

# [B to B : Professional LED]

## Panasonic GU5.3 12V Halogen LED Non-Dimmer Transformer Compatibility

### Recommended Transformer List

→ Please check Important remarks below

	:No Flicker 1~5 lamp
	:No flicker with X-Y lamp(X,Y:number of lamps)
	:No Compatibility
	:Configuration not tested

25-03-2015

No.	Company	Model #				
			LDR12V4L27MG5 LDR12V4L27WG5 LDR12V4W40MG5 LDR12V4W40WG5 (4W type)	LDR12V6L27WG5EP (6W type)	NEW LDR12V6L27WG52EP (6W type)	LDR12V10L27WG5EP (8W type)
1	ABB	ETR 50-230/12KF	x	x	x	1
2		ETR 70-230/12KF	x	x	x	1-2
3		ETR 105-230/12KF	x	x	x	1-2
4	ALS	TRE-105	x	x	x	-
5	Art.	125/105SA	-	-	1-3	-
6	GENERAL LIGHTING	1200-0	-	-	-	-
7	GIRA	0366 00	1-2	1-2	1-2	-
8		0367 00 SNT40	1-2	1	1	1
8		0375 00 /101	-	-	3-4	1-4
9	JUNG	SNT 40	1-2	1	1	-
10		SNT 70 Q	1-3	1-2	2	-
11		SNT 105 F	1-5	1-3	1-2	-
12	MOLTO LUCE	T 105	x	x	-	1-2
13	NATIONAL ELECTRIC		-	-	-	1-2
14	nobile	EN-60D	1-3	1	1	2
15		EN-110D	1-5	1-3	1-3	-
16		EN-150D	1-5	1-4	1-4	-
17		EN-200D	x	x	1-4	-
18		EN 250D	x	x	x	-
19	OSRAM	ET-A 60/220-240	x	x	1	1
		ET-PARROT 70W/220-240 I	x	x	1-2	1-2
		ET-PARROT 105W/220-240 I	x	x	1-3	1-2
20		ET-PARROT 150W/220-240 I	-	-	x	-
		ET-REDBACK 60VA/230-240	-	-	1	-
23		HTL 105/230-240	3-5	3	2-3	1-2
24	HTL 225/230-240	x	x	x	-	
25	HTM 70/230-240	1	x	1-2	1-2	
26	HTM 105/230-240	1-5	1-3	1-3	1-2	
27	HTM 150/230-240	x	x	x	1-3	
28	HTN 75/230-240	x	x	1-2	1-2	
29	Philips	ET-E 60/220-240	2-3	2	1	1
30		Primaline70 230-240	x	x	1-2	2
31		Primaline150 230-240	1-5	1-4	1-4	1-3
32	PROTEC	PTEL E 35	1	1	1	x
33		PTEL R 60	2-3	1	1	1-2
34		PTEL 70K	1-3	1-2	1-2	-
35		PTEL 110	1-5	1-3	1-3	2
36		PTEL SK 110	x	x	1-3	-
37	Relco	RN1604	x	x	1-3	x
38		RN1650	2-3	1-2	2	2
39	VOSSLOH SCHWABE	EST35/12.650	1	1	x	1
40		EST60/12.388	x	x	1	x
41		EST60/12.633	x	x	x	1
42		EST60/12.635	x	x	1	1
43		EST70/12.380	x	x	1-2	1
44		EST105/12.381	x	x	1-3	1-2
45		EST105/12.644	x	x	1-3	1-2
46	EST150/12.622	x	x	1-4	1-3	

- In specific range, there is possibility that flicker happen.
- Please reference the Transformer manufacturer's instructions for installation.
- The recommended list is based upon testing conducted by the manufacturer in a lab simulated environment, and the results can vary in certain field applications due to a number of factors.
- This experimental results only checked with 230V.  
In case of input voltage is very high, there is some possibility the result may change.
- This list is not guarantee performance and safety. Please check in actual situation.
- Load Range(W) is based on incandescent lamp wattage, that quantity of incandescent lamp should become the same quantity of LED lamp when replaced.

# [B to B : Professional LED]

## Panasonic GU5.3 35W equivalent Halogen LED Dimmer Compatibility Recommended Dimmer and Transformer List

→ Please check Important remarks below

X-Y Lx percentage of dimming range  
 10-100% Dimmable range is from 10%-100%  
 30-100% Dimmable range is from 30%-100%  
 40-100% Dimmable range is from 40%-100%  
 Not recommend. The majority of configurations show undesirable dimming behavior  
 Configuration not tested  
 Lamp is not designed for use with this dimmer type  
 Name New added since previous version



20-11-2014

Recommended Dimmer & Transformer List

		Transformer												
		Relco			Osram			Nobile		VOSSLOH SCHWABE		PROTEC		
		ICE 105 PFS TH			HTM105/230-240			EN-60D		EST105/12.644		PTEL110		
		L			C			C		L.C		C		
		Lamps, Dimmable range			Lamps, Dimmable range			Lamps, Dimmable range		Lamps, Dimmable range		Lamps, Dimmable range		
Dimmer	ALTENBURGER	50.13.010	R.L	1300W /VA	Magnetic	Leading	Adjust vol.	1	1	1	1	1	1	1
							Min./Max.	2	2	2	2	2	2	2
		50.13.110	R.C	15-700W /VA	Electronic	Trailing	Adjust vol.	1	1	1	1	1-2	1	1
							Min./Max.	2	2	2	2	2	3	2
		50.13.111	R.C	1400W /VA	Electronic	Trailing	Adjust vol.	1	1	1	1	1-2	1	1
							Min./Max.	2	2	2	2	2	3	2
		50.13.210	R.L	2000W /VA	Magnetic	Leading	Adjust vol.	1	1	1	1	1	1	1
							Min./Max.	2	2	2	2	2	2	2
		80.13.064	R.C	1400W /VA	Electronic	Trailing	Adjust vol.	1	1	1	1	1	1	1
							Min./Max.	2	2	2	2	2	2	2

Recommended Dimmer & Transformer List

		Transformer																	
		TRIDONIC ATCO			Osram			Nobile		VOSSLOH SCHWABE		PROTEC							
		ICE 105 PFS TH			HTM105/230-240			EN-60D		EST105/12.644		PTEL110							
		L			C			C		L.C		C							
		Lamps, Dimmable range			Lamps, Dimmable range			Lamps, Dimmable range		Lamps, Dimmable range		Lamps, Dimmable range							
Dimmer	BUSCH-JAEGER (Busch-Memory-Semiconductor)	6565U	-	2 x 40 -315	Electronic	Trailing	Adjust vol.	1	1	1	1	1	1	1					
							Min./Max.	2	2	2	2	2	2	2					
							50.13.111	R.C	183A, 60-420	Electronic /Magnetic	Trailing	Adjust vol.	1	1	1	1	1-2	1	1
												Min./Max.	2	2	2	2	2	3	2
							6513U-101	-	40-420	Electronic	Trailing	Adjust vol.	1	1	1	1	1-2	1	1
												Min./Max.	2	2	2	2	2	3	2
							6513-102	-	40-420	Electronic	Trailing	Adjust vol.	1	1	1	1	1-2	1	1
												Min./Max.	2	2	2	2	2	3	2
							1252 UDE	R.L.C	50-260	Electronic /Magnetic /All	Trailing	Adjust vol.	1	1	1	1	1-2	1	1
												Min./Max.	2	2	2	2	2	3	2
							225 TDE	R.C	20-525	Electronic (Magnetic; No operation)	Trailing	Adjust vol.	1	1	1	1	1-2	1	1
												Min./Max.	2	2	2	2	2	3	2
							0307 00/102	R.C	20-525	Electronic (Electronic; No operation)	Trailing	Adjust vol.	1	1	1	1	1-2	1	1
												Min./Max.	2	2	2	2	2	3	2
							286710	R.C	20-360	Electronic (Magnetic; No operation)	Trailing	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							80.33	R.L	40-400	Magnetic (Electronic; No operation)	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							2250U	-	60-600	-	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							0300 00	R	60-400	No (Down Trans; No operation)	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							2262 00	R.L	60-400	Magnetic (Electronic; No operation)	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							2873	R.L	20-500	Magnetic (Electronic; No operation)	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							L2.0	R.L	630	-	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							WMS549	R.L	40-400	-	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							NB12TG	R.L	630	-	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							433	R.C	20-315	-	Trailing	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							JQP401W	-	10-400	-	Trailing	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							52471SL	-	60-500	Only use Leading type	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
							LK400/2	-	40-400	Low voltage is OK	Leading	Adjust vol.	1	1	1	1	1	1	1
												Min./Max.	2	2	2	2	2	2	2
MD9042	-	60-400	-	Leading	Adjust vol.	1	1	1	1	1	1	1							
					Min./Max.	2	2	2	2	2	2	2							
AU-DSP400X	-	60-400	-	Leading	Adjust vol.	1	1	1	1	1	1	1							
					Min./Max.	2	2	2	2	2	2	2							
GU8012	-	60-400	Only use Leading type	Leading	Adjust vol.	1	1	1	1	1	1	1							
					Min./Max.	2	2	2	2	2	2	2							

**Please Note**

- In specific range, there is possibility that flicker happen.
- Please reference the dimmer and Transformer manufacturer's instructions for installation.
- The recommended list is based upon testing conducted by the manufacturer in a lab simulated environment, and the results can vary in certain field applications due to a number of factors.
- This experimental results only checked with 230V.
- In case of input voltage is very high, there is some possibility the result may change.
- The absence of a dimmer from this chart does not necessarily imply incompatibility.
- This list is not guarantee performance and safety. Please check in actual situation.
- The lamp may be flashing once when turning on, if the dimmer is already at position zero.
- In general, Leading dimmer is used with Magnetic transformer.
- Trailing dimmer is used with Electronic transformer.
- Please note that in case of dimming, and depending on the dimmer type, the LED can generate more or less buzzing noise, which is not abnormal.
- Please don't use these lamps with Universal type dimmers. Lamps may be broken or turn off suddenly.
- Load Range(W) is based on incandescent lamp wattage, that quantity of incandescent lamp should become the same quantity of LED lamp when replaced.



## [B to B : Professional LED]







### Panasonic 230V LED Dimmer Compatibility – recommended dimmer list

→ Please check Important remarks below

x-y	Dimmable, with x to y lamps
Green	Dimming range is from 10%–100% or 20%–100%
Yellow	Dimming range is from 30%–100%
Pink	Dimming range is from 40%–100%
Red	Not recommend. The majority of configurations show undesirable dimming behavior
Grey	Configuration not tested
Light Blue	Lamp is not designed for use with this dimmer type
Name	New added since previous version

**Panasonic**

21-01-2015

Panasonic				LED Candle	LED Candle	LED Candle/PinzPong	LED Clear	LED Reflector	LED Reflector
Panasonic				LDAHV4L27CE14D	LDAHV5L27CE14DE	LDAHV5L27CGE14DE LDGHV5L27CGE14DE	LDAHV8L27CGDE*	LDRHV7L27MG10D LDRHV7L27WG10D	LDRHV7L27MG10D* LDRHV7L27WG10D LDRHV7W40MG10D LDRHV7W40WG10D (2013 Refresh model)
Panasonic									
Brand	Model	Load Range(W)	Edge Type	E14	E14	E14	E27	GU10	GU10
Altenburger	50.13.110	15-700	Trailing	1-46	1-28	1-23	1-14	1-14	1-14
Altenburger	50.13.111	15-1400	Trailing	1-46	1-56	1-46	1-28	1-28	1-28
Altenburger	50.13.010	60-1300	Leading	1-43		1-43	1-26	1-26	
Altenburger	50.13.210	60-2000	Leading	1-30		1-30	1-5	1-30	
Berker	286710	20-360	Trailing		1-14	1-12	1-7	1-7	1-7
Berker	2873	20-500	Leading			1-12	1-6	1-10	
CLIPSAL	32V500 Series	500VA	Leading			1-2			
GIRA	0300.00/101	60-400	Leading	1-5			1-3	1-5	
GIRA	0302.00/101	60-600	Leading			1-3		1-3	
GIRA	0305.00/104	50-420	Universal						
GIRA	0307.00/102	20-525	Trailing	1-35	1-21	1-17	1-10	1-10	1-10
GIRA	1176.00/103	50-420	Universal						
GIRA	2262.00/101	20-500	Leading	1-13		1-13	1-8	1-10	
BUSCH JAEGER	2250U	60-600	Leading			1-8	1-5	1-8	
BUSCH JAEGER	6513-102	40-420	Trailing	1-28		1-14	1-8	1-8	
BUSCH JAEGER	6513U-102	40-420	Trailing			1-14	1-8	1-8	
BUSCH JAEGER	6523U	2-100	Leading			1-11	1-12	1-11	
BUSCH JAEGER	6524U	2-100	LED Dimmer			1-15	1-12		
BUSCH JAEGER	6565U	80-315	Trailing	1-21		1-10	1-6		
BUSCH JAEGER	6591U-101	60-420	Universal					1-6	
JUNG	225 TDE	20-525	Trailing	1-35	1-21	1-17	1-10	1-10	1-10
JUNG	1252 UDE	50-260	Trailing	1-17		1-9	1-5	1-5	
KOPP	80.33	40-400	Leading	1-10		1-10	1-8	1-8	
KOPP	8077.0208.0	20-275	Trailing					1-5	
Lonon	NB12TG	630	Leading			1	1		
Panasonic	WMS549	40-400	Leading			1-2	1-2	1-2	
PEHA	431	6-120	LED Dimmer			1-14	1-12		
PEHA	433	20-315	Trailing		1-12	1-10	1-6		1-6
PEHA	435	60-600	Leading			1-20	1-12		
TCL (Legrand)	L2.0	630	Leading	1-2		1-2	1-2	1-2	
Wickes	Harrow HA1.2QB	60-400	Leading				1-3	1-3	
Varilight	JQP401W	10-400	Trailing			1-13	1-8		1-8
MK	52471SL	60-500	Leading						
Hamilton	LK400/2	40-400	Leading			1-10	1-8		
Click	MD9042	60-400	Leading			1-4	1-4		
Aurora	AU-DSP400X	60-400	Leading			1-3	1-3		

#### Please Note

- In specific range, there is possibility that flicker happen.
- Please reference the dimmer manufacturer's instructions for installation.
- The recommended list is based upon testing conducted by the manufacturer in a lab simulated environment, and the results can vary in certain field applications due to a number of factors.
- This experimental results only checked with 230V and one lamp operation.
- In case of input voltage is very high, there is some possibility the result may change.
- The absence of a dimmer from this chart does not necessarily imply incompatibility.
- This list is not guarantee performance and safty. Please check in actual situation.
- The lamp may be flashing once when turning on, if the dimmer is already at position zero.
- The lamp may become lightly bright, if the Semiconductor Switch is off.
- Please note that In case of dimming, and depending on the dimmer type, the LED can generate more or less buzzing noise, which is not abnormal.
- Please don't use these lamps with Universal type dimmers. Lamps may be broken or turn off suddenly.
- Load Range(W) is based on incandescent lamp wattage, that quantity of incandescent lamp should become the same quantity of LED lamp when replaced.

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# [B to C : Home Consumer LED]

## Panasonic GU5.3 12V Halogen LED Non-Dimmer Transformer Compatibility

### Recommended Transformer List

→ Please check Important remarks below

	:No Flicker 1~5 lamp
	:No flicker with X-Y lamp(X,Y:number of lamps)
	:No Compatibility
	:Configuration not tested

25-03-2015



No.	Company	Model #				
			LDR12V4L27WG5EP (4W type)	LDR12V6L27WG5EP (6W type)	NEW LDR12V6L27WG52EP (6W type)	LDR12V10L27WG5EP (8W type)
1	ABB	ETR 50-230/12KF	x	x	x	1
2		ETR 70-230/12KF	x	x	x	1-2
3		ETR 105-230/12KF	x	x	x	1-2
4	ALS	TRE-105	x	x	x	-
5	Art.	125/105SA	-	-	1-3	-
6	GENERAL LIGHTING	1200-0	-	-	-	-
7	GIRA	0366 00	1-2	1-2	1-2	-
8		0367 00 SNT40	1-2	1	1	1
8		0375 00 /101	-	-	3-4	1-4
9	JUNG	SNT 40	1-2	1	1	-
10		SNT 70 Q	1-3	1-2	2	-
11		SNT 105 F	1-5	1-3	1-2	-
12	MOLTO LUCE	T 105	x	x	-	1-2
13	NATIONAL ELECTRIC		-	-	-	1-2
14	nobile	EN-60D	1-3	1	1	2
15		EN-110D	1-5	1-3	1-3	-
16		EN-150D	1-5	1-4	1-4	-
17		EN-200D	x	x	1-4	-
18		EN 250D	x	x	x	-
19	OSRAM	ET-A 60/220-240	x	x	1	1
		ET-PARROT 70W/220-240 I	x	x	1-2	1-2
		ET-PARROT 105W/220-240 I	x	x	1-3	1-2
20		ET-PARROT 150W/220-240 I	-	-	x	-
		ET-REDBACK 60VA/230-240	-	-	1	-
23		HTL 105/230-240	3-5	3	2-3	1-2
24	HTL 225/230-240	x	x	x	-	
25	HTM 70/230-240	1	x	1-2	1-2	
26	HTM 105/230-240	1-5	1-3	1-3	1-2	
27	HTM 150/230-240	x	x	x	1-3	
28	HTN 75/230-240	x	x	1-2	1-2	
29	Philips	ET-E 60/220-240	2-3	2	1	1
30		Primaline70 230-240	x	x	1-2	2
31		Primaline150 230-240	1-5	1-4	1-4	1-3
32	PROTEC	PTEL E 35	1	1	1	x
33		PTEL R 60	2-3	1	1	1
34		PTEL 70K	1-3	1-2	1-2	-
35		PTEL 110	1-5	1-3	1-3	2
36		PTEL SK 110	x	x	1-3	-
37	Relco	RN1604	x	x	1-3	x
38		RN1650	2-3	1-2	2	2
39	VOSSLOH SCHWABE	EST35/12.650	1	1	x	1
40		EST60/12.388	x	x	1	x
41		EST60/12.633	x	x	x	1
42		EST60/12.635	x	x	1	1
43		EST70/12.380	x	x	1-2	1
44		EST105/12.381	x	x	1-3	1-2
45		EST105/12.644	x	x	1-3	1-2
46	EST150/12.622	x	x	1-4	1-3	

- In specific range, there is possibility that flicker happen.
- Please reference the Transformer manufacturer's instructions for installation.
- The recommended list is based upon testing conducted by the manufacturer in a lab simulated environment, and the results can vary in certain field applications due to a number of factors.
- This experimental results only checked with 230V.
- In case of input voltage is very high, there is some possibility the result may change.
- This list is not guarantee performance and safety. Please check in actual situation.
- Load Range(W) is based on incandescent lamp wattage, that quantity of incandescent lamp should become the same quantity of LED lamp when replaced.

# [B to C : Home Consumer LED]



## Panasonic 230V LED Dimmer Compatibility – recommended dimmer list

→ Please check Important remarks below

x~y	Dimmable, with x to y lamps
10~100%	Dimming range is from 10%~100% or 20%~100%
30~100%	Dimmable range is from 30%~100%
40~100%	Dimmable range is from 40%~100%
	Not recommend.The majority of configurations show undesirable dimming behavior
	Configuration not tested
	Lamp is not designed for use with this dimmer type
Name	New added since previous version

**Panasonic**

21-01-2015

Panasonic				LED Candle/PingPong	LED Reflector
				LDAHV5L27CGE14DEP LDGHV5L27CGE14DEP	LDRHV7L27WG10DEP (2013 Refresh model)
					
Brand	Model	Load Range(W)	Edge Type	E14	GU10
Altenburger	50.13.110	15-700	Trailing	1-23	1-14
Altenburger	50.13.111	15-1400	Trailing	1-46	1-28
Altenburger	50.13.010	60-1300	Leading	1-43	
Altenburger	50.13.210	60-2000	Leading	1-30	
Berker	286710	20-360	Trailing	1-12	1-7
Berker	2873	20-500	Leading	1-12	
CLIPSAL	32V500 Series	500VA	Leading	1-2	
GIRA	0300 00/101	60-400	Leading		
GIRA	0302 00/101	60-600	Leading	1-3	
GIRA	0305 00/104	50-420	Universal		
GIRA	0307 00/102	20-525	Trailing	1-17	1-10
GIRA	1176 00/103	50-420	Universal		
GIRA	2262 00/101	20-500	Leading	1-13	
BUSCH JAEGER	2250U	60-600	Leading	1-8	
BUSCH JAEGER	6513-102	40-420	Trailing	1-14	
BUSCH JAEGER	6513U-102	40-420	Trailing	1-14	
BUSCH JAEGER	6523U	2-100	Leading	1-11	
BUSCH JAEGER	6524U	2-100	LED Dimmer	1-15	
BUSCH JAEGER	6565U	80-315	Trailing	1-10	
BUSCH JAEGER	6591U-101	60-420	Universal		
JUNG	225 TDE	20-525	Trailing	1-17	1-10
JUNG	1252 UDE	50-260	Trailing	1-9	
KOPP	80.33	40-400	Leading	1-10	
KOPP	8077.0208.0	20-275	Trailing		
Lonon	NB12TG	630	Leading	1	
Panasonic	WMS549	40-400	Leading	1-2	
PEHA	431	6-120	LED Dimmer	1-14	
PEHA	433	20-315	Trailing	1-10	1-6
PEHA	435	60-600	Leading	1-20	
TCL(Legrand)	L2.0	630	Leading	1-2	
Wickes	Harrow HA1 2QB	60-400	Leading		
Varilight	JQP401W	10-400	Trailing	1-13	1-8
MK	52471SL	60-500	Leading		
Hamilton	LK400/2	40-400	Leading	1-10	
Click	MD9042	60-400	Leading	1-4	
Aurora	AU-DSP400X	60-400	Leading	1-3	

### Please Note

- In specific range, there is possibility that flicker happen.
- Please reference the dimmer manufacturer's instructions for installation.
- The recommended list is based upon testing conducted by the manufacturer in a lab simulated environment, and the results can vary in certain field applications due to a number of factors.
- This experimental results only checked with 230V and one lamp operation.
- In case of input voltage is very high, there is some possibility the result may change.
- The absence of a dimmer from this chart does not necessarily imply incompatibility.
- This list is not guarantee performance and safty. Please check in actual situation.
- The lamp may be flashing once when turning on, if the dimmer is already at position zero.
- The lamp may become lightly bright, if the Semiconductor Switch is off.
- Please note that In case of dimming, and depending on the dimmer type, the LED can generate more or less buzzing noise, which is not abnormal.
- Please don't use these lamps with Universal type dimmers. Lamps may be broken or turn off suddenly.
- Load Range(W) is based on incandescent lamp wattage, that quantity of incandescent lamp should become the same quantity of LED lamp when replaced.

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