COSE	L AC-DC P	ower S	Supplies Enclosed type							
	P	BA	10F	PB A 10	F	• _ • _ • \bullet \bullet \bullet \bullet \bullet \bullet _ \bullet _ \bullet _ \bullet _ \bullet _ \bullet _ \bullet \bullet _ \bullet				
c SAL us RoHS	VV Hinduard			Recommended EMI NAC-OG-472 William University William University William University William University Net Connect with several destination Sector Sector Se	/EMC Filter ① ③ ④ ④ ⑤ ⑥ me : NAP series : NAM series ommended evices.	Series name Single output Output wattage Universal input Output voltage Optional *5 C :with Coating G :Low leakage currer and EMI class A T :Vertical terminal block J :Connector type N :with Cover (UL508 is acquired) VI :with DIN rail and Cove V :Output voltage settin potentiometer externa Iy				
				Cover is o						
MODEL			PBA10F-5	PBA10F-12	PBA10F-24					
	UT WATTAGE[W]		10	10.8	12					
DC OUTPUT			5V 2A	12V 0.9A	24V 0.5A					
SPECIF	ICATIONS									
	MODEL		PBA10F-5	PBA10F-12	PBA10F-24					
	VOLTAGE[V]			o or DC70 Please refer to the instructi		Input voltage *3)				
	ACIN 100V		0.30typ (lo=100%)							
	CURRENT[A]	ACIN 200V	0.20typ (lo=100%)							
	FREQUENCY[Hz]		50/60 (47 - 440) or DC							
NPUT	EFFICIENCY[%] ACIN 100V ACIN 200V		74typ	76typ	77typ					
			74typ	76typ	77typ					
			15typ (lo=100%)							
	INRUSH CURRENT[A]	ACIN 200V	30typ (lo=100%)							
	LEAKAGE CURREN	T[mA]	0.15/0.30max (ACIN 100V/240V 60Hz	z, Io=100%, According to IEC60950-1,I	DENAN)					
	VOLTAGE[V]		5	12	24					
	CURRENT[A]		2	0.9	0.5					
	LINE REGULATION	mV] *6	20max	48max	96max					
	LOAD REGULATION	[mV] *6	40max	100max	150max					
	RIPPLE[mVp-p]	0 to +50℃ *1	80max	120max	120max					
		-10 - 0℃ *1	140max	160max	160max					
	RIPPLE NOISE[mVp-p]	0 to +50℃ *1		150max	150max					
OUTPUT		-10 - 0℃ *1		180max	180max					
	TEMPERATURE REGULATIONIMVI	0 to +50℃	50max	120max	240max					
		-10 to +50℃	60max	150max	290max					
	DRIFT[mV]	*2	20max	48max	96max					
	START-UP TIME[ms]			e is 700ms typ for less than 1minute of applyin	g input again fron	n turning off the input voltag				
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMEN		4.50 - 5.50	10.0 - 13.2	19.2 - 27.0	-				
	OUTPUT VOLTAGE SET		5.00 - 5.15	12.00 - 12.48	24.00 - 24.90	<u>ò</u>				
PROTECTION	OVERCURRENT PROT		Works over 105% of rated current and							
CIRCUIT AND	OVERVOLTAGE PROTEC		5.75 - 7.00	15.0 - 18.0	30.0 - 37.0					
OTHERS		TION	LED (Green)							
	REMOTE ON/OFF		None	Om A DOE001/ FOM Omin (At Doom To	maaratura)					
SOLATION	INPUT-OUTPUT INPUT-FG			0mA, DC500V 50M Ω min (At Room Te 0mA, DC500V 50M Ω min (At Room Te						
SOLAHUN	OUTPUT-FG			mA, DC500V 50MΩmin (At Room Ter						
	OPERATING TEMP.,HUMID.AND			- 90%RH (Non condensing) 3,000m (1		,				
	STORAGE TEMP.,HUMID.AND		-20 to +75°C, 20 - 90%RH (Non cond			<u>.</u>				
ENVIRONMENT	VIBRATION	ALITUDE		eriod, 60minutes each along X, Y and	7 avie					
	IMPACT		196.1m/s ² (20G), 11ms, once each X		- 413					
	AGENCY APPROVALS (At only	AC input)		0950-1, EN50178 Complies with DEN-	AN					
SAFETY AND NOISE	CONDUCTED NOISE			CCI-B, CISPR22-B, EN55011-B, EN550						
REGULATIONS	HARMONIC ATTENL		Complies with IEC61000-3-2 (Not buil							
	CASE SIZE/WEIGHT			ches] (without terminal block) (WXHXI)) / 150g may	(without cover)				
OTHERS	COOLING METHOD		Convection		2,7 100y max					

doring infor

OTHERS COOLING METHOD Convection Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN

:RM101).
 *2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.

*3 Derating is required.

*4 When two or more units are used they may not comply with the harmonic attenuator. Please contact us for details.

*5 Please contact us about safety approvals for the model with option.

*6 Please contact us about dynamic load and input response.
*7 Please contact us about class C.

* Parallel operation with other model is not possible.

*

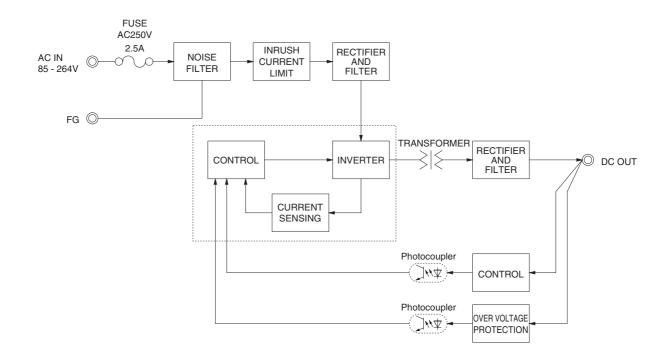
Derating is required when operated with cover. A sound may occur from power supply at peak loading. *

*1

PBA/

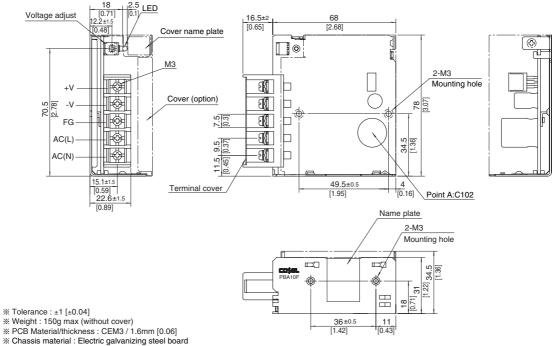
PBA/PBW

Block diagram



External view

% External size of option T,J,N,N1 and V is different from standard model and refer to 7 Option of instruction manual for details.



Chassis material: Electric gavanizing steel board
 Dimensions in mm, []= inches
 Mounting torque: 0.6N + m(6.3kgf • cm)max
 Screw tightening torque : M3 0.8N • m(8.5kgf • cm)max
 Please connect safety ground to the unit in 2-M3 holes.

COŞE	L AC-DC P	ower S	Supplies En	Ordering information								
	P]	BA	15F			B A	15 ³	F				
c SL iss RoHS	VV THEAMENT CE					Reco NAC	mmended EMI/EMC Fi C-06-472 app pulse noise type : NAP se kage current type : NAM se M/EMC Filter is recommended nect with several devices.	Iter (1)Series n (2)Single o (3)Output V (4)Univers: (5)Output V (6)Optiona C :with (G :Low I C :Low and E T :Veria J :Conn N :with ((UL50 [5V, NI :with I V :Outp poter ly	aame uitput vattage al input voltage *5 Coating eakage current leakage current EMI class A cal terminal block ector type			
							Cover is option					
MODEL			PBA15F-3R3	PBA15F-5	PBA15F-9	PBA15F-12	PBA15F-15	PBA15F-24	PBA15F-48			
	JT WATTAGE[W]		9.9	15	15.3	15.6	15	16.8	16.8			
DC OUTPUT	ſ		3.3V 3A	5V 3A	9V 1.7A	12V 1.3A	15V 1A	24V 0.7A	48V 0.35A			
SPECIF	ICATIONS											
	MODEL		PBA15F-3R3	PBA15F-5	PBA15F-9	PBA15F-12	PBA15F-15	PBA15F-24	PBA15F-48			
	VOLTAGE[V]		AC85 - 264 1 ϕ or DC110 - 370 (AC50 or DC70 Please refer to the instruction manual 2.1 Input voltage *3)									
		ACIN 100V	0.30typ (lo=100%)	1				· · · · · · · · · · · · · · · · · · ·	.			
	CURRENT[A]		0.15typ (lo=100%)									
	FREQUENCY[Hz]	710111 2001	50/60 (47 - 440		0)							
		ACIN 100V		74typ	75typ	75typ	77typ	75typ	75typ			
	EFFICIENCY[%]	ACIN 200V		75typ	77typ	78typ	80typ	78typ	78typ			
		1			лтур	/otyp	ουιγρ	/ otyp	7 otyp			
	INRUSH CURRENT[A]	ACIN 100V										
		ACIN 200V	1 VI -									
	LEAKAGE CURRENT[mA]					, According to IE			1			
	VOLTAGE[V]		3.3	5	9	12	15	24	48			
	CURRENT[A]		3	3	1.7	1.3	1	0.7	0.35			
	LINE REGULATION[mV] *6	20max	20max	36max	48max	60max	96max	192max			
	LOAD REGULATION	[mV] *6	40max	40max	100max	100max	120max	150max	240max			
		0 to +50℃ *1	80max	80max	120max	120max	120max	120max	150max			
	RIPPLE[mVp-p]	-10 - 0℃ *1	140max	140max	160max	160max	160max	160max	200max			
		0 to +50℃ *1	120max	120max	150max	150max	150max	150max	250max			
OUTPUT	RIPPLE NOISE[mVp-p]	-10 - 0°C *1		160max	180max	180max	180max	180max	300max			
	<u> </u>	0 to +50℃		50max	90max	120max	150max	240max	480max			
	TEMPERATURE REGULATION[mV]		60max	60max	120max	150max	180max	290max	600max			
	DRIFT[mV]	-10 10 +30 C *2	20max	20max	36max	48max	60max	96max	192max			
	START-UP TIME[ms]					p for less than 1 minu						
					up time is 700ms ty		are or apprying input	ayanı nom turning	on the input voltag			
	HOLD-UP TIME[ms]		20typ (ACIN 10		7 50 400	40.0 40.0	40.0 40.0	40.0.07.0	00.0 50.0			
	OUTPUT VOLTAGE ADJUSTMEN			4.50 - 5.50	7.50 - 10.0	10.0 - 13.2	13.2 - 18.0	19.2 - 27.0	39.0 - 53.0			
	OUTPUT VOLTAGE SET			5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	48.00 - 49.92			
DOTECTION	OVERCURRENT PROT						1					
PROTECTION CIRCUIT AND	OVERVOLTAGE PROTEC		4.00 - 5.25	5.75 - 7.00	11.5 - 14.0	15.0 - 18.0	20.0 - 25.0	30.0 - 37.0	58.0 - 65.0			
OTHERS	OPERATING INDICA	TION	LED (Green)									
	REMOTE ON/OFF		None									
	INPUT-OUTPUT		AC3,000V 1min	ute, Cutoff currer	nt = 10mA, DC5	00V 50MΩmin (A	At Room Tempera	ature)				
SOLATION	INPUT-FG		AC2,000V 1min	ute, Cutoff currer	nt = 10mA, DC5	00V 50M $_{\Omega}$ min (A	At Room Tempera	ature)				
	OUTPUT-FG		AC500V 1minut	e, Cutoff current	= 25mA, DC500	$0V 50M\Omega$ min (At	Room Temperatu	ure)				
	OPERATING TEMP.,HUMID.AND	ALTITUDE				Non condensing)						
	STORAGE TEMP.,HUMID.AND					000m (30,000feet)		,				
INVIRONMENT	VIBRATION					ninutes each alon		s				
	IMPACT), 11ms, once ea	•							
		(AC inc										
SAFETY AND	AGENCY APPROVALS (At only					150178 Complies						
NOISE REGULATIONS	CONDUCTED NOISE		· ·			PR22-B, EN5501	I-B, EN55022-B					
	HARMONIC ATTENU			EC61000-3-2 (No			()					
OTHERS	CASE SIZE/WEIGHT			[1.22×3.07×3.3	35 inches] (witho	out terminal block	(WXHXD) / 2	00g max (withou	t cover)			
	COOLING METHOD		Convection									

*1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN RM101).
 Print is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.

*3 Derating is required.

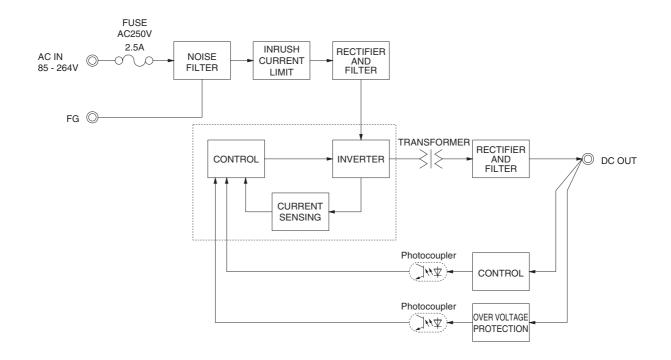
*4 When two or more units are used they may not comply with the harmonic attenuator. Please contact us for details.

*5 Please contact us about safety approvals for the model with option.

*6 Please contact us about dynamic load and input response.
*7 Please contact us about class C.
* Parallel operation with other model is not possible.
* Derating is required when operated with cover.
* A sound may occur from power supply at peak loading.

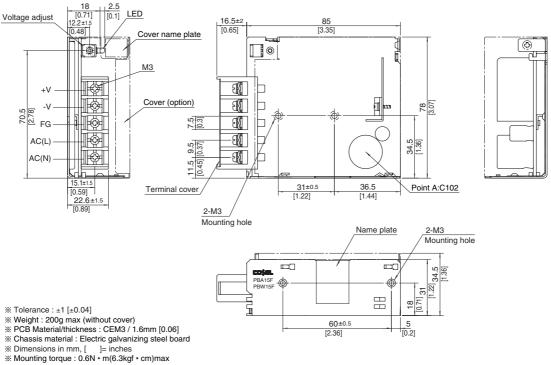
PBA/P

PBA/PBW



External view

% External size of option T,J,N,N1 and V is different from standard model and refer to 7 Option of instruction manual for details.



Screw tightening torque : M3 0.8N • m(8.5kgf • cm)max
 Please connect safety ground to the unit in 2-M3 holes.

c FAL°us RoHS			30F		PI	2 Reco NAA	30 (a) (a) mmended EMI/EMC Fi C-06-472 (c) age pulse noise type : NAP se tage current type : NAP se tage cu	(i) Output v (ii) Output v (iii) Output v (iii) Output v (iii) Output v (iiii) Output v (iiii) Output v (iiii) Output v (iiiii) Output v (iiiiii) Output v (iiiiiiii) Output v (iiiiiiiiii) Output v (iiiiiiiiii) Output v (iiiiiiiiii) Output v (iiiiiiiiii) Output v (iiiiiiiiiii) Output v (iiiiiiiiiii) Output v (iiiiiiiiiiiiiii) Output v (iiiiiiiiiii) Output v (iiiiiiiiiiii) Output v (iiiiiiiiiii) Output v (iiiiiiiiiiiiiii) Output v (iiiiiiiiiiiiiiii) Output v (iiiiiiiiiiiiiii) Output v (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	utput vattage al input oltage *5 Coating eakage current leakage curren MI class A cal terminal block ector type
MODEL									
			PBA30F-3R3	PBA30F-5 30	PBA30F-9 30.6	PBA30F-12 30	PBA30F-15 30	PBA30F-24 31.2	PBA30F-48 31.2
DC OUTPU	JT WATTAGE[W]		19.8 3.3V 6A	30 5V 6A	30.6 9V 3.4A	30 12V 2.5A	30 15V 2A	24V 1.3A	31.2 48V 0.65A
				or on	of only				
SPECIF	ICATIONS								
	MODEL		PBA30F-3R3	PBA30F-5	PBA30F-9	PBA30F-12	PBA30F-15	PBA30F-24	PBA30F-48
	VOLTAGE[V]					Please refer to the	ne instruction ma	anual 2.1 Input vo	oltage *3)
	CURRENT[A]		0.50typ (lo=100%)						
		ACIN 200V	21		0%)				
	FREQUENCY[Hz]	10111 (001)	50/60 (47 - 440	1	751	701	701	701	701
NPUT	EFFICIENCY[%]	ACIN 100V		74typ	75typ	76typ	78typ	78typ	79typ
		ACIN 200V ACIN 100V		77typ	77typ	78typ	81typ	81typ	81typ
	INRUSH CURRENT[A]	ACIN 100V	30typ (lo=100%						
	LEAKAGE CURRENT[mA]				60Hz. lo=100%	, According to IE	C60950-1.DENA	N)	
	VOLTAGE[V]	. []	3.3	5	9	12	15	24	48
	CURRENT[A]		6	6	3.4	2.5	2	1.3	0.65
	LINE REGULATION	mV] *6	20max	20max	36max	48max	60max	96max	192max
	LOAD REGULATION	[mV] *6	40max	40max	100max	100max	120max	150max	240max
	RIPPLE[mVp-p]	0 to +50℃ *1	80max	80max	120max	120max	120max	120max	150max
	πιεεστιικό-β]	-10 - 0℃ *1	140max	140max	160max	160max	160max	160max	200max
	RIPPLE NOISE[mVp-p]	0 to +50℃ *1	120max	120max	150max	150max	150max	150max	250max
OUTPUT		-10 - 0℃ *1	160max	160max	180max	180max	180max	180max	300max
	TEMPERATURE REGULATION[mV]	0 to +50℃		50max	90max	120max	150max	240max	480max
		-10 to +50℃	60max	60max	120max	150max	180max	290max	600max
	DRIFT[mV]	*2	20max	20max	36max	48max	60max	96max	192max
	START-UP TIME[ms]				up time is 700ms ty	p for less than 1minu	ne of applying input	ayain from turning	on the input voltage
	HOLD-UP TIME[ms] OUTPUT VOLTAGE ADJUSTMENT		20typ (ACIN 10 2.85 - 3.60	4.50 - 5.50	7.50 - 10.0	10.0 - 13.2	13.2 - 18.0	19.2 - 27.0	39.0 - 53.0
	OUTPUT VOLTAGE SET		3.30 - 3.40	5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	48.00 - 49.92
	OVERCURRENT PROT				ent and recovers		10.00 - 10.00	24.30	10.00 - 40.92
ROTECTION	OVERVOLTAGE PROTEC		4.00 - 5.25	5.75 - 7.00	11.5 - 14.0	15.0 - 18.0	20.0 - 25.0	30.0 - 37.0	58.0 - 65.0
CIRCUIT AND	OPERATING INDICA		LED (Green)						
	REMOTE ON/OFF		None						
	INPUT-OUTPUT					00V 50M $_{\Omega}$ min (A			
SOLATION	INPUT-FG					00V 50M $_{\Omega}$ min (A	•	,	
	OUTPUT-FG					OV 50MΩmin (At			
	OPERATING TEMP.,HUMID.AND					Non condensing)		feet) max	
NVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE			v	000m (30,000feet)			
	VIBRATION				•	ninutes each alon	g X, Y and Z axi	IS	
		. AO !			ach X, Y and Z				
AFETY AND	AGENCY APPROVALS (At only					N50178 Complies			
NOISE REGULATIONS	CONDUCTED NOISE HARMONIC ATTENU					PR22-B, EN5501	1-D, ENSSU22-B		
	HARMONIC ATTENU				ot built-in to acti				

a infor

COOLING METHOD Convection Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN

*1 :RM101). *2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.

CASE SIZE/WEIGHT

*3 Derating is required.

*4 When two or more units are used, they may not comply with the harmonic attenuator. Please contact us for details.

*5 Please contact us about safety approvals for the model with option.

*6 Please contact us about dynamic load and input response.
*7 Please contact us about class C.

* Parallel operation with other model is not possible.

31 x 78 x 103mm [1.22 x 3.07 x 4.06 inches] (without terminal block) (W x H x D) / 270g max (without cover)

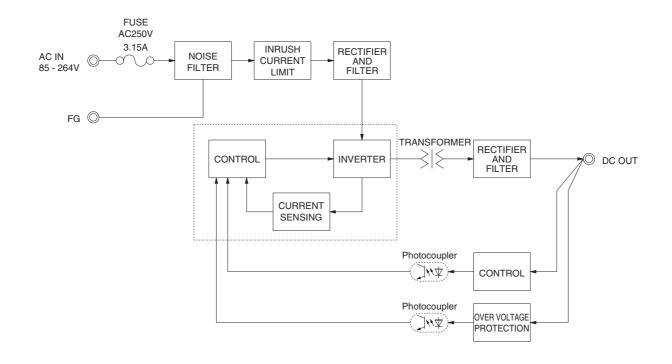
*

Derating is required when operated with cover. A sound may occur from power supply at peak loading. *

OTHERS

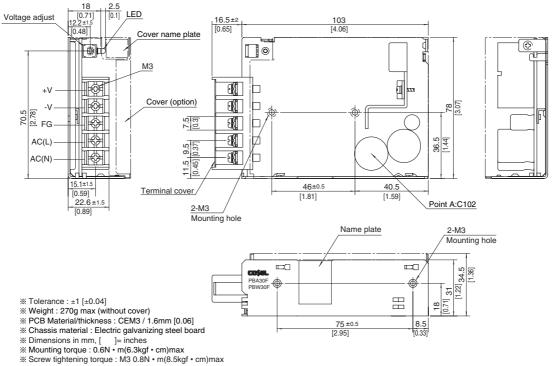
PBA/P

PBA/PBW

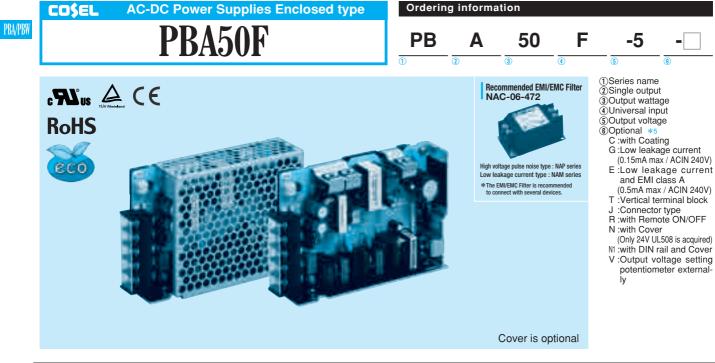


External view

% External size of option T,J,N,N1 and V is different from standard model and refer to 7 Option of instruction manual for details.



* Please connect safety ground to the unit in 2-M3 holes.



MODEL	PBA50F-3R3	PBA50F-5	PBA50F-9	PBA50F-12	PBA50F-15	PBA50F-24	PBA50F-36	PBA50F-48
MAX OUTPUT WATTAGE[W]	33	50	50.4	51.6	52.5	52.8	50.4	52.8
DC OUTPUT	3.3V 10A	5V 10A	9V 5.6A	12V 4.3A	15V 3.5A	24V 2.2A	36V 1.4A	48V 1.1A

SPECIFICATIONS

	MODEL		PBA50F-3R3	PBA50F-5	PBA50F-9	PBA50F-12	PBA50F-15	PBA50F-24	PBA50F-36	PBA50F-48			
	VOLTAGE[V]		AC85 - 264 1 ¢	or DC120 - 37	0 (AC50 or DC7	0 Please refer to	the instruction r	manual 2.1 Input	t voltage *4)				
		ACIN 100V	0.5typ	0.7typ					-				
	CURRENT[A]	ACIN 200V	0.3typ	0.4typ									
	FREQUENCY[Hz]		50/60 (47 - 63)										
		ACIN 100V	75typ	80typ	79typ	80typ	81typ	82typ	83typ	83typ			
NPUT	EFFICIENCY[%]	ACIN 200V	76typ	82typ	81typ	82typ	83typ	84typ	85typ	85typ			
		ACIN 100V	0.98typ	0.99typ									
	POWER FACTOR(lo=100%)	ACIN 200V											
				15typ (lo=100%) (At cold start)									
			30typ (lo=100%) (At cold start)										
	LEAKAGE CURRENT[r			0.4/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)									
	VOLTAGE[V]		3.3	5	9	12	15	24	36	48			
	CURRENT[A]		10	10	5.6	4.3	3.5	2.2	1.4	1.1			
	LINE REGULATION[m	/1	20max	20max	36max	48max	60max			192max			
		LOAD REGULATION[mV]		40max	100max	100max	120max			240max			
		0 to +50℃ *1	40max 80max	80max	120max	120max	120max	120max	150max	150max			
	RIPPLE[mVp-p]	-10 - 0°C *1		140max	160max	160max	160max			200max			
UTPUT		0 to +50℃ *1		120max	150max	150max	150max			250max			
		-10 - 0°C *1	160max	160max	180max	180max	180max			300max			
•••••		0 to +50°C		50max	90max	120max	150max			480max			
	TEMPERATURE REGULATION[mV]	-10 to +50°C		60max	120max	150max	180max			600max			
	DRIFT[mV]	*2	20max	20max	36max	48max	60max			192max			
	START-UP TIME[ms]		350typ(ACIN 1										
	HOLD-UP TIME[ms]		20typ (ACIN 10										
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 - 3.63	4.00 - 5.50	7.50 - 10.0	10.0 - 13.2	13.2 - 18.0	19.2 - 27.0	28.8 - 39.6	39.0 - 53.0			
	OUTPUT VOLTAGE SET			5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60			48.00 - 49.9			
	OVERCURRENT PROT			5% of rated curre			1.0.00	1		1.0.00			
DUTPUT Protection CONTRUT PUT PROTECTION CONTRUET PROTECTION CONTRUET PROTECTION CONTRUET PROTECTION CONTRUET SOLATION IN SAFETY AND CONTRUET CONTRUE CONTRUET	OVERVOLTAGE PROTEC		4.00 - 5.25	5.75 - 7.00	11.5 - 14.0	15.0 - 18.0	20.0 - 25.0	30.0 - 37.0	43.0 - 50.0	58.0 - 65.0			
	OPERATING INDICATIO		LED (Green)		1	1.000		1		10000 0000			
JINENS	REMOTE ON/OFF		()	ired external po	wer source)			96max 144max 150max 240max 120max 150max 160max 200max 150max 200max 150max 200max 150max 200max 150max 200max 180max 300max 240max 360max 290max 450max 96max 144max 900-24.00 - 24.96 35.00 - 37.44 900reature) 9000feet) max 9000feet) max 24.00 - 24.96					
	INPUT-OUTPUT · RC	*3	Optional (Required external power source) *3 AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)										
SOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)										
	OUTPUT · RC-FG	*3	*3 AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (At Room Temperature)										
	OPERATING TEMP. HUMID. AND	ALTITUDE				(Non condensing							
	STORAGE TEMP. HUMID.AND	ALTITUDE				,000m (30,000fee							
NVIRONMENT	VIBRATION		-		0.	Dminutes each ale		axis					
	IMPACT			G), 11ms, once e									
	AGENCY APPROVALS (At only	(AC input)				N50178 Complie	s with DEN-AN						
	CONDUCTED NOISE					SPR22-B, EN550		·B					
	HARMONIC ATTENUAT	FOR		IEC61000-3-2									
	CASE SIZE/WEIGHT					thout terminal blo		/ 280g max (wit	hout cover)				
JTHERS	COOLING METHOD		Convection					(III					
	by 20MHz oscilloscope or F					Please contact us at							

nt to KEI :RM101).

*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.

*3 Applicable when Remote ON/OFF(optional) is added. RC is insulated with input, output and FG.

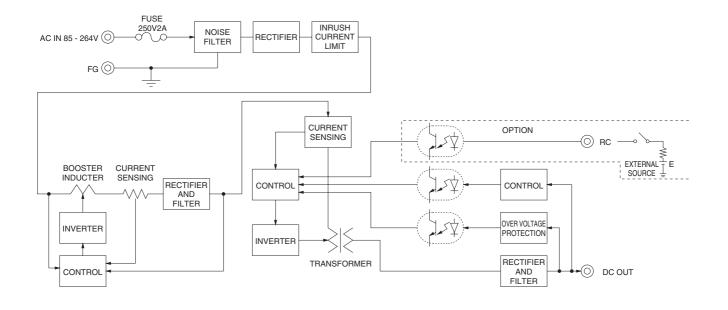
*4 Derating is required.

*6 Please contact us about class C. * Parallel operation with other model is not possible.

* Derating is required when operated with cover. A sound may occur from power supply at peak loading. *

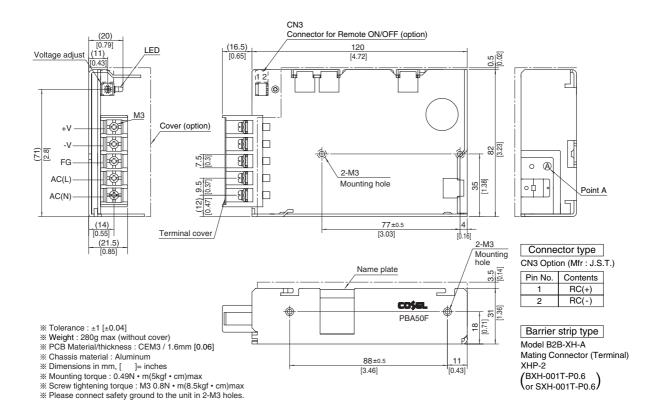
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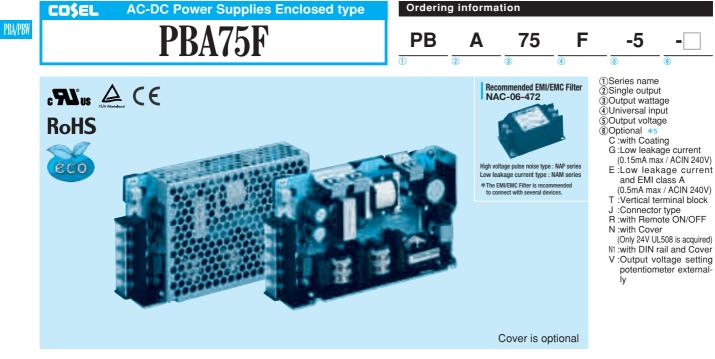
PBA/PBW



External view

% External size of option T,J,R,N,N1 and V is different from standard model and refer to 7 Option of instruction manual for details.





MODEL	PBA75F-3R3	PBA75F-5	PBA75F-9	PBA75F-12	PBA75F-15	PBA75F-24	PBA75F-36	PBA75F-48
MAX OUTPUT WATTAGE[W]	49.5	75	75.6	75.6	75	76.8	75.6	76.8
DC OUTPUT	3.3V 15A	5V 15A	9V 8.4A	12V 6.3A	15V 5A	24V 3.2A	36V 2.1A	48V 1.6A

SPECIFICATIONS

	MODEL		PBA75F-3R3	PBA75F-5	PBA75F-9	PBA75F-12	PBA75F-15	PBA75F-24	PBA75F-36	PBA75F-48		
	VOLTAGE[V]		AC85 - 264 1¢	or DC120 - 37	0 (AC50 or DC7	0 Please refer to	the instruction r	nanual 2.1 Input	voltage *4)			
		ACIN 100V	0.7typ	1.0typ								
	CURRENT[A]	ACIN 200V	0.4typ	0.5typ								
	FREQUENCY[Hz]		50/60 (47 - 63)									
		ACIN 100V	77typ	81typ	80typ	81typ	82typ	83typ	84typ	84typ		
IPUT	EFFICIENCY[%]	ACIN 200V	78typ	83typ	82typ	83typ	84typ	85typ	86typ	86typ		
		ACIN 100V	0.98typ	0.99typ								
	POWER FACTOR(lo=100%)	ACIN 200V	0.87typ	0.93typ								
		ACIN 100V	15typ (lo=100%) (At cold start)									
			30typ (lo=100%) (At cold start)									
	LEAKAGE CURRENT[r		0.4/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)									
	VOLTAGE[V]		3.3	5	9	12	15	24	36	48		
	CURRENT[A]		15	15	8.4	6.3	5	3.2	2.1	1.6		
	LINE REGULATION[m]			20max	36max	48max	60max	96max	144max	192max		
	LOAD REGULATION[m		20max 40max	40max	100max	100max	120max	150max	240max	240max		
		0 to +50℃ *1	80max	80max	120max	120max	120max	120max	150max	150max		
	RIPPI FIMVn-ni -	-10 - 0°C *1	140max	140max	160max	160max	160max	160max	200max	200max		
		0 to +50℃ *1	120max	120max	150max	150max	150max	150max	250max	250max		
ОЛТРИТ	RIPPLE NOISE[mVp-p]	-10 - 0°C *1	160max	160max	180max	180max	180max	180max	300max	300max		
0.1.01		0 to +50℃		50max	90max	120max	150max	240max	360max	480max		
	TEMPERATURE REGULATION[mV]	-10 to +50°C	60max	60max	120max	150max	180max	290max	450max	600max		
	DRIFT[mV]	*2	20max	20max	36max	48max	60max	96max	144max	192max		
	START-UP TIME[ms]		350typ(ACIN 10		oomax	чопах	oomax	oomax	TTTTTT	TOLINUX		
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)									
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]			4.00 - 5.50	7.50 - 10.0	10.0 - 13.2	13.2 - 18.0	19.2 - 27.0	28.8 - 39.6	39.0 - 53.0		
	OUTPUT VOLTAGE SET			5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	36.00 - 37.44	48.00 - 49.9		
			3.30 - 3.40 5.00 - 5.15 9.00 - 9.36 12.00 - 12.48 15.00 - 15.60 24.00 - 24.96 36.00 - 37.44 48.00 - 49.9 Works over 105% of rated current and recovers automatically									
ROTECTION	OVERVOLTAGE PROTEC		4.00 - 5.25	5.75 - 7.00	11.5 - 14.0	15.0 - 18.0	20.0 - 25.0	30.0 - 37.0	43.0 - 50.0	58.0 - 65.0		
IRCUIT AND	OPERATING INDICATIO		LED (Green)	5.75 7.00	11.0 14.0	10.0 10.0	20.0 20.0	00.0 07.0	40.0 00.0	30.0 03.0		
THERS	REMOTE ON/OFF		Optional (Required external power source)									
	INPUT-OUTPUT · RC	*2	Coptional (Required external power source) AC3.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)									
SOLATION	INPUT-FG	÷0	AC2,000V Iminute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature) AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)									
SOLAHON	OUTPUT · RC-FG	*3	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature) AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩmin (At Room Temperature)									
			$-10 \text{ to } +71^{\circ}\text{C}$ (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max									
	STORAGE TEMP.,HUMID.AND					000m (30,000fe						
NVIRONMENT	VIBRATION	ALIIIODL				minutes each al		avio				
	IMPACT				each X, Y and Z		JIIY A, T AIIU Z a	1115				
		(AC input)				N50178 Complie						
AFETY AND OISE	AGENCY APPROVALS (At only CONDUCTED NOISE	AC IIIpul)				SPR22-B, EN550		P				
EGULATIONS				EC61000-3-2 *		DF N22-D, EN93U	11-D, EN33022-	D				
	CASE SIZE/WEIGHT					hout torminal bla		/ 350g max (wit	hout onvor)			
THERS				111 [1.26 X 3.23 X	5.5 i incriesj (Wit	nout terminal bio	$(W \times H \times D)$	soug max (With	iout cover)			
	COOLING METHOD		Convection									

ent to KEI :RM101).

*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.

*3 Applicable when Remote ON/OFF(optional) is added. RC is insulated with input, output and FG.

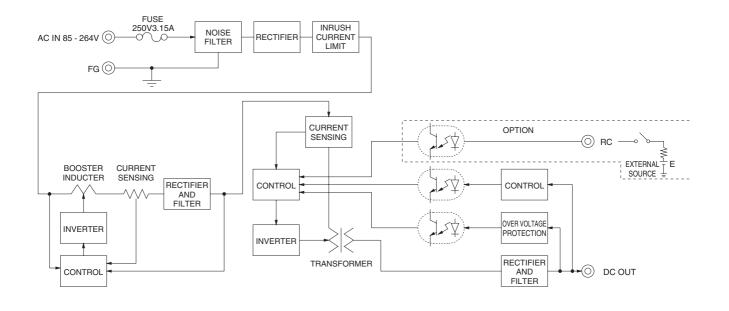
*4 Derating is required.

*6 Please contact us about class C.

* Parallel operation with other model is not possible.

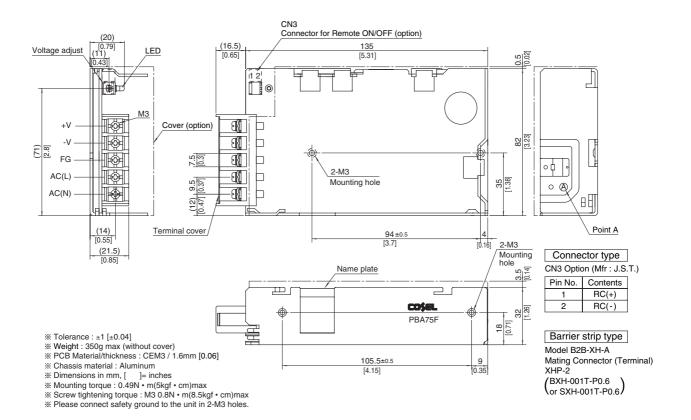
* Derating is required when operated with cover. A sound may occur from power supply at peak loading. *

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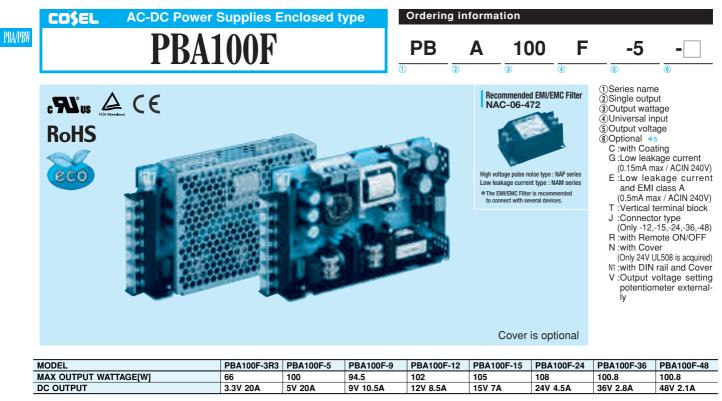


External view

* External size of option T,J,R,N,N1 and V is different from standard model and refer to 7 Option of instruction manual for details.



PBA/PBW



SPECIFICATIONS

	MODEL		PBA100F-3R3	PBA100F-5	PBA100F-9	PBA100F-12	PBA100F-15	PBA100F-24	PBA100F-36	PBA100F-48		
	VOLTAGE[V]		AC85 - 264 1 φ	or DC120 - 37	0 (AC50 or DC7	0 Please refer to	the instruction r	nanual 2.1 Input	voltage *4)	·		
		ACIN 100V	0.9typ	1.3typ					-			
	CURRENT[A]	ACIN 200V	0.5typ	0.7typ								
	FREQUENCY[Hz]		50/60 (47 - 63)									
		ACIN 100V	77typ	82typ	80typ	81typ	83typ	84typ	84typ	84typ		
NPUT	EFFICIENCY[%]	ACIN 200V	79typ	84typ	82typ	83typ	86typ	86typ	86typ	86typ		
		ACIN 100V	0.98typ	0.99typ								
	POWER FACTOR(Io=100%)	ACIN 200V	0.87typ	0.93typ								
		ACIN 100V	20typ (lo=100%) (At cold start)									
			40typ (lo=100%) (At cold start)									
	LEAKAGE CURRENT[r		0.4/0.75max (ACIN 100V/240V 60Hz, lo=100%, According to IEC60950-1,DENAN)									
	VOLTAGE[V]		3.3	5	9	12	15	24	36	48		
	CURRENT[A]		20	20	10.5	8.5	7	4.5	2.8	2.1		
		LINE REGULATION[mV]		20max	36max	48max	60max	96max	144max	192max		
	LOAD REGULATION[m		20max 40max	40max	100max	100max	120max	150max	240max	240max		
		0 to +50℃ *1	80max	80max	120max	120max	120max	120max	150max	150max		
	RIPPLE[mVp-p]	-10 - 0°C *1		140max	160max	160max	160max	160max	200max	200max		
		0 to +50°C *1	120max	120max	150max	150max	150max	150max	250max	250max		
DUTPUT	RIPPLE NOISE[mVp-p]	-10 - 0°C *1	160max	160max	180max	180max	180max	180max	300max	300max		
		0 to +50°C		50max	90max	120max	150max	240max	360max	480max		
	TEMPERATURE REGULATION[mV]	-10 to +50°C	60max	60max	120max	150max	180max	290max	450max	600max		
	DRIFT[mV]	*2	20max	20max	36max	48max	60max	96max	144max	192max		
	START-UP TIME[ms]		350typ(ACIN 10		oomax	Tomax	oomax	oomax		rozinax		
	HOLD-UP TIME[ms]		20typ (ACIN 100V, lo=100%)									
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]			4.00 - 5.50	7.50 - 10.0	10.0 - 13.2	13.2 - 18.0	19.2 - 27.0	28.8 - 39.6	39.0 - 53.0		
	OUTPUT VOLTAGE SET			5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	36.00 - 37.44	48.00 - 49.92		
	OVERCURRENT PROT											
POTECTION	OVERVOLTAGE PROTEC		4.00 - 5.25	5.75 - 7.00	11.5 - 14.0	15.0 - 18.0	20.0 - 25.0	30.0 - 37.0	43.0 - 50.0	58.0 - 65.0		
CIRCUIT AND			4.00 - 5.25 0.75 - 7.00 11.5 - 14.0 15.0 - 16.0 20.0 - 25.0 50.0 - 57.0 45.0 - 50.0 50.0 - 65.0									
OTHERS	REMOTE SENSING	-	Optional (Only -3R3, -5 Option -K)									
PROTECTION CIRCUIT AND DTHERS	REMOTE ON/OFF		Optional (Required external power source)									
	INPUT-OUTPUT · RC	*3	AC3.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)									
SOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)									
	OUTPUT · RC-FG	*3				500V 50MΩmin (
	OPERATING TEMP. HUMID.AND	ALTITUDE				(Non condensing		,				
	STORAGE TEMP. HUMID.AND					,000m (30,000fee						
INVIRONMENT	VIBRATION				<u> </u>	minutes each ald		axis				
	IMPACT				each X, Y and Z		J					
SAFETY AND	AGENCY APPROVALS (At only	AC input)				N50178 Complie	s with DEN-AN					
NOISE	CONDUCTED NOISE					SPR22-B, EN550		В				
REGULATIONS		FOR	Complies with I			,	,					
	CASE SIZE/WEIGHT					thout terminal blo	ck) (W×H×D)	440g max (wit	hout cover)			
OTHERS	COOLING METHOD		Convection					- g (m.				
	by 20MHz oscilloscope or F					lease contact us at						

*1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN :RM101).

*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25° C.

*3 Applicable when Remote ON/OFF(optional) is added. RC is insulated with input, output and FG.

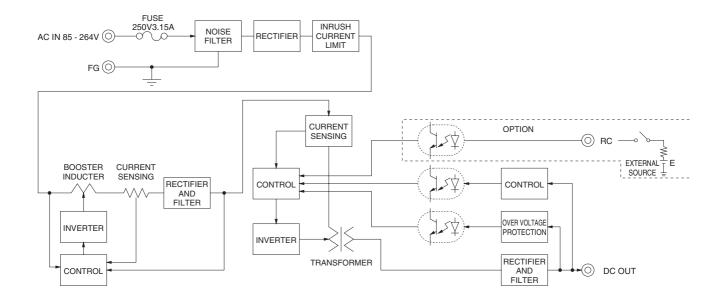
*4 Derating is required.

*6 Please contact us about class C.
 * Parallel operation with other model is not possible

Parallel operation with other model is not possible.
 Derating is required when operated with cover

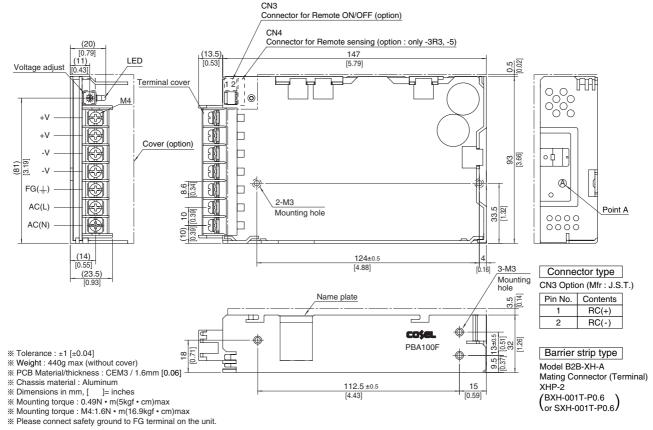
Derating is required when operated with cover.
 A sound may occur from power supply at peak loading.

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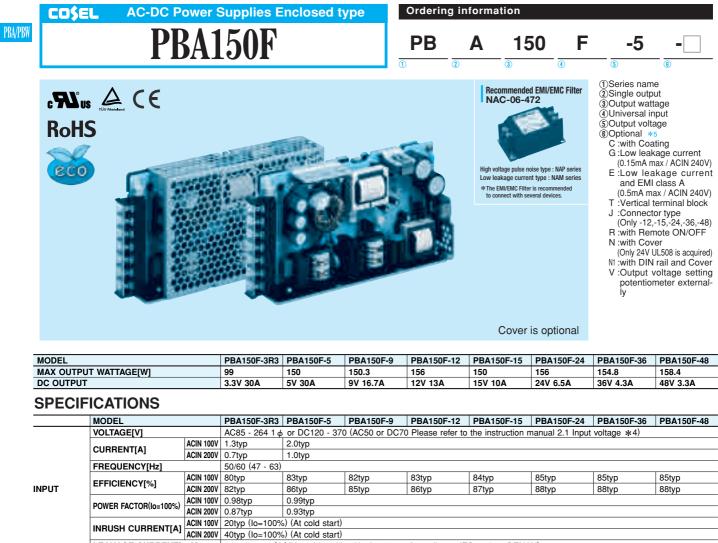


External view





PBA/PBW-13



		ACIN 200V	40typ (lo=100%	 (At cold start) 									
	LEAKAGE CURRENT[r				60Hz, lo=100%	According to IE	C60950-1,DENA	N)					
	VOLTAGE[V]		3.3	5	9	12	15	24	36	48			
	CURRENT[A]		30	30	16.7	13	10	6.5	4.3	3.3			
	LINE REGULATION[m]	/]	20max	20max	36max	48max	60max	96max	144max	192max			
	LOAD REGULATION[mV]		40max	40max	100max	100max	120max	150max	240max	240max			
		0 to +50℃ *1	80max	80max	120max	120max	120max	120max	150max	150max			
	RIPPLE[mVp-p]	-10 - 0°C *1	140max	140max	160max	160max	160max	160max	200max	200max			
		0 to +50℃ *1	120max	120max	150max	150max	150max	150max	250max	250max			
UTPUT	RIPPLE NOISE[mVp-p]	-10 - 0°C *1	160max	160max	180max	180max	180max	180max	300max	300max			
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	50max	90max	120max	150max	240max	360max	480max			
		-10 to +50℃	60max	60max	120max	150max	180max	290max	450max	600max			
	DRIFT[mV] *2		20max	20max	36max	48max	60max	96max	144max	192max			
	START-UP TIME[ms]		350typ(ACIN 1	00V, lo=100%)									
	HOLD-UP TIME[ms]		20typ (ACIN 10	0typ (ACIN 100V, lo=100%)									
- F	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 - 3.63	4.00 - 5.50	7.50 - 10.0	10.0 - 13.2	13.2 - 18.0	19.2 - 27.0	28.8 - 39.6	39.0 - 53.0			
	OUTPUT VOLTAGE SETTING[V]			5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	36.00 - 37.44	48.00 - 49.9			
	OVERCURRENT PROT	ECTION	Works over 10	5% of rated curre	ent and recovers	automatically							
ROTECTION	OVERVOLTAGE PROTEC	TION[V]	4.00 - 5.25	5.75 - 7.00	11.5 - 14.0	15.0 - 18.0	20.0 - 25.0	30.0 - 37.0	43.0 - 50.0	58.0 - 65.0			
IRCUIT AND	OPERATING INDICATIO	ON	LED (Green)										
THERS	REMOTE SENSING		Optional (Only -3R3, -5 Option -K)										
	REMOTE ON/OFF		Optional (Required external power source)										
	INPUT-OUTPUT · RC	*3	AC3.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)										
SOLATION	INPUT-FG		AC2.000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)										
	OUTPUT · RC-FG	*3			t = 100mA, DC5			,	27.0 28.8 - 39.6 39 24.96 36.00 - 37.44 48 37.0 43.0 - 50.0 58				
	OPERATING TEMP.,HUMID.AND	ALTITUDE	-10 to +71°C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max										
NVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max										
	VIBRATION			10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis									
	IMPACT		196.1m/s ² (20G), 11ms, once each X, Y and Z axis										
AFETY AND	AGENCY APPROVALS (At only	AC input)	UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN										
IOISE	CONDUCTED NOISE				sB, VCCI-B, CIS	SPR22-B, EN550	11-B, EN55022-	В					
EGULATIONS	HARMONIC ATTENUAT	OR	Complies with	IEC61000-3-2 🕴	:6								
OTHERS	CASE SIZE/WEIGHT			m [1.34 x 3.66 x	6.61 inches] (wit	hout terminal blo	ck) (W×H×D)	560g max (wit	hout cover)				
	COOLING METHOD		Convection										
*1 Measured	d by 20MHz oscilloscope or F	ipple-Nois	e meter(equivalen	t to KEISOKU-GIK		ease contact us at		als for the model wi	th option.				

*1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN :RM101).

Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C. *2

*3 Applicable when Remote ON/OFF(optional) is added. RC is insulated with input, output and FG.

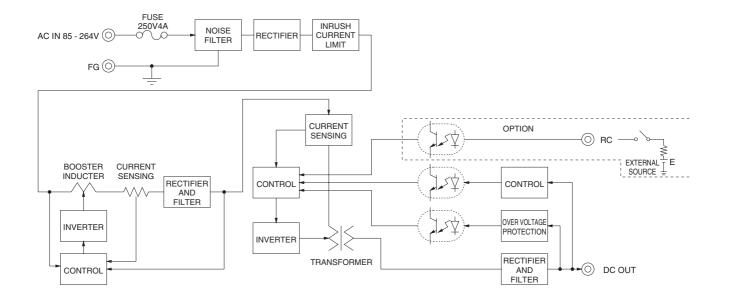
*4 Derating is required.

*6 Please contact us about class C. * Parallel operation with other model is not possible.

Derating is required when operated with cover. A sound may occur from power supply at peak loading. *

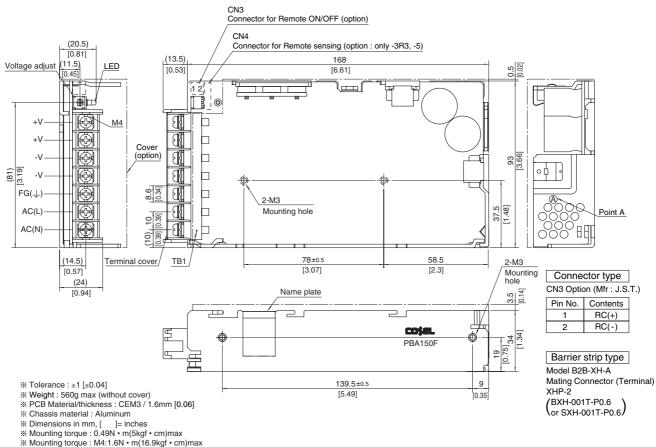
PBA/PBW-14

PBA150F | COŞEL



External view

* External size of option T,J,R,N,N1,V and K is different from standard model and refer to 7 Option of instruction manual for details.



Keep drawing current per pin below 20A for TB1.

* Please connect safety ground to FG terminal on the unit.