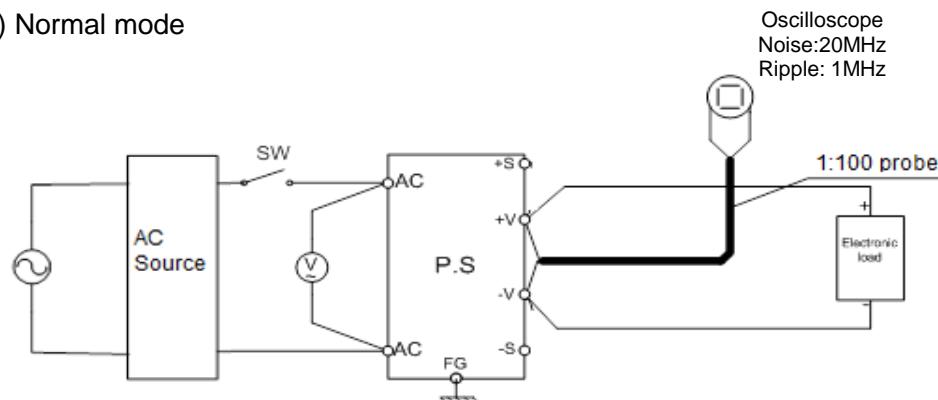
(b) Normal + Common mode



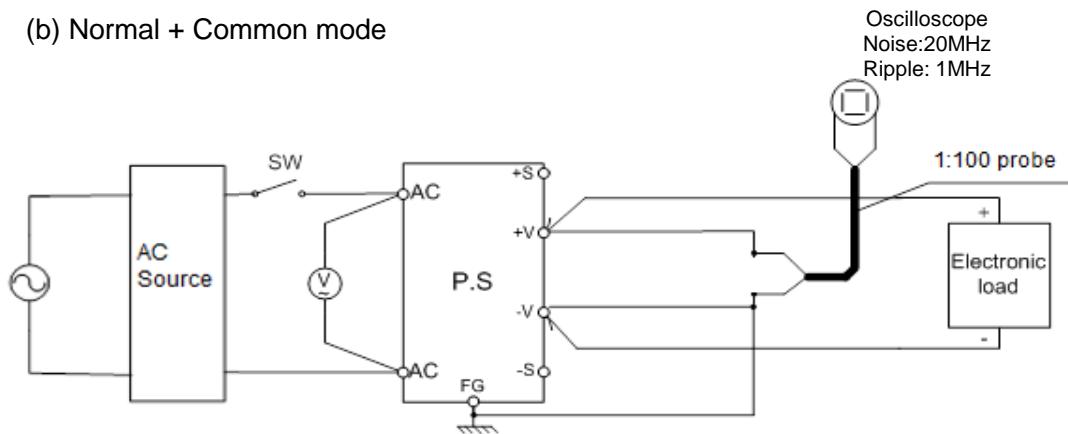
Oscilloscope
Noise:20MHz
Ripple: 1MHz

(9) Output ripple & noise waveform (400V to 600V models)

(a) Normal mode



(b) Normal + Common mode



1.2 List of equipment used

	EQUIPMENT USED	MANUFACTURER	MODEL No.
1	Storage oscilloscope	YOKOGAWA	DLM2034
2	Storage oscilloscope	YOKOGAWA	DL1740
3	Digital multimeter	AGILENT	34401A
4	Digital multimeter	KEITHLEY	2001
5	Digital power meter	YOKOGAWA	WT110
6	AC Source	CHROMA	6530
7	AC Source	CHROMA	6560
8	Electronic load	H&H	ZS1880
9	Electronic load	H&H	ZS4260
10	Electronic load	H&H	ZS7060
11	Electronic load	CHROMA	63201
12	Electronic load	CHROMA	63202
13	Electronic load	CHROMA	63206A
14	Electronic load	CHROMA	63208A
15	Controlled temp. chamber	THERMOTRON	SM-16-3800
16	Controlled temp. chamber	THERMOTRON	SE-600-5-5
17	Controlled temp. chamber	THERMOTRON	SE-600-6-6
18	Leakage current tester	KIKUSUI	TOS3200
19	Current probe	YOKOGAWA	701931
20	Transducer	LEM	IT700-SB
21	Transducer	LEM	IT60-S
22	Transducer	LEM	IT200-S

(1). Regulation - Line & Load, Temperature drift

GH10-150

Conditions: Ta = 25°C

1. Regulation - Line & Load, C.V mode

Io	Vin						Line Regulation
	85VAC	100VAC	115VAC	200VAC	230VAC	265VAC	
0%	9.9983	9.9983	9.9983	9.9983	9.9983	9.9982	0.1 0.001%
25%	9.9982	9.9982	9.9982	9.9982	9.9982	9.9982	0.0 0.000%
50%	9.9983	9.9983	9.9983	9.9983	9.9983	9.9983	0.0 0.000%
75%	9.9983	9.9983	9.9984	9.9983	9.9984	9.9984	0.1 0.001%
100%	9.9984	9.9984	9.9985	9.9985	9.9985	9.9985	0.1 0.001%
Load Regulation	0.2	0.2	0.3	0.3	0.3	0.3	ΔV(mV)
	0.002%	0.002%	0.003%	0.003%	0.003%	0.003%	

2. Temperature drift, C.V mode

Conditions: Vin:100VAC
Iout:100%

Ta	0°C	25°C	50°C	Temp. Coefficient (0°C~50°C)	
Vout	9.9975	9.9976	9.9975	0.1 mV	0 ppm/°C

GH60-25

Conditions: Ta = 25°C

1. Regulation - Line & Load, C.V mode

Io	Vin						Line Regulation
	85VAC	100VAC	115VAC	200VAC	230VAC	265VAC	
0%	59.9994	59.9995	59.9996	59.9996	59.9996	59.9996	0.2 0.000%
25%	59.9984	59.9985	59.9986	59.9985	59.9985	59.9986	0.2 0.000%
50%	59.9986	59.9987	59.9987	59.9987	59.9987	59.9988	0.2 0.000%
75%	59.9984	59.9985	59.9986	59.9986	59.9986	59.9987	0.3 0.001%
100%	59.9984	59.9984	59.9984	59.9984	59.9987	59.9986	0.3 0.001%
Load Regulation	1.0	1.1	1.2	1.2	1.1	1.0	ΔV(mV)
	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	

2. Temperature drift, C.V mode

Conditions: Vin:100VAC
Iout:100%

Ta	0°C	25°C	50°C	Temp. Coefficient (0°C~50°C)	
Vout	59.9994	60.0208	60.0394	40 mV	13 ppm/°C

(1). Regulation - Line & Load, Temperature drift

GH150-10

Conditions: Ta = 25°C

1. Regulation - Line & Load, C.V mode

Io	Vin						Line Regulation
	85VAC	100VAC	115VAC	200VAC	230VAC	265VAC	
0%	150.0150	150.0150	150.0150	150.0150	150.0150	150.0150	0.0 0.000%
25%	150.0150	150.0150	150.0150	150.0150	150.0150	150.0150	0.0 0.000%
50%	150.0140	150.0140	150.0140	150.0140	150.0140	150.0140	0.0 0.000%
75%	150.0140	150.0140	150.0140	150.0140	150.0140	150.0140	0.0 0.000%
100%	150.0120	150.0120	150.0120	150.0120	150.0120	150.0120	0.0 0.000%
Load Regulation	3.0	3.0	3.0	3.0	3.0	3.0	ΔV(mV)
	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	

2. Temperature drift, C.V mode

Conditions: Vin:100VAC
Iout:100%

Ta	0°C	25°C	50°C	Temp. Coefficient (0°C~50°C)	
Vout	150.0320	150.0420	150.0370	10 mV	1 ppm/°C

GH600-2.6

Conditions: Ta = 25°C

1. Regulation - Line & Load, C.V mode

Io	Vin						Line Regulation
	85VAC	100VAC	115VAC	200VAC	230VAC	265VAC	
0%	600.0644	600.0645	600.0645	600.0642	600.0641	600.0638	0.7 0.000%
25%	600.0590	600.0599	600.0599	600.0585	600.0599	600.0602	1.7 0.000%
50%	600.0582	600.0586	600.0586	600.0588	600.0589	600.0592	1.0 0.000%
75%	600.0553	600.0558	600.0553	600.0549	600.0552	600.0564	1.5 0.000%
100%	600.0537	600.0532	600.0540	600.0537	600.0548	600.0560	2.8 0.000%
Load Regulation	10.7	11.3	10.5	10.5	9.3	7.8	ΔV(mV)
	0.002%	0.002%	0.002%	0.002%	0.002%	0.001%	

2. Temperature drift, C.V mode

Conditions: Vin:100VAC
Iout:100%

Ta	0°C	25°C	50°C	Temp. Coefficient (0°C~50°C)	
Vout	599.8653	599.8507	599.8055	60 mV	2 ppm/°C

(1). Regulation - Line & Load, Temperature drift

GH10-150

Conditions: Ta = 25°C

1. Regulation - Line & Load, C.C mode (*)

Vo	Vin						Line Regulation
	85VAC	100VAC	115VAC	200VAC	230VAC	265VAC	
0%	149.9392	149.9370	149.9351	149.9338	149.9314	149.9303	8.9 0.005%
25%	149.9302	149.9276	149.9257	149.9259	149.9235	149.9223	7.9 0.005%
50%	149.9362	149.9344	149.9326	149.9324	149.9310	149.9300	6.2 0.004%
75%	149.9438	149.9416	149.9388	149.9386	149.9361	149.9345	9.3 0.005%
100%	149.9216	149.9193	149.9179	149.9174	149.9164	149.9146	7.0 0.004%
Load Regulation	22.2	22.3	20.9	21.2	19.7	19.9	ΔI(mA)
	0.015%	0.015%	0.014%	0.014%	0.013%	0.013%	

2. Temperature drift, C.C mode

Conditions: Vin:100VAC

Iout:100%

Ta	0°C	25°C	50°C	Temp. Coefficient (0°C~50°C)	
Iout	150.0390	149.9712	149.9453	94 mA	13 ppm/°C

GH60-25

1. Regulation - Line & Load, C.C mode (*)

Vo	Vin						Line Regulation
	85VAC	100VAC	115VAC	200VAC	230VAC	265VAC	
0%	24.9979	24.9978	24.9978	24.9976	24.9977	24.9975	0.4 0.001%
25%	24.9973	24.9974	24.9974	24.9973	24.9974	24.9974	0.1 0.000%
50%	24.9976	24.9976	24.9976	24.9973	24.9975	24.9974	0.3 0.001%
75%	24.9983	24.9985	24.9985	24.9980	24.9982	24.9982	0.5 0.002%
100%	24.9975	24.9976	24.9976	24.9970	24.9973	24.9973	0.6 0.002%
Load Regulation	1.0	1.1	1.1	1.0	0.9	0.9	ΔI(mA)
	0.004%	0.004%	0.004%	0.004%	0.004%	0.004%	

2. Temperature drift, C.C mode

Conditions: Vin:100VAC

Iout:100%

Ta	0°C	25°C	50°C	Temp. Coefficient (0°C~50°C)	
Iout	25.0054	25.0044	25.0183	13.9 mA	11 ppm/°C

Notes:

(*) Not including load regulation thermal drift effect.

(1). Regulation - Line & Load, Temperature drift

GH150-10

Conditions: Ta = 25°C

1. Regulation - Line & Load, C.C mode (*)

Vo	Vin						Line Regulation
	85VAC	100VAC	115VAC	200VAC	230VAC	265VAC	
0%	9.9950	9.9950	9.9950	9.9950	9.9950	9.9950	0.0 0.000%
25%	9.9949	9.9949	9.9949	9.9949	9.9949	9.9949	0.0 0.000%
50%	9.9948	9.9948	9.9948	9.9948	9.9948	9.9948	0.0 0.000%
75%	9.9947	9.9947	9.9947	9.9947	9.9947	9.9947	0.0 0.000%
100%	9.9947	9.9947	9.9947	9.9947	9.9947	9.9947	0.0 0.000%
Load Regulation	0.3	0.3	0.3	0.3	0.3	0.3	ΔI(mA)
	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	

2. Temperature drift, C.C mode

Conditions: Vin:100VAC

Iout:100%

Ta	0°C	25°C	50°C	Temp. Coefficient (0°C~50°C)	
Iout	10.0002	10.0038	10.0116	11.4 mA	23 ppm/°C

GH600-2.6

1. Regulation - Line & Load, C.C mode (*)

Vo	Vin						Line Regulation
	85VAC	100VAC	115VAC	200VAC	230VAC	265VAC	
0%	2.6007	2.6007	2.6007	2.6007	2.6007	2.6007	0.0 0.000%
25%	2.6000	2.6001	2.6001	2.6000	2.6000	2.6001	0.1 0.004%
50%	2.5995	2.5996	2.5996	2.5995	2.5996	2.5996	0.1 0.004%
75%	2.5990	2.5990	2.5990	2.5990	2.5990	2.5990	0.0 0.000%
100%	2.5981	2.5982	2.5982	2.5981	2.5982	2.5982	0.1 0.004%
Load Regulation	2.6	2.5	2.5	2.6	2.5	2.5	ΔI(mA)
	0.100%	0.096%	0.096%	0.100%	0.096%	0.096%	

2. Temperature drift, C.C mode

Conditions: Vin:100VAC

Iout:100%

Ta	0°C	25°C	50°C	Temp. Coefficient (0°C~50°C)	
Iout	2.5978	2.5973	2.5972	0.6 mA	5 ppm/°C

Notes:

(*) Not including load regulation thermal drift effect.

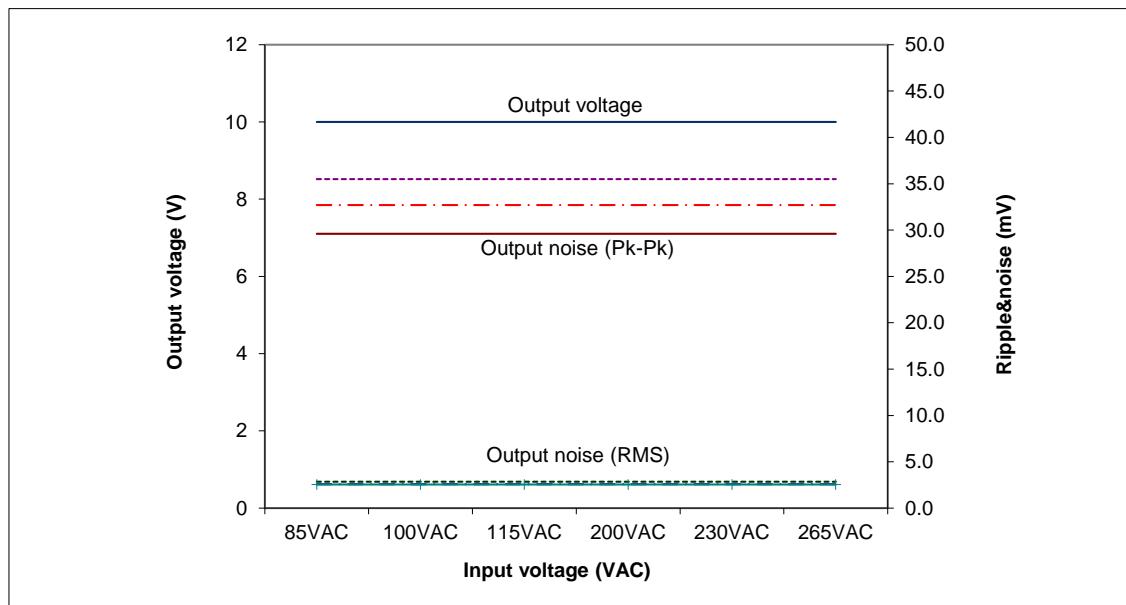
(2). Output voltage and ripple voltage vs. input voltage

C.V mode

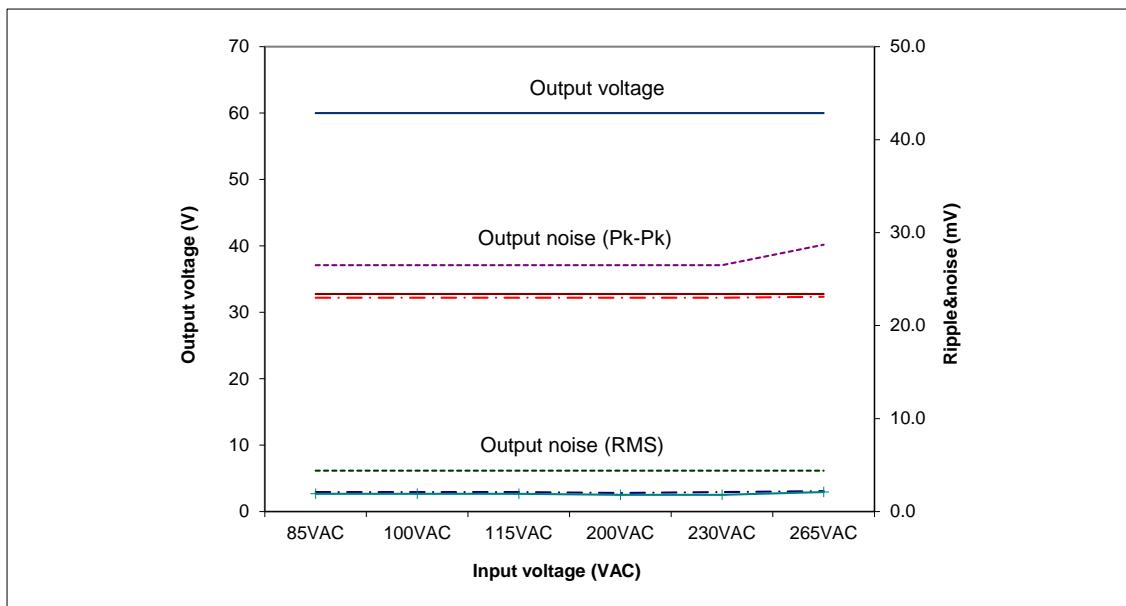
Conditions: Iout:100%

Ta: 0°C -----
 25°C - - - - -
 50°C ——————

GH10-150



GH60-25



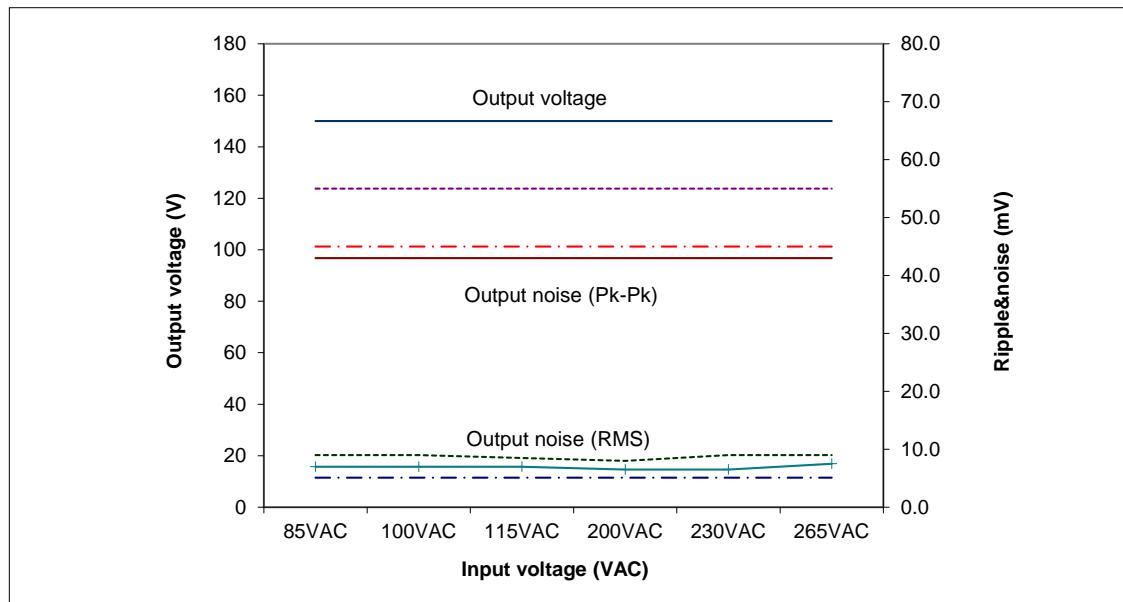
(2). Output voltage and ripple voltage vs. input voltage

C.V mode

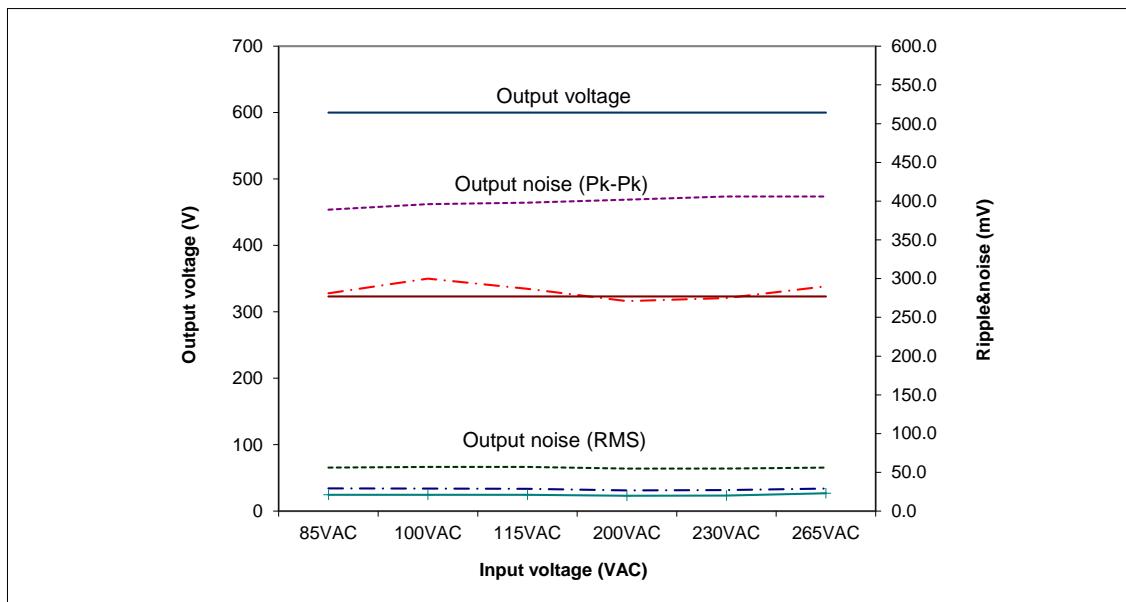
Conditions: Iout:100%

Ta: 0°C -----
 25°C - - - - -
 50°C ——————

GH150-10



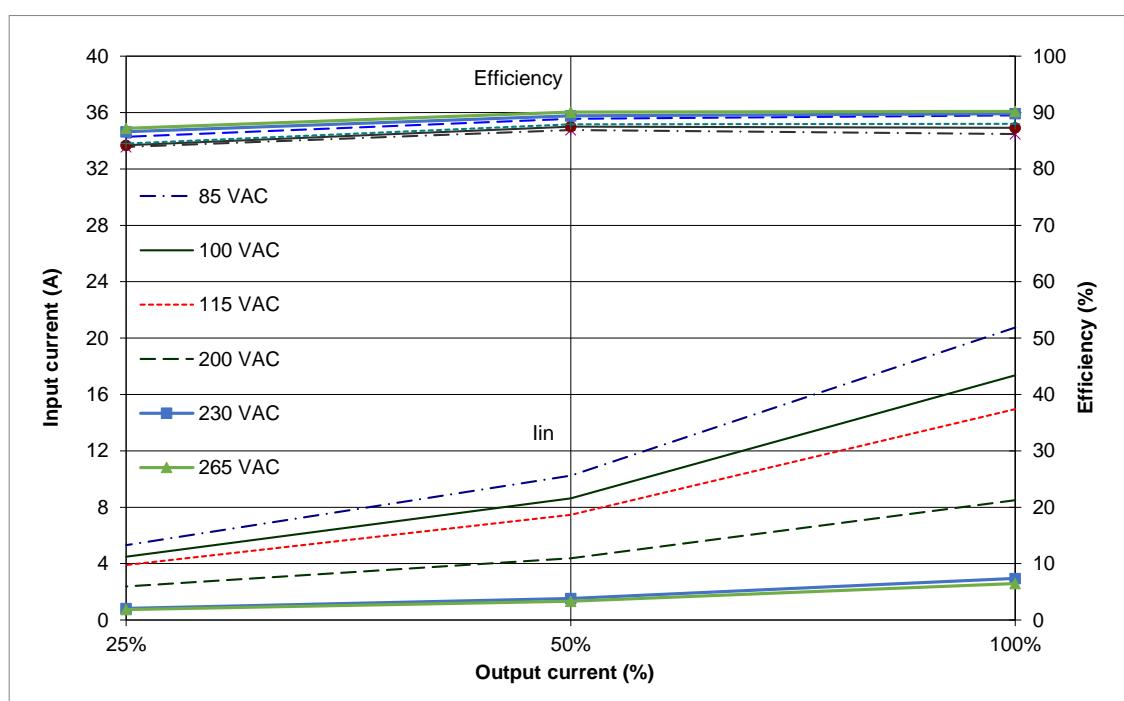
GH600-2.6



(3). Efficiency and Input current vs. Output current

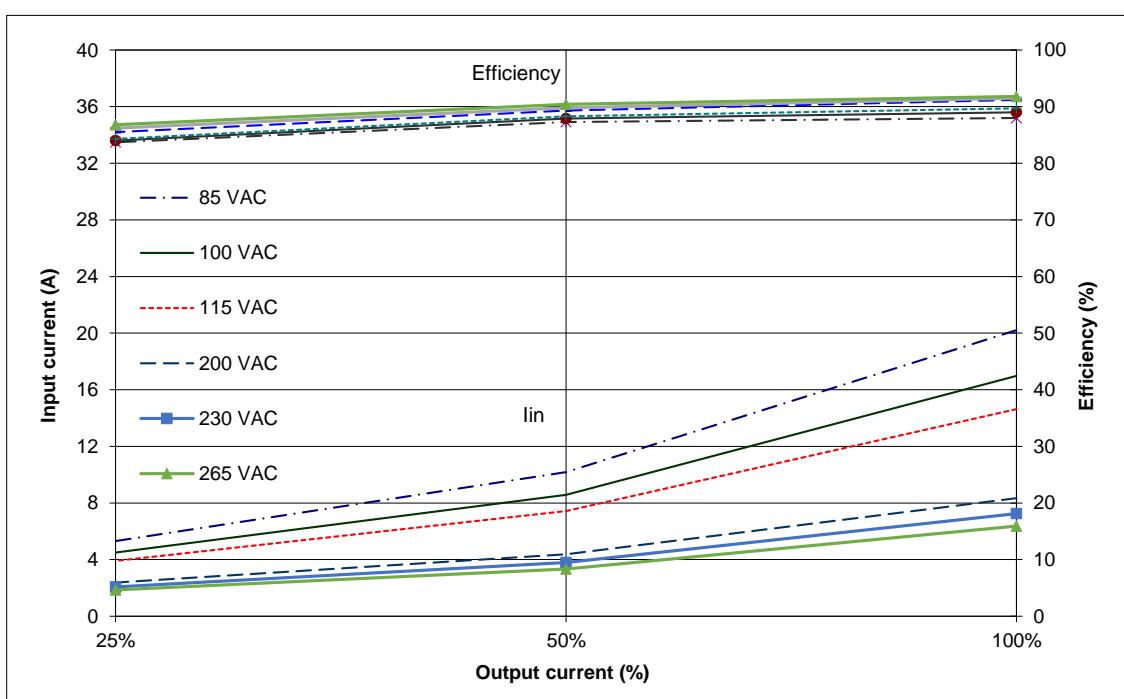
GH10-150

Conditions:
 Vin: 85~265 VAC
 Vout: 100%
 Ta: 25°C



GH60-25

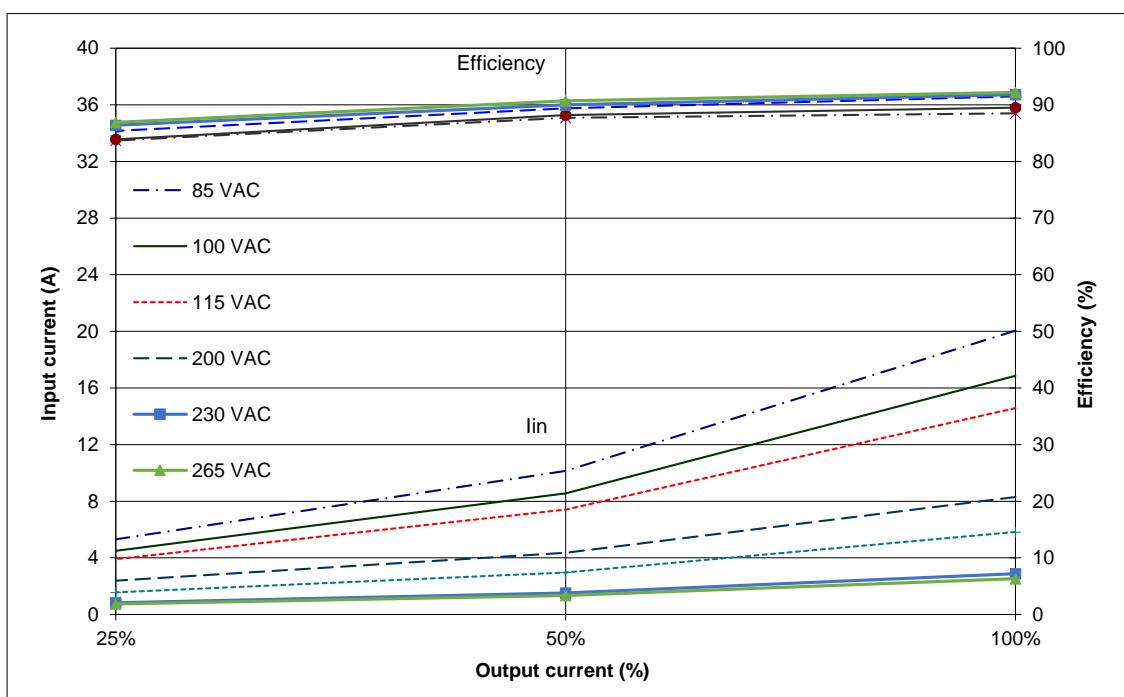
Conditions:
 Vin: 85~265 VAC
 Vout: 100%
 Ta: 25°C



(3). Efficiency and Input current vs. Output current

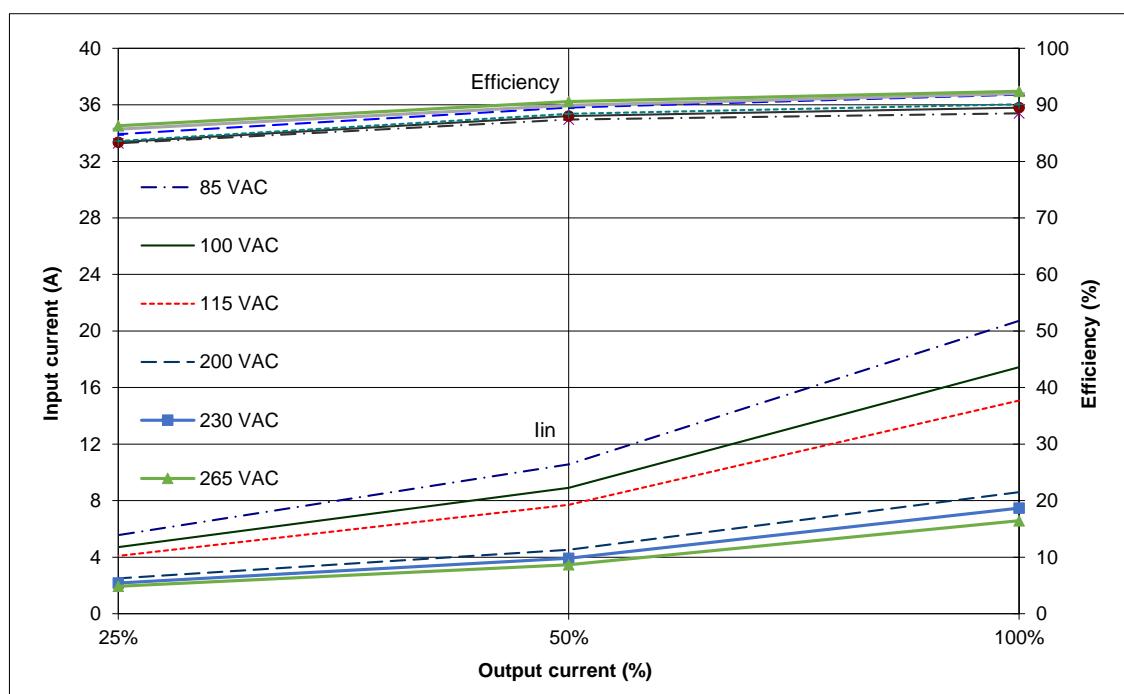
GH150-10

Conditions:
 Vin: 85~265 VAC
 Vout: 100%
 Ta: 25°C



GH600-2.6

Conditions:
 Vin: 85~265 VAC
 Vout: 100%
 Ta: 25°C



2.2 Warm up drift & stability

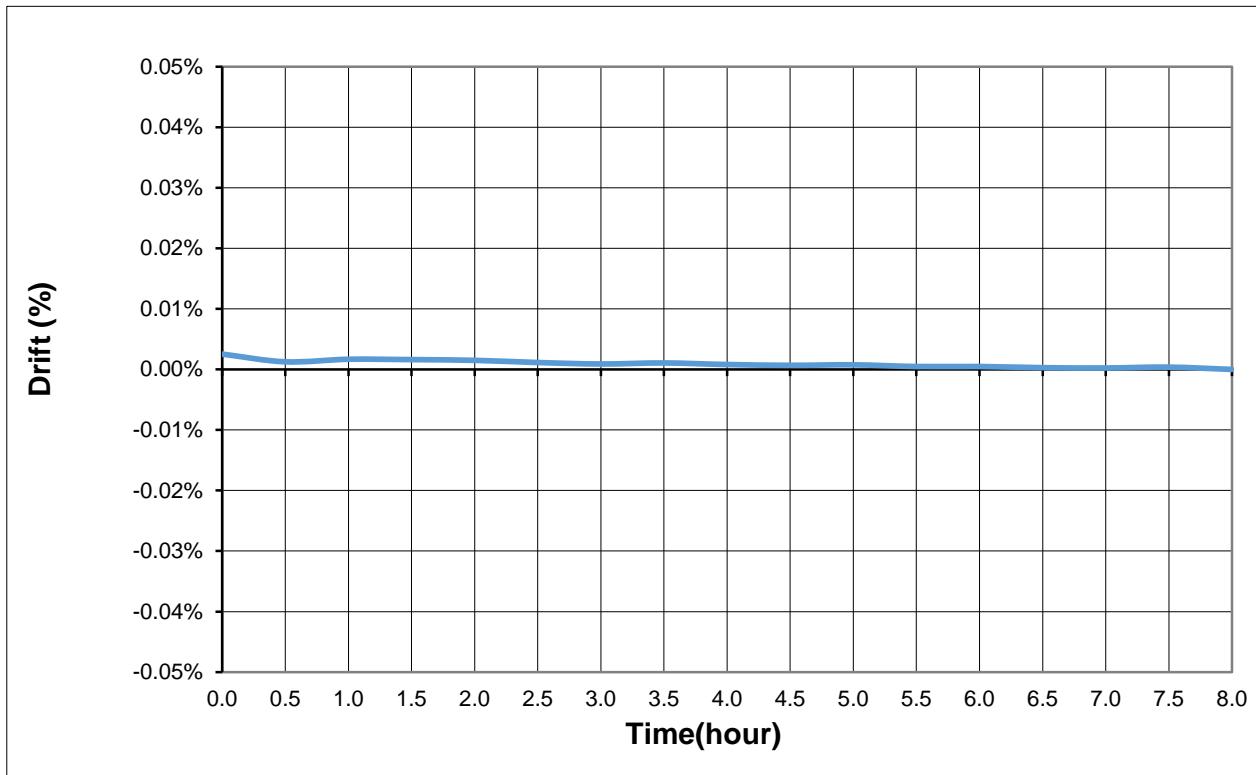
Conditions: Vin:100VAC

Vout: 100%

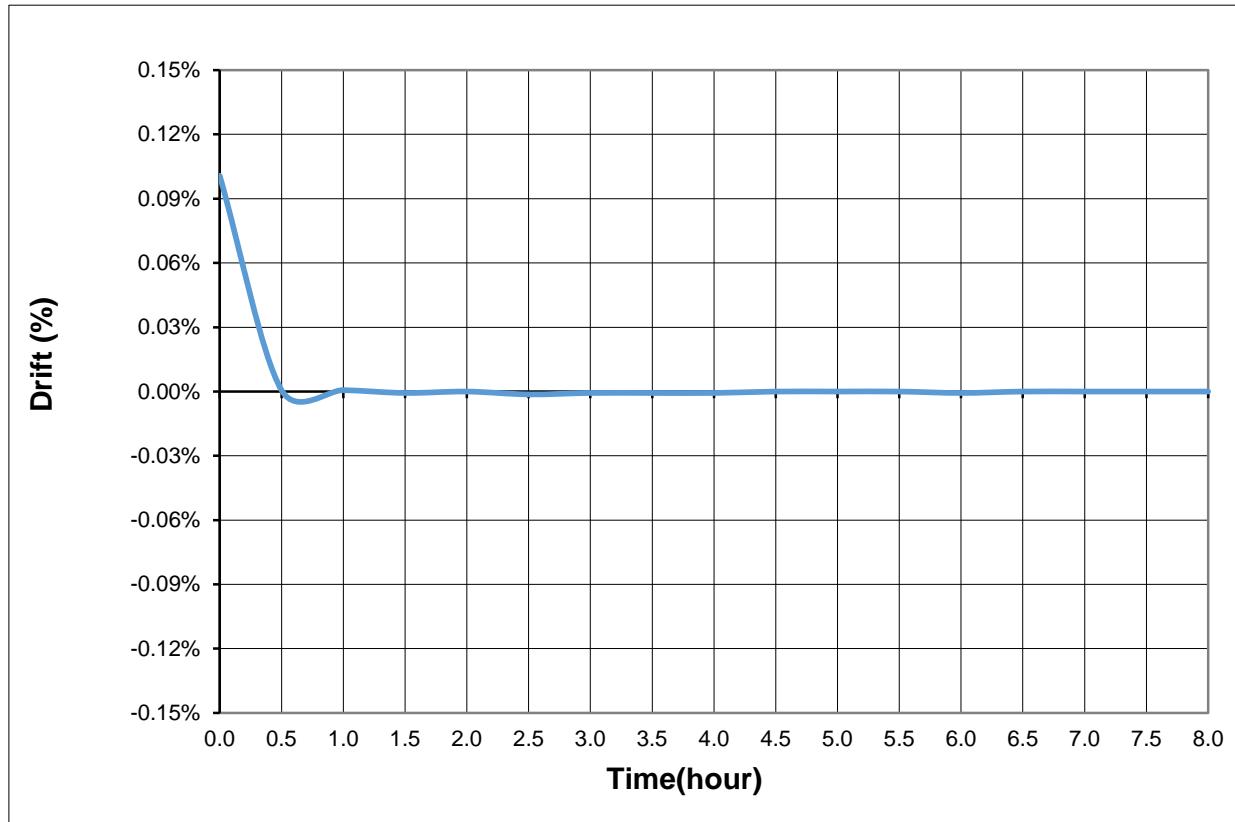
Iout: 100%

Ta = 25°C

GH10-150 C.V mode

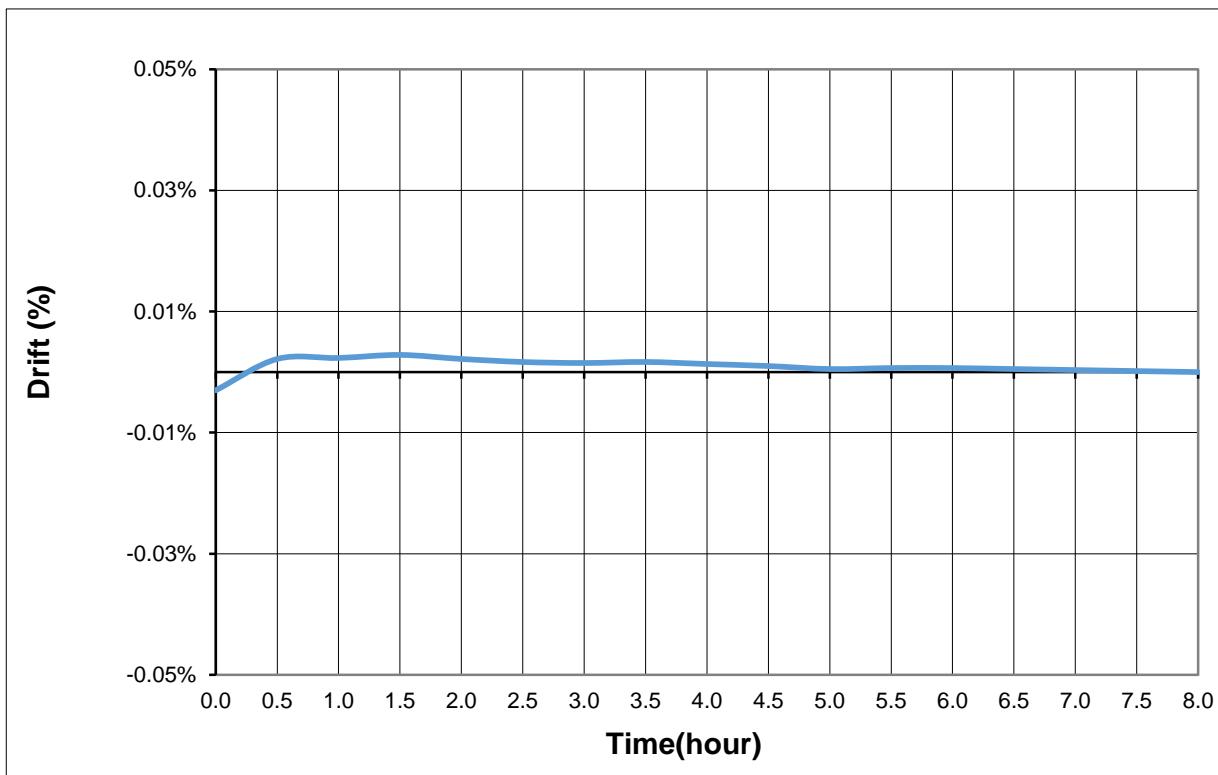
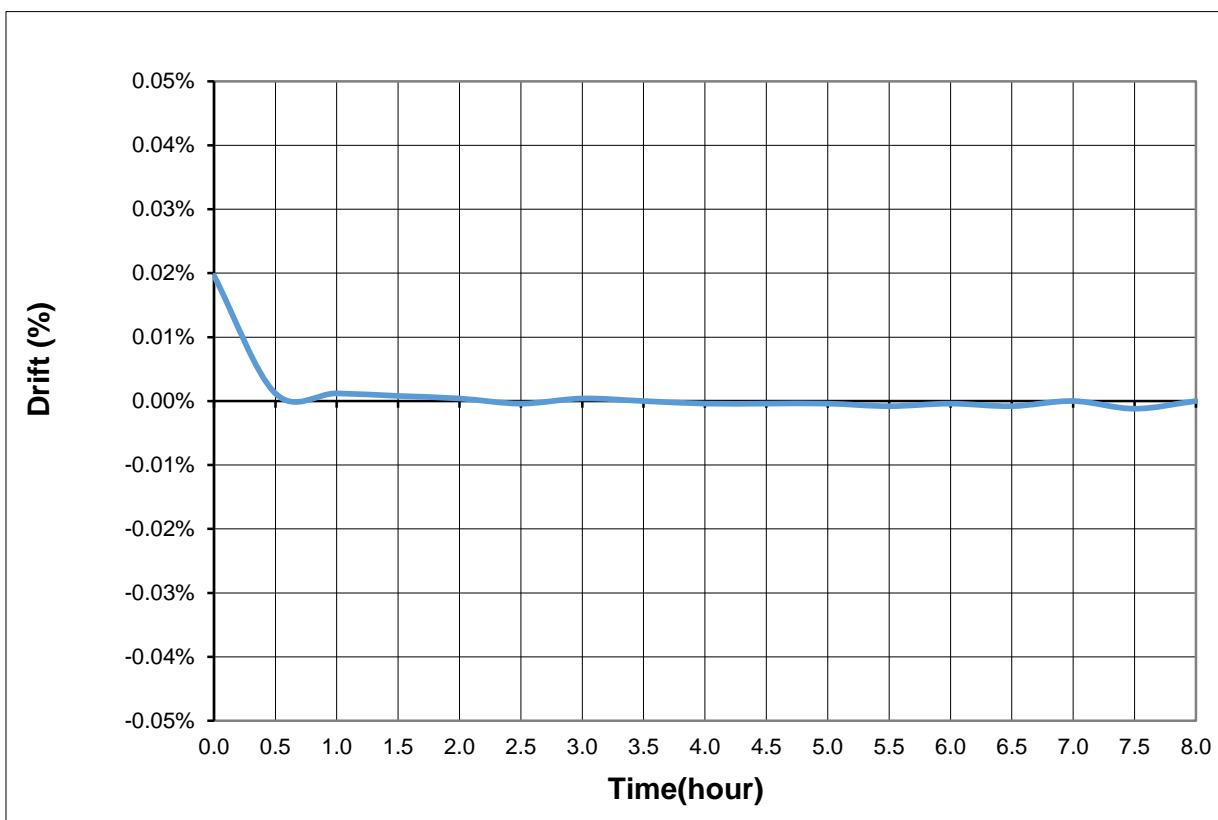


GH10-150 C.C mode



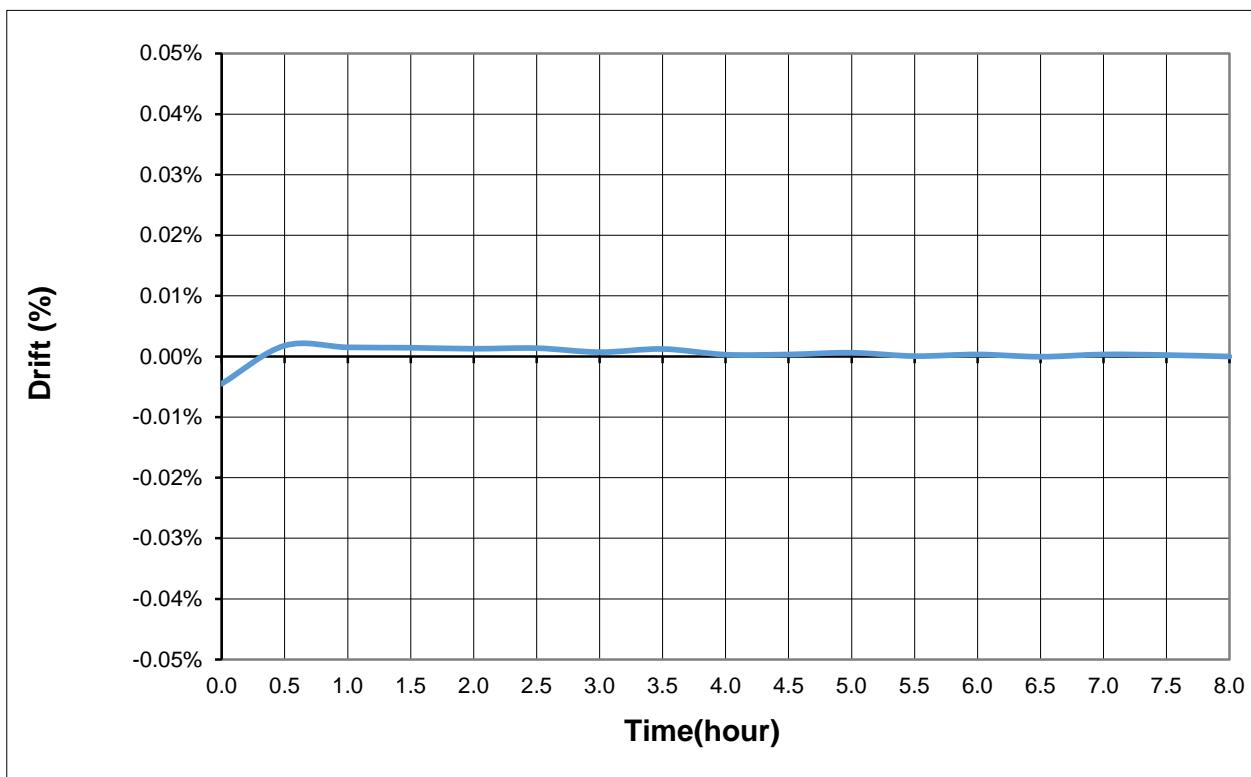
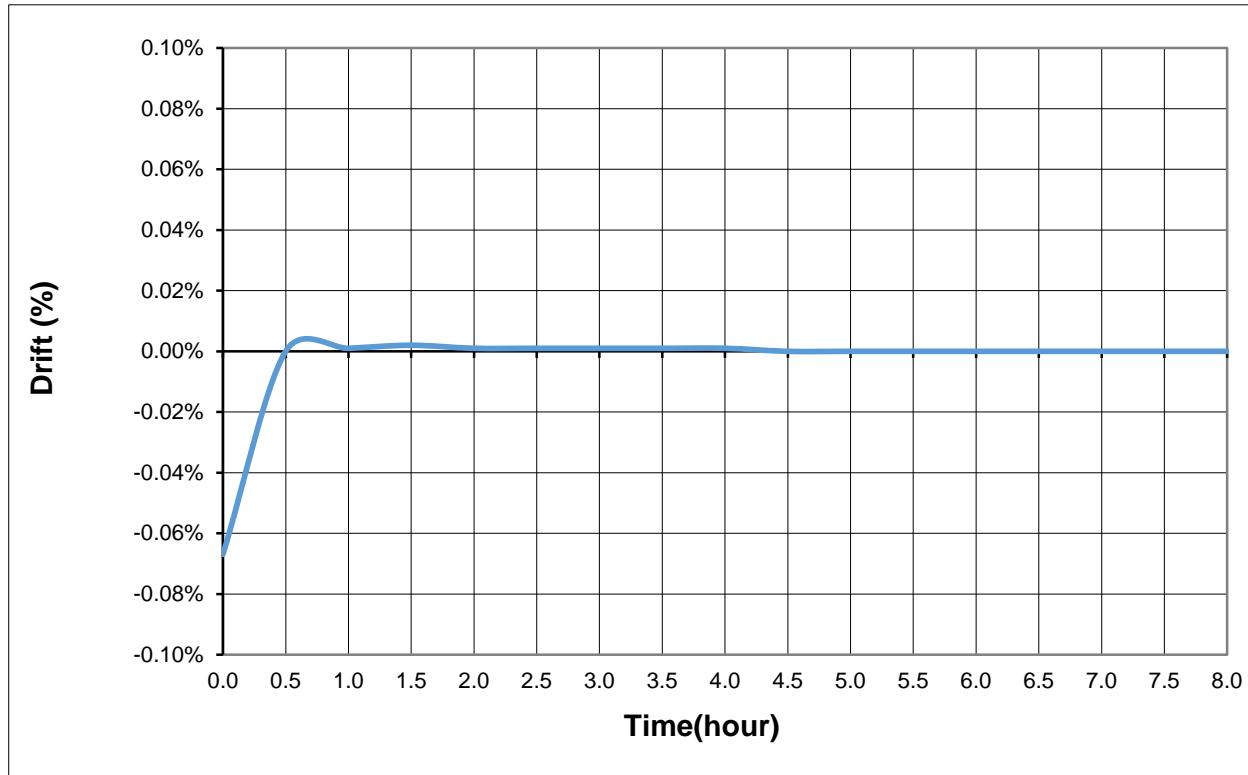
2.2 Warm up drift & stability

Conditions: Vin:100VAC
Vout: 100%
Iout: 100%
Ta = 25°C

GH60-25 C.V mode**GH60-25 C.C mode**

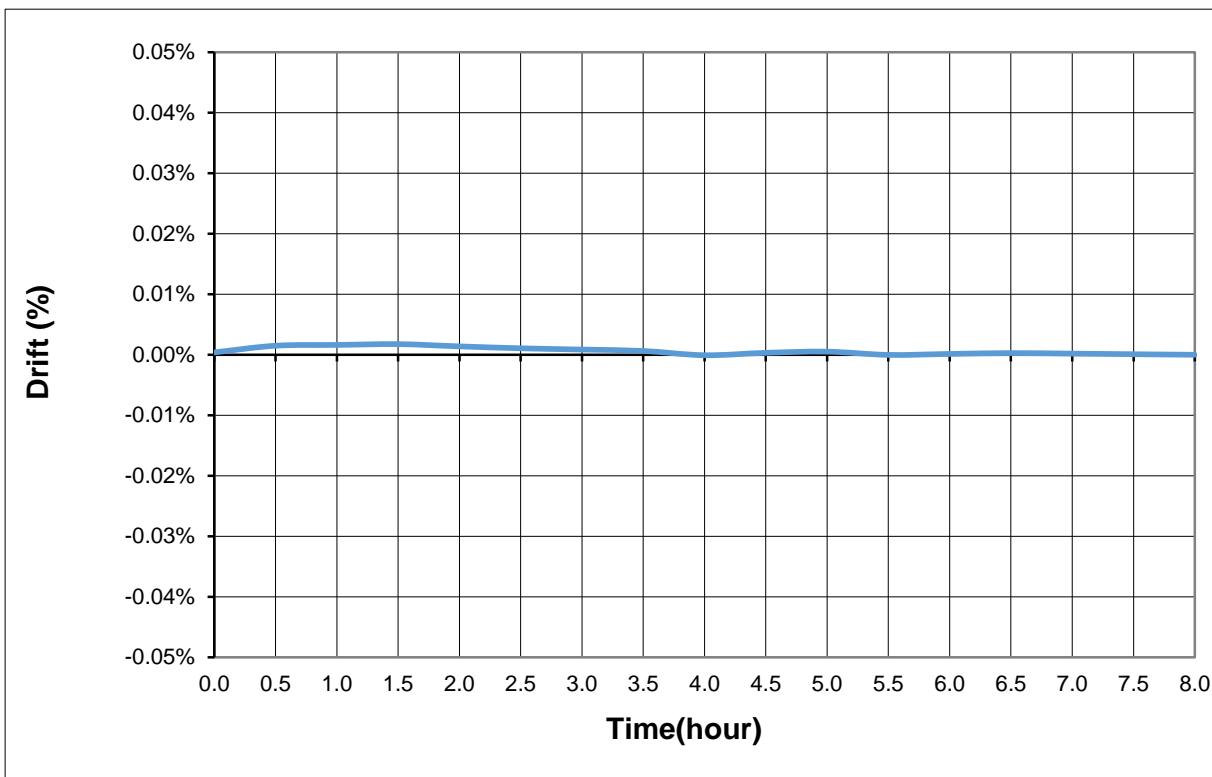
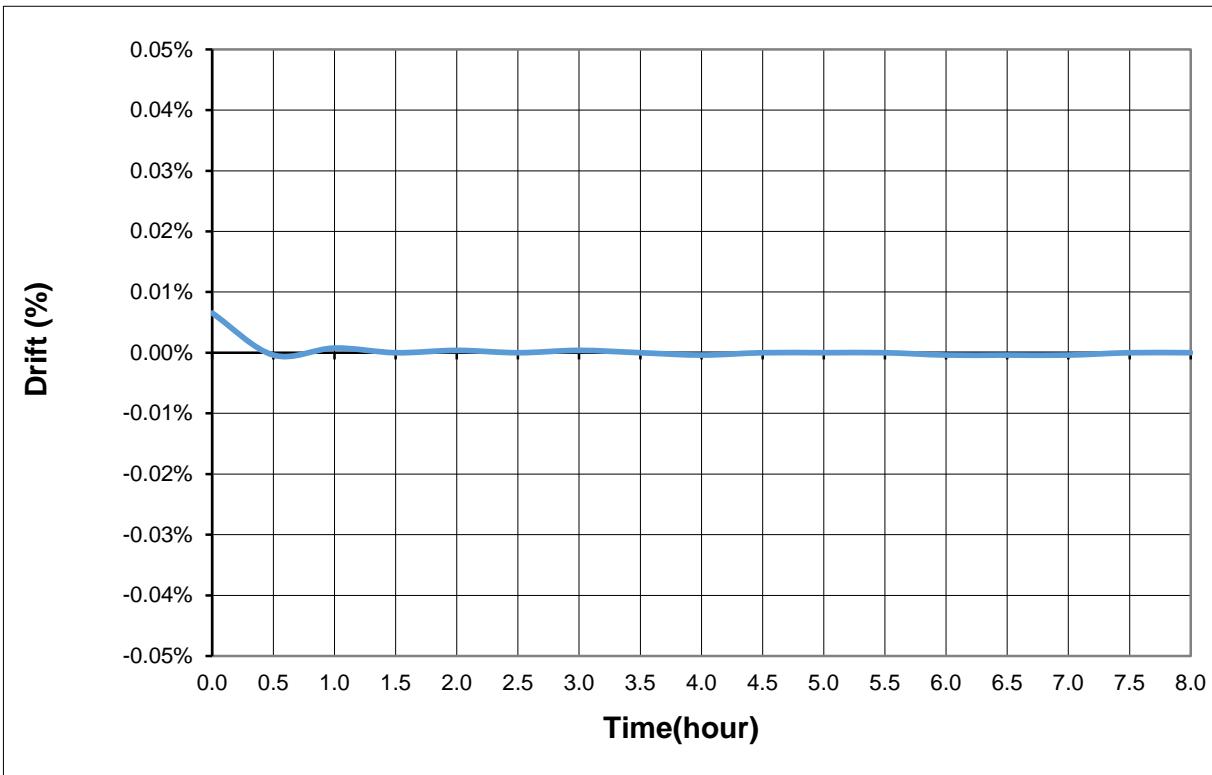
2.2 Warm up drift & stability

Conditions: Vin:100VAC
Vout: 100%
Iout: 100%
Ta = 25°C

GH150-10 C.V mode**GH150-10 C.C mode**

2.2 Warm up drift & stability

Conditions: Vin:100VAC
Vout: 100%
Iout: 100%
Ta = 25°C

GH600-2.6 C.V mode**GH600-2.6 C.C mode**

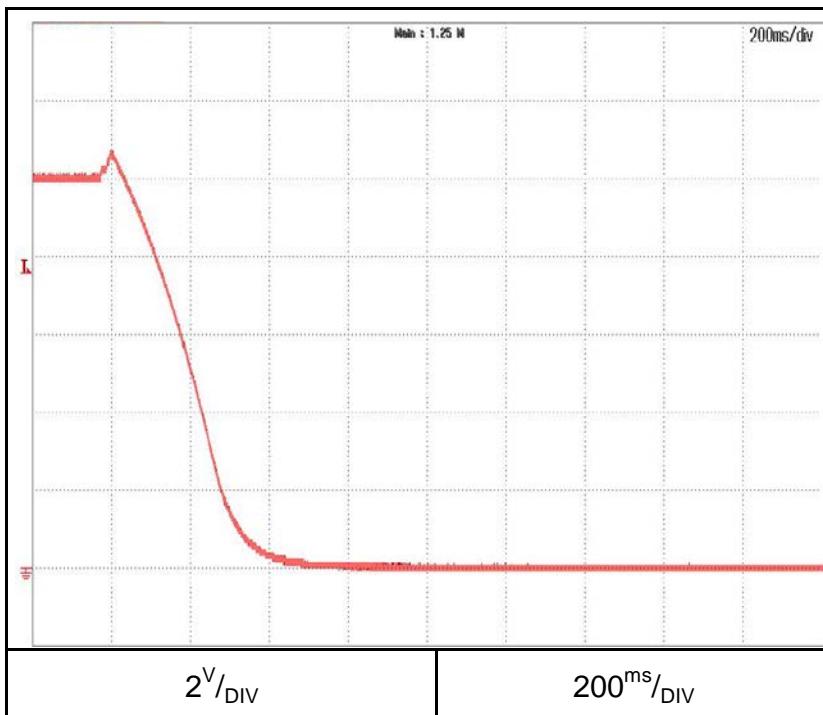
2.3 Over voltage protection (OVP) characteristic

Conditions: Vin:100VAC

Iout: 0%

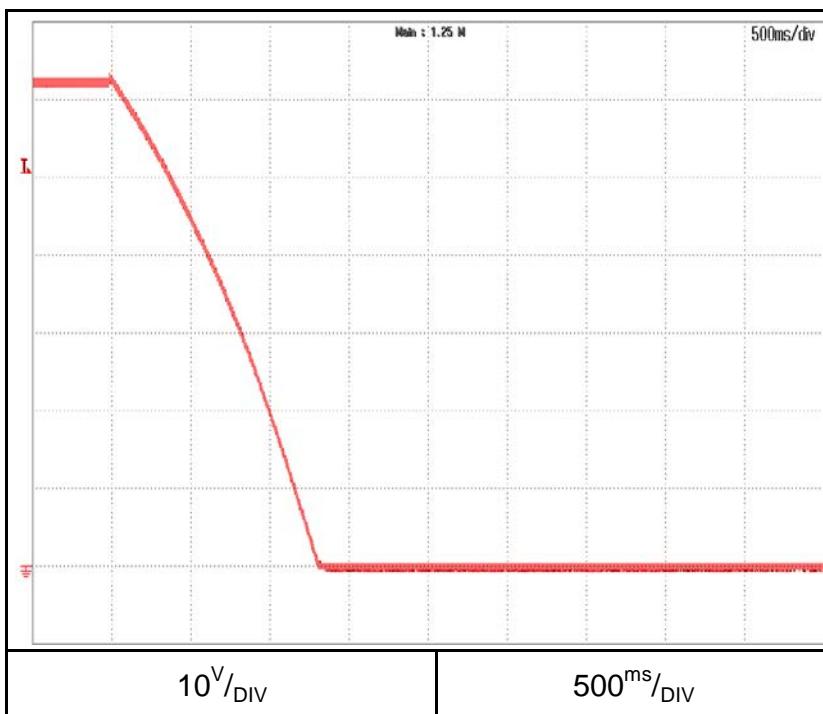
Ta = 25°C

GH10-150



OVP setting:10.5V

GH60-25



OVP setting:63V

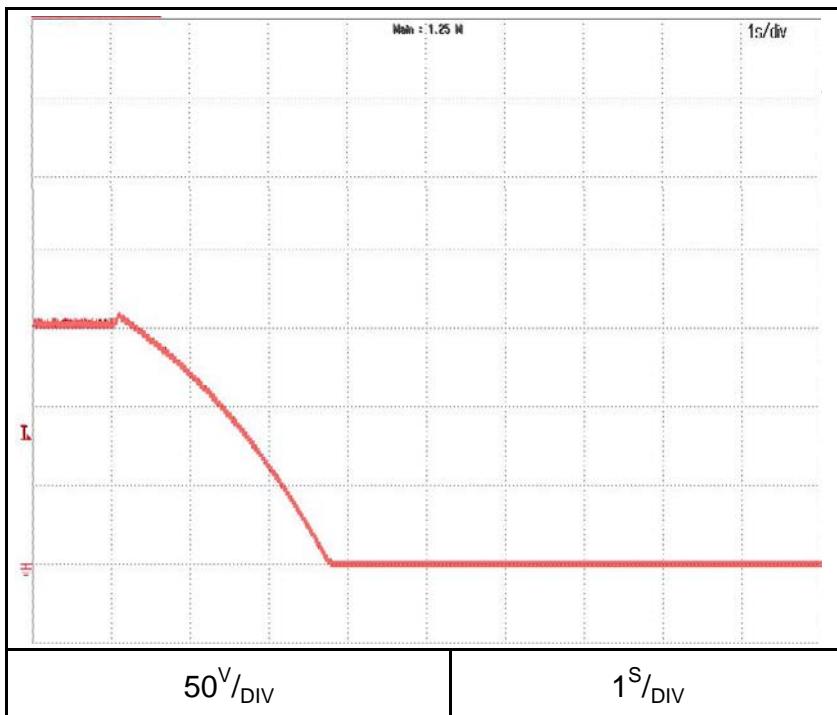
2.3 Over voltage protection (OVP) characteristic

Conditions: Vin:100VAC

Iout: 0%

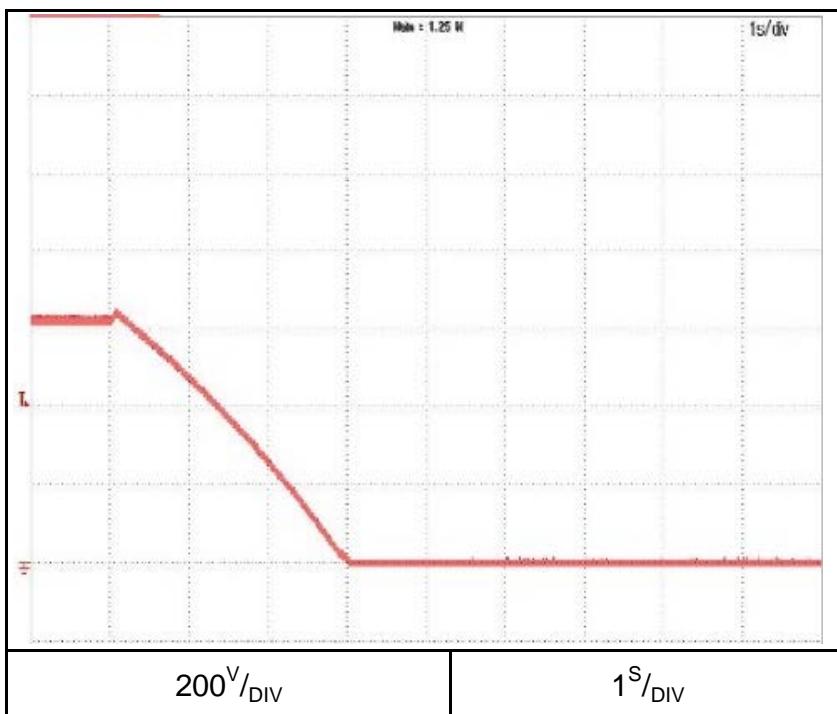
Ta = 25°C

GH150-10



OVP setting:157.5V

GH600-2.6



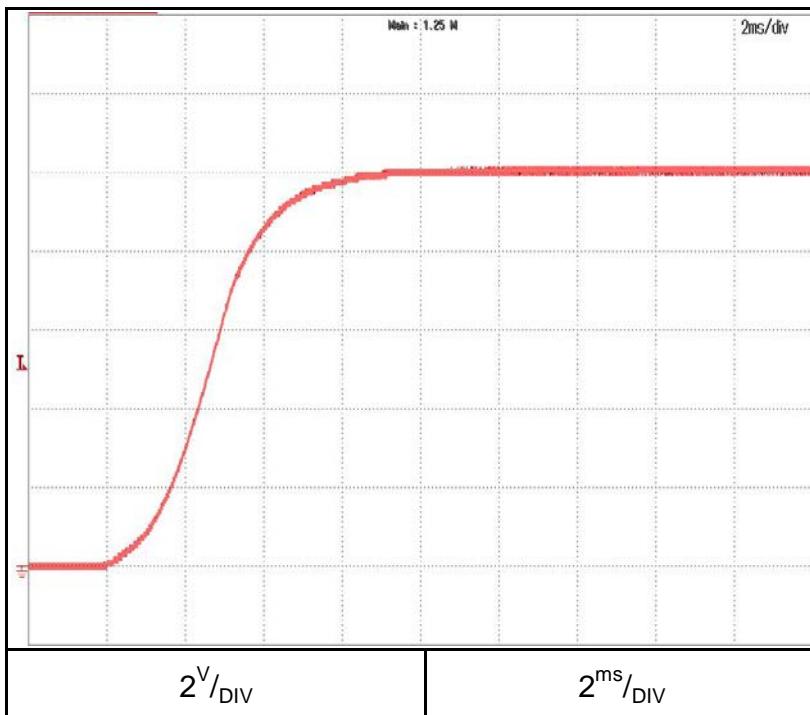
OVP setting:630V

2.4 ON/OFF Output rise characteristics

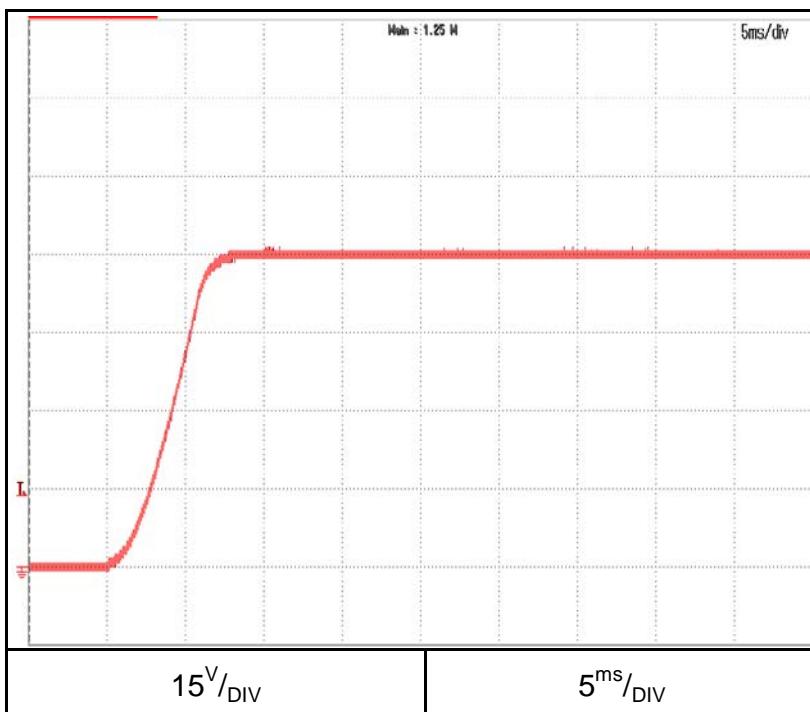
C.V mode

GH10-150

Conditions: Vin: 100VAC
Vout: 100%
Iout: 0%
Iset=105%
Ta = 25°C



GH60-25

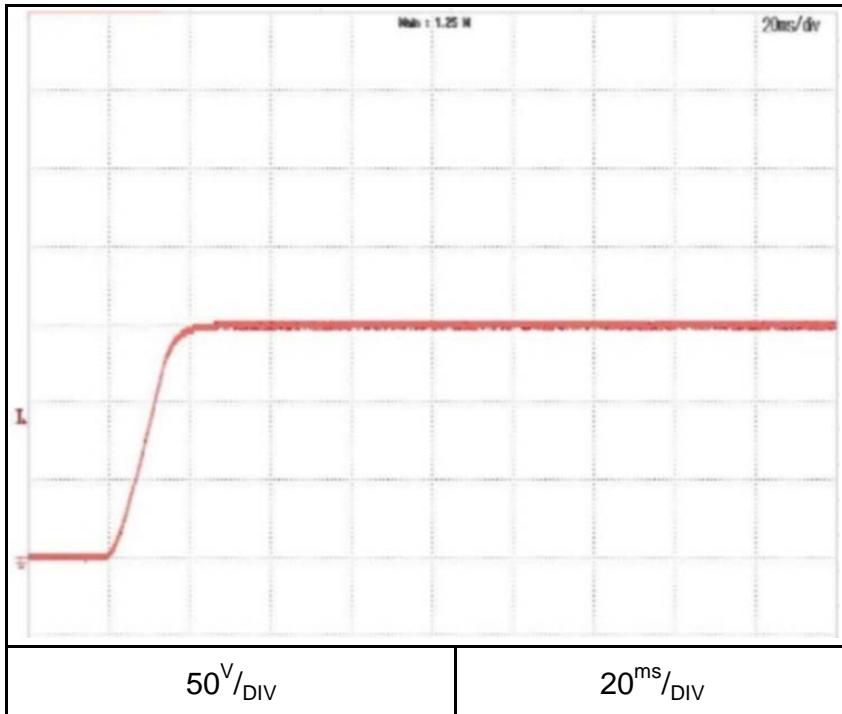


2.4 ON/OFF Output rise characteristics

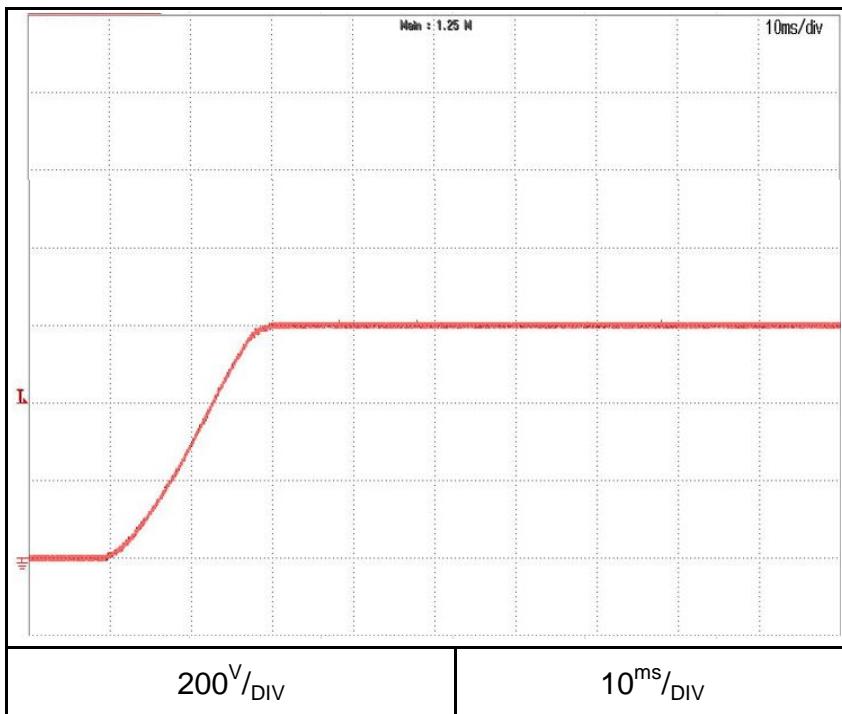
C.V mode

Conditions: Vin: 100VAC
Vout: 100%
Iout: 0%
Iset=105%
Ta = 25°C

GH150-10



GH600-2.6



2.4 ON/OFF Output rise characteristics

C.V mode

Conditions: Vin: 100VAC

Vout: 100%

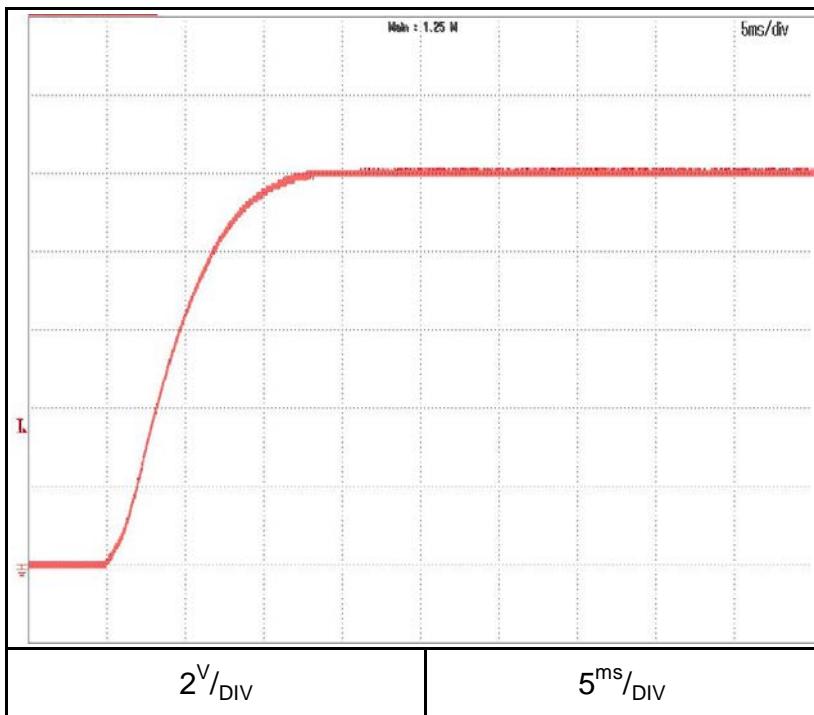
Iout: 100%

Iset=105%

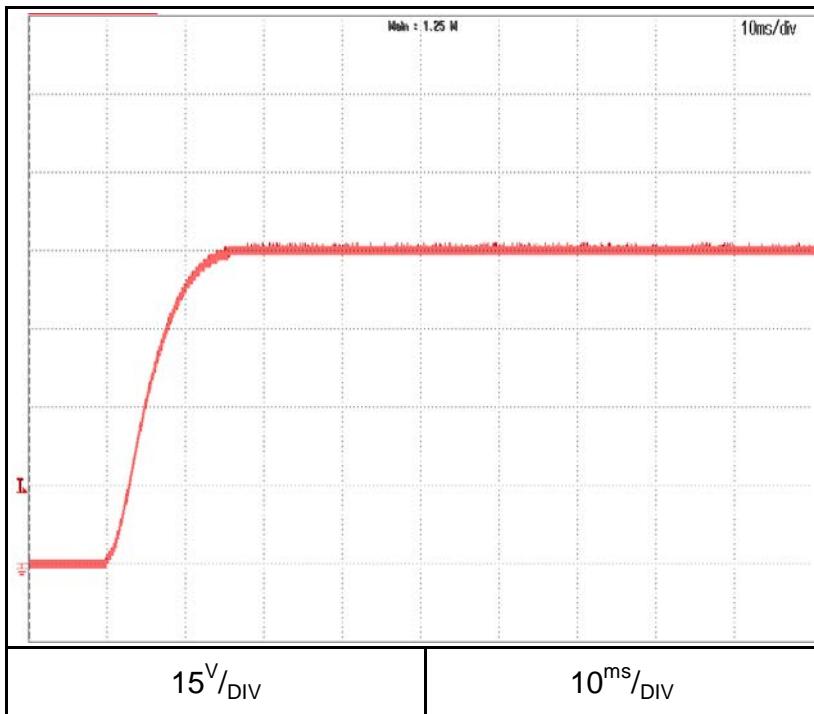
Load: CR

Ta = 25°C

GH10-150



GH60-25

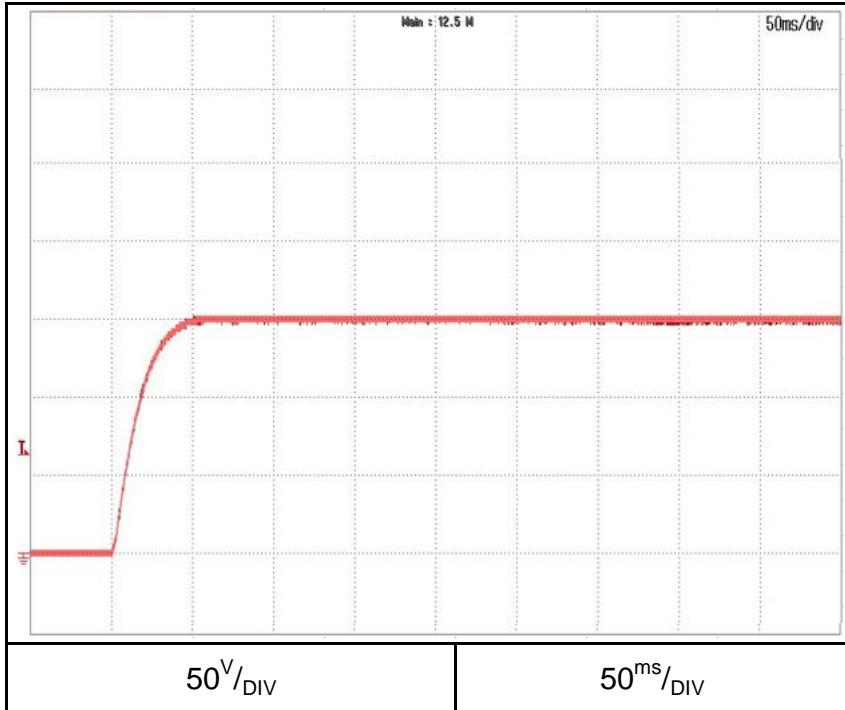


2.4 ON/OFF Output rise characteristics

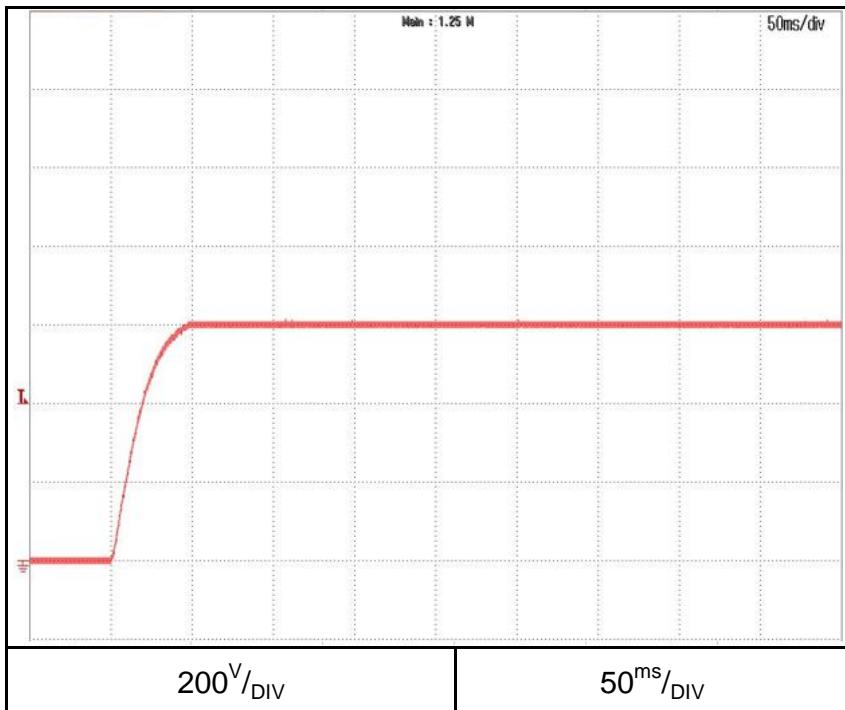
C.V mode

Conditions: Vin: 100VAC
Vout: 100%
Iout: 100%
Iset=105%
Load: CR
Ta = 25°C

GH150-10



GH600-2.6



2.4 ON/OFF Output rise characteristics

C.C mode

Conditions: Vin: 100VAC

Vout: 100%

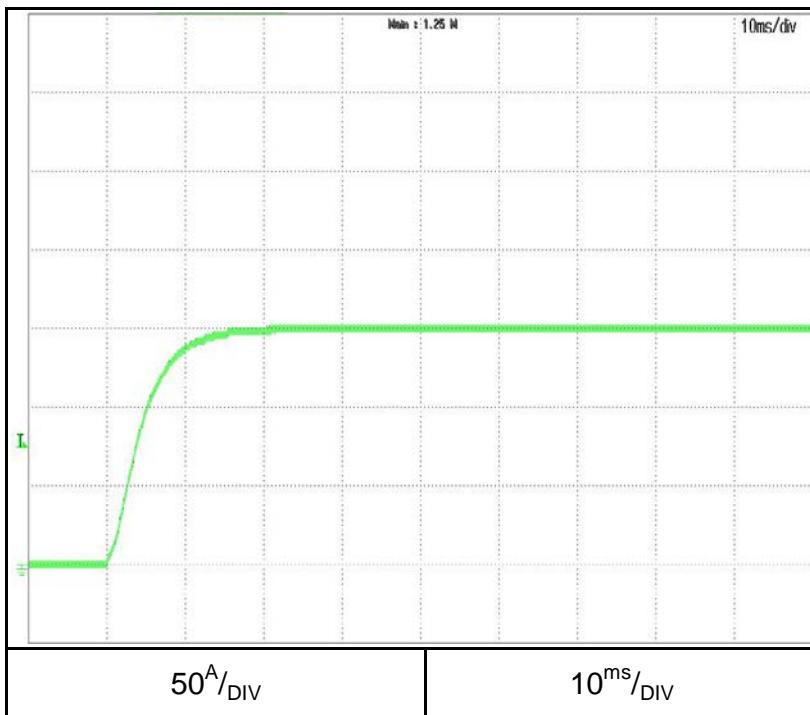
Iout: 100%

Vset=105%

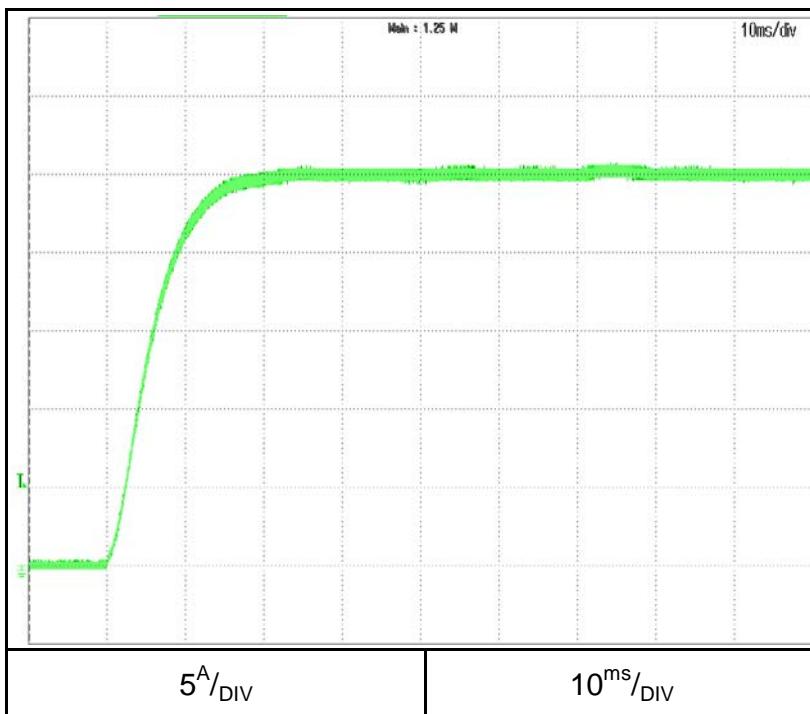
Load: CR

Ta = 25°C

GH10-150



GH60-25

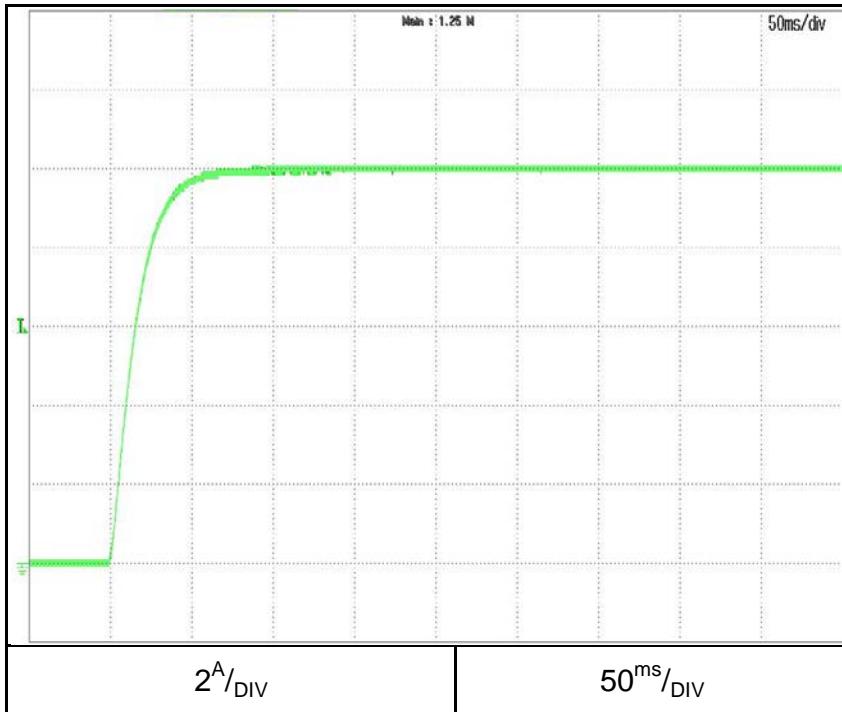


2.4 ON/OFF Output rise characteristics

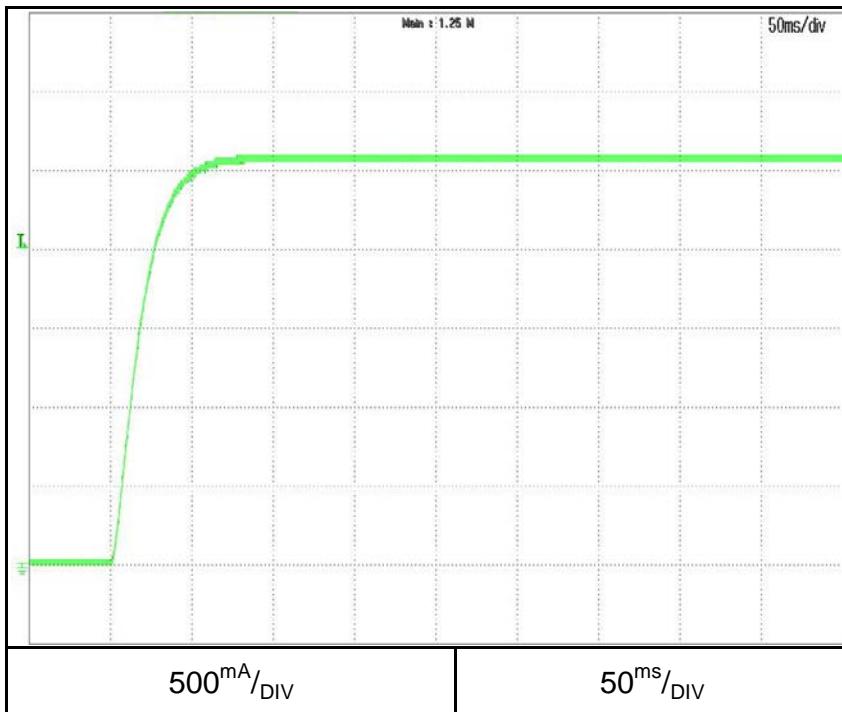
C.C mode

Conditions: Vin: 100VAC
Vout: 100%
Iout: 100%
Vset=105%
Load: CR
Ta = 25°C

GH150-10



GH600-2.6

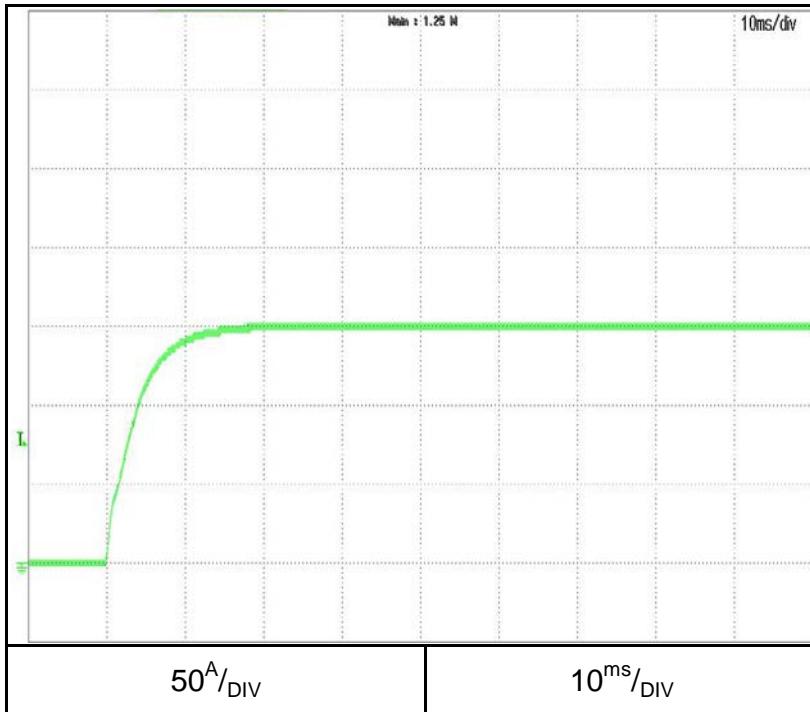


2.4 ON/OFF Output rise characteristics

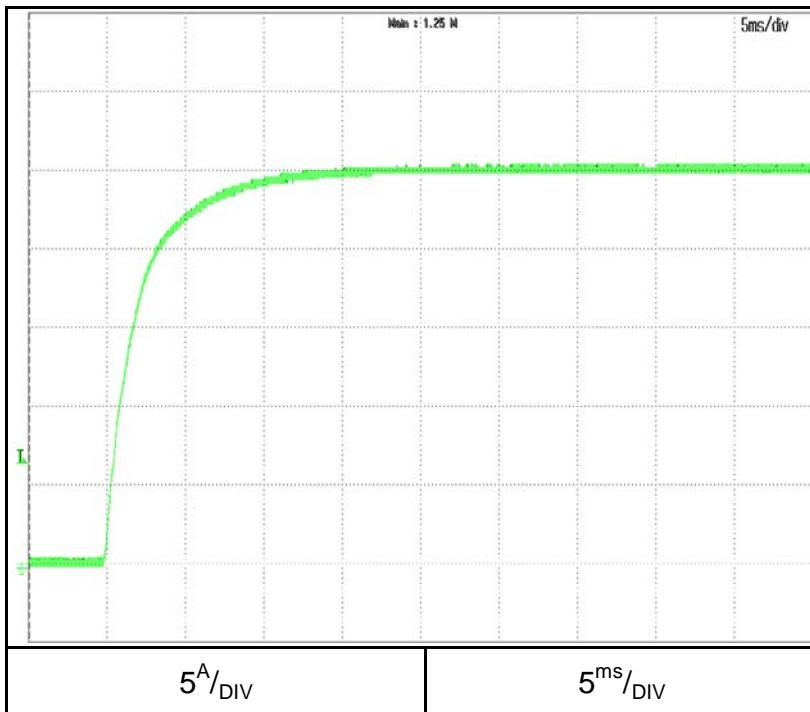
C.C mode

Conditions: Vin: 100VAC
Iout: 100%
Vset=105%
shorted output
Ta = 25°C

GH10-150



GH60-25

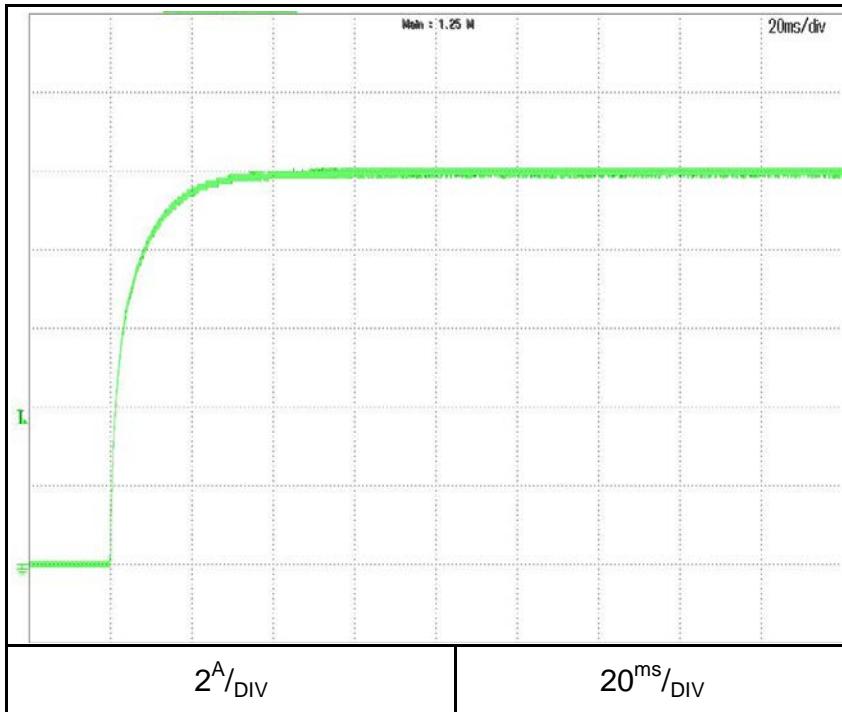


2.4 ON/OFF Output rise characteristics

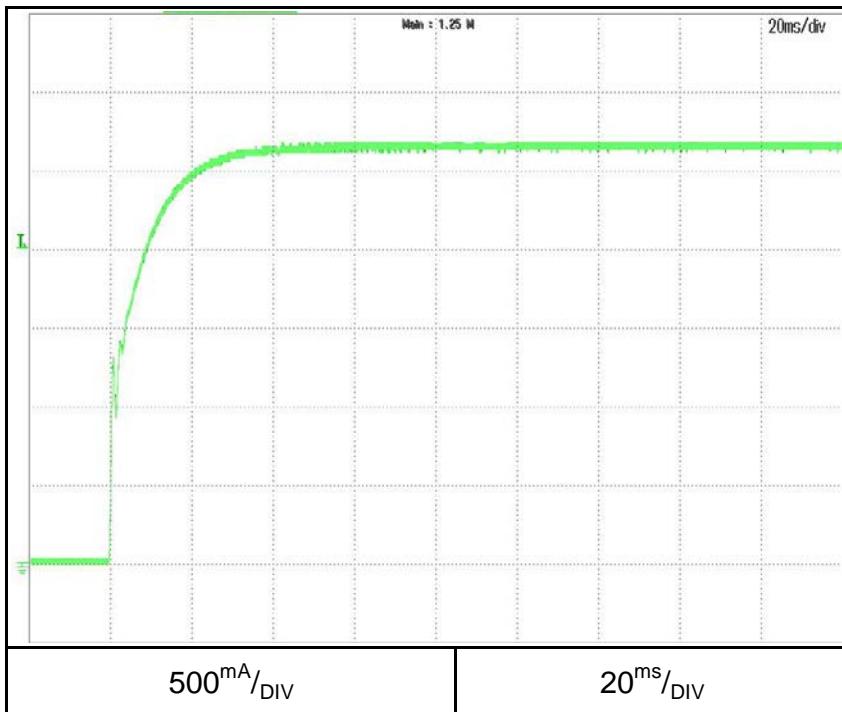
C.C mode

Conditions: Vin: 100VAC
Iout: 100%
Vset=105%
shorted output
Ta = 25°C

GH150-10



GH600-2.6



2.5 ON/OFF Output fall characteristics

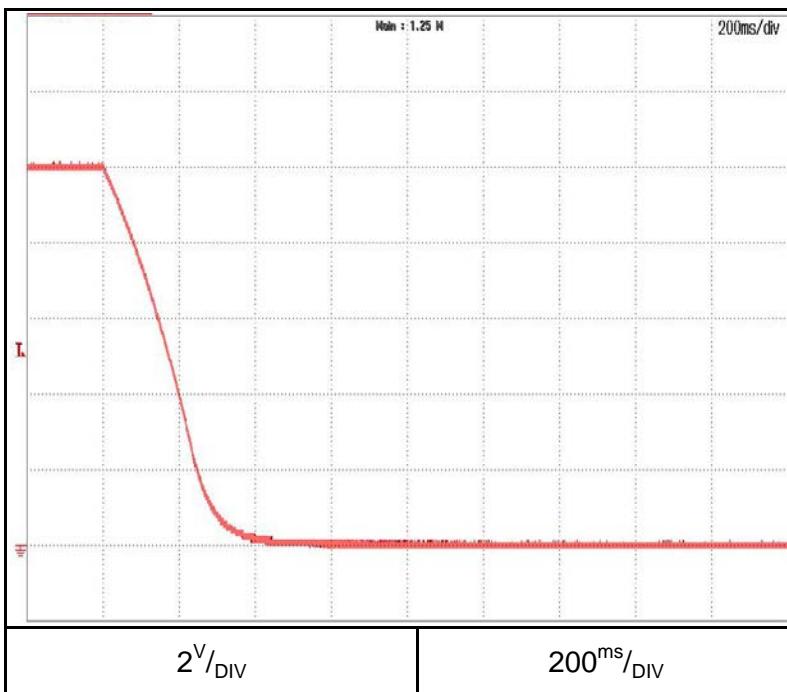
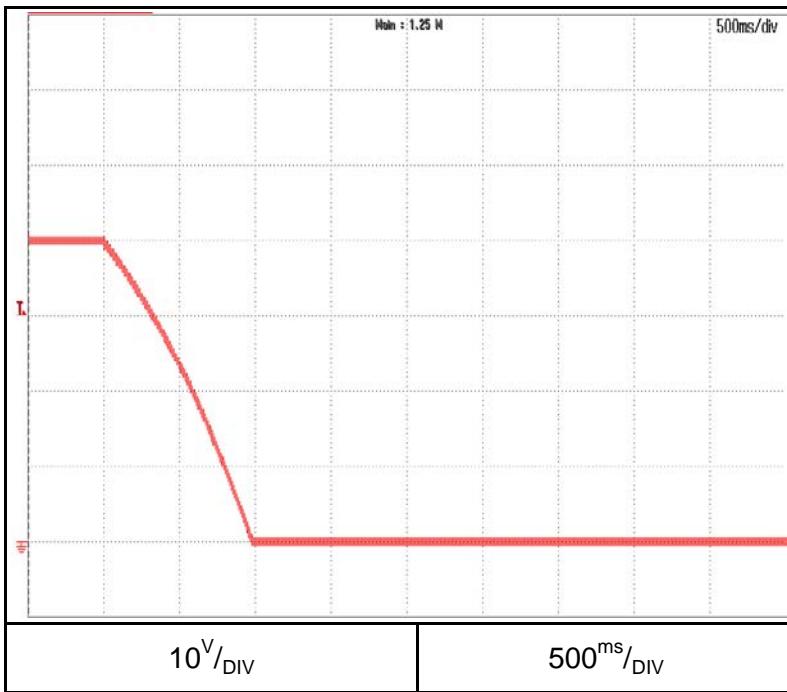
C.V mode

Conditions: Vin: 100VAC

Vout: 100%

Iout: 0%

Ta = 25°C

GH10-150**GH60-25**

2.5 ON/OFF Output fall characteristics

C.V mode

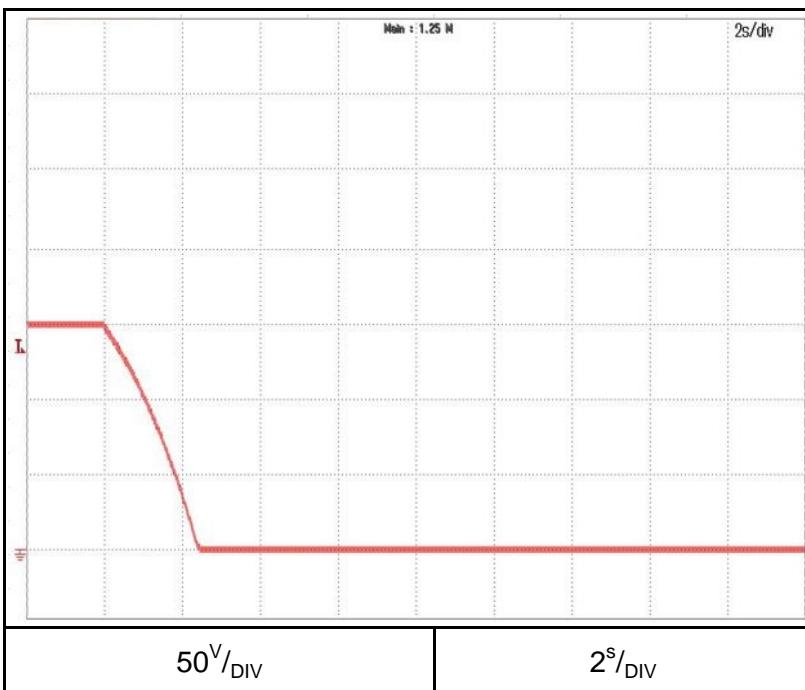
Conditions: Vin: 100VAC

Vout: 100%

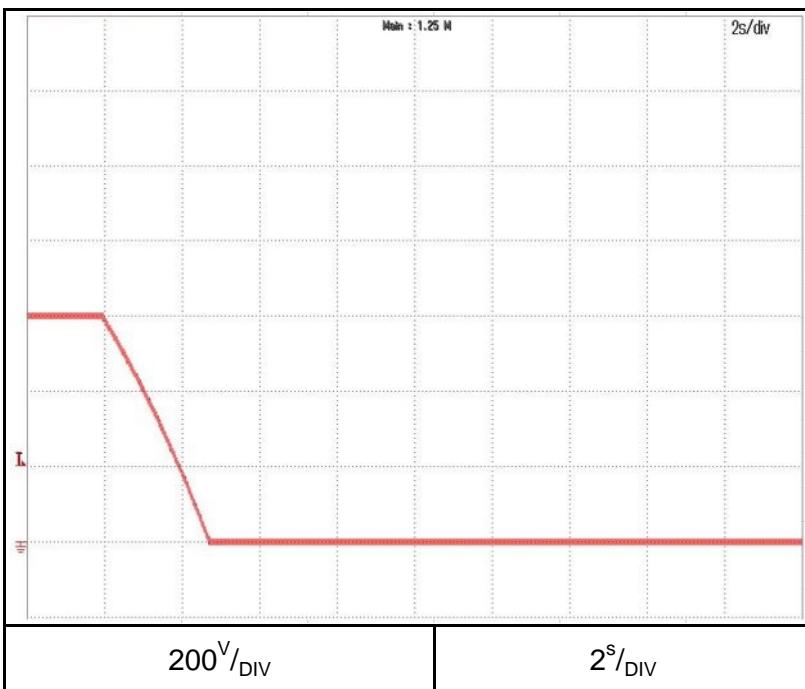
Iout: 0%

Ta = 25°C

GH150-10



GH600-2.6



2.5 ON/OFF Output fall characteristics

C.V mode

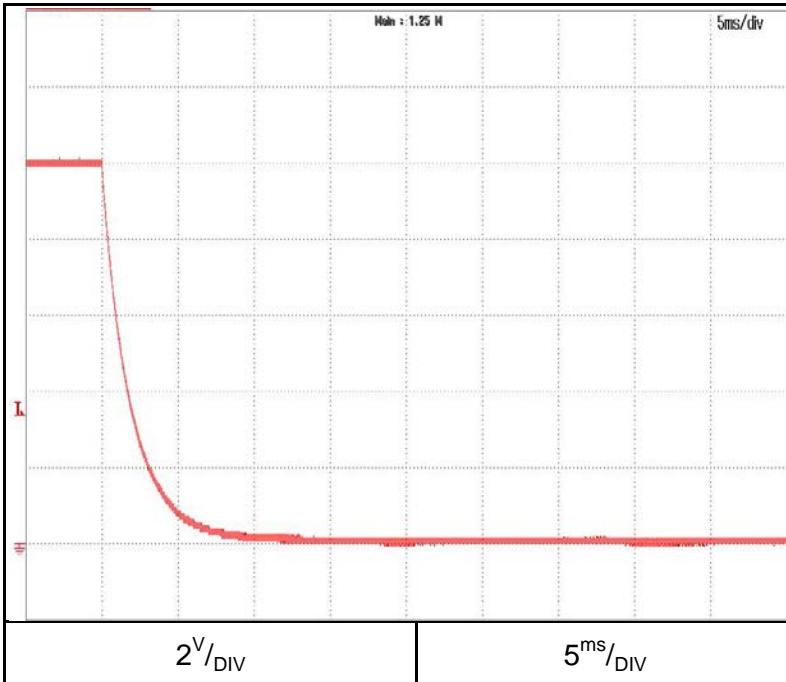
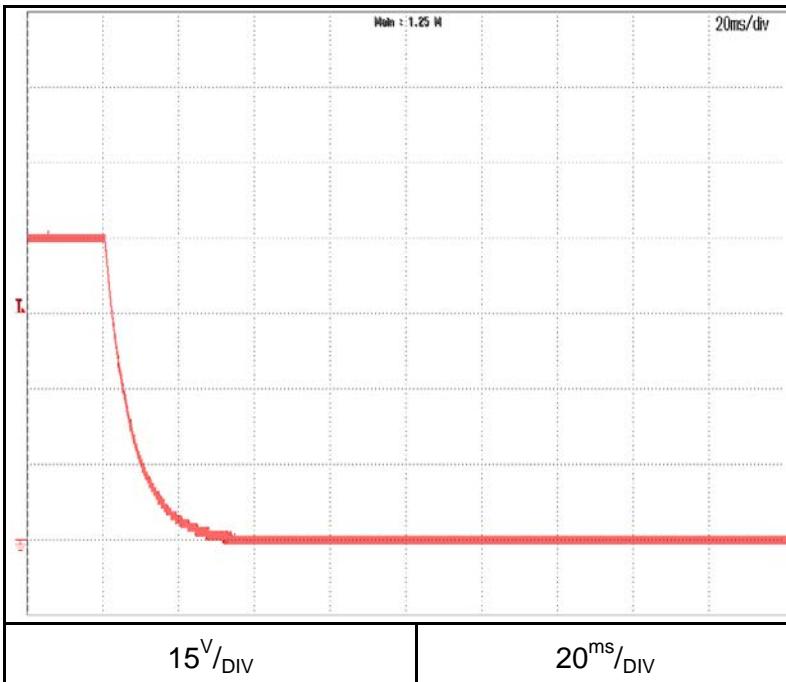
Conditions: Vin: 100VAC

Vout: 100%

Iout: 100%

Load: CR

Ta = 25°C

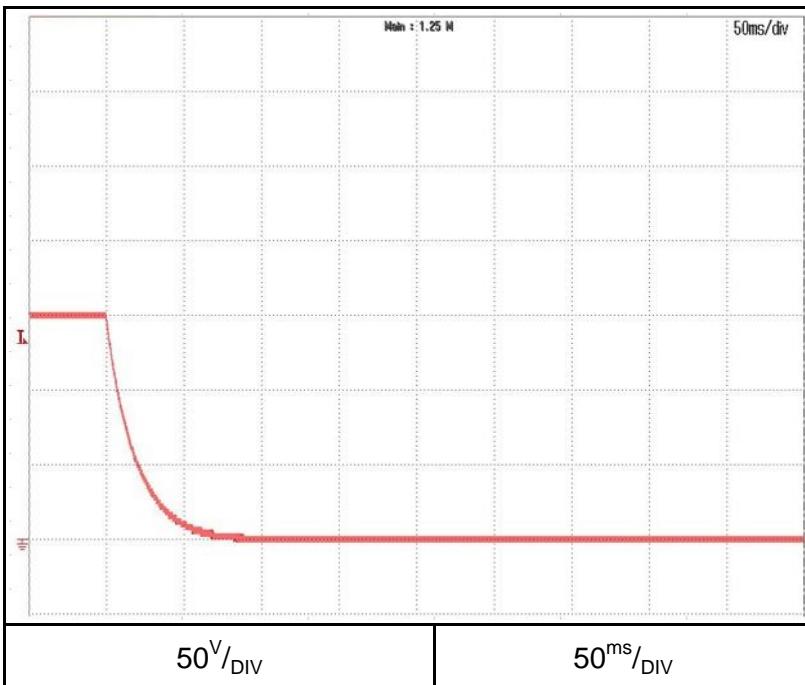
GH10-150**GH60-25**

2.5 ON/OFF Output fall characteristics

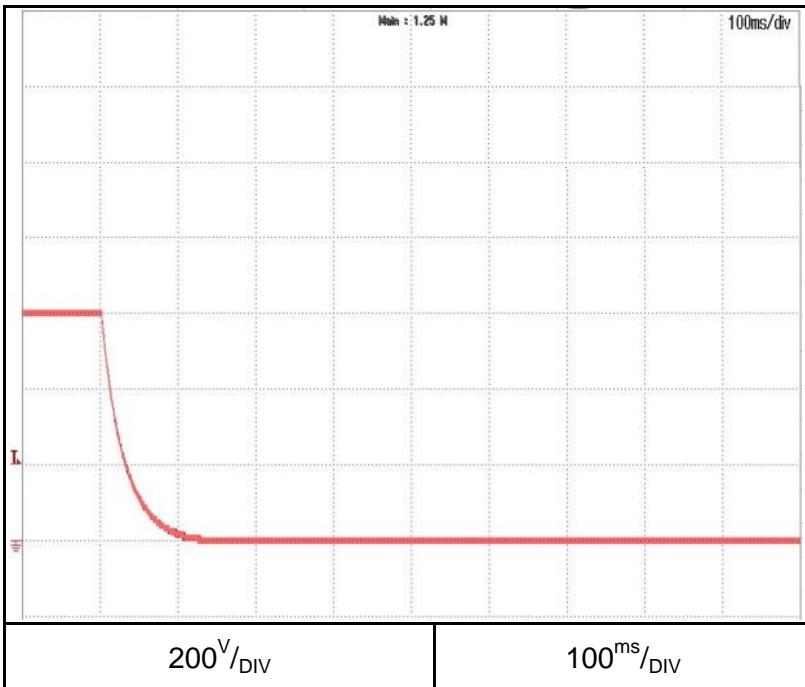
C.V mode

GH150-10

Conditions: Vin: 100VAC
Vout: 100%
Iout: 100%
Load: CR
Ta = 25°C



GH600-2.6



2.5 ON/OFF Output fall characteristics

C.C mode

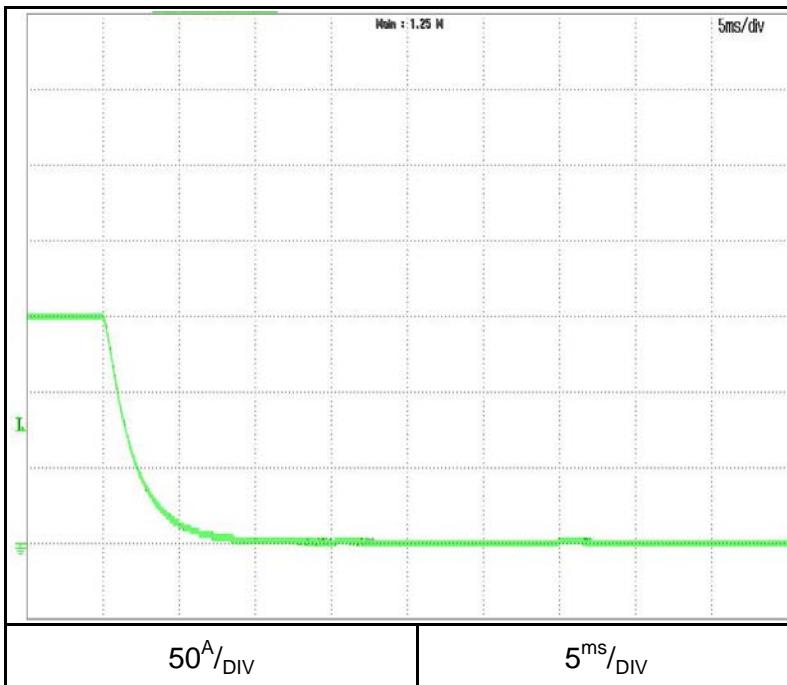
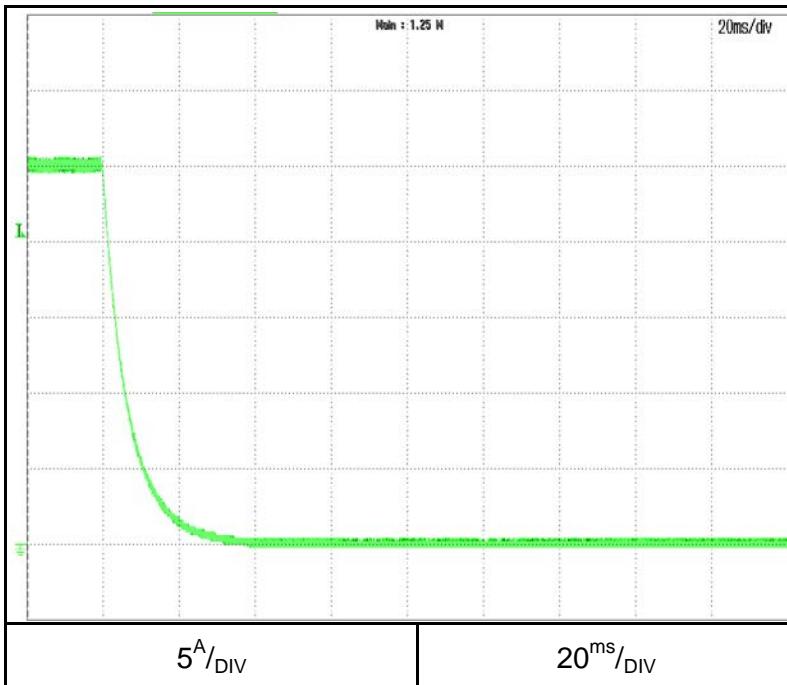
Conditions: Vin: 100VAC

Vout: 100%

Iout: 100%

Load: CR

Ta = 25°C

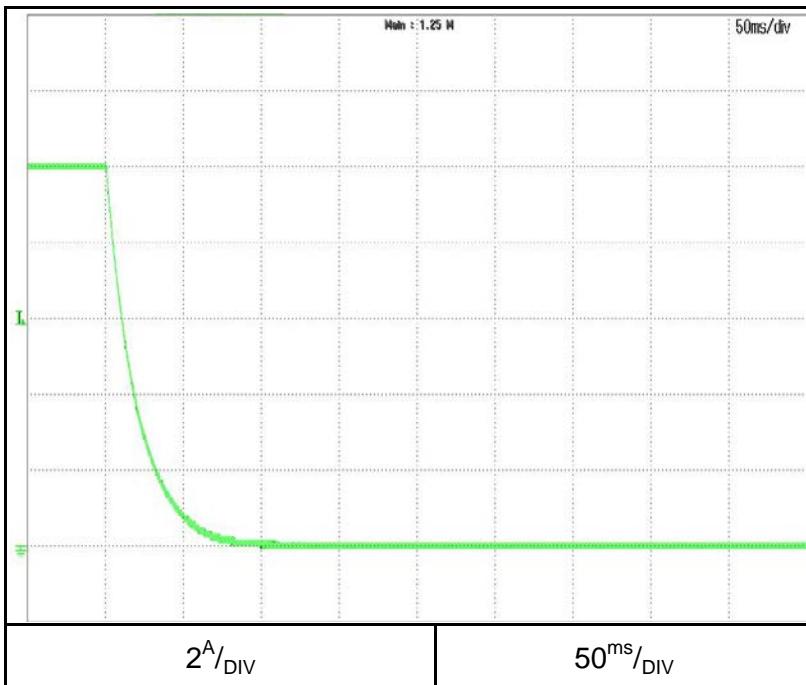
GH10-150**GH60-25**

2.5 ON/OFF Output fall characteristics

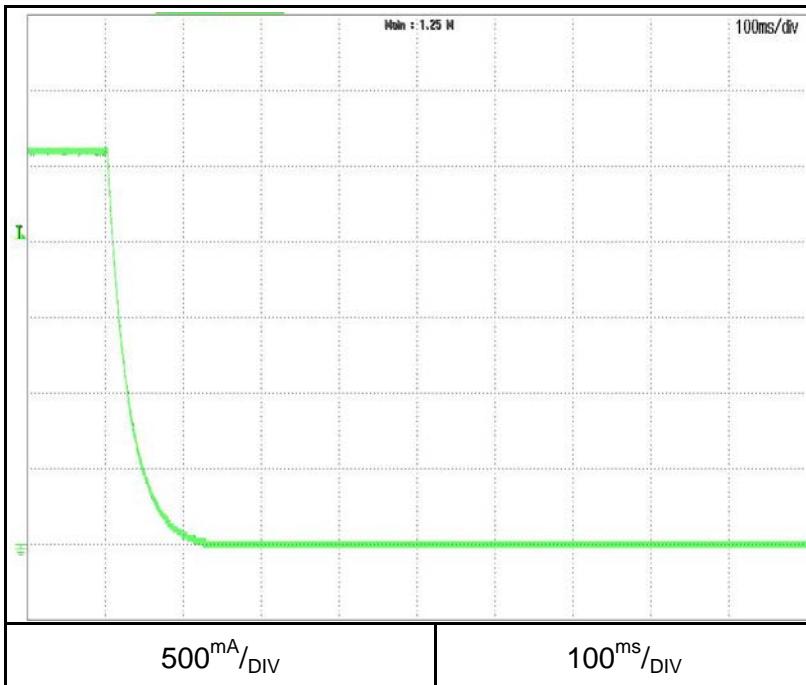
C.C mode

GH150-10

Conditions: Vin: 100VAC
Vout: 100%
Iout: 100%
Load: CR
Ta = 25°C



GH600-2.6



2.5 ON/OFF Output fall characteristics

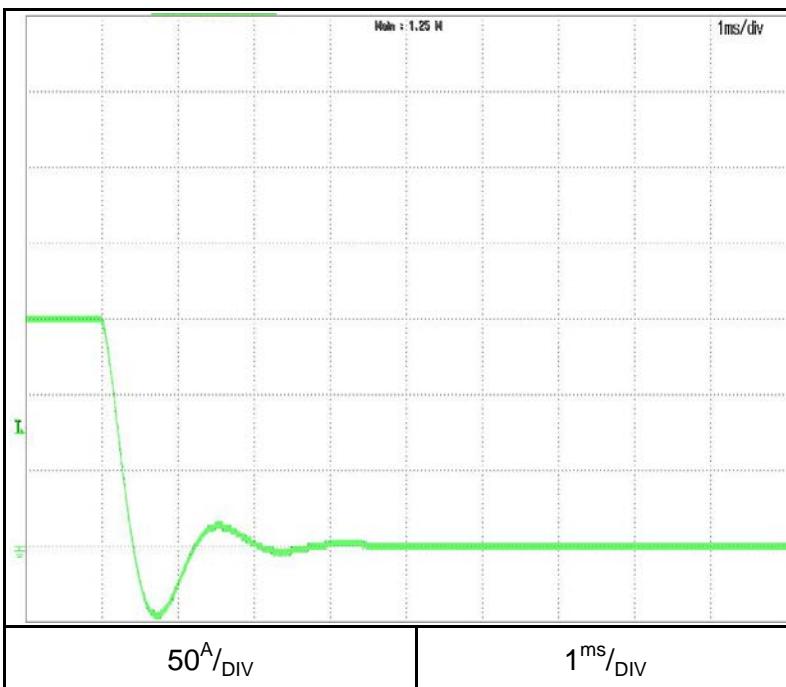
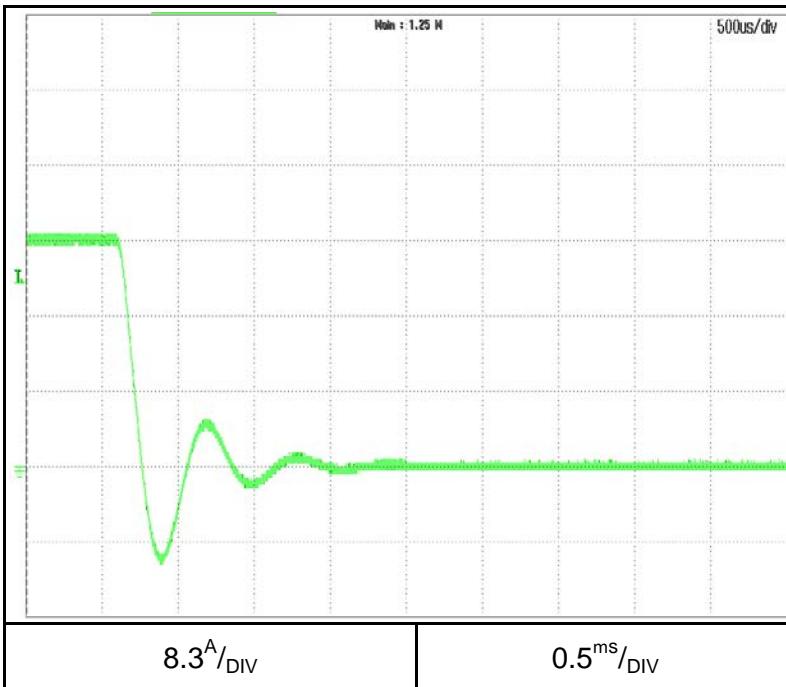
C.C mode

Conditions: Vin: 100VAC

Iout: 100%

shorted output

Ta = 25°C

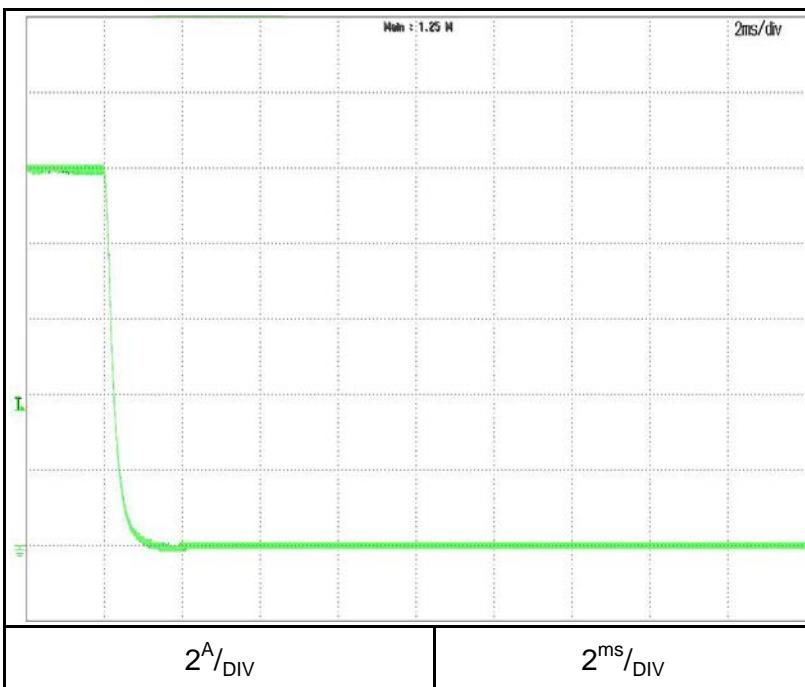
GH10-150**GH60-25**

2.5 ON/OFF Output fall characteristics

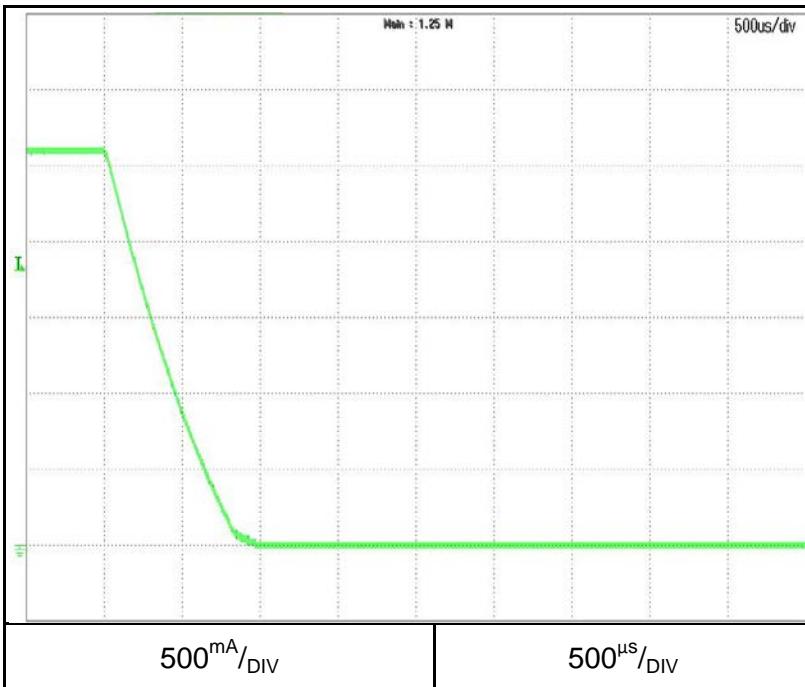
C.C mode

Conditions: Vin: 100VAC
Iout: 100%
shorted output
Ta = 25°C

GH150-10



GH600-2.6



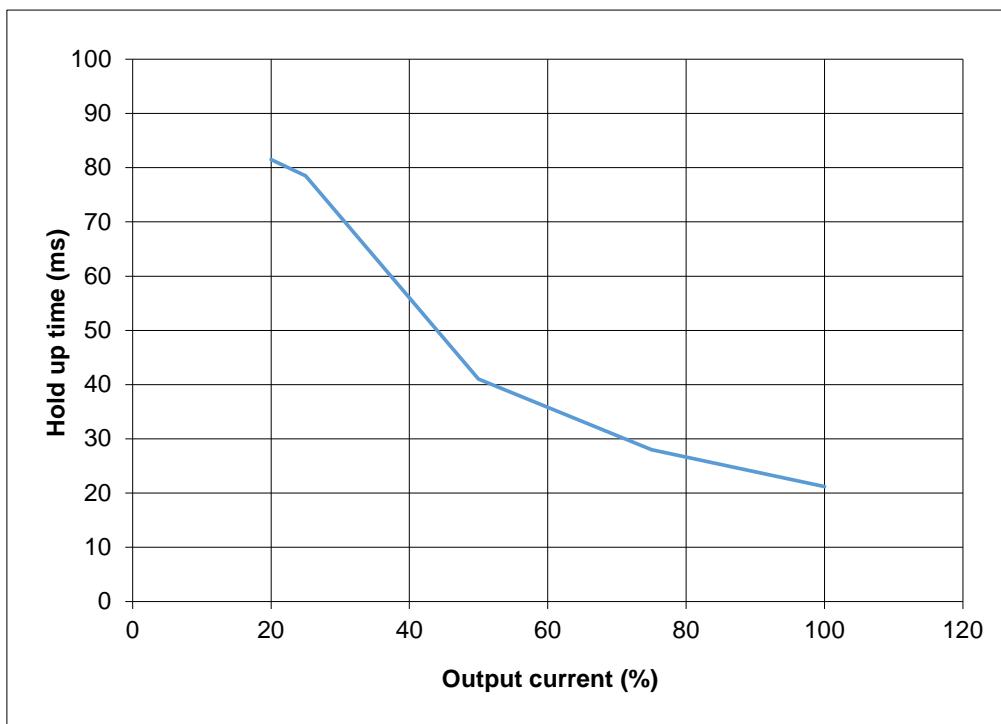
2.6 Holdup time characteristics

Conditions: Ta = 25°C

Vout:100%

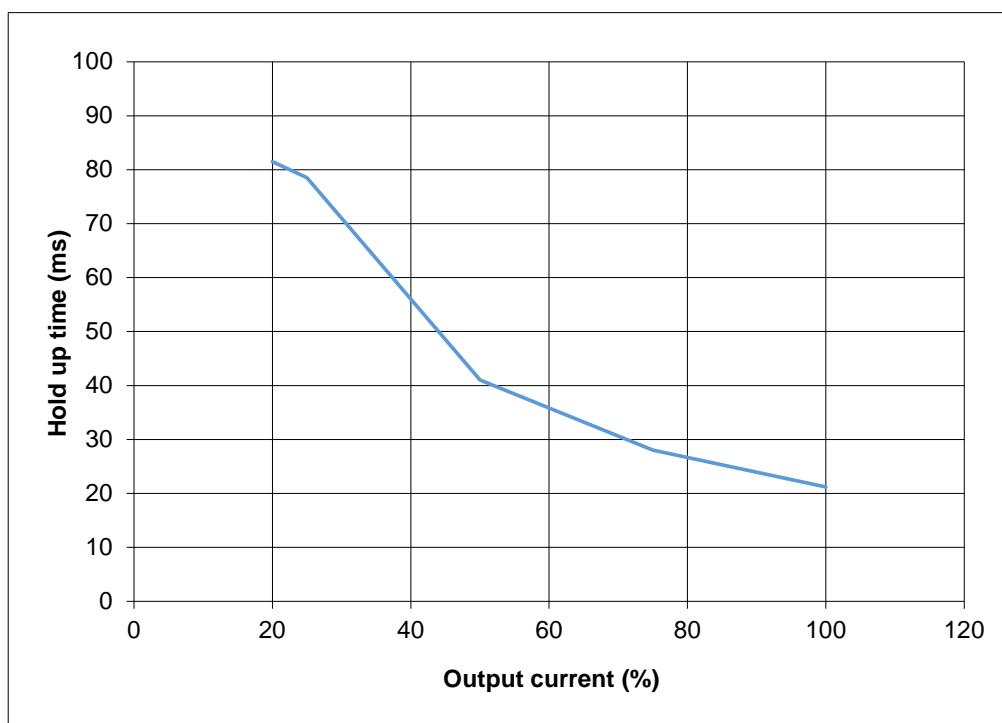
GH10-150

Vin:100VAC



GH10-150

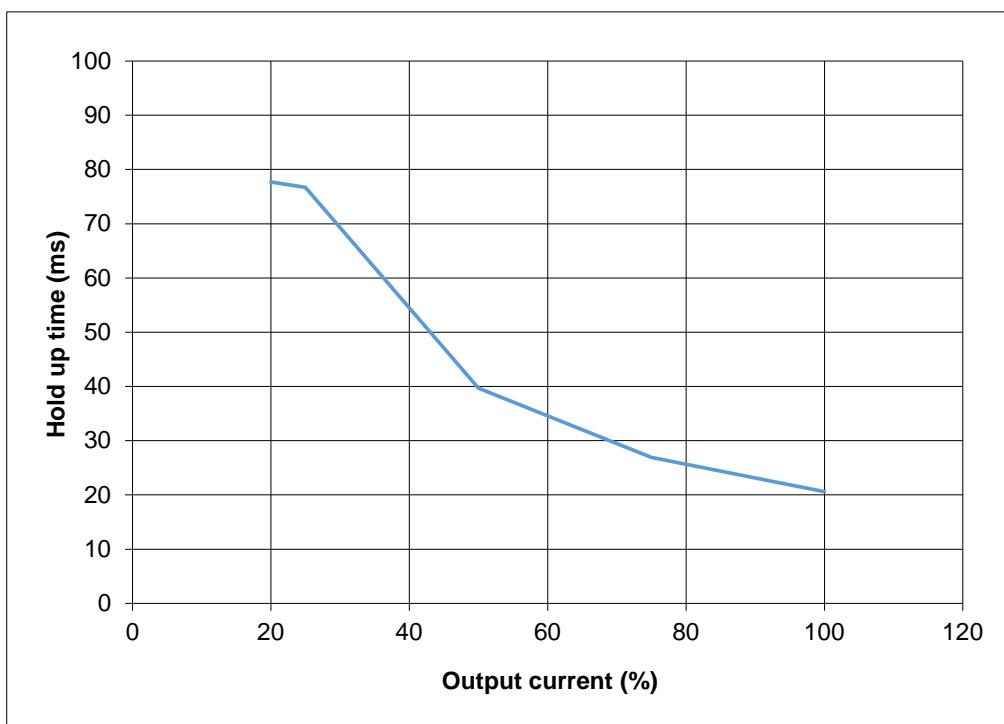
Vin:200VAC



2.6 Holdup time characteristicsConditions: Ta = 25°C
Vout:100%

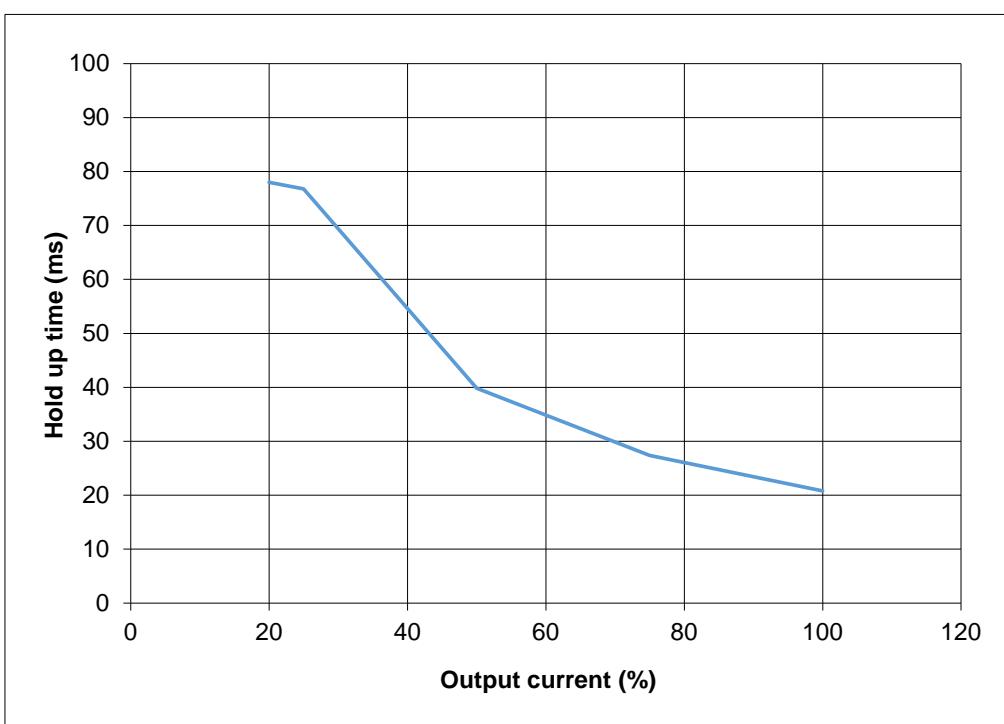
GH60-25

Vin:100VAC



GH60-25

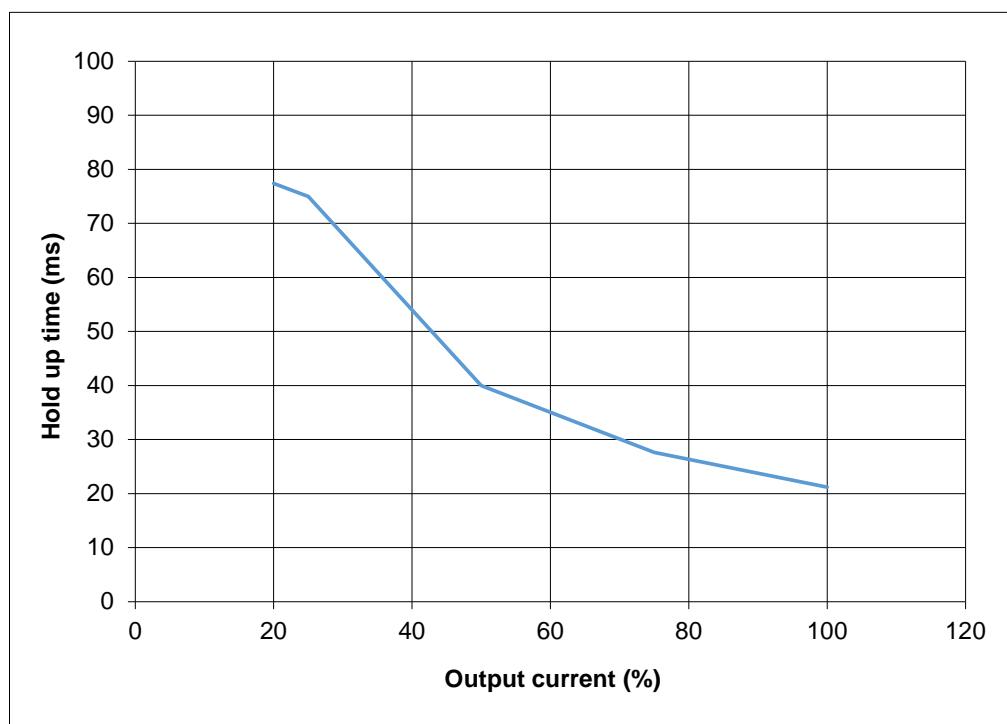
Vin:200VAC



2.6 Holdup time characteristicsConditions: Ta = 25°C
Vout:100%

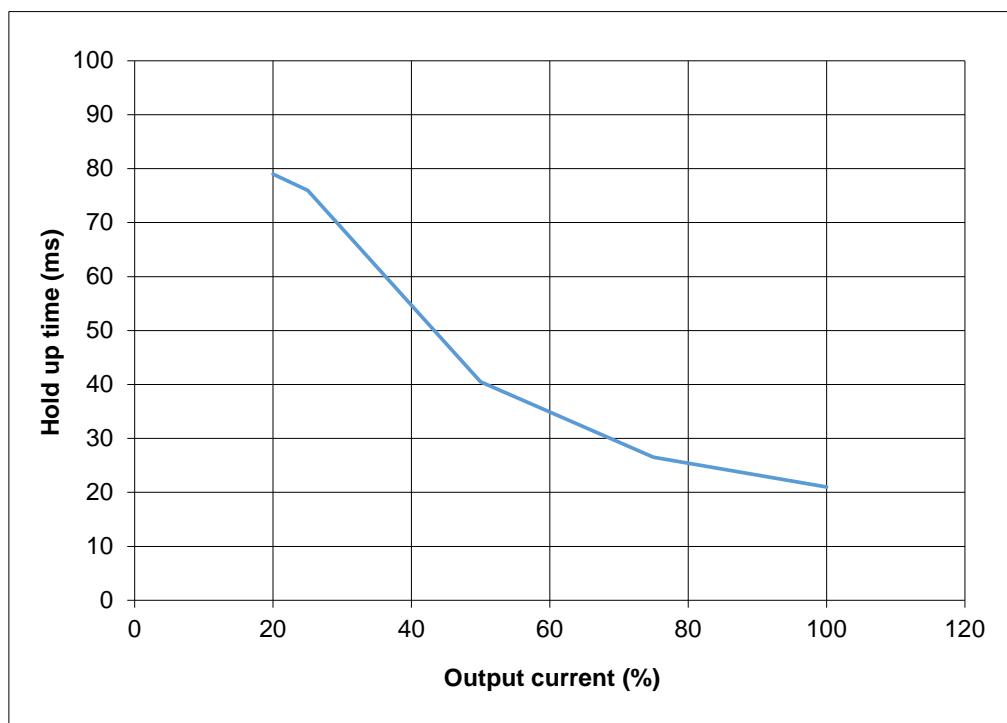
GH150-10

Vin:100VAC



GH150-10

Vin:200VAC



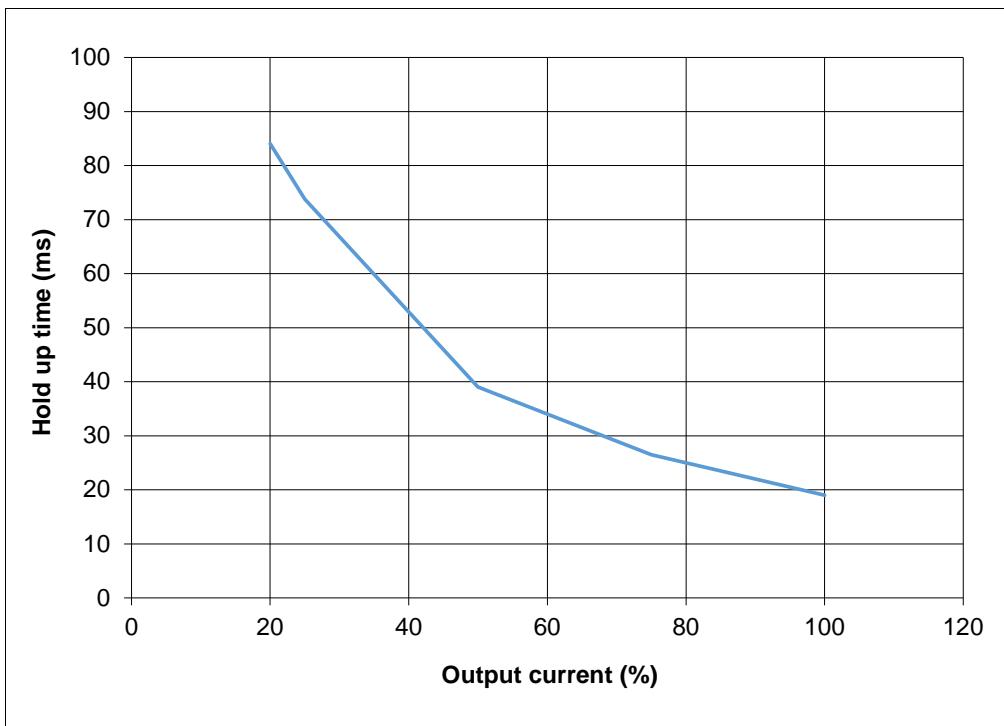
2.6 Holdup time characteristics

Conditions: Ta = 25°C

Vout:100%

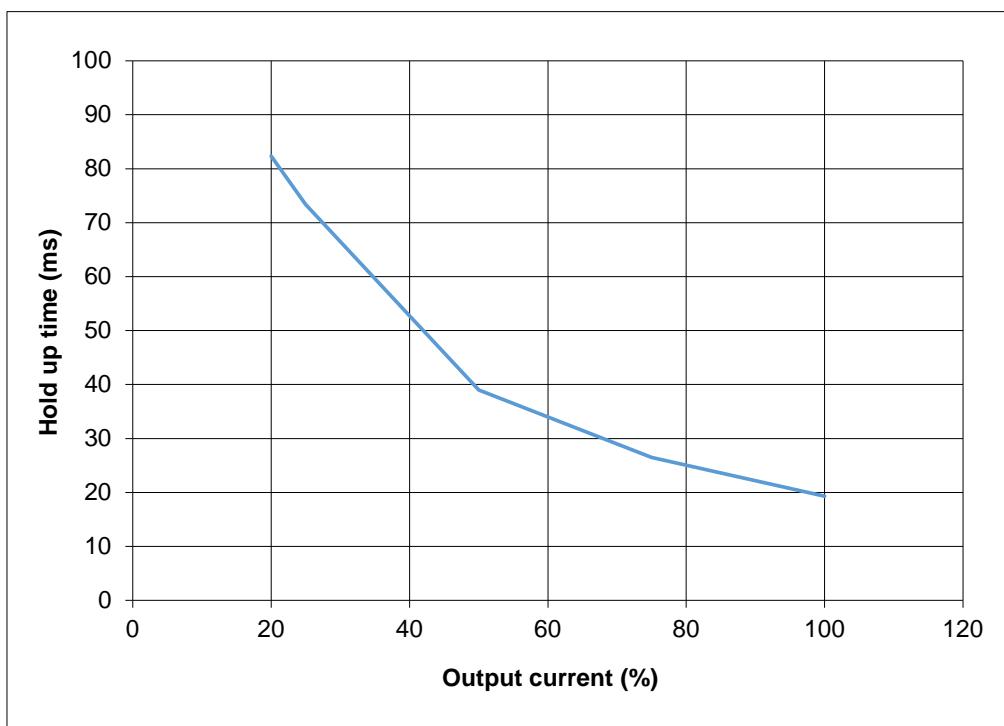
GH600-2.6

Vin:100VAC



GH600-2.6

Vin:200VAC



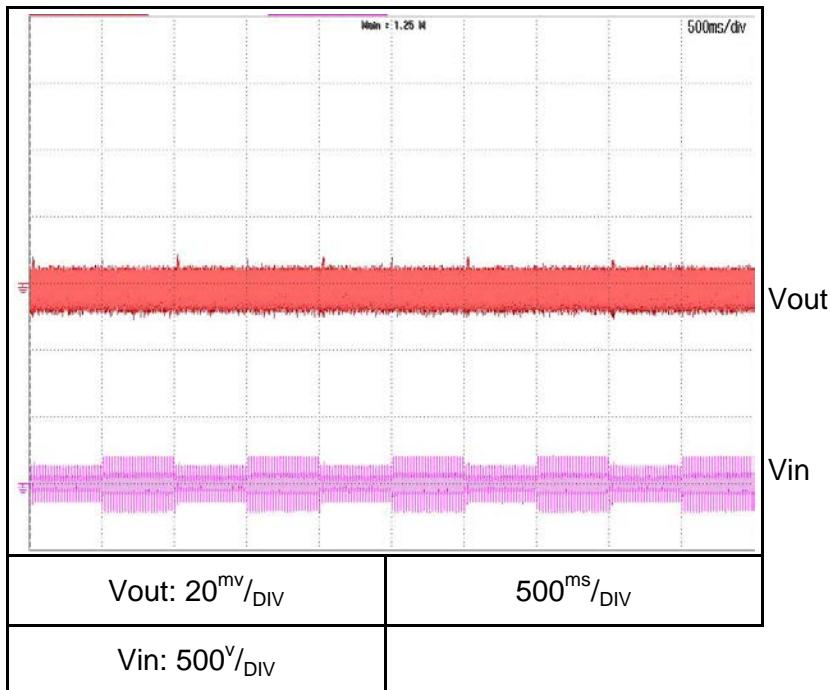
Ta = 25°C

2.7 Dynamic line response characteristics

C.V mode

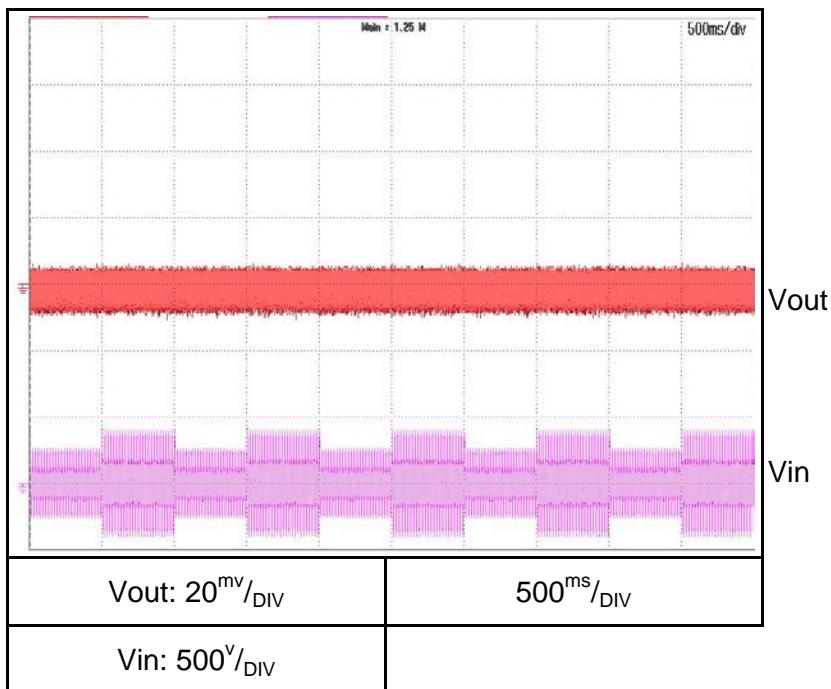
GH10-150

Conditions: Vout: 100%
Iout: 100%
Vin: 85↔132V



GH10-150

Conditions: Vout: 100%
Iout: 100%
Vin: 170↔265V



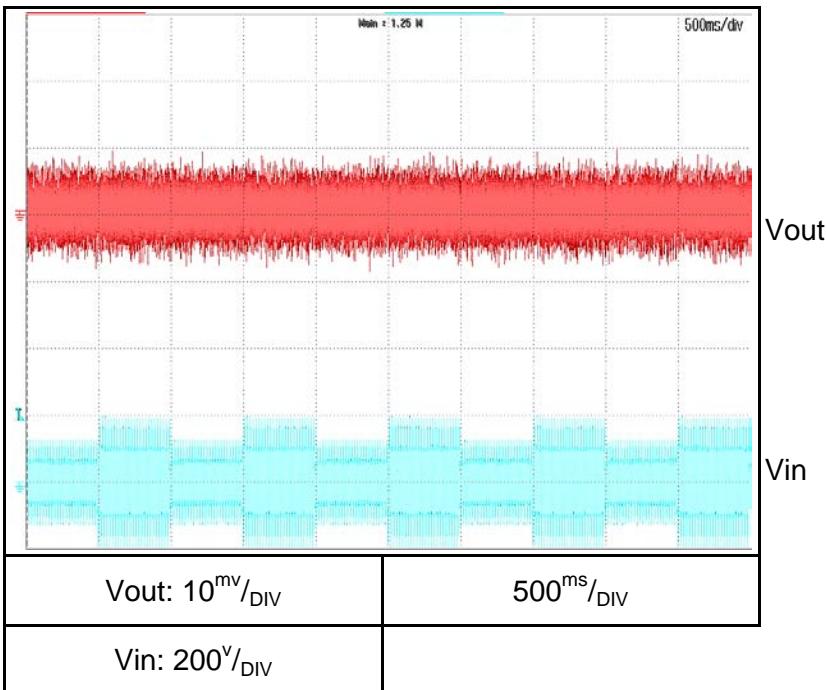
Ta = 25°C

2.7 Dynamic line response characteristics

C.V mode

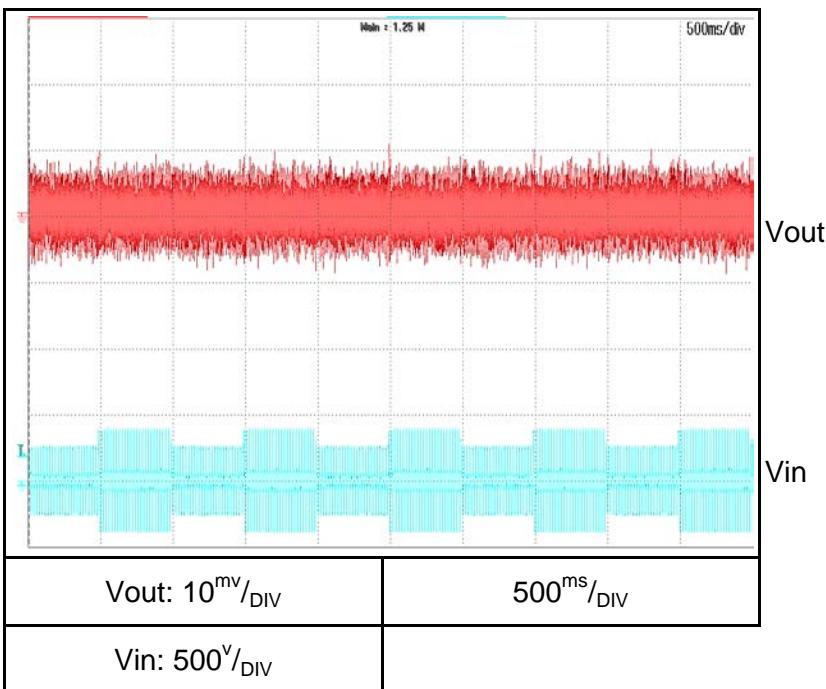
GH60-25

Conditions: Vout: 100%
Iout: 100%
Vin: 85↔132V



GH60-25

Conditions: Vout: 100%
Iout: 100%
Vin: 170↔265V



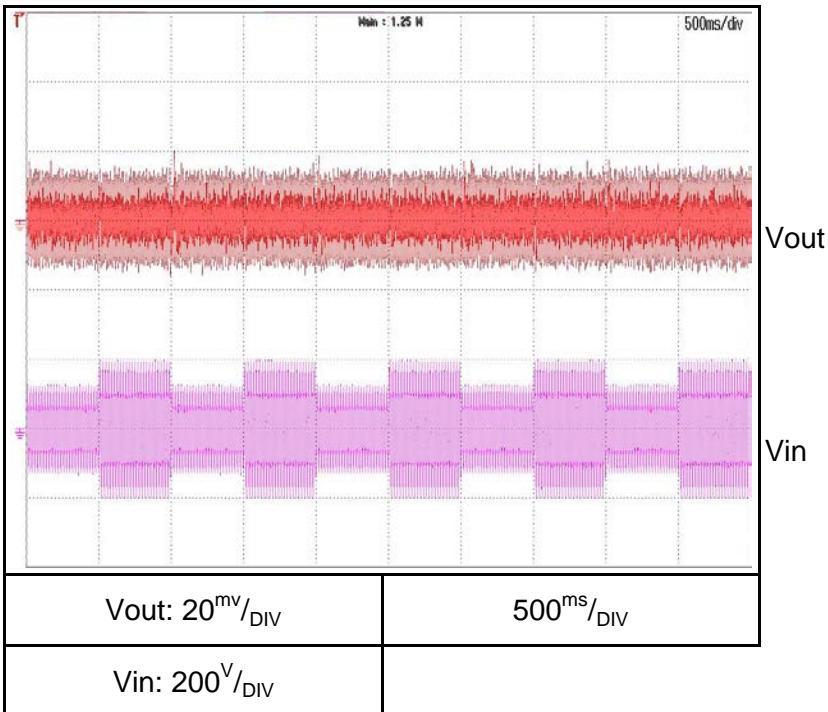
2.7 Dynamic line response characteristics

C.V mode

Ta = 25°C

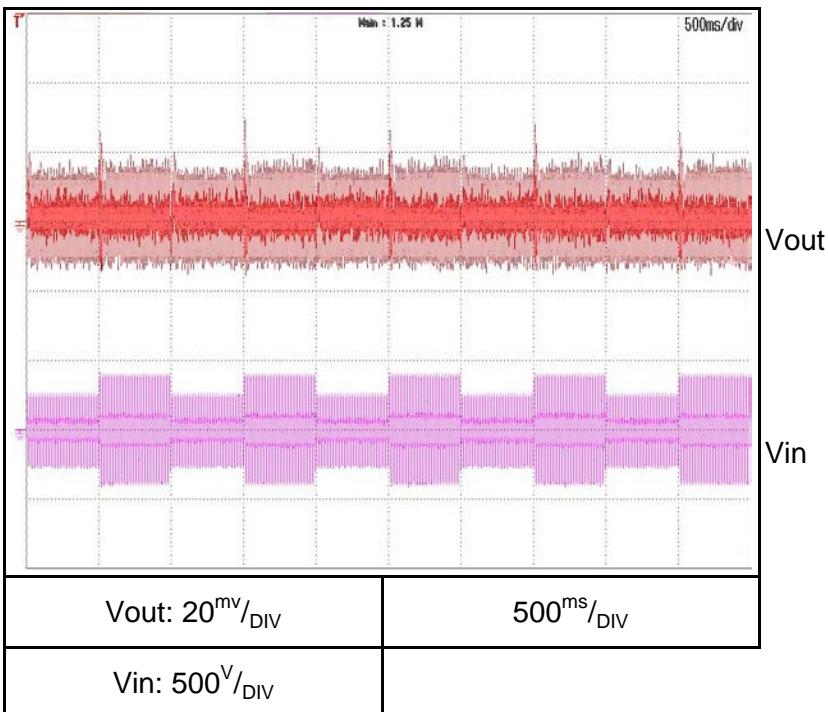
GH150-10

Conditions: Vout: 100%
Iout: 100%
Vin: 85↔132V



GH150-10

Conditions: Vout: 100%
Iout: 100%
Vin: 170↔265V



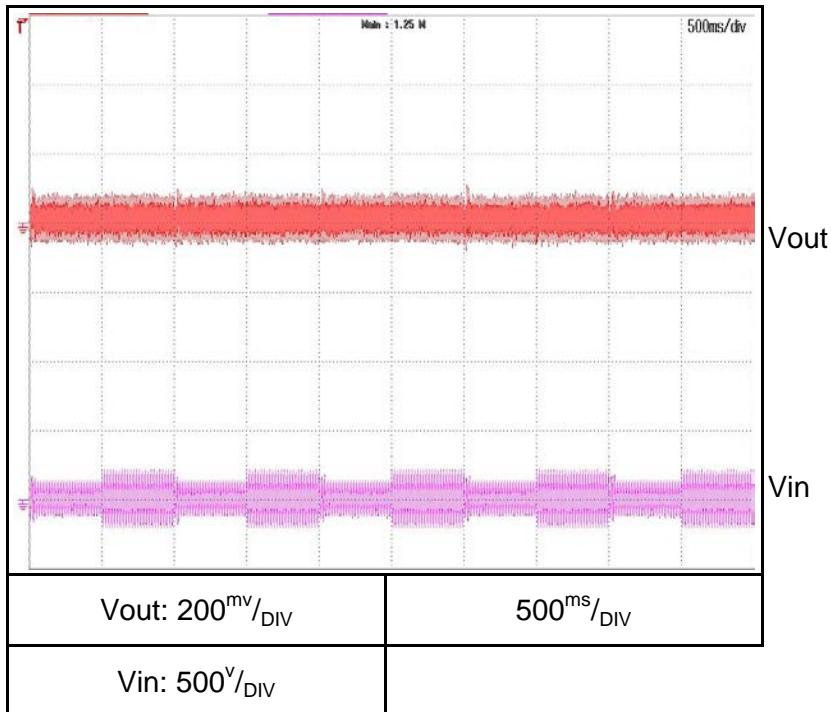
2.7 Dynamic line response characteristics

C.V mode

Ta = 25°C

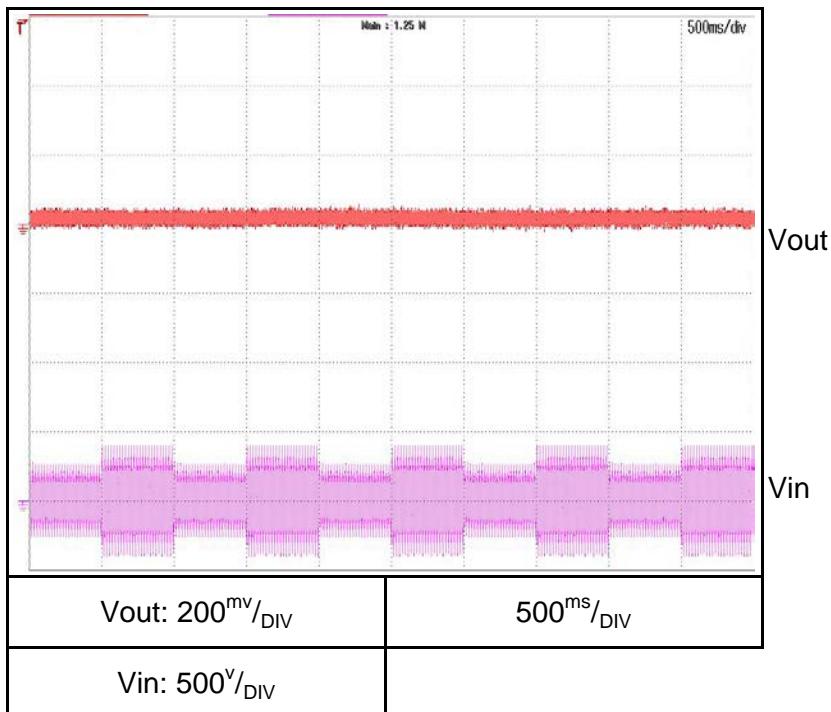
GH600-2.6

Conditions: Vout: 100%
Iout: 100%
Vin: 85↔132V



GH600-2.6

Conditions: Vout: 100%
Iout: 100%
Vin: 170↔265V



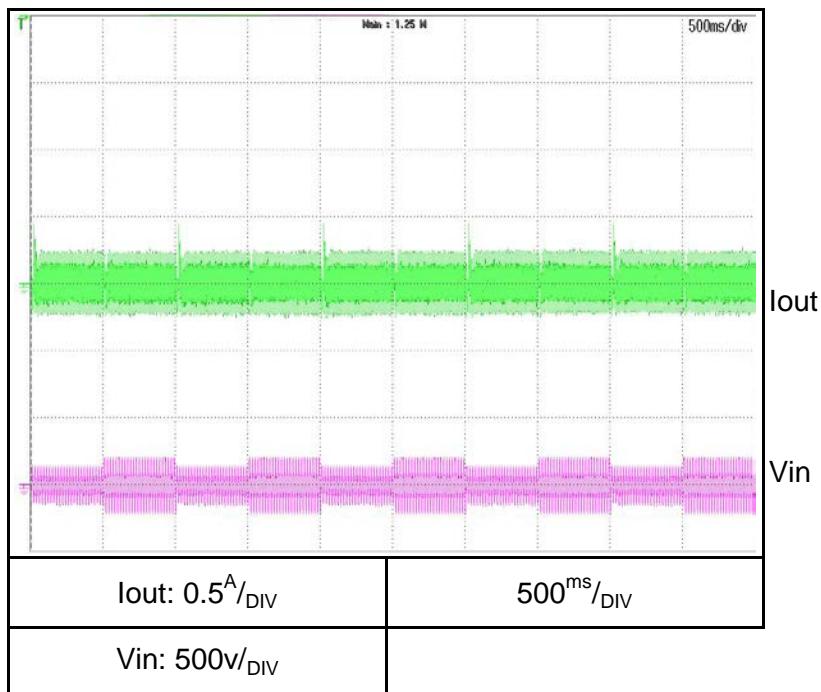
2.7 Dynamic line response characteristics

C.C mode

Ta = 25°C

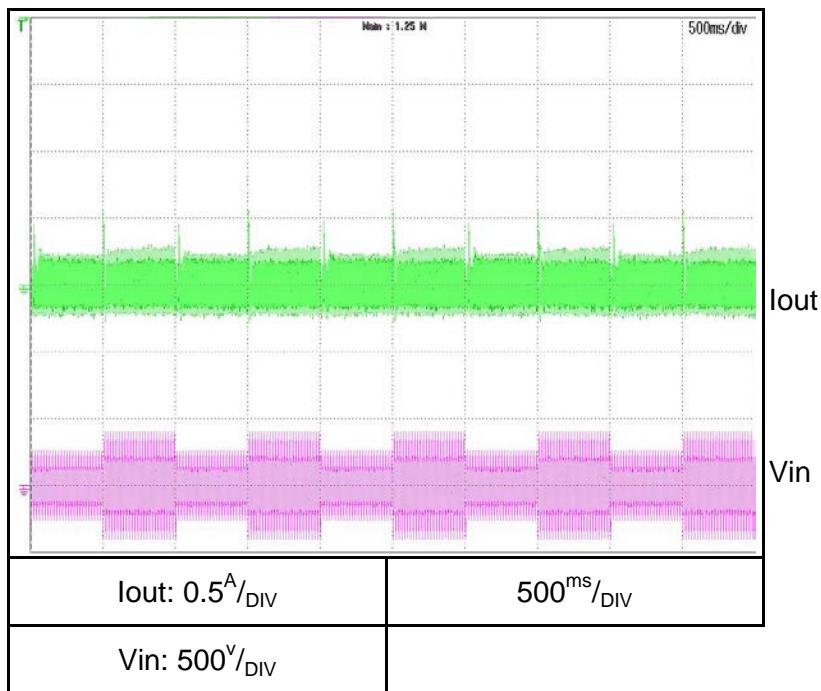
GH10-150

Conditions: Vout: 100%
Iout: 100%
Vin: 85↔132V



GH10-150

Conditions: Vout: 100%
Iout: 100%
Vin: 170↔265V



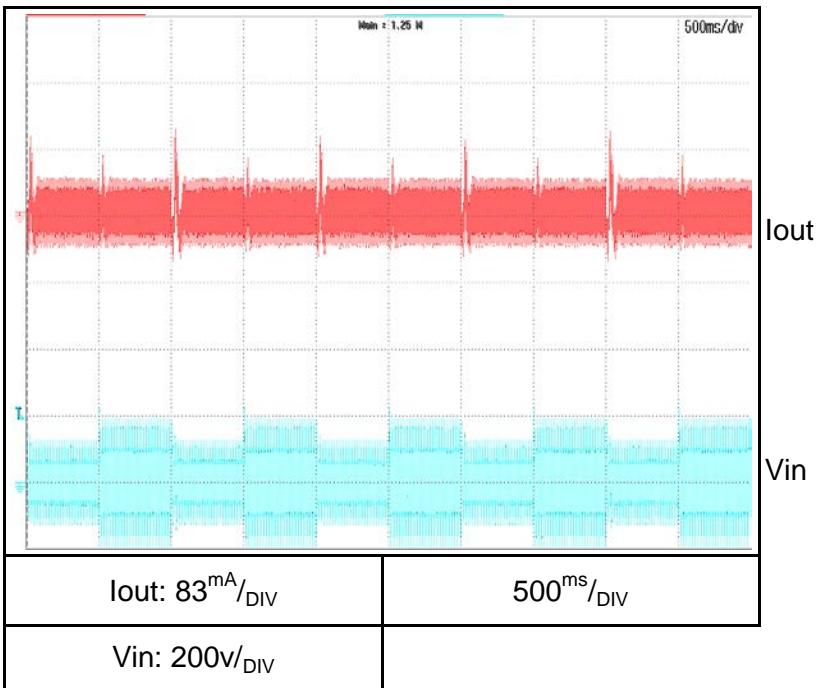
Ta = 25°C

2.7 Dynamic line response characteristics

C.C mode

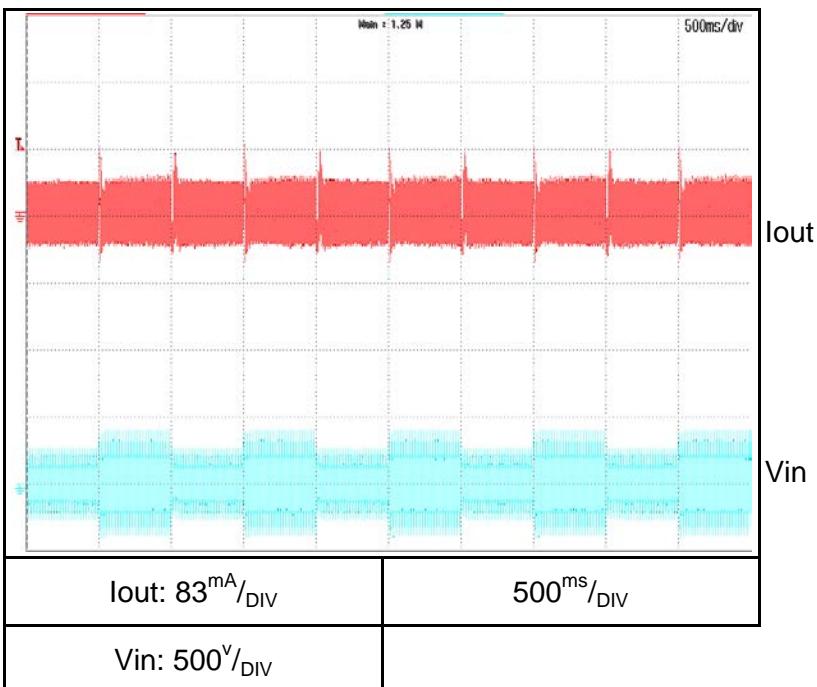
GH60-25

Conditions: Vout: 100%
Iout: 100%
Vin: 85↔132V



GH60-25

Conditions: Vout: 100%
Iout: 100%
Vin: 170↔265V



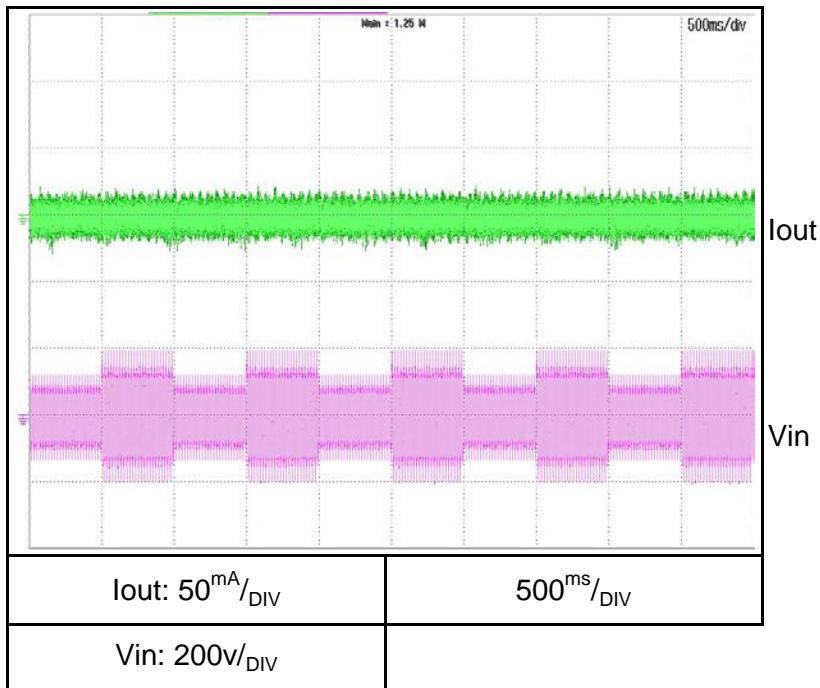
Ta = 25°C

2.7 Dynamic line response characteristics

C.C mode

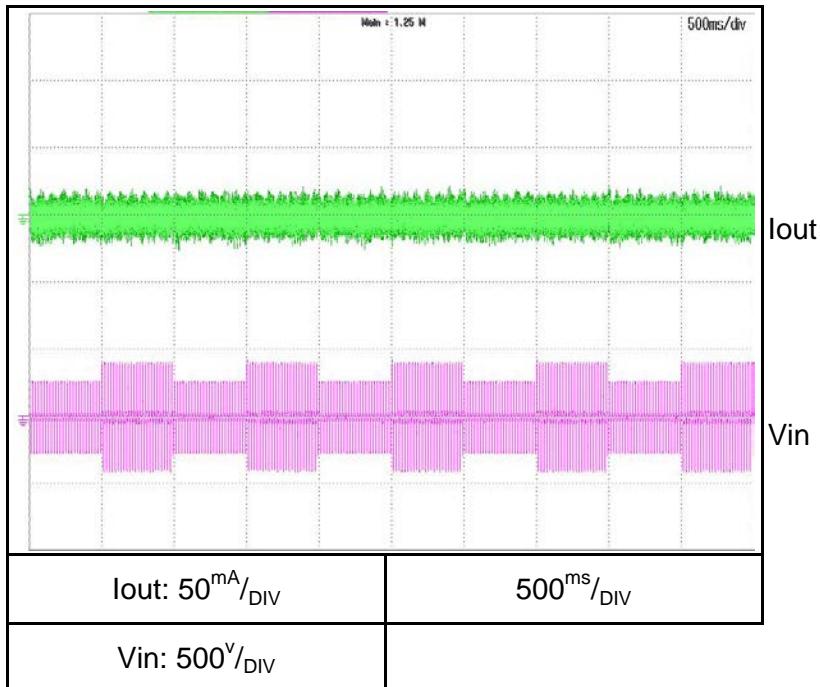
GH150-10

Conditions: Vout: 100%
Iout: 100%
Vin: 85↔132V



GH150-10

Conditions: Vout: 100%
Iout: 100%
Vin: 170↔265V



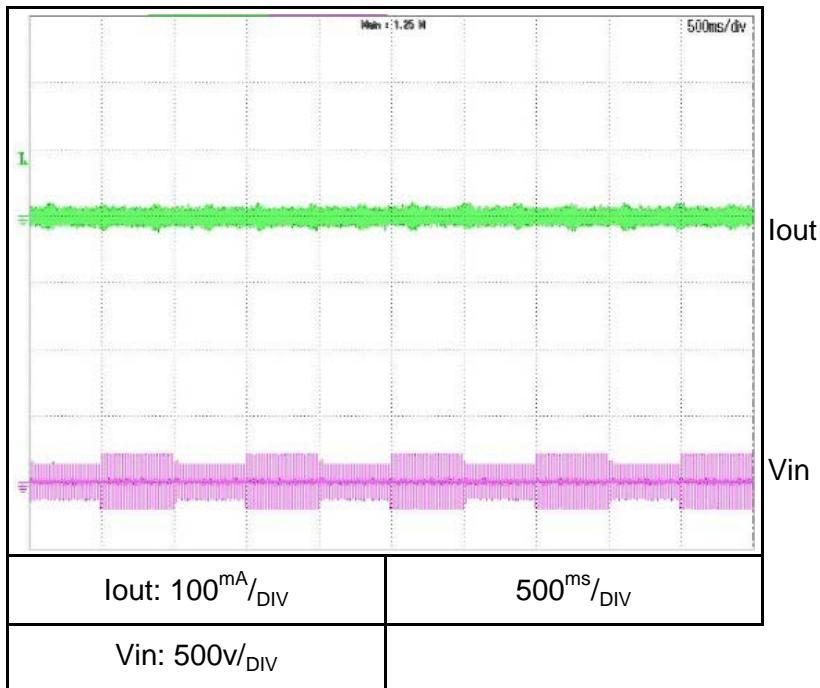
Ta = 25°C

2.7 Dynamic line response characteristics

C.C mode

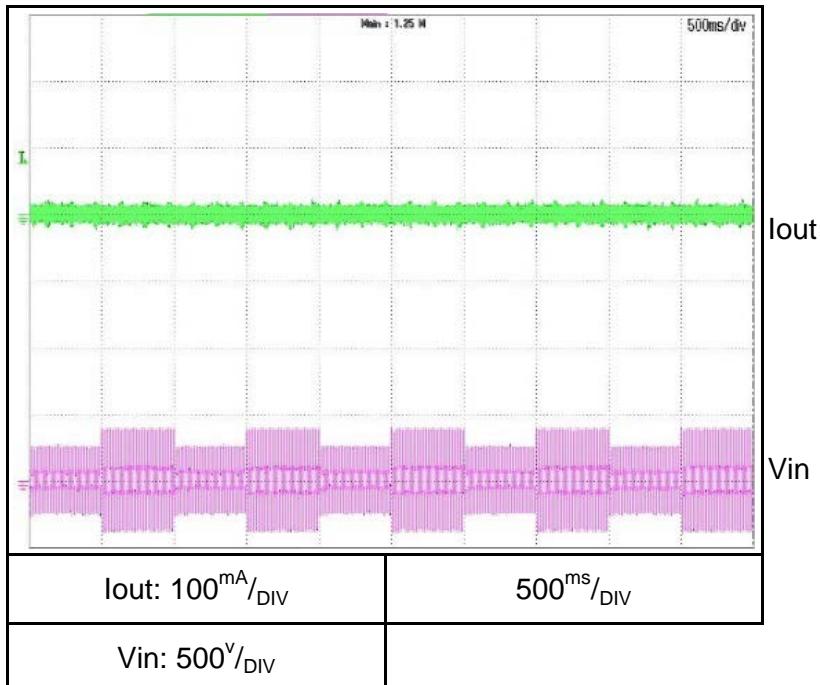
GH600-2.6

Conditions: Vout: 100%
Iout: 100%
Vin: 85↔132V



GH600-2.6

Conditions: Vout: 100%
Iout: 100%
Vin: 170↔265V



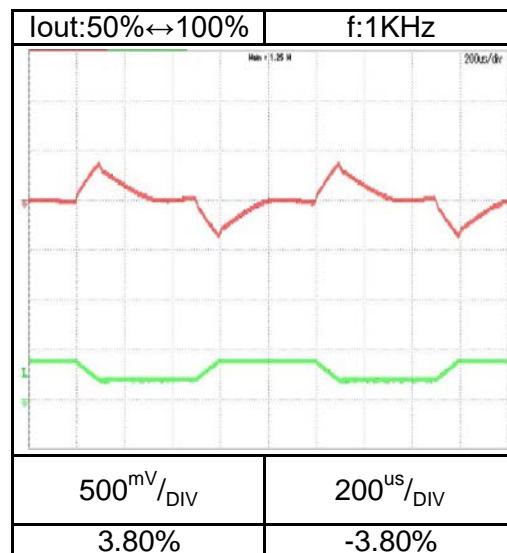
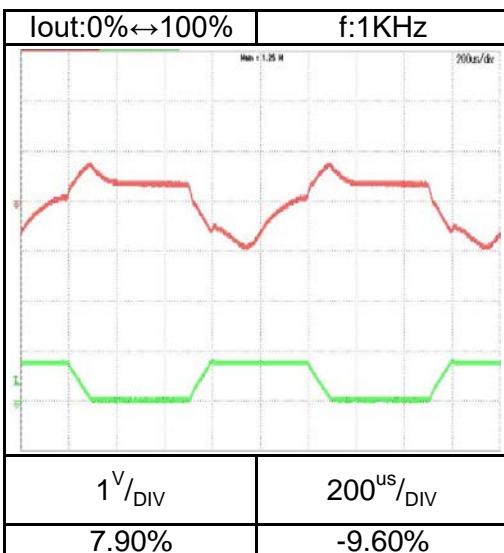
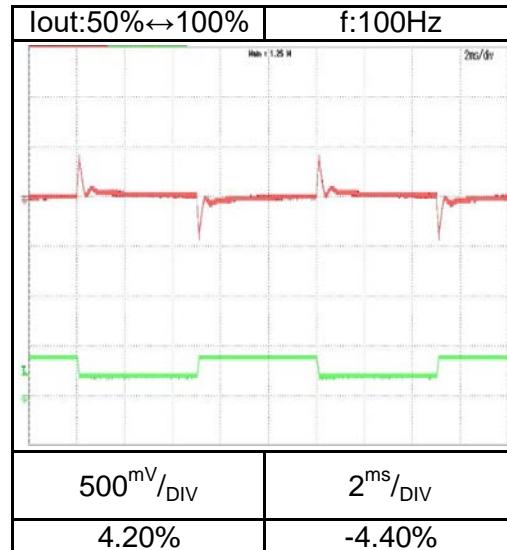
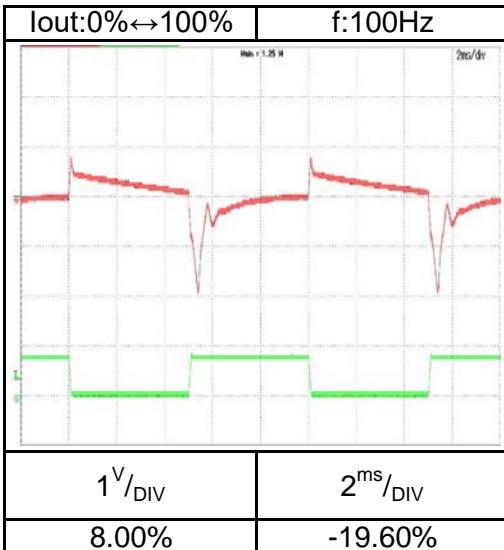
2.8 Dynamic load response characteristics

C.V mode

Conditions: Vin: Nominal
Vout: 100%
Ta = 25°C

Load current: tr=tf=100us

GH10-150



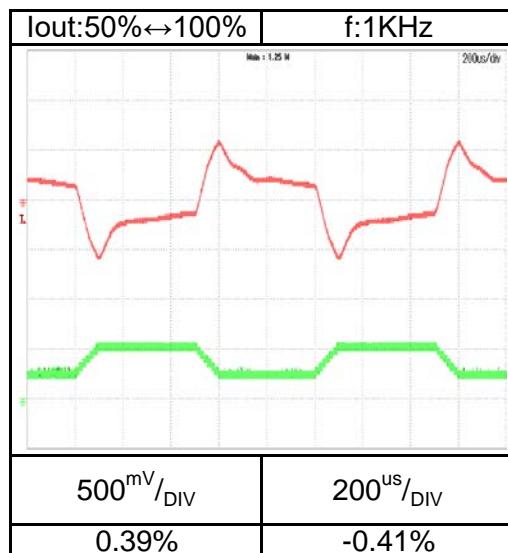
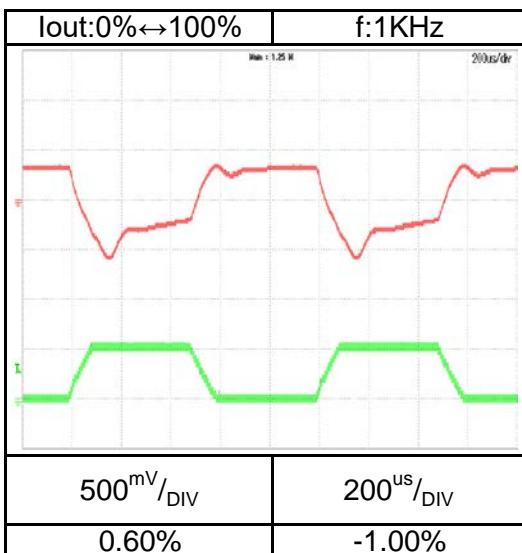
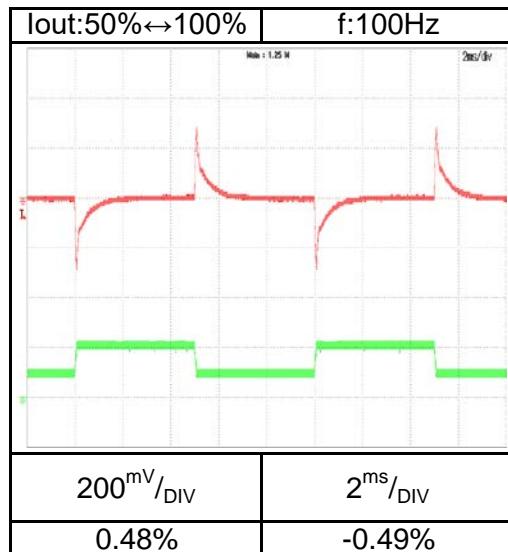
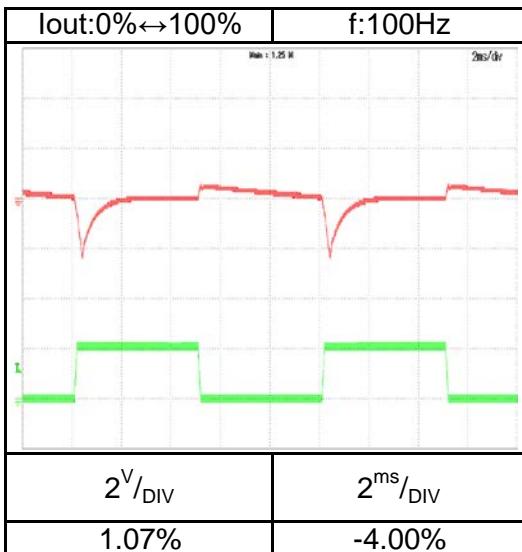
2.8 Dynamic load response characteristics

C.V mode

Conditions: Vin: Nominal
Vout: 100%
Ta = 25°C

Load current: tr=tf=100us

GH60-25



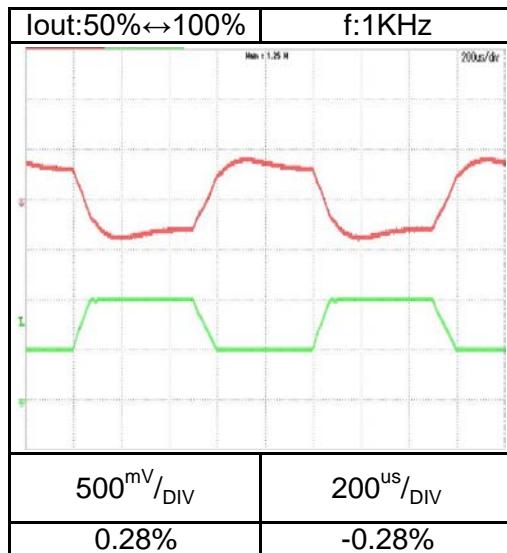
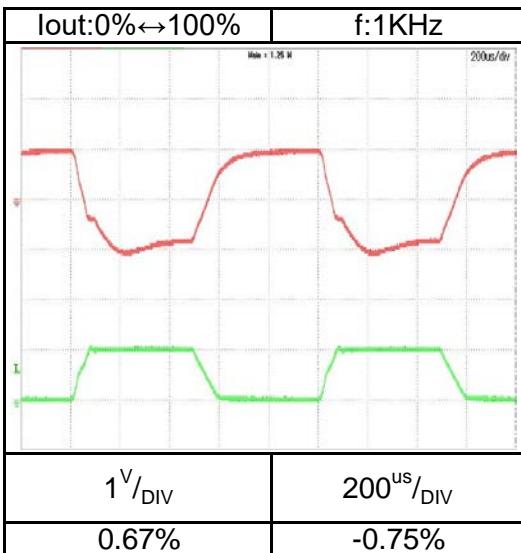
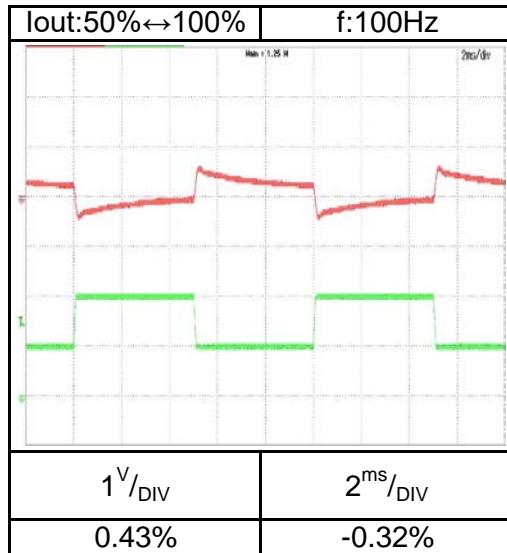
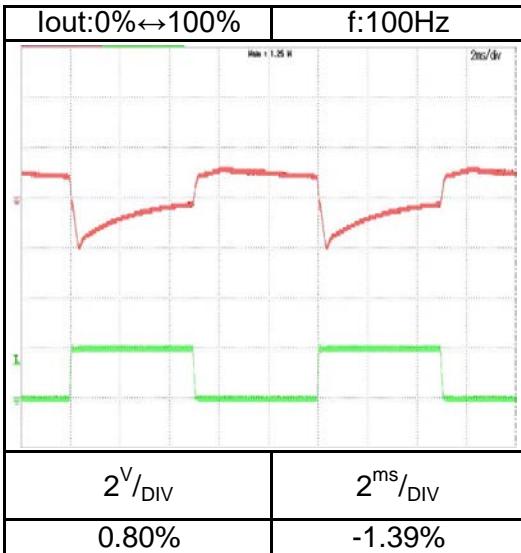
2.8 Dynamic load response characteristics

C.V mode

Conditions: Vin: Nominal
Vout: 100%
Ta = 25°C

Load current: tr=tf=100us

GH150-10



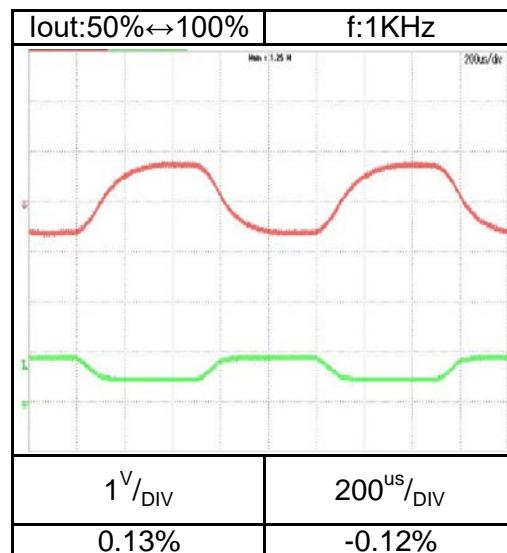
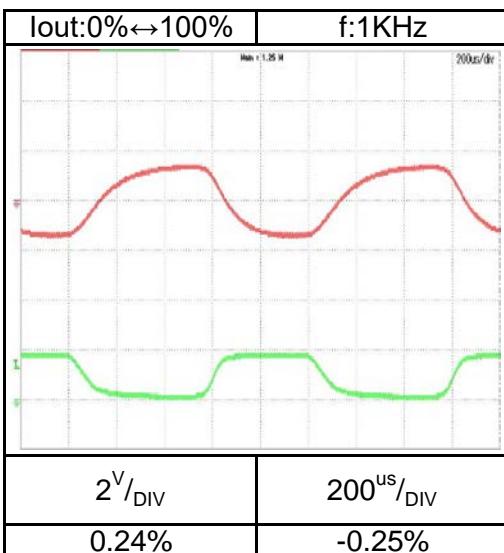
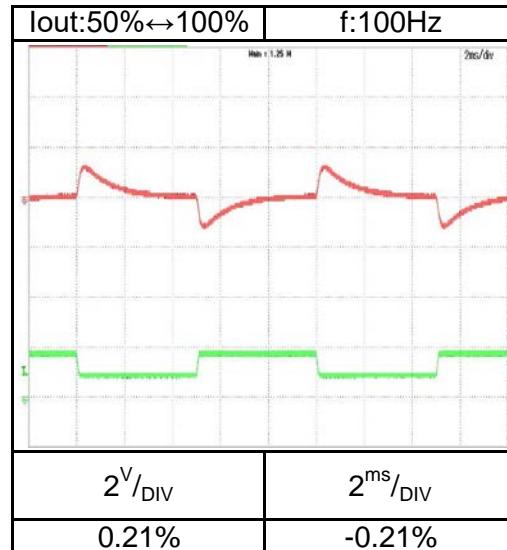
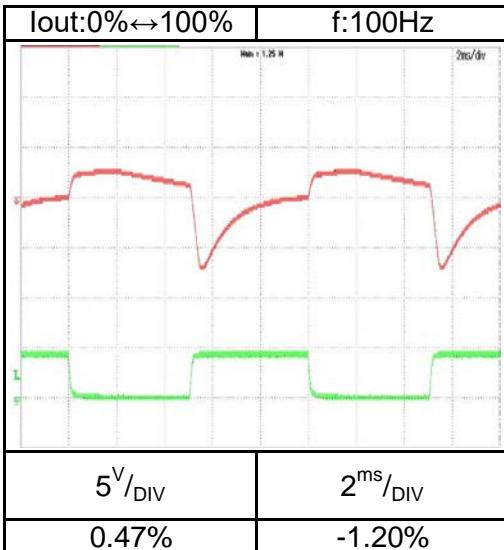
2.8 Dynamic load response characteristics

C.V mode

Conditions: Vin: Nominal
Vout: 100%
Ta = 25°C

Load current: tr=tf=100us

GH600-2.6



2.8 Dynamic load response characteristics
C.C mode

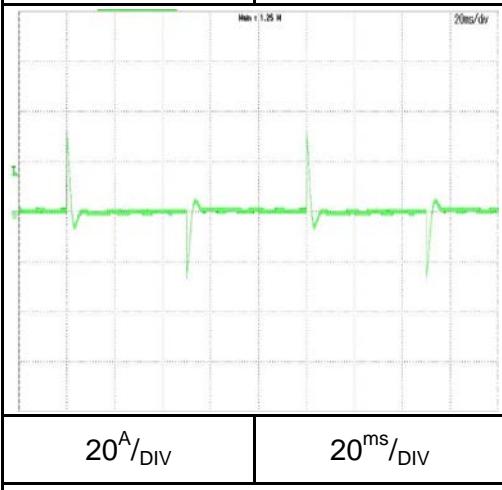
Conditions: Vin: Nominal
Ta = 25°C

GH10-150

Io=150A

Vout:9↔7.5V

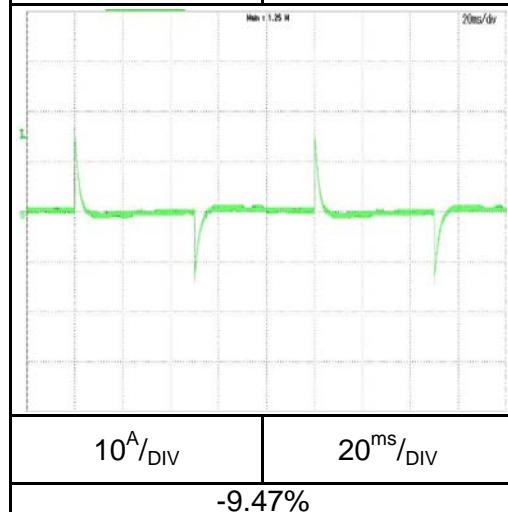
f:10Hz



Io=75A

Vout:9↔7.5V

f:10Hz

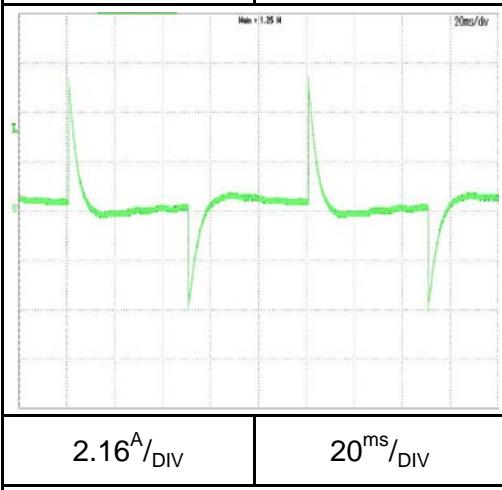


GH60-25

Io=25A

Vout:54↔45V

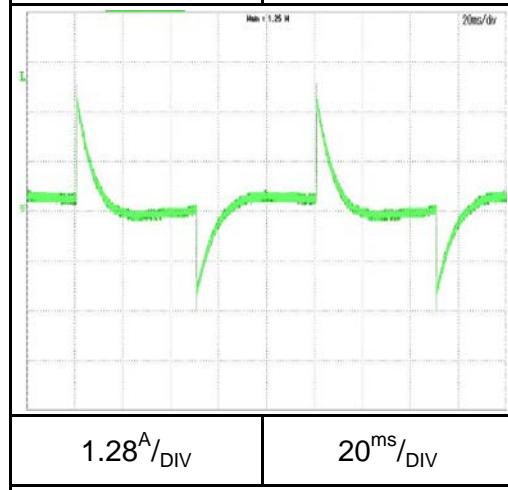
f:10Hz



Io=12.5A

Vout:54↔45V

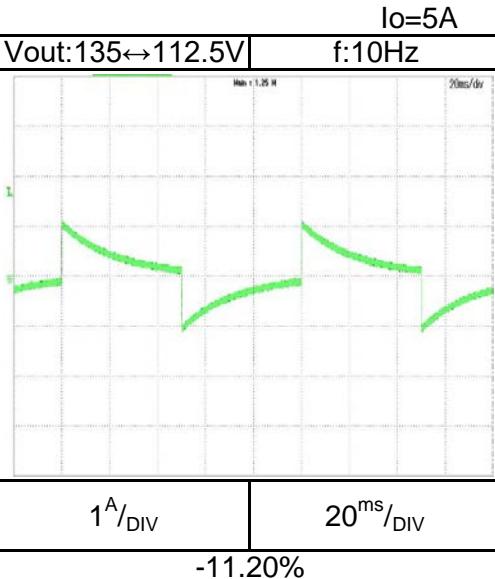
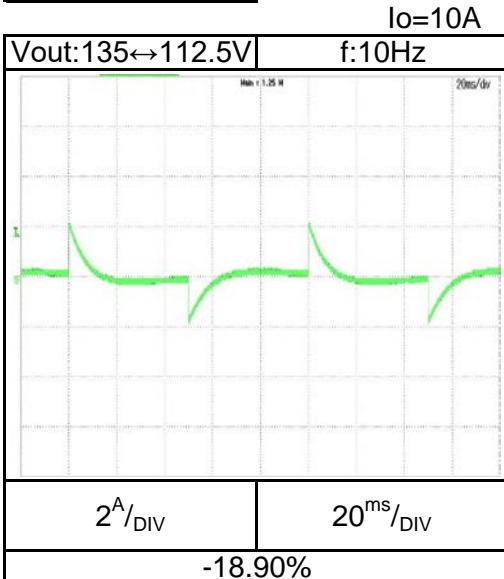
f:10Hz



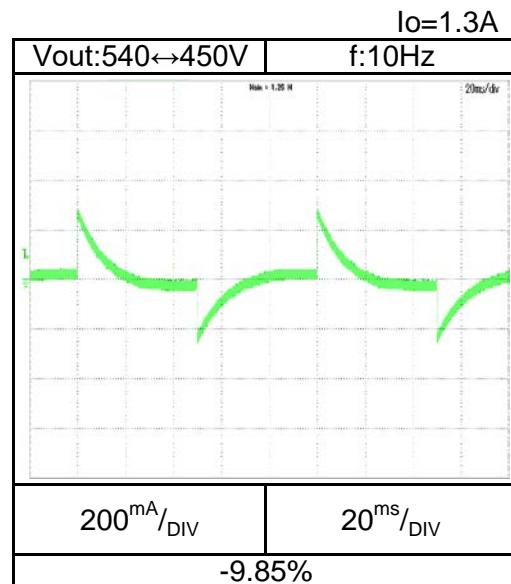
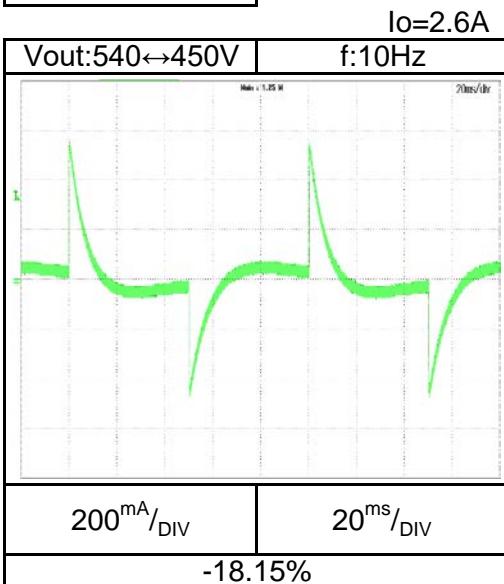
2.8 Dynamic load response characteristics
C.C mode

Conditions: Vin: Nominal
Ta = 25°C

GH150-10



GH600-2.6

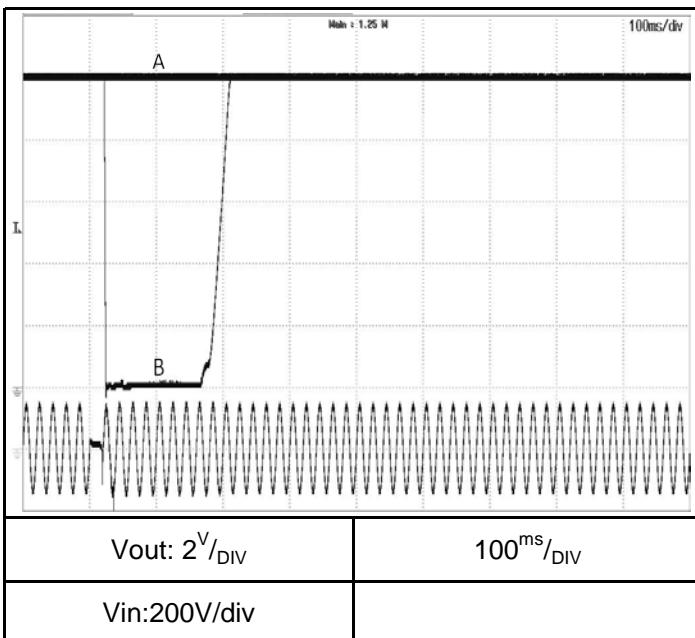


2.9 Response to brown-out characteristics
C.V mode

Conditions: Vout: 100%
Iout: 100%
Ta = 25°C

GH10-150

Vin:100VAC



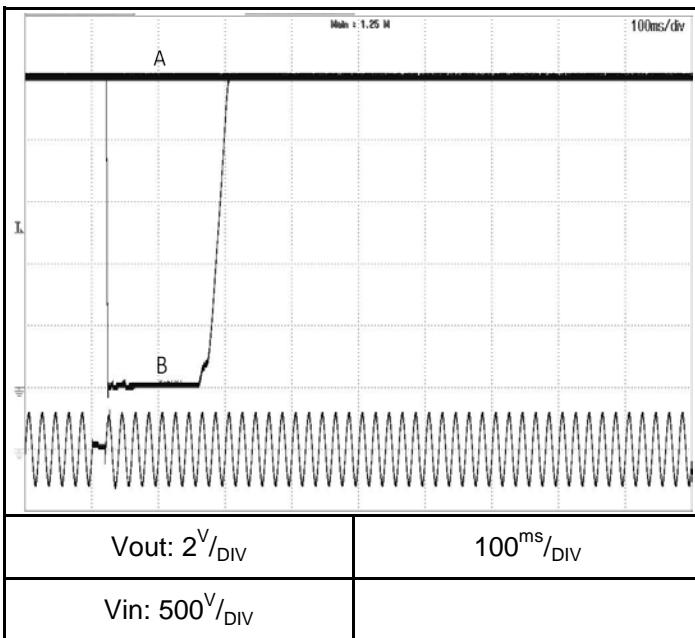
Brown-out time

A: 17mS

B: 18mS

GH10-150

Vin:200VAC



Brown-out time

A: 18mS

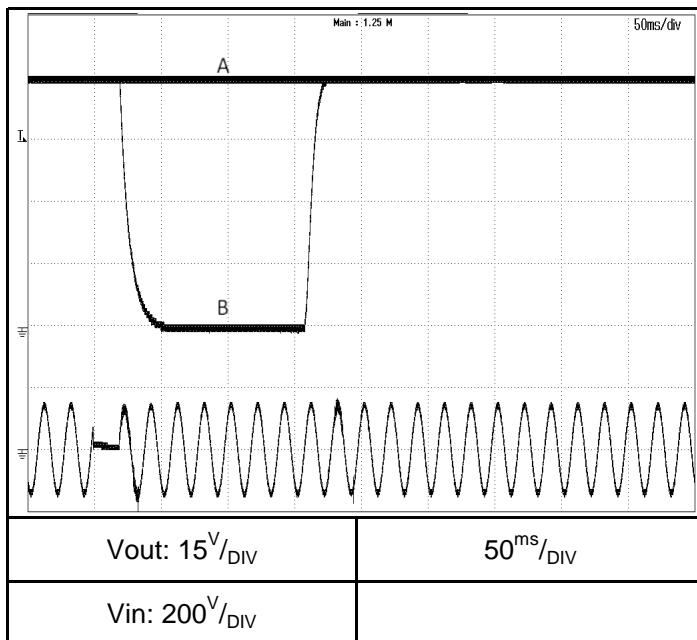
B: 19mS

2.9 Response to brown-out characteristics
C.V mode

Conditions: Vout: 100%
Iout: 100%
Ta = 25°C

GH60-25

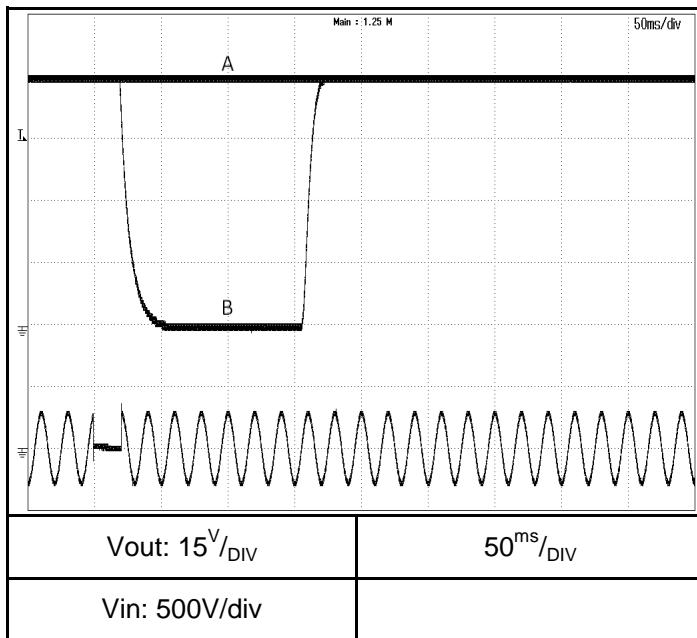
Vin:100VAC

Brown-out time

A: 18mS
B: 19mS

GH60-25

Vin:200VAC

Brown-out time

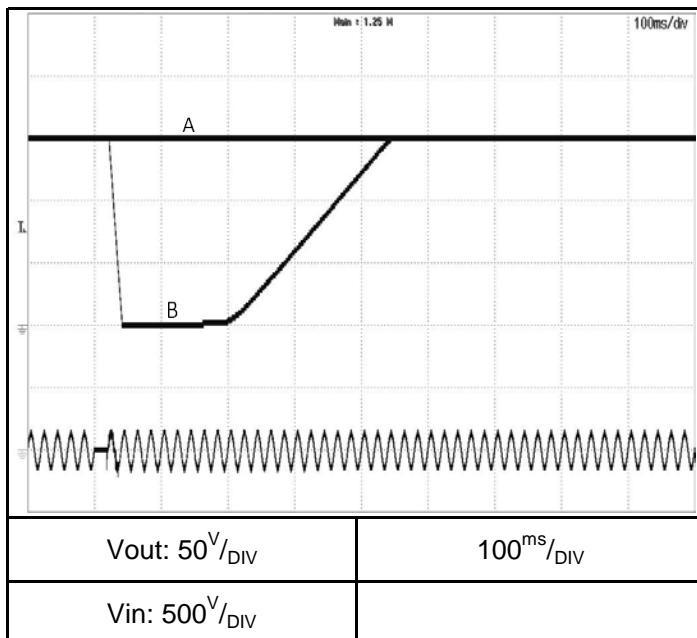
A: 19mS
B: 20mS

2.9 Response to brown-out characteristics
C.V mode

Conditions: Vout: 100%
Iout: 100%
Ta = 25°C

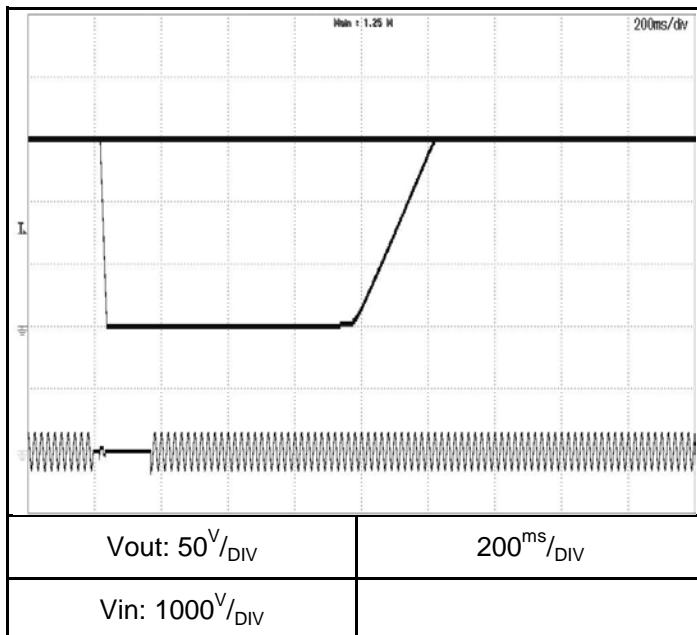
GH150-10

Vin:100VAC



GH150-10

Vin:200VAC

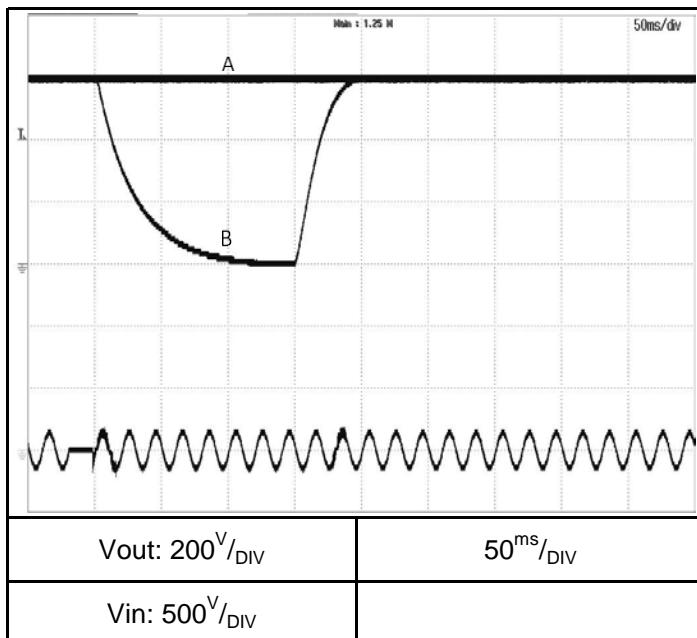


2.9 Response to brown-out characteristics
C.V mode

Conditions: Vout: 100%
Iout: 100%
Ta = 25°C

GH600-2.6

Vin:100VAC

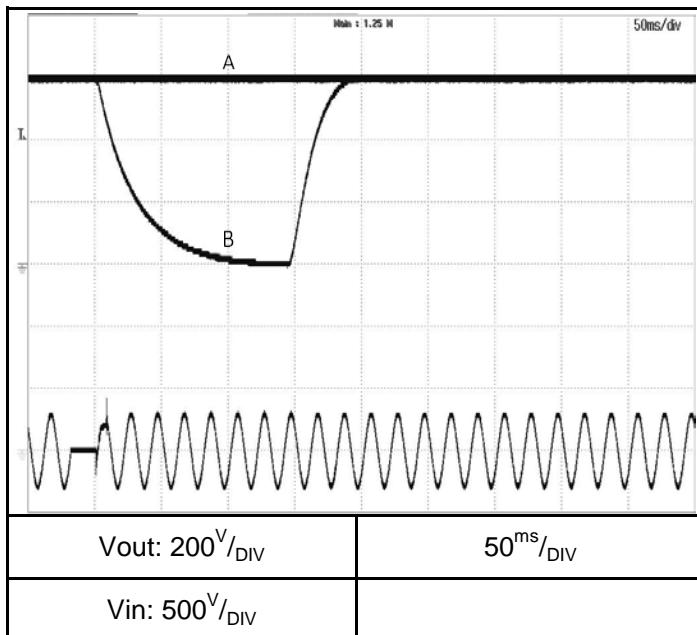
Brown-out time

A:17mS

B:18mS

GH600-2.6

Vin:200VAC

Brown-out time

A:18mS

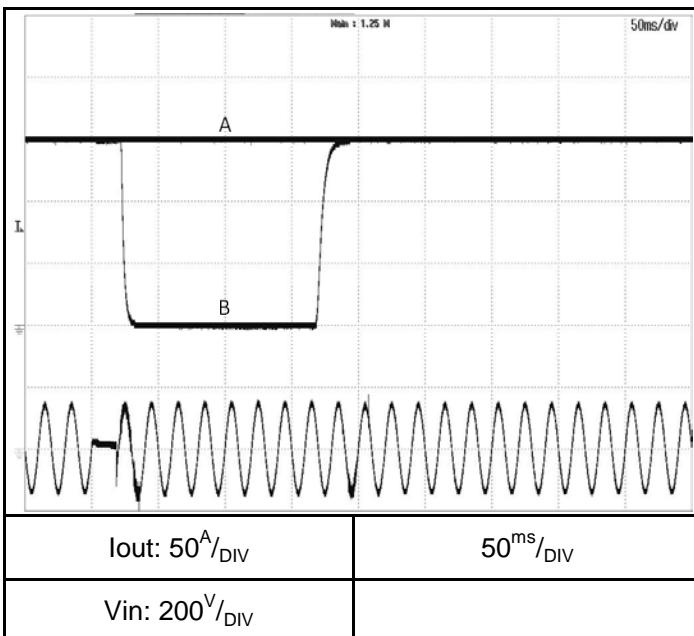
B:19mS

2.9 Response to brown-out characteristics
C.C mode

Conditions: Vout: 100%
Iout: 100%
Ta = 25°C

GH10-150

Vin:100VAC

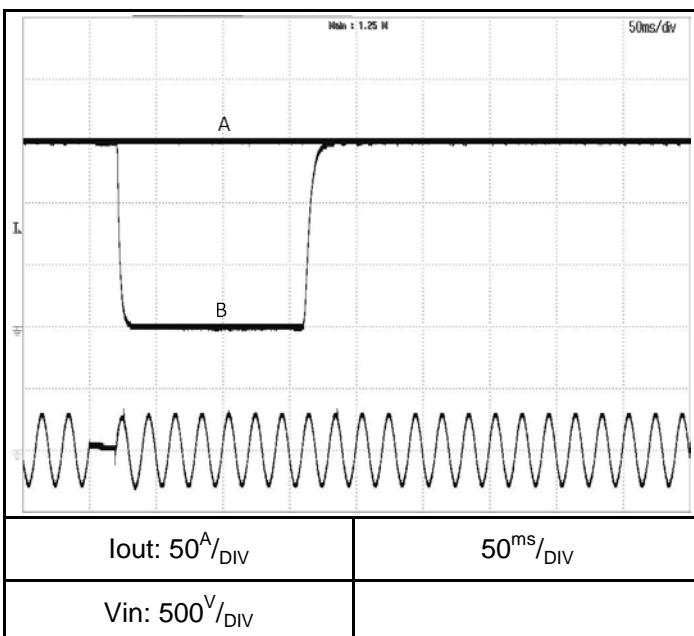


Brown-out time

A: 17mS
B: 18mS

GH10-150

Vin:200VAC



Brown-out time

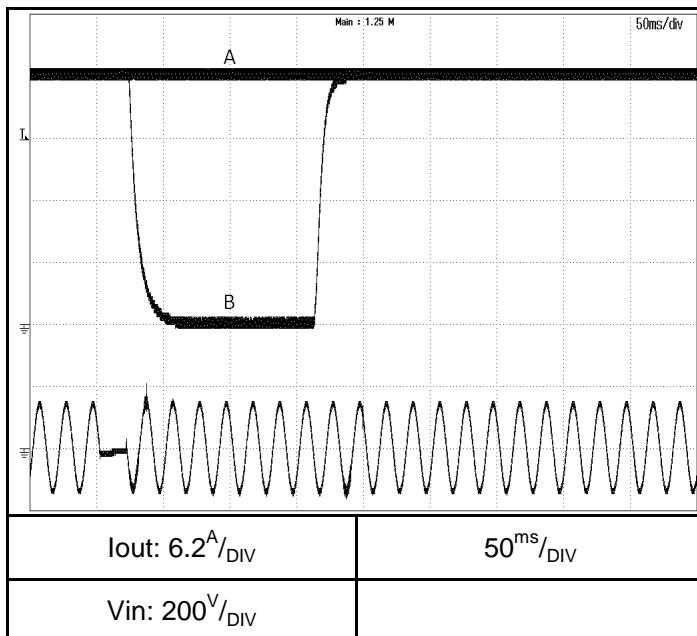
A: 18mS
B: 19mS

2.9 Response to brown-out characteristics
C.C mode

Conditions: Vout: 100%
Iout: 100%
Ta = 25°C

GH60-25

Vin:100VAC

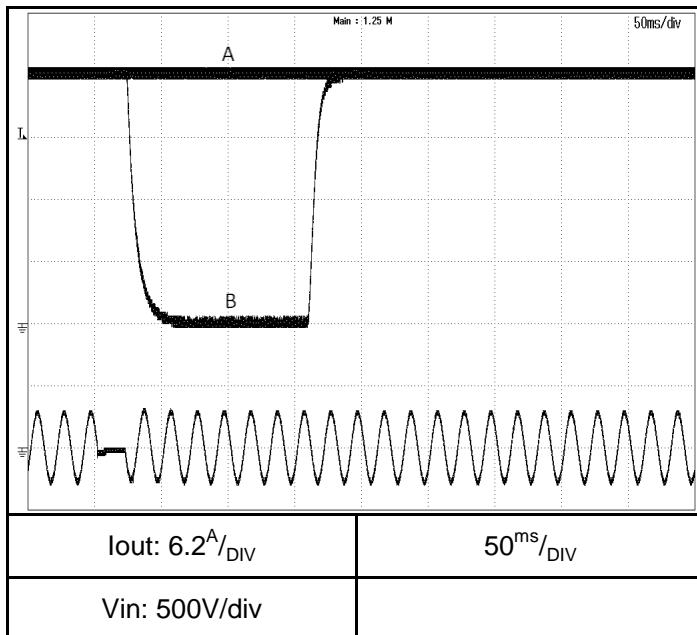
Brown-out time

A: 18mS

B: 19mS

GH60-25

Vin:200VAC

Brown-out time

A: 19mS

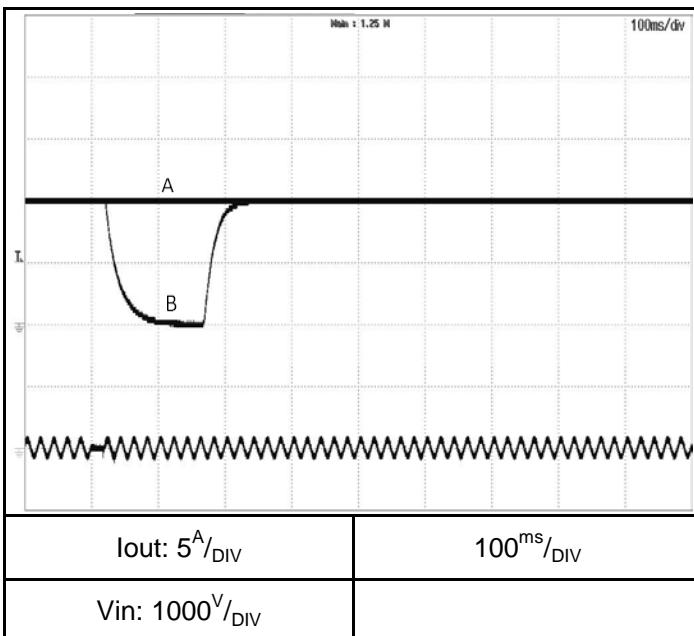
B: 20mS

2.9 Response to brown-out characteristics
C.C mode

Conditions: Vout: 100%
Iout: 100%
Ta = 25°C

GH150-10

Vin:100VAC

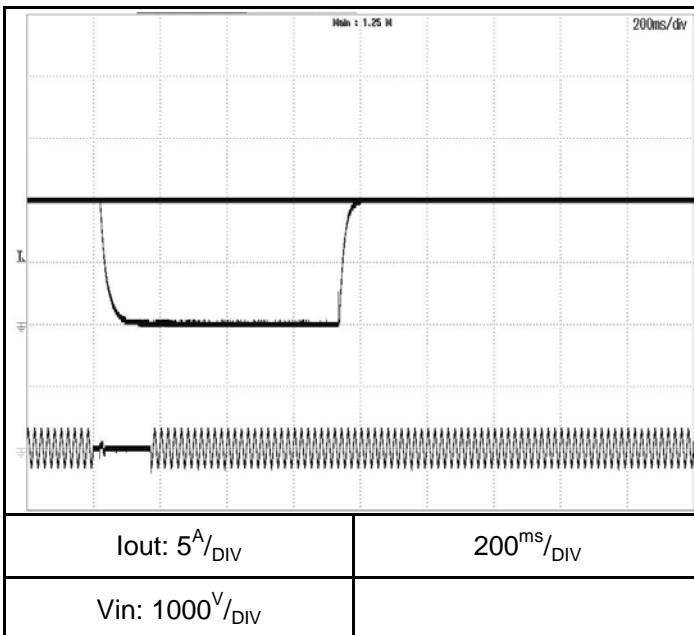


Brown-out time

A: 17mS
B: 18mS

GH150-10

Vin:200VAC



Brown-out time

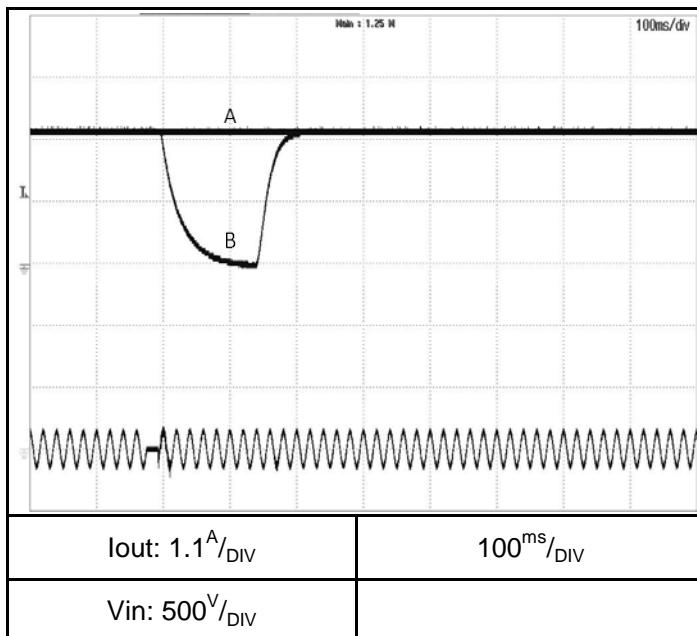
A: 18mS
B: 19mS

2.9 Response to brown-out characteristics
C.C mode

Conditions: Vout: 100%
Iout: 100%
Ta = 25°C

GH600-2.6

Vin:100VAC

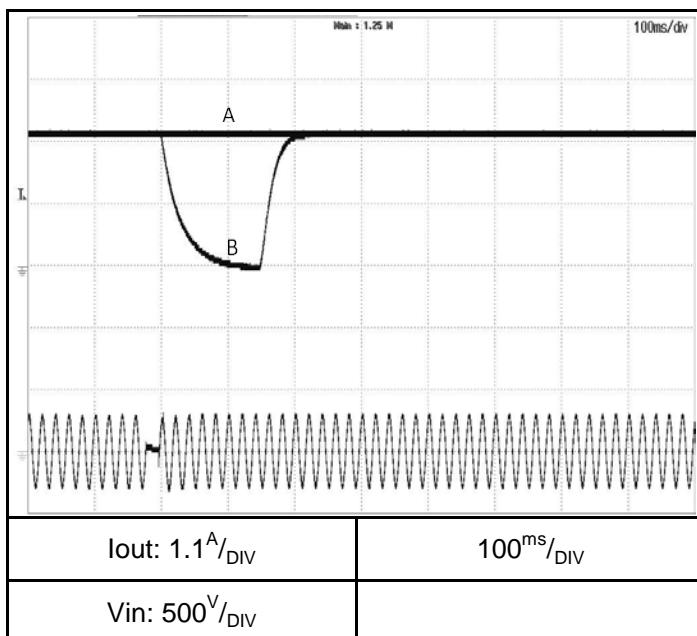


Brown-out time

A: 17mS
B: 18mS

GH600-2.6

Vin:200VAC



Brown-out time

A: 18mS
B: 19mS

2.10 Inrush Current Characteristics

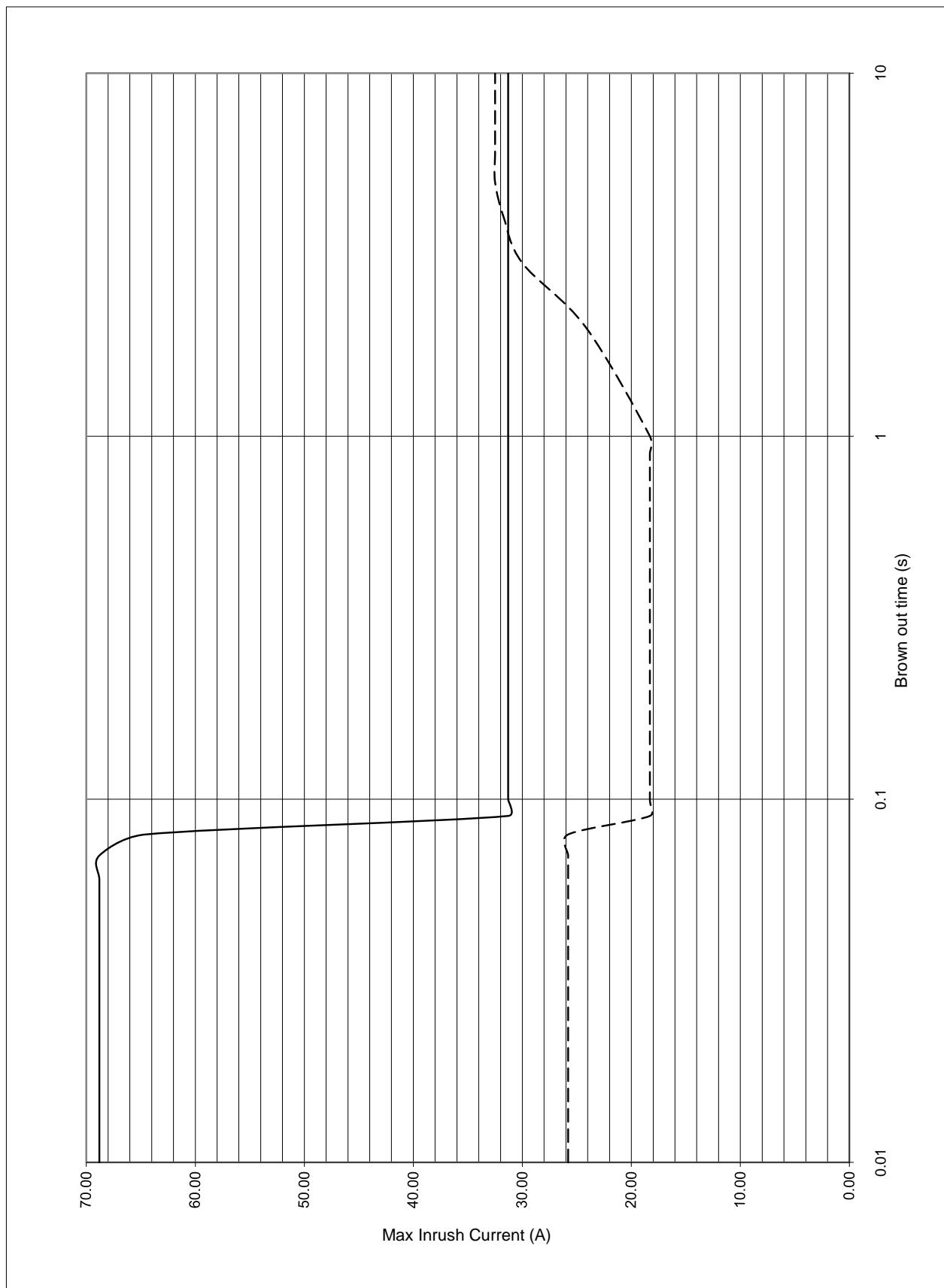
Conditions: Vout: 100%

Iout: 0% -----

Iout: 100% ———

Vin: 100VAC

Ta = 25°C



2.10 Inrush Current Characteristics

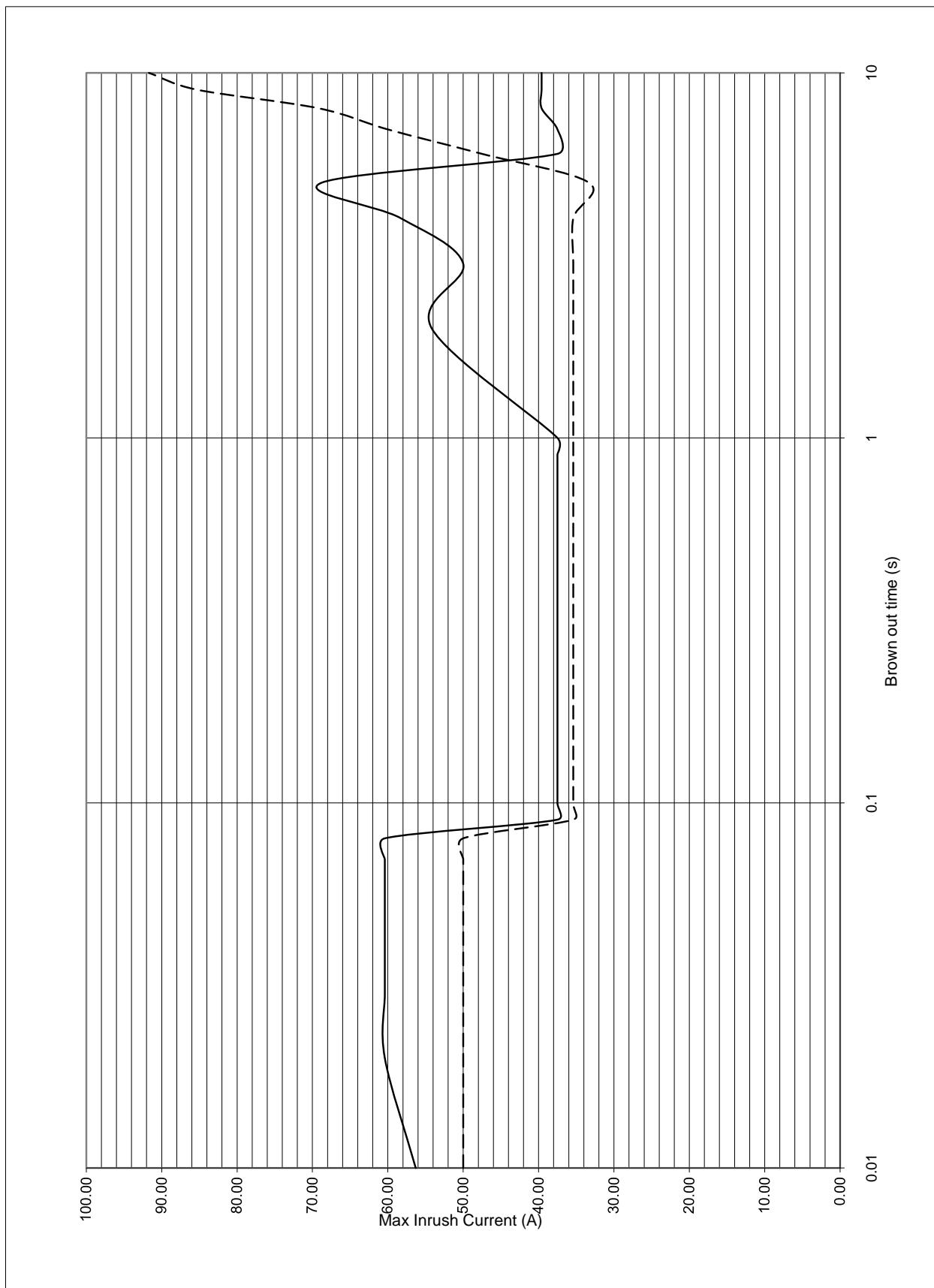
Conditions: Vout: 100%

Iout: 0% -----

Iout: 100% ———

Vin: 200VAC

Ta = 25°C

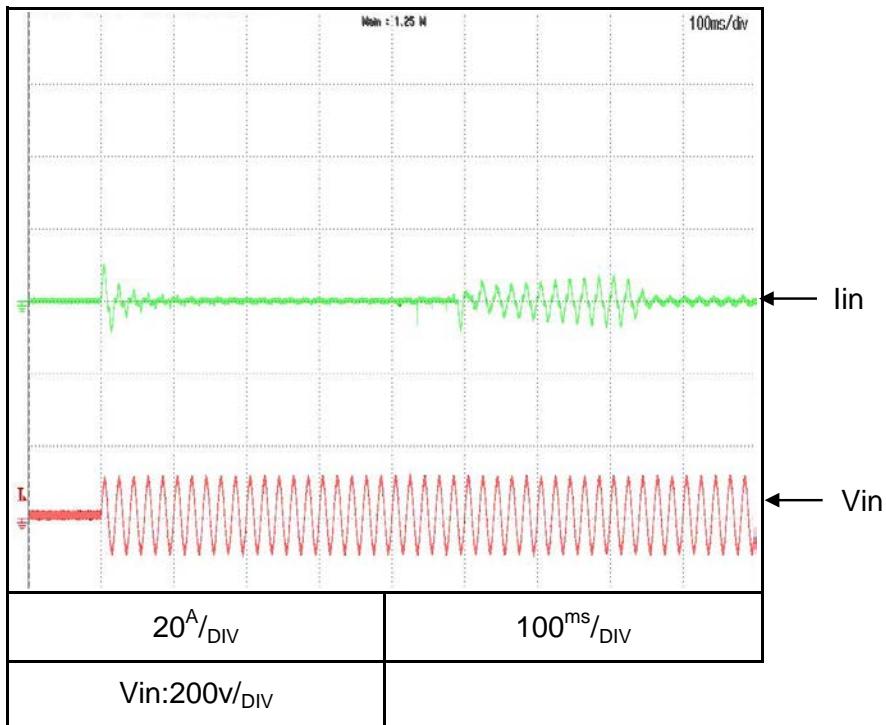


2.11 Inrush current waveform

Conditions: Vin: 100V
 Vout: 100%
 Iout: 100%
 Ta = 25°C

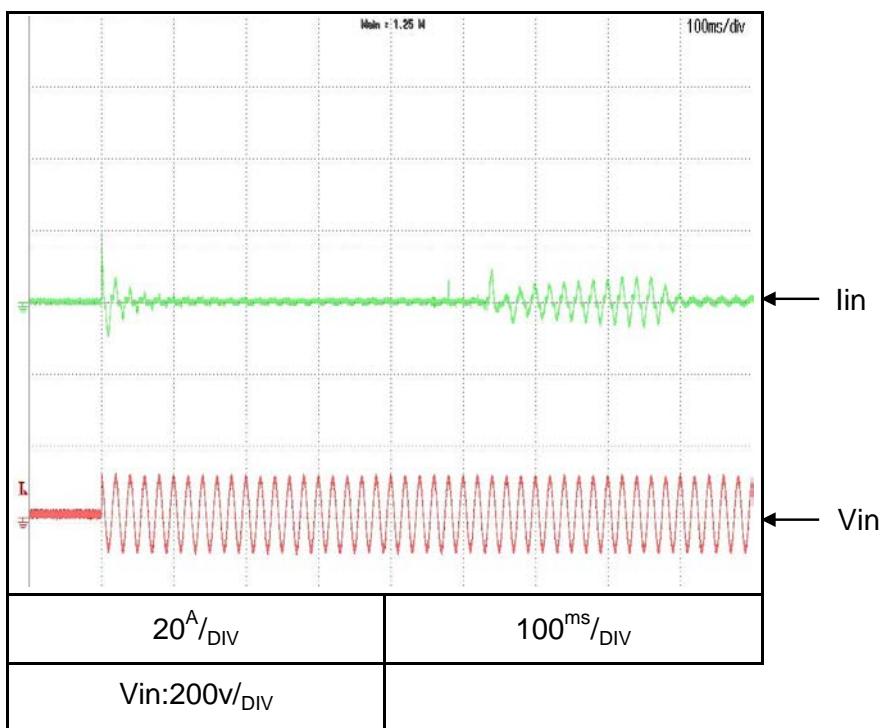
Switch on phase angle
 of input AC voltage

$\Phi=0^\circ$



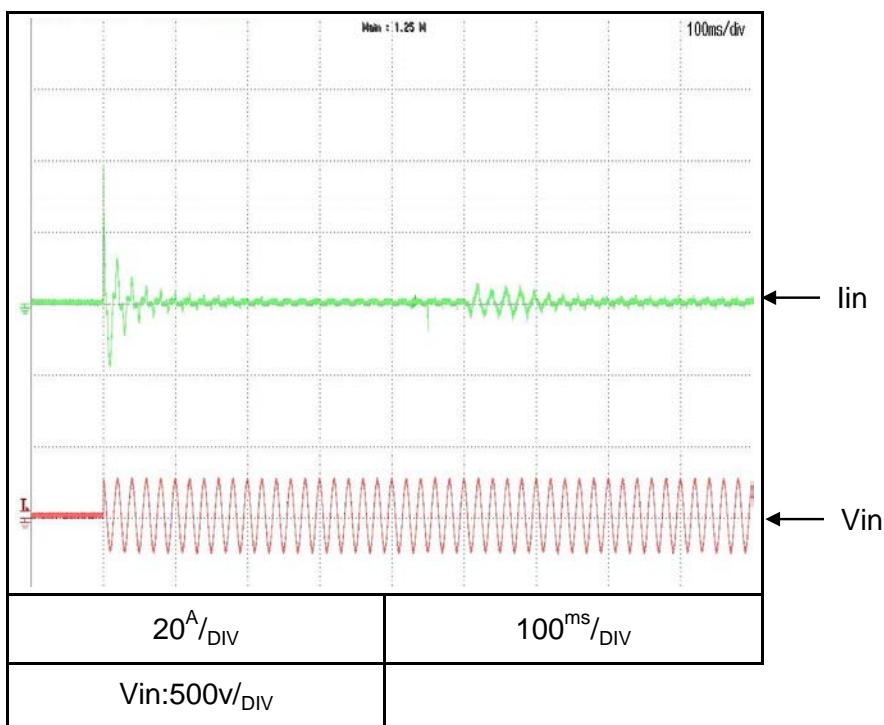
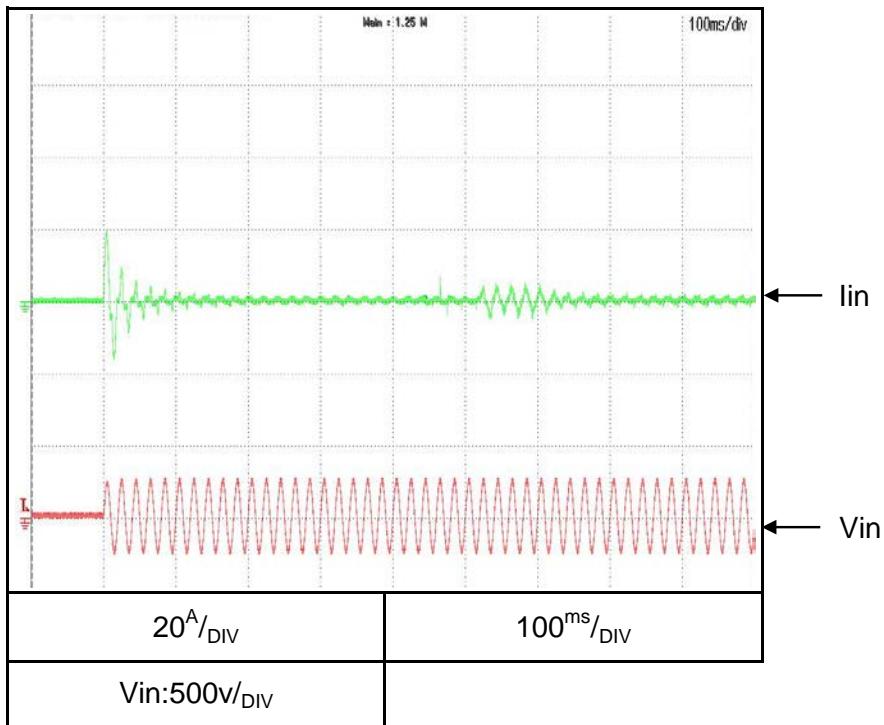
Switch on phase angle
 of input AC voltage

$\Phi=90^\circ$



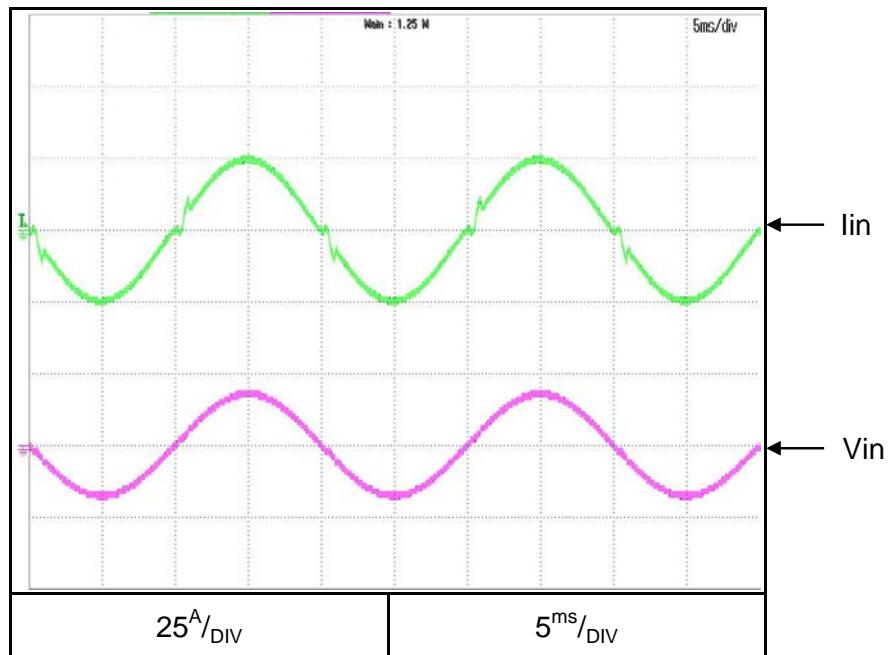
2.11 Inrush current waveform

Conditions: Vin: 200V
 Vout: 100%
 Iout: 100%
 Ta = 25°C



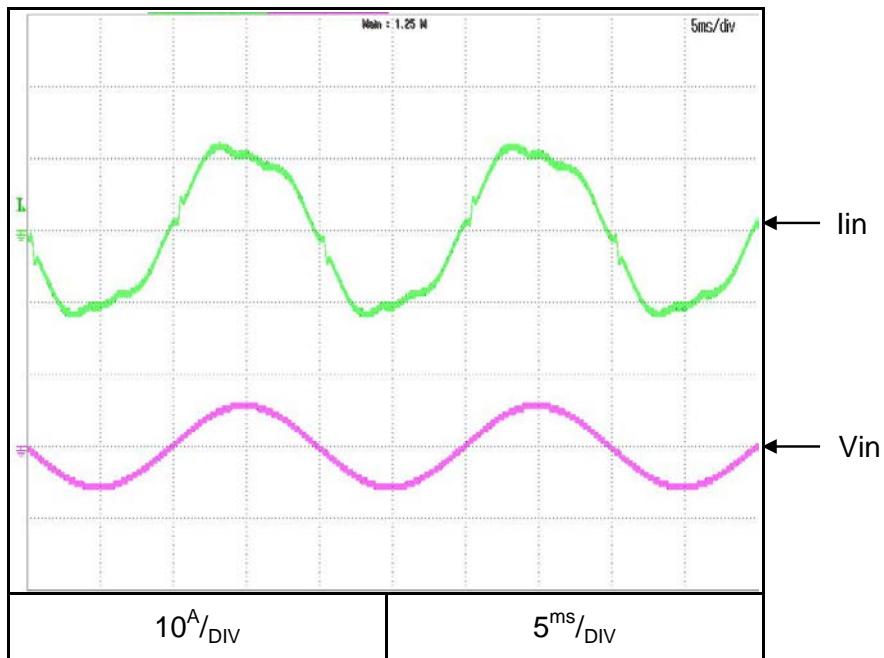
2.12 Input current waveform

Conditions: Vin: 100VAC
Vout: 100%
Iout: 100%
Ta = 25°C

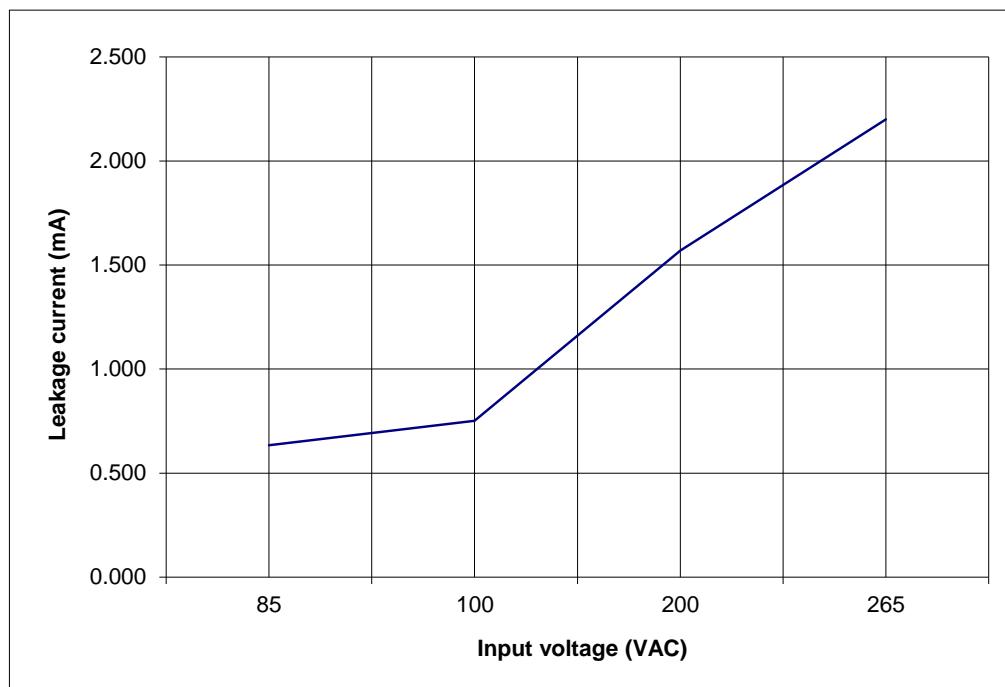


2.12 Input current waveform

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



2.13 Leakage current characteristics

Conditions: Ta = 25°C
f=60Hz

(*) TN & TT power system

2.14 Output ripple & noise waveform

C.V mode

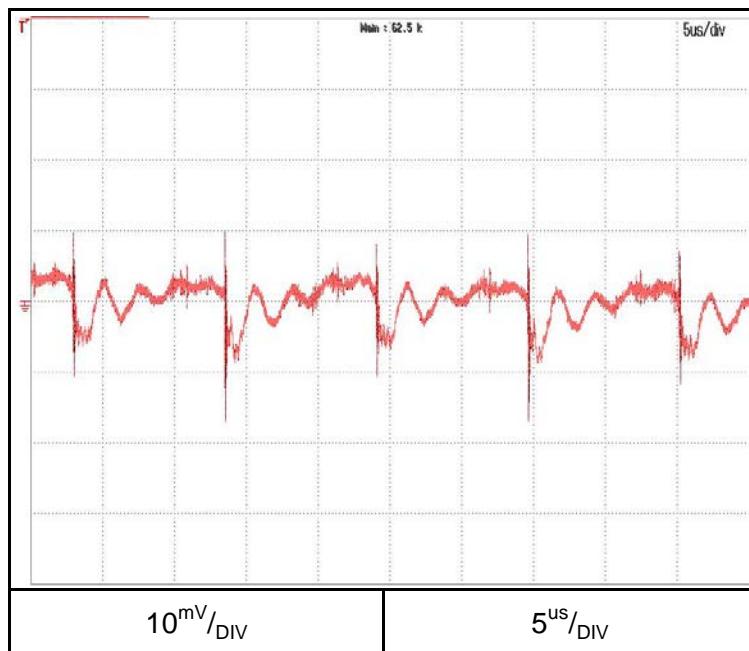
Conditions: Vout: 100%

Iout: 100%

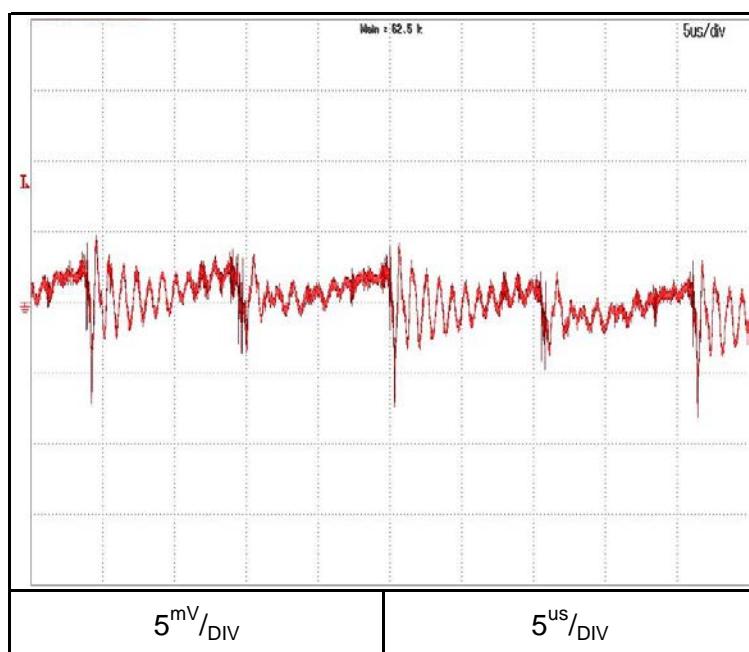
Ta = 25°C

Normal Mode

GH10-150



GH60-25



2.14 Output ripple & noise waveform

C.V mode

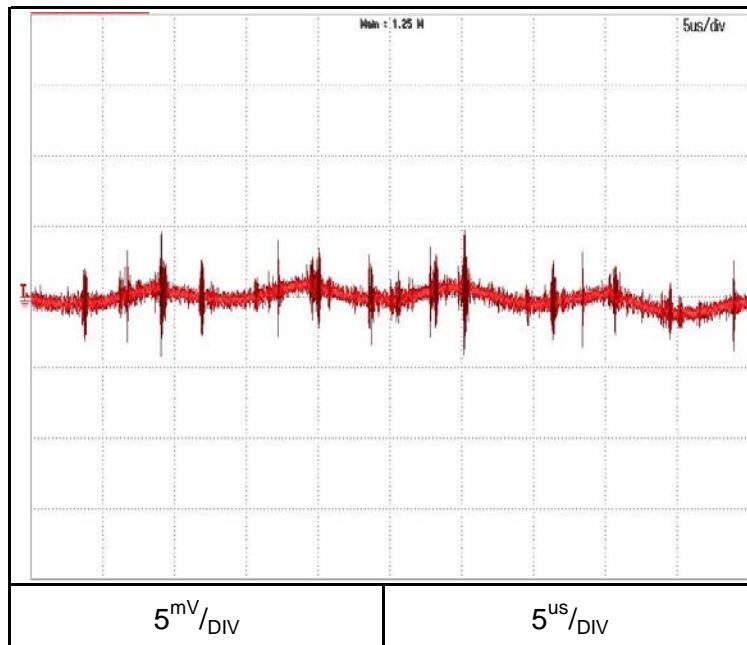
Conditions: Vout: 100%

Iout: 100%

Ta = 25°C

Normal Mode

GH150-10



GH600-2.6

