

PBBMC Series

15-100 WATTS - AC/DC SINGLE OUTPUT

FEATURES

- For medical equipment
- Internal dual fuses
- Harmonic attenuator (Complies with IEC61000-3-2)
- Universal input (AC85 - 264V)
- Efficiency increased with synchronous rectification technology 60W and 100W models
- Variety of option
- Safety agency approvals
- CE marking



MEDICAL

SPECIFICATIONS

INPUT	
Voltage range	85 – 264V AC
Frequency	47-63 Hz
Inrush current	AC IN 100V 15A typ (I _o =100%) at cold star AC IN 200V 30A typ (I _o =100%) at cold start
Leakage current	0.05/0.10ma max (ACIN 100V / 240V 60Hz, I _o =100%, According to IEC60601-1)
Isolation	Input – output: 4000 VAC Input – case: 2000 VAC Input – case: 500 VAC
Power factor	0.98 typ (I _o =100%) AC IN 100V, 60-100W models 0.85-0.90 typ (I _o =100%) AC IN 200V, 60-100W models

OUTPUT	
Output voltage	See table
Output current	See table
Voltage adjustment	±10% typical
Ripple and noise	120-250mV p-p MAX (0-50°C) See table
Line regulation	20 – 192mV model dependant
Load regulation	0.8% typical
Over voltage protection	Yes
Over current protection	Works over 105% of rating and recovers automatically
Operating indication	LED (Green)
Remote ON/OFF	Optional (-R) 60-100W models consult sales office
Hold-up time	20 ms at AC IN 100V
Temperature regulation efficiency	60-600mV max, (-10-50) model dependant 66-84% typ, AC IN 100V, model dependant 67-86% typ, AC IN 200V, model dependant (See table)

ENVIRONMENTAL	
Operating temperature	-10°C to +70°C derating required (consult sale office)
Storage temperature	-20°C to +75°C
Cooling	Convection all models
Vibration	10-55Hz, 19.6m/ (s2 2G)
Impact	196.1m/s2 (20G), 11ms, once each X, Y and Z axis

STANDARDS AND APPROVALS	
Safety standards	UL60601-1, C-UL (CSA-C22.2 No.601.1), EN60601-1
C-Tick	AS/NZS CISPR11 Group1, Class A
EMC standards	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B
Immunity standards	EN61204-3, EN61000-6-2, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

MECHANICAL	
Dimensions & weight	31X78X103mm (WXHXD) / 230g 31X82X120mm (WXHXD) / 240g 32X82X135mm (WXHXD) / 350g 34X93X168mm (WXHXD) / 560g
Terminations	Selection table models supplied with case cover and Molex pin termination including input/output cable harness. Optional (-T) vertical screw terminal block Optional (-T1) horizontal screw terminal block

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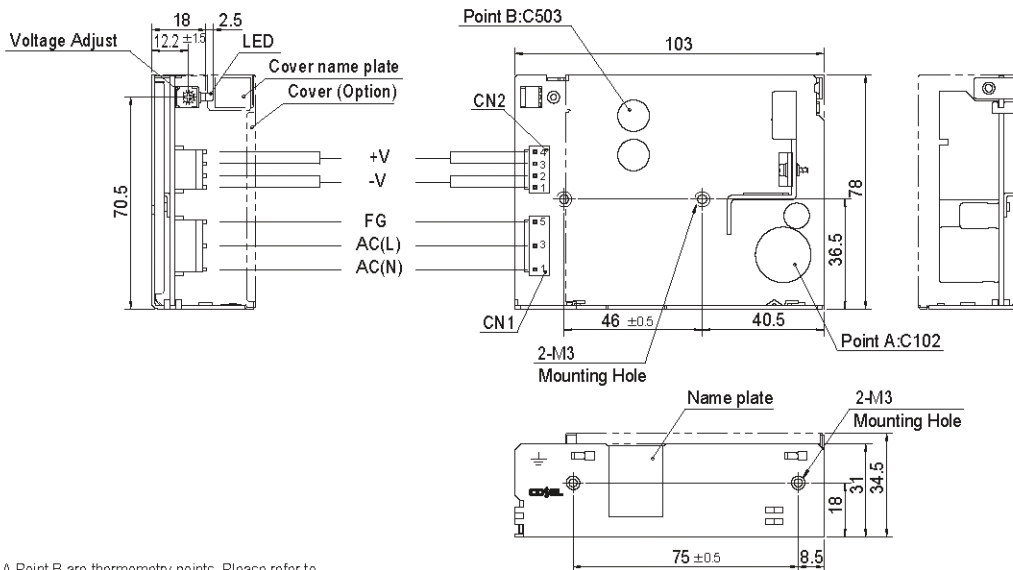
MEDICAL

SELECTION TABLE

MODEL NUMBER	OUTPUT	RIPPLE & NOISE	EFFICIENCY	POWER
PBBMC-3.3F	3.3V 3A	120mVp-p	67%	9.9W
PBBMC-5F	5V 3A	120mVp-p	74%	15W
PBBMC-12F	12V 1.3A	150mVp-p	78%	15.6W
PBBMC-15F	15V 1A	150mVp-p	79%	15W
PBBMC-24F	24V 0.7A	150mVp-p	79%	16.8W
PBBMC-3.3H	3.3V 6A	120mVp-p	69%	19.8W
PBBMC-5H	5V 6A	120mVp-p	74%	30W
PBBMC-12H	12V 2.5A	150mVp-p	78%	30W
PBBMC-15H	15V 2A	150mVp-p	80%	30W
PBBMC-24H	24V 1.3A	150mVp-p	80%	31.2W
PBBMC-3.3K	3.3V 12A	120mVp-p	78%	39.6W
PBBMC-5K	5V 12A	120mVp-p	83%	60W
PBBMC-12K	12V 5A	150mVp-p	82%	60W
PBBMC-15K	15V 4A	150mVp-p	83%	60W
PBBMC-24K	24V 2.5A	150mVp-p	83%	60W
PBBMC-3.3M	3.3V 20A	120mVp-p	78%	66W
PBBMC-5M	5V 20A	120mVp-p	83%	100W
PBBMC-12M	12V 8.5A	150mVp-p	83%	102W
PBBMC-24M	24V 4.5A	150mVp-p	86%	108W
PBBMC-48M	48V 2.1A	250mVp-p	86%	101W

TECHNICAL ILLUSTRATION

PBBMC15



※ Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/O Connector	Mating Connector	Terminal
CN1	1-1123724-3	Chain 1123721-1
		Loose 1318912-1
CN2	1-1123722-4	Chain 1123721-1
		Loose 1318912-1

(Mfr: Tyco Electronics AMP)

※ I/O Connector is Mfr. Tyco Electronics AMP
 ※ Option: -J1: (J.S.T) connector type
 -T: Vertical terminal block type
 -T1: Horizontal terminal block type
 Refer to Instruction Manual 4.

<PIN CONNECTION>

Pin No.	Input	Pin No.	Output
1	AC(N)	1, 2	-V
2		3, 4	+V
3	AC(L)		
4			
5	FG		

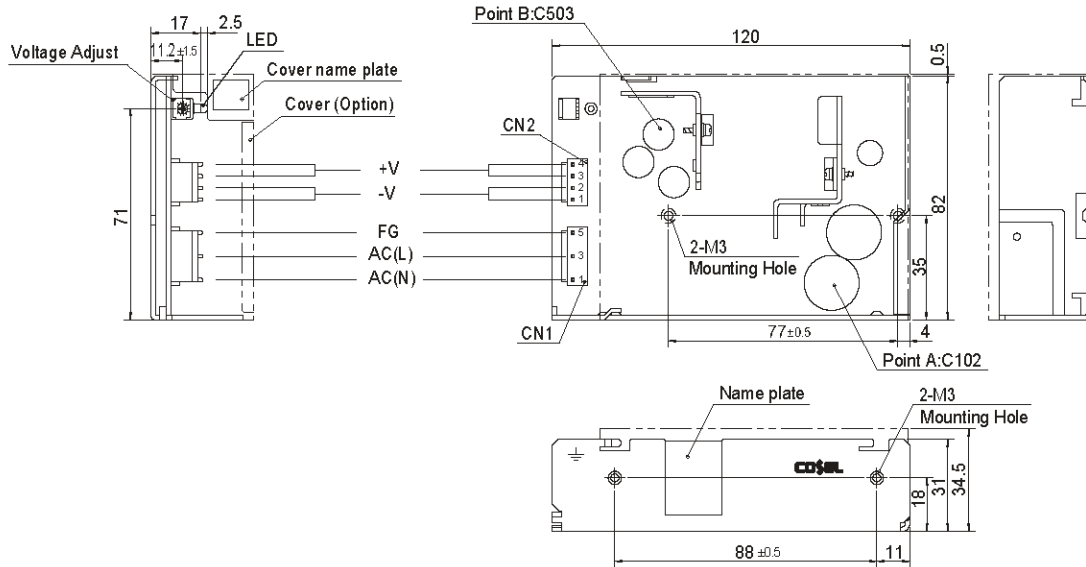
※ Tolerance: ± 1
 ※ Mass: 230g or less (without cover)
 ※ PCB Material/thickness: CEM-3 / 1.6mm
 ※ Chassis material: Electric galvanizing steel board
 ※ Keep drawing current per pin below 5A of CN2.
 ※ Dimensions in mm
 ※ Mounting torque: 0.6N · m (6.3kgf · cm) max
 ※ Please connect safety ground to the unit in 2-M3 holes.

PBBMC Series

15-100 WATTS - AC/DC SINGLE OUTPUT

TECHNICAL ILLUSTRATION

PBBMC30



※ Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/O Connector	Mating Connector	Terminal
CN1	1-1123722-5	Chain 1123721-1
		Loose 1318912-1
CN2	1-1123722-4	Chain 1123721-1
		Loose 1318912-1

(Mfr: Tyco Electronics AMP)

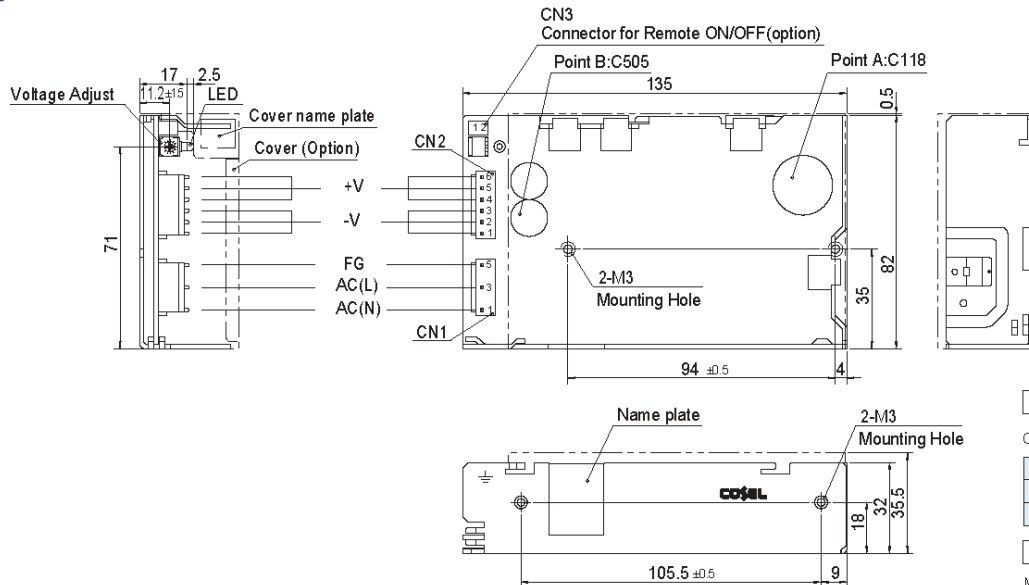
※ I/O Connector is Mfr Tyco Electronics AMP
 ※ Option: -J1 : (J.S.T) connector type
 -T : Vertical terminal block type
 -T1 : Horizontal terminal block type
 Refer to Instruction Manual 4.

<PIN CONNECTION>

CN1		CN2	
Pin No.	Input	Pin No.	Output
1	AC(N)	1, 2	-V
2		3, 4	+V
3	AC(L)		
4			
5	FG		

- ※ Tolerance : ±1
- ※ Mass : 240g or less (without cover)
- ※ PCB Material/thickness : CEM-3 / 1.6mm
- ※ Chassis material : Aluminum
- ※ Keep drawing current per pin below 5A of CN2.
- ※ Dimensions in mm
- ※ Mounting torque : 0.49N · m (5kgf · cm) max
- ※ Please connect safety ground to the unit in 2-M3 holes.

PBBMC60



※ Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/O Connector	Mating Connector	Terminal
CN1	1-1123722-5	Chain 1123721-1
		Loose 1318912-1
CN2	1-1123722-6	Chain 1123721-1
		Loose 1318912-1

(Mfr: Tyco Electronics AMP)

※ I/O Connector is Mfr Tyco Electronics AMP
 ※ Option: -J1 : (J.S.T) connector type
 -T : Vertical terminal block type
 -T1 : Horizontal terminal block type
 Refer to Instruction Manual 4.

<PIN CONNECTION>

CN1		CN2	
Pin No.	Input	Pin No.	Output
1	AC(N)	1 - 3	-V
2		4 - 6	+V
3	AC(L)		
4			
5	FG		

- ※ Tolerance : ±1
- ※ Mass : 350g or less (without cover)
- ※ PCB Material/thickness : CEM-3 / 1.6mm
- ※ Chassis material : Aluminum
- ※ Keep drawing current per pin below 5A of CN2.
- ※ Dimensions in mm
- ※ Mounting torque : 0.49N · m (5kgf · cm) max
- ※ Please connect safety ground to the unit in 2-M3 holes.

Connector type

CN3 Option (Mfr: J.S.T)

PIN No.	Contents
1	RC(+)
2	RC(-)

Barrier strip type

Model B2B-XH-A
 Mating Connector (Terminal)
 XHP-2
 (BXH-001T-P0.6
 or SXH-001T-P0.6)

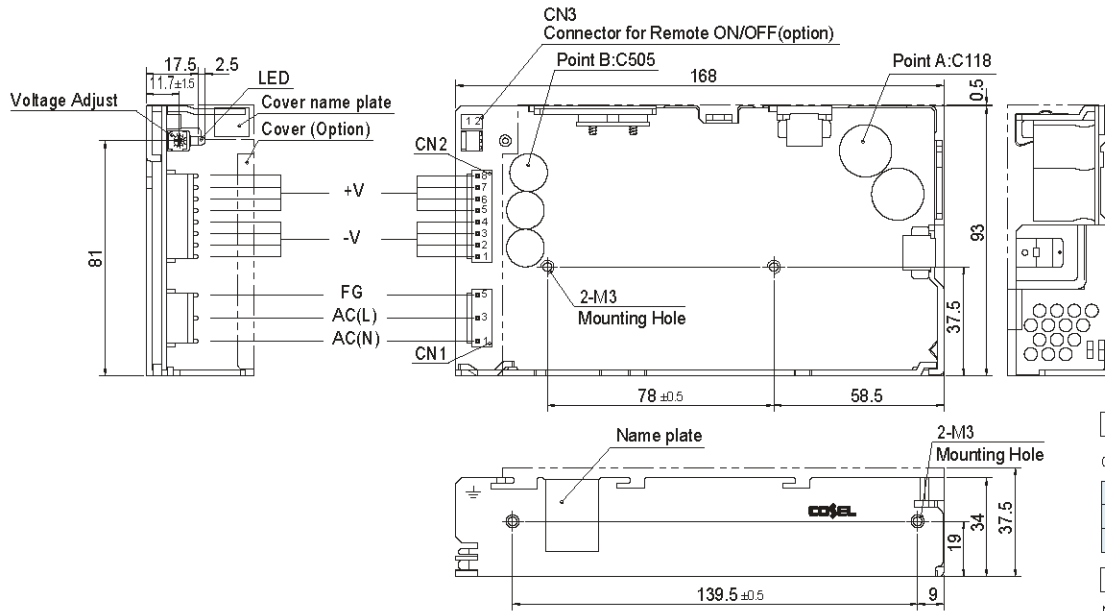
PBBMC Series

15-100 WATTS - AC/DC SINGLE OUTPUT

MEDICAL

TECHNICAL ILLUSTRATION

PBBMC100



※ Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/O Connector	Mating Connector	Terminal
CN1	1-1123724-3	Chain 1123721-1
		Loose 1318912-1
CN2	1-1123723-8	Chain 1123721-1
		Loose 1318912-1

(Mfr: Tyco Electronics AMP)

※ I/O Connector is Mfr. Tyco Electronics AMP
 ※ Option: -J1: (J.S.T) connector type
 -T: Vertical terminal block type
 -T1: Horizontal terminal block type
 Refer to Instruction Manual 4.

<PIN CONNECTION>

CN1		CN2	
Pin No.	Input	Pin No.	Output
1	AC(N)	1 - 4	-V
2			
3	AC(L)	5 - 8	+V
4			
5	FG		

- ※ Tolerance: ±1
- ※ Mass: 560g or less (without cover)
- ※ PCB Material/thickness: CEM-3 / 1.6mm
- ※ Chassis material: Aluminum
- ※ Keep drawing current per pin below 5A of CN2.
- ※ Dimensions in mm
- ※ Mounting torque: 0.49N · m (5kgf · cm) max
- ※ Please connect safety ground to the unit in 2-M3 holes.

Connector type

CN3 Option (Mfr. J.S.T)

PIN No.	Contents
1	RC(+)
2	RC(-)

Barrier strip type

Model B2B-XH-A
 Mating Connector (Terminal)
 XHP-2
 (BXH-001T-P0.6
 or SXH-001T-P0.6)