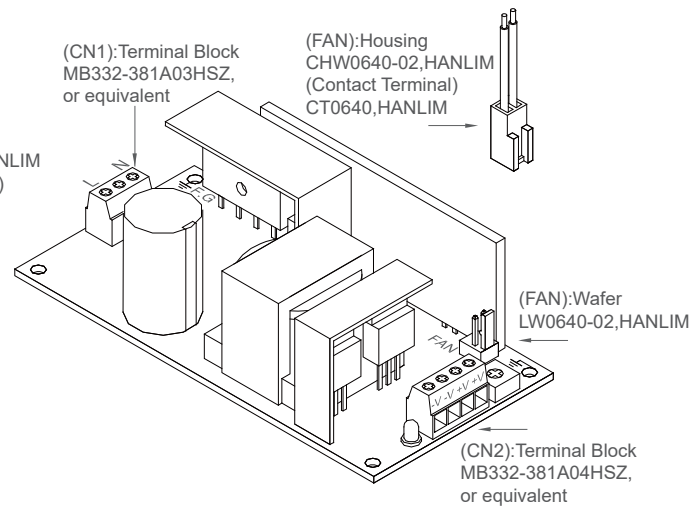
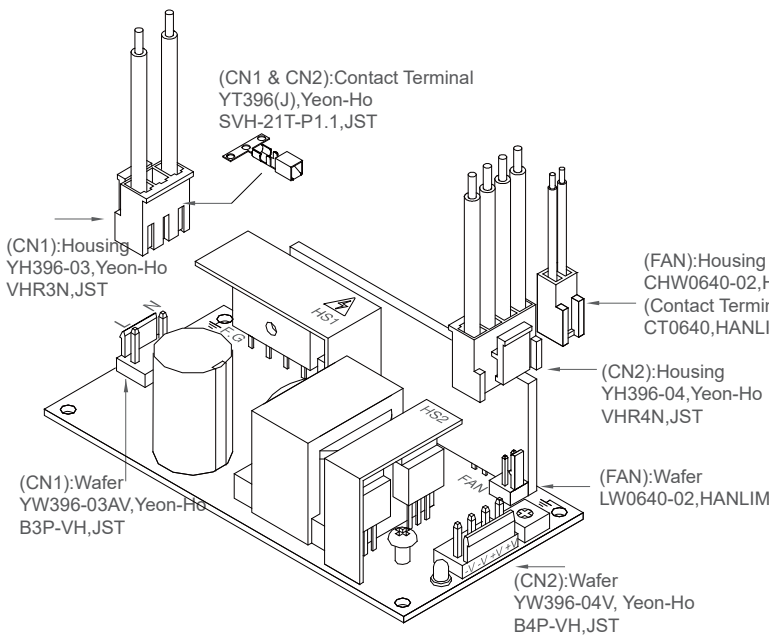
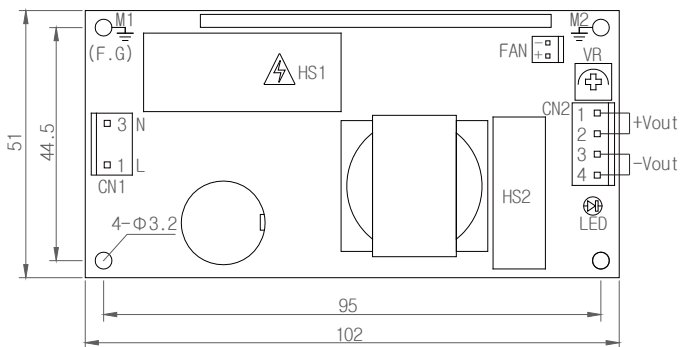


◆ Features

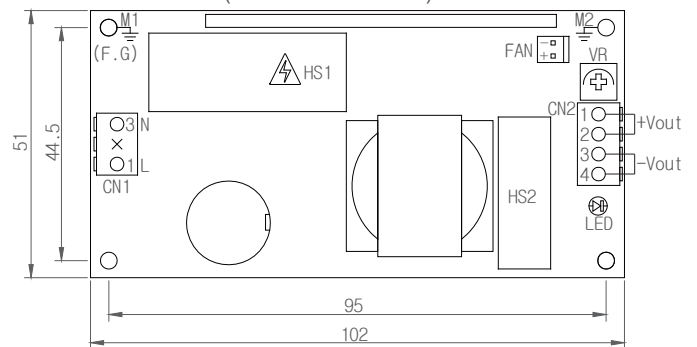
- Compact size 4"x2"(OP65C/T,OP150C/T), 5"x3"(OP300C/T).
- OP65CU/TU,OP150CU/TU(115x64x40mm).
- OP300CU/TU(140x88x45mm).
- OP65TD,OP150TD(140x84x40mm).
- OP300TD(167x107x45mm).
- Optional Input/Output: Connector or Terminal Block.
- Optional case: U-Bracket case or Din-Rail case.
- Universal AC Input 90~264Vac, free-voltage.
- Built-in active PFC function(OP150,OP300).
- Protections: Short circuit, Overload, Overvoltage.
- Over temperature protections(OP150,OP300).
- High efficiency up to 90%(OP150,OP300).
- OP65 free air convection, OP150/OP300 with in 20CFM forced air.
- OP150/OP300 Built-in 12V 0.3A auxiliary output(Fan Vcc).
- LED indicator for DC-OK.
- Adjustable output voltage.
- 3 years warranty. -RoHs directive.



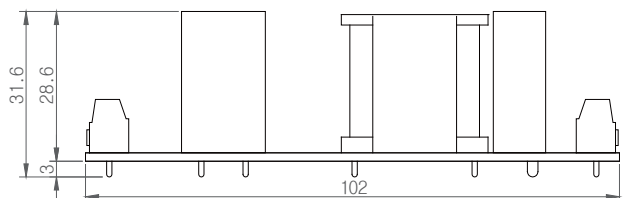
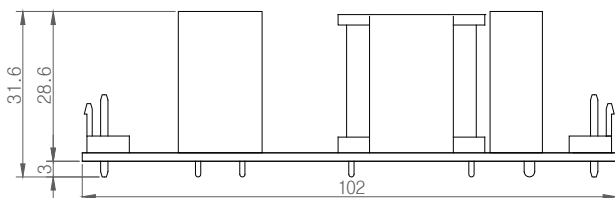
OP150-□□C
Connector & PCB type
(102x51x32mm/4"x2")



OP150-□□T
Terminal block & PCB type
(102x51x32mm/4"x2")



1. ⚡ HS1,HS2 can not be shorted.
2. ⚡ HS1 must have safety isolation distance with system case.
3. ⚡ Grounding required: M1 and M2 are safety ground and should all be grounded.



(CN1):AC Input connector: YW396-03AV, JST B3P-VH, equivalent

No	Assignment	Mating housing	Contact terminal	Vender
1	L	YH396-03 JST VHR3N	YT396(J) JST SVH-21T-P1.1	Yeon-Ho JST
2	No Pin			
3	N			

(CN1):AC input Terminal-Block:

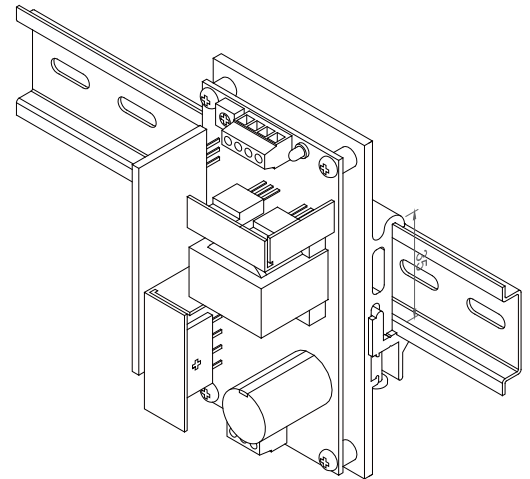
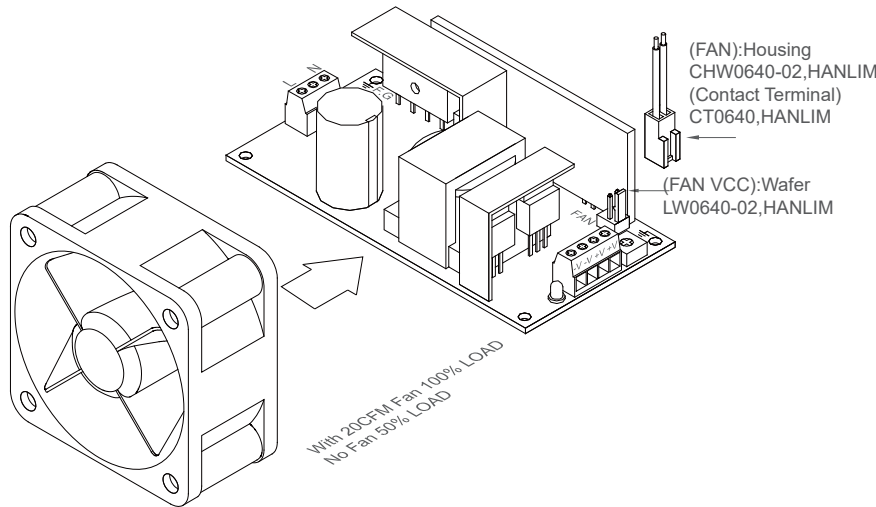
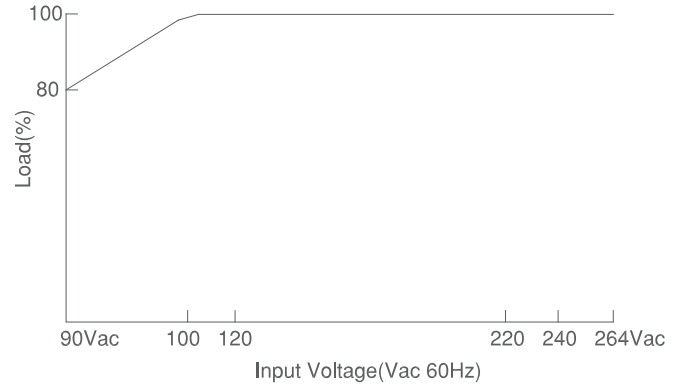
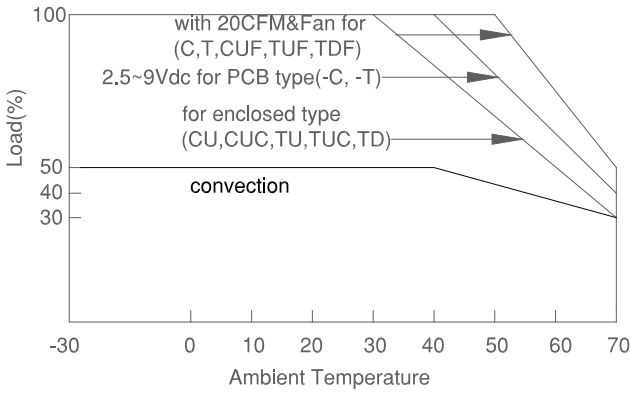
Pin No	Assignment	Terminal Block	Vender
1	L	MB332-381A03HSZ, or equivalent	DECA
2			
3	N		

(CN2):DC Output connector: YW396-04V, JST B4P-VH, equivalent

No	Assignment	Mating housing	Contact terminal	Vender
1,2	+ Vout	YH396-04 JST VHR4N	YT396(J) JST SVH-21T-P1.1	Yeon-Ho JST
3,4	- Vout			

(CN2'):DC Output Terminal-Block:

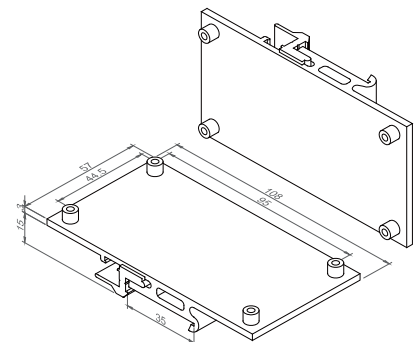
Pin No	Assignment	Terminal Block	Vender
1,2	+ Vout	MB332-381A04HSZ, or equivalent	DECA
3,4	- Vout		



파워캡 디레일 브라켓:DRB-PCB 35-108-57을 이용하여 디레일에 장착가능

Input Range: 90~264Vac		Convection			20CFM-Fan		OP150-□□C	
Model	V-out	I-out	P-out	I-out	P-out	Efficiency	Notes	
OP150-05C	5V	14.0A	70.0W	20.0A	100.0W	85%		
OP150-07C	7V	10.0A	70.0W	17.0A	120.0W	85%		
OP150-09C	9V	8.0A	70.0W	16.5A	150.0W	88%		
OP150-12C	12V	6.5A	75.0W	12.5A	150.0W	90%		
OP150-15C	15V	5.0A	75.0W	10.0A	150.0W	90%		
OP150-24C	24V	3.3A	75.0W	6.25A	150.0W	92%		
OP150-28C	28V	2.8A	75.0W	5.3A	150.0W	92%		
OP150-36C	36V	2.2A	75.0W	4.1A	150.0W	93%		
OP150-48C	48V	1.6A	75.0W	3.1A	150.0W	93%		

Input Range: 90~264Vac		Convection			20CFM-Fan		OP150-□□T	
Model	V-out	I-out	P-out	I-out	P-out	Efficiency	Notes	
OP150-05T	5V	14.0A	70.0W	20.0A	100.0W	85%		
OP150-07T	7V	10.0A	70.0W	17.0A	120.0W	85%		
OP150-09T	9V	8.0A	70.0W	16.5A	150.0W	88%		
OP150-12T	12V	6.5A	75.0W	12.5A	150.0W	90%		
OP150-15T	15V	5.0A	75.0W	10.0A	150.0W	90%		
OP150-24T	24V	3.3A	75.0W	6.25A	150.0W	92%		
OP150-28T	28V	2.8A	75.0W	5.3A	150.0W	92%		
OP150-36T	36V	2.2A	75.0W	4.1A	150.0W	93%		
OP150-48T	48V	1.6A	75.0W	3.1A	150.0W	93%		



파워캡 디레일 브라켓:DRB-PCB 35-108-57

Environmental & Isolation Specifications

Parameter	Min	Typ	Max	Unit	Notes
Operating Temperature	-10	-	50	℃	Refer to output load derating curve.
Storage Temperature	-40	-	85	℃	
Operating Humidity(Non condensing)	10	-	95	%	
Isolation Resistance(Input : Output)	100	-	-	MΩ	At 500VDC
Isolation Voltage(Input : Output)		3,000		VAC	At 10mA
Isolation Voltage(Input : F.G)		1,500		VAC	At 10mA
Isolation Voltage(F.G : Output)		500		VAC	At 10mA

Specifications Input Characteristics

Parameter	Min	Typ	Max	Unit	Notes
Operating Input Voltage Range	90	220	264	VAC	
Frequency Range	47	50/60	63	Hz	
Input Current at 115VAC (OP65□□)	-	-	1.3	A	Max Load
Input Current at 115VAC (OP150□□)	-	-	2.0	A	Max Load
Input Current at 115VAC (OP300□□)	-	-	3.4	A	Max Load
Inrush Current (Cold start at 220VAC)			50	A	
Over Current Protection(Rated Pout)	110	-	-	%	Hiccup
Leakage Current(at 220VAC)				mA	

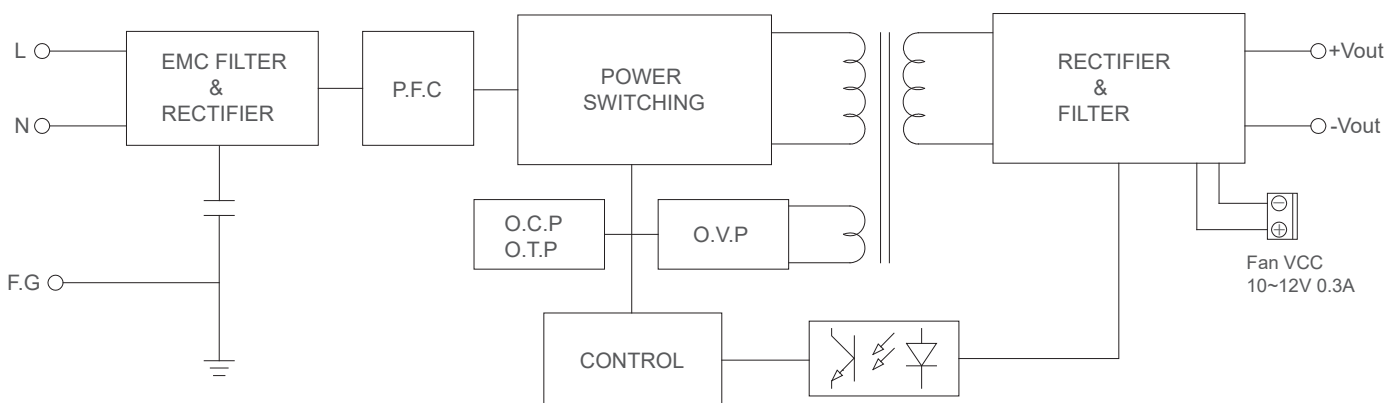
Specifications Output Characteristics

Parameter	Min	Typ	Max	Unit	Notes
Output Voltage Setting Tolerance	-	-	±2	%	
Line Regulation	-	-	±0.5	%	
Load Regulation	-	-	±1	%	
Output Power	-	-	65	W	
Output Ripple & Noise (220VAC max-load)	-	-	1% of Vo	mV	B/W 100Mhz, 1uF Cap
Dynamic Load Response	-	-	5% of Vo	mV	
Turn on Time at 220VAC	-	100	-	mS	
Hold-up Time at 220VAC	-	50	-	mS	

Dimensions & Weight

Model	Dimensions(mm)	Weight(g)	Model	Dimensions(mm)	Weight(g)	Model	Dimensions(mm)	Weight(g)
OP65C	102 X 51 X H32	136 typ	OP150C	102 X 51 X H32	198 typ	OP300C	127 X 76 X H38	340 typ
OP65T	102 X 51 X H32	139 typ	OP150T	102 X 51 X H32	200 typ	OP300T	127 X 76 X H38	356 typ
OP65CU	115 X 64 X H40	205 typ	OP150CU	115 X 64 X H40	265 typ	OP300CU	140 X 88 X H45	436 typ
OP65TU	115 X 64 X H40	207 typ	OP150TU	115 X 64 X H40	269 typ	OP300TU	140 X 88 X H45	451 typ
OP65CUC	115 X 64 X H40	221 typ	OP150CUC	115 X 64 X H40	281 typ	OP300CUC	140 X 88 X H45	464 typ
OP65TUC	115 X 64 X H40	223 typ	OP150TUC	115 X 64 X H40	285 typ	OP300TUC	140 X 88 X H45	478 typ
			OP150TUF	115 X 64 X H40+20(Fan)	316 typ	OP300TUF	140 X 88 X H45+20(Fan)	510 typ
OP65TD	140 X 69 X H40	364 typ	OP150TD	140 X 69 X H40	423 typ	OP300TD	167 X 92 X H45	627 typ
			OP150TDF	140 X 69 X H40+20(Fan)	453 typ	OP300TDF	167 X 92 X H45+20(Fan)	657 typ

Block Diagram





◆ Features

- Compact size 4"x2"(OP65C/T,OP150C/T), 5"x3"(OP300C/T).
- OP65CU/TU,OP150CU/TU(115x64x40mm).
- OP300CU/TU(140x88x45mm).
- OP65TD,OP150TD(140x84x40mm).
- OP300TD(167x107x45mm).
- Optional Input/Output: Connector or Terminal Block.
- Optional case: U-Bracket case or Din-Rail case.
- Universal AC Input 90~264Vac, free-voltage.
- Built-in active PFC function(OP150,OP300).

- Universal AC Input 90~264Vac, free-voltage.
- Built-in active PFC function(OP150,OP300).
- Protections: Short circuit, Overload, Overvoltage.
- Over temperature protections(OP150,OP300).
- High efficiency up to 90%(OP150,OP300).
- OP65 free air convection, OP150/OP300 with in 20CFM forced air.
- OP150/OP300 Built-in 12V 0.3A auxiliary output(Fan Vcc).
- LED indicator for DC-OK.
- Adjustable output voltage.
- 3 years warranty. -RoHs directive.



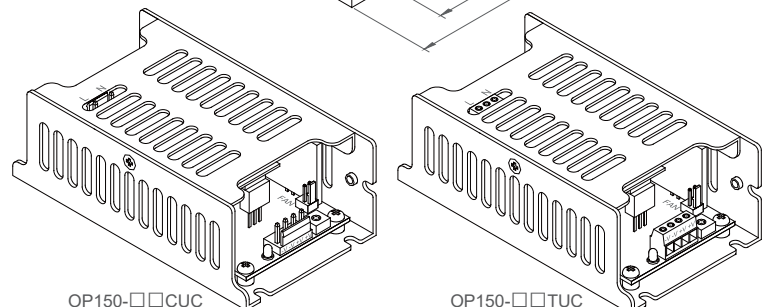
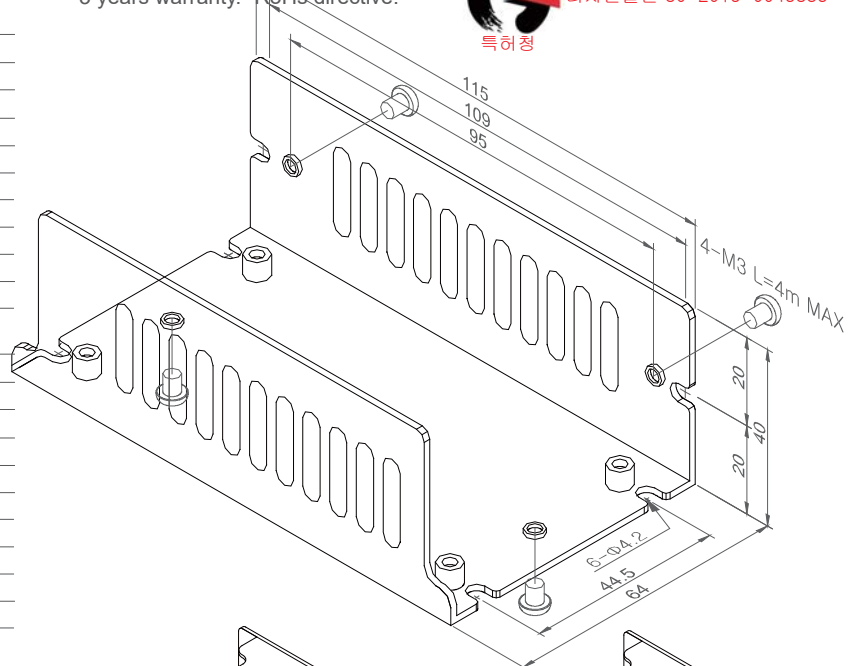
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Input Range: 90~264Vac		OP150-□□CUC		
Model	V-out	I-out	P-out	Efficiency
OP150-05CUC	5V	14.0A	70.0W	85%
OP150-07CUC	7V	10.0A	70.0W	85%
OP150-09CUC	9V	8.0A	70.0W	88%
OP150-12CUC	12V	6.5A	75.0W	90%
OP150-15CUC	15V	5.0A	75.0W	90%
OP150-24CUC	24V	3.3A	75.0W	92%
OP150-28CUC	28V	2.8A	75.0W	92%
OP150-36CUC	36V	2.2A	75.0W	93%
OP150-48CUC	48V	1.6A	75.0W	93%

Input Range: 90~264Vac		OP150-□□TUC		
Model	V-out	I-out	P-out	Efficiency
OP150-05TUC	5V	14.0A	70.0W	85%
OP150-07TUC	7V	10.0A	70.0W	85%
OP150-09TUC	9V	8.0A	70.0W	88%
OP150-12TUC	12V	6.5A	75.0W	90%
OP150-15TUC	15V	5.0A	75.0W	90%
OP150-24TUC	24V	3.3A	75.0W	92%
OP150-28TUC	28V	2.8A	75.0W	92%
OP150-36TUC	36V	2.2A	75.0W	93%
OP150-48TUC	48V	1.6A	75.0W	93%

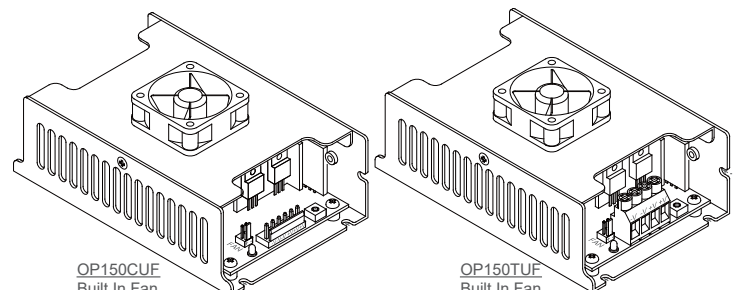
Input Range: 90~264Vac		OP150-□□CUF		
Model	V-out	I-out	P-out	Efficiency
OP150-05CUF	5V	20.0A	100.0W	85%
OP150-07CUF	7V	17.0A	120.0W	85%
OP150-09CUF	9V	16.5A	150.0W	88%
OP150-12CUF	12V	12.5A	150.0W	90%
OP150-15CUF	15V	10.0A	150.0W	90%
OP150-24CUF	24V	6.25A	150.0W	92%
OP150-28CUF	28V	5.3A	150.0W	92%
OP150-36CUF	36V	4.1A	150.0W	93%
OP150-48CUF	48V	3.1A	150.0W	93%

Input Range: 90~264Vac		OP150-□□TUF		
Model	V-out	I-out	P-out	Efficiency
OP150-05TUF	5V	20.0A	100.0W	85%
OP150-07TUF	7V	17.0A	120.0W	85%
OP150-09TUF	9V	16.5A	150.0W	88%
OP150-12TUF	12V	12.5A	150.0W	90%
OP150-15TUF	15V	10.0A	150.0W	90%
OP150-24TUF	24V	6.25A	150.0W	92%
OP150-28TUF	28V	5.3A	150.0W	92%
OP150-36TUF	36V	4.1A	150.0W	93%
OP150-48TUF	48V	3.1A	150.0W	93%



OP150-□□CUC
(115x64x40mm)
Connector & U-bracket & Cover

OP150-□□TUC
(115x64x40mm)
Terminal block & U-bracket & Cover



OP150CUF
Built In Fan
115x64x40mm+20(fan)mm

OP150TUF
Built In Fan
115x64x40mm+20(fan)mm

(CN1):AC Input connector: YW396-03AV, JST B3P-VH, equivalent

No	Assignment	Mating housing	Contact terminal	Vender
1	L	YH396-03 JST VHR3N	YT396(J) JST SVH-21T-P1.1	Yeon-Ho JST
2	No Pin			
3	N			

(CN1):AC input Terminal-Block:

Pin No	Assignment	Terminal Block	Vender
1	L	MB332-381A03HSZ, or equivalent	DECA
2			
3	N		

(CN2):DC Output connector: YW396-04V, JST B4P-VH, equivalent

No	Assignment	Mating housing	Contact terminal	Vender
1,2	+ Vout	YH396-04 JST VHR4N	YT396(J) JST SVH-21T-P1.1	Yeon-Ho JST
3,4	- Vout			

(CN2'):DC Output Terminal-Block:

Pin No	Assignment	Terminal Block	Vender
1,2	+ Vout	MB332-381A04HSZ, or equivalent	DECA
3,4	- Vout		

Environmental & Isolation Specifications

Parameter	Min	Typ	Max	Unit	Notes
Operating Temperature	-10	-	50	℃	Refer to output load derating curve.
Storage Temperature	-40	-	85	℃	
Operating Humidity(Non condensing)	10	-	95	%	
Isolation Resistance(Input : Output)	100	-	-	MΩ	At 500VDC
Isolation Voltage(Input : Output)		3,000		VAC	At 10mA
Isolation Voltage(Input : F.G)		1,500		VAC	At 10mA
Isolation Voltage(F.G : Output)		500		VAC	At 10mA

Specifications Input Characteristics

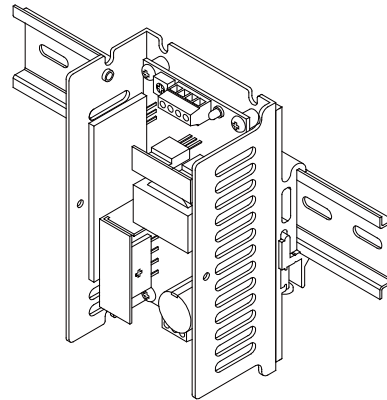
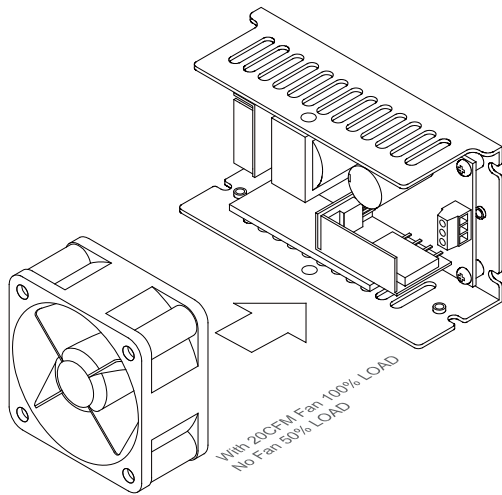
Parameter	Min	Typ	Max	Unit	Notes
Operating Input Voltage Range	90	220	264	VAC	
Frequency Range	47	50/60	63	Hz	
Input Current at 115VAC (OP65□□)	-	-	1.3	A	Max Load
Input Current at 115VAC (OP150□□)	-	-	2.0	A	Max Load
Input Current at 115VAC (OP300□□)	-	-	3.4	A	Max Load
Inrush Current (Cold start at 220VAC)			50	A	
Over Current Protection(Rated Pout)	110	-	-	%	Hiccup
Leakage Current(at 220VAC)				mA	

Specifications Output Characteristics

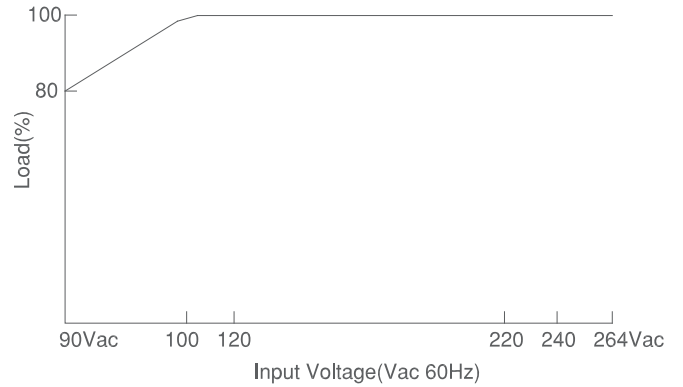
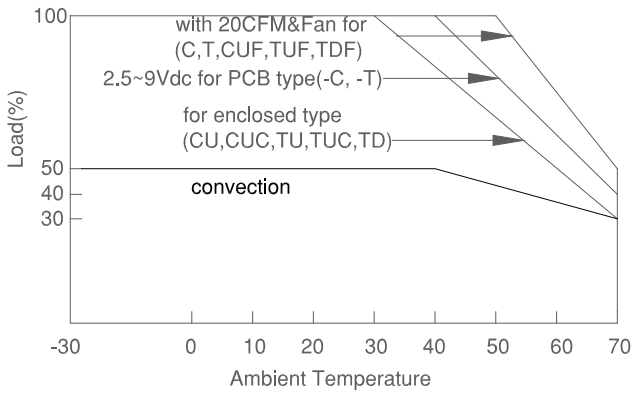
Parameter	Min	Typ	Max	Unit	Notes
Output Voltage Setting Tolerance	-	-	±2	%	
Line Regulation	-	-	±0.5	%	
Load Regulation	-	-	±1	%	
Output Power	-	-	65	W	
Output Ripple & Noise (220VAC max-load)	-	-	1% of Vo	mV	B/W 100Mhz, 1uF Cap
Dynamic Load Response	-	-	5% of Vo	mV	
Turn on Time at 220VAC	-	100	-	mS	
Hold-up Time at 220VAC	-	50	-	mS	

Dimensions & Weight

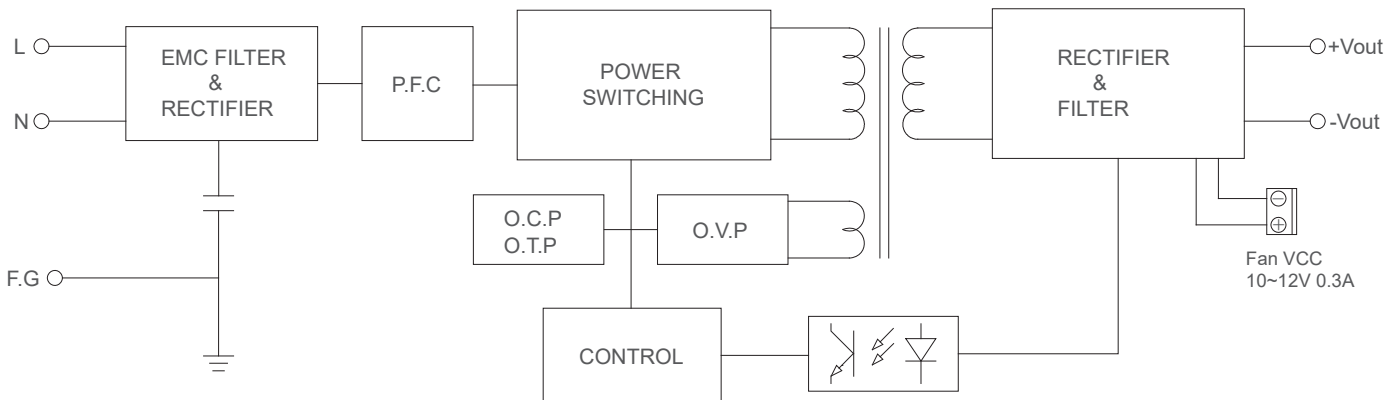
Model	Dimensions(mm)	Weight(g)	Model	Dimensions(mm)	Weight(g)	Model	Dimensions(mm)	Weight(g)
OP65C	102 X 51 X H32	136 typ	OP150C	102 X 51 X H32	198 typ	OP300C	127 X 76 X H38	340 typ
OP65T	102 X 51 X H32	139 typ	OP150T	102 X 51 X H32	200 typ	OP300T	127 X 76 X H38	356 typ
OP65CU	115 X 64 X H40	205 typ	OP150CU	115 X 64 X H40	265 typ	OP300CU	140 X 88 X H45	436 typ
OP65TU	115 X 64 X H40	207 typ	OP150TU	115 X 64 X H40	269 typ	OP300TU	140 X 88 X H45	451 typ
OP65CUC	115 X 64 X H40	221 typ	OP150CUC	115 X 64 X H40	281 typ	OP300CUC	140 X 88 X H45	464 typ
OP65TUC	115 X 64 X H40	223 typ	OP150TUC	115 X 64 X H40	285 typ	OP300TUC	140 X 88 X H45	478 typ
			OP150TUF	115 X 64 X H40+20(Fan)	316 typ	OP300TUF	140 X 88 X H45+20(Fan)	510 typ
OP65TD	140 X 69 X H40	364 typ	OP150TD	140 X 69 X H40	423 typ	OP300TD	167 X 92 X H45	627 typ
			OP150TDF	140 X 69 X H40+20(Fan)	453 typ	OP300TDF	167 X 92 X H45+20(Fan)	657 typ



파워캡 단레일 브라켓을 이용 단레일 장착



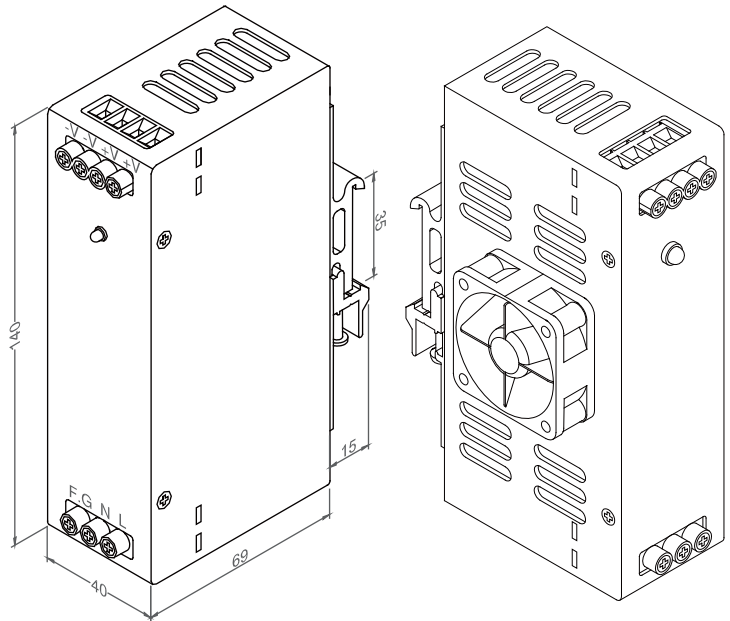
Block Diagram





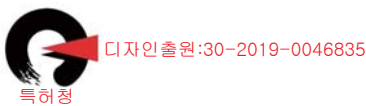
◆ Features

- Compact size 4"x2"(OP65C/T,OP150C/T), 5"x3"(OP300C/T).
- OP65CU/TU,OP150CU/TU(115x64x40mm).
- OP300CU/TU(140x88x45mm).
- OP65TD,OP150TD(140x84x40mm).
- OP300TD(167x107x45mm).
- Optional Input/Output: Connector or Terminal Block.
- Optional case: U-Bracket case or Din-Rail case.
- Universal AC Input 90~264Vac, free-voltage.
- Built-in active PFC function(OP150,OP300).
- Protections: Short circuit, Overload, Overvoltage.
- Over temperature protections(OP150,OP300).
- High efficiency up to 90%(OP150,OP300).
- OP65 free air convection, OP150/OP300 with in 20CFM forced air.
- OP150/OP300 Built-in 12V 0.3A auxiliary output(Fan Vcc).
- LED indicator for DC-OK.
- Adjustable output voltage.
- 3 years warranty. -RoHs directive.



OP150TD
Terminal block & Din-Rail
(140x84x40mm)

OP150TDF
Built In Fan
140x84x40mm+Fan20mm



Input Range: 90~264Vac **OP150-□□TD**

Model	V-out	I-out	P-out	Efficiency
OP150-05TD	5V	12.0A	60.0W	85%
OP150-07TD	7V	8.5A	60.0W	85%
OP150-09TD	9V	6.5A	60.0W	88%
OP150-12TD	12V	5.8A	70.0W	90%
OP150-15TD	15V	4.6A	70.0W	90%
OP150-24TD	24V	2.9A	70.0W	92%
OP150-28TD	28V	2.5A	70.0W	92%
OP150-36TD	36V	1.9A	70.0W	93%
OP150-48TD	48V	1.4A	70.0W	93%

Input Range: 90~264Vac **OP150-□□TDF**

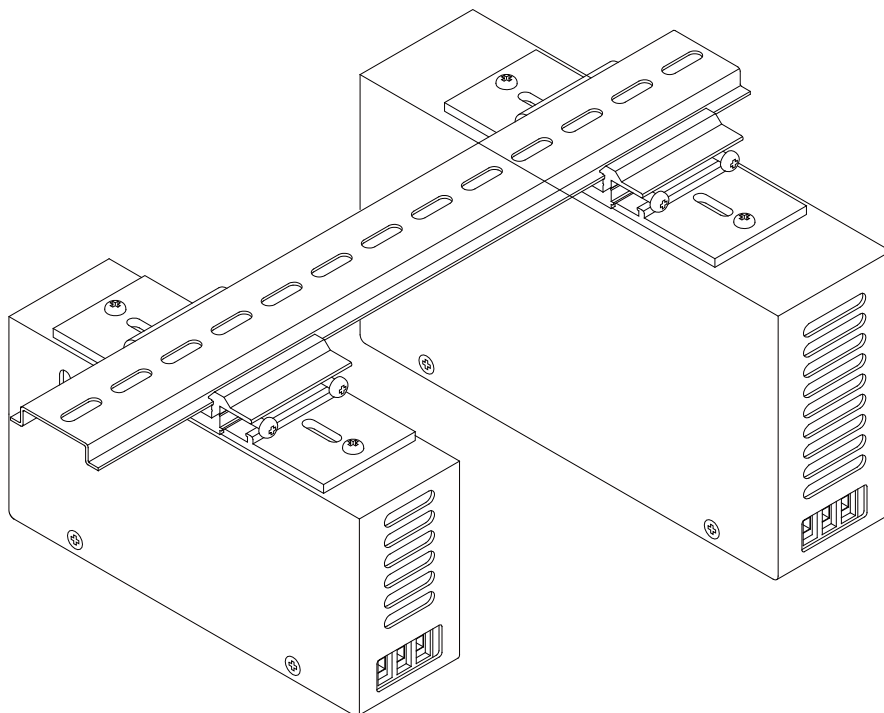
Model	V-out	I-out	P-out	Efficiency
OP150-05TDF	5V	20.0A	100.0W	85%
OP150-07TDF	7V	17.0A	120.0W	85%
OP150-09TDF	9V	16.5A	150.0W	88%
OP150-12TDF	12V	12.5A	150.0W	90%
OP150-15TDF	15V	10.0A	150.0W	90%
OP150-24TDF	24V	6.25A	150.0W	92%
OP150-28TDF	28V	5.3A	150.0W	92%
OP150-36TDF	36V	4.1A	150.0W	93%
OP150-48TDF	48V	3.1A	150.0W	93%

(CN1):AC input Terminal-Block:

Pin No	Assignment	Terminal Block	Vender
1	F.G	MB912-762M03, or equivalent	DECA
2	N		
3	L		

(CN2'):AC input Terminal-Block:

Pin No	Assignment	Terminal Block	Vender
1,2	+ Vout	MB912-635M04 or equivalent	DECA
3,4	- Vout		



Environmental & Isolation Specifications

Parameter	Min	Typ	Max	Unit	Notes
Operating Temperature	-10	-	50	℃	Refer to output load derating curve.
Storage Temperature	-40	-	85	℃	
Operating Humidity(Non condensing)	10	-	95	%	
Isolation Resistance(Input : Output)	100	-	-	MΩ	At 500VDC
Isolation Voltage(Input : Output)	3,000			VAC	At 10mA
Isolation Voltage(Input : F.G)	1,500			VAC	At 10mA
Isolation Voltage(F.G : Output)	500			VAC	At 10mA

Specifications Input Characteristics

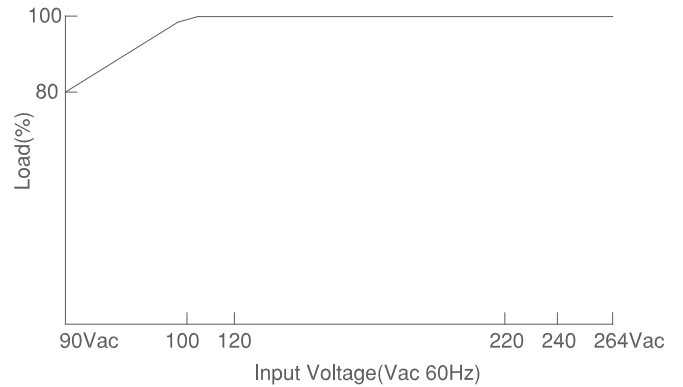
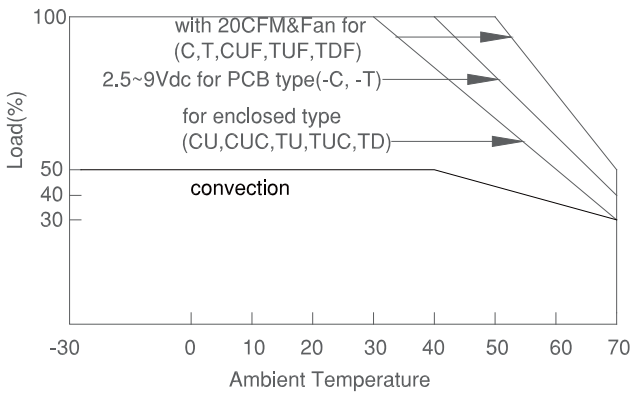
Parameter	Min	Typ	Max	Unit	Notes
Operating Input Voltage Range	90	220	264	VAC	
Frequency Range	47	50/60	63	Hz	
Input Current at 115VAC (OP65□□)	-	-	1.3	A	Max Load
Input Current at 115VAC (OP150□□)	-	-	2.0	A	Max Load
Input Current at 115VAC (OP300□□)	-	-	3.4	A	Max Load
Inrush Current (Cold start at 220VAC)			50	A	
Over Current Protection(Rated Pout)	110	-	-	%	Hiccup
Leakage Current(at 220VAC)				mA	

Specifications Output Characteristics

Parameter	Min	Typ	Max	Unit	Notes
Output Voltage Setting Tolerance	-	-	±2	%	
Line Regulation	-	-	±0.5	%	
Load Regulation	-	-	±1	%	
Output Power	-	-	65	W	
Output Ripple & Noise (220VAC max-load)	-	-	1% of Vo	mV	B/W 100Mhz, 1uF Cap
Dynamic Load Response	-	-	5% of Vo	mV	
Turn on Time at 220VAC	-	100	-	mS	
Hold-up Time at 220VAC	-	50	-	mS	

Dimensions & Weight

Model	Dimensions(mm)	Weight(g)	Model	Dimensions(mm)	Weight(g)	Model	Dimensions(mm)	Weight(g)
OP65C	102 X 51 X H32	136 typ	OP150C	102 X 51 X H32	198 typ	OP300C	127 X 76 X H38	340 typ
OP65T	102 X 51 X H32	139 typ	OP150T	102 X 51 X H32	200 typ	OP300T	127 X 76 X H38	356 typ
OP65CU	115 X 64 X H40	205 typ	OP150CU	115 X 64 X H40	265 typ	OP300CU	140 X 88 X H45	436 typ
OP65TU	115 X 64 X H40	207 typ	OP150TU	115 X 64 X H40	269 typ	OP300TU	140 X 88 X H45	451 typ
OP65CUC	115 X 64 X H40	221 typ	OP150CUC	115 X 64 X H40	281 typ	OP300CUC	140 X 88 X H45	464 typ
OP65TUC	115 X 64 X H40	223 typ	OP150TUC	115 X 64 X H40	285 typ	OP300TUC	140 X 88 X H45	478 typ
			OP150TUF	115 X 64 X H40+20(Fan)	316 typ	OP300TUF	140 X 88 X H45+20(Fan)	510 typ
OP65TD	140 X 69 X H40	364 typ	OP150TD	140 X 69 X H40	423 typ	OP300TD	167 X 92 X H45	627 typ
			OP150TDF	140 X 69 X H40+20(Fan)	453 typ	OP300TDF	167 X 92 X H45+20(Fan)	657 typ



Block Diagram

