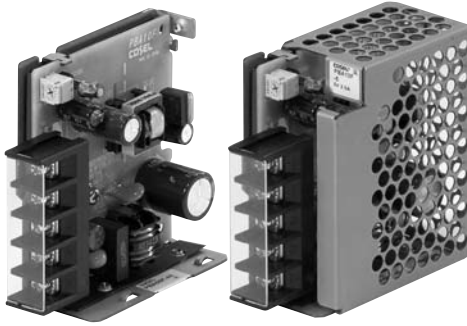


PBA10/15 Series



- Universal Input
- Single Outputs from 3.3 V to 48 V
- Convection-cooled
- Level B Conducted Emissions
- EN61000-3-2, -3 Compliant
- Low Earth Leakage Current Option
- DIN Rail Mount Option

Specification

Input

Input Voltage	• 85-264 VAC (110-370 VDC). For operation below 90 VAC output derates linearly to 80% at 85 VAC. Operation down to 50 VAC possible, contact sales for details.
Input Frequency	• 47 - 440 Hz
Input Current	• 0.3 A at 100 VAC (10 W unit), 0.4 A at 100 VAC (15 W unit)
Inrush Current	• 15 A typical at 100 VAC, 30 A typical at 200 VAC
Earth Leakage Current	• 0.3 mA max at 240 VAC 60Hz
Input Protection	• 2.5 A internal fuse

Output

Output Voltage	• See tables
Output Voltage Trim	• See tables
Initial Set Accuracy	• -0% to +4% max
Minimum Load	• No minimum load required
Start Up Delay	• 200 ms typical
Start Up Rise Time	• 12 ms typical
Hold Up Time	• 20 ms typical
Drift	• 0.4% max
Line Regulation	• 0.4% max
Load Regulation	• See tables
Transient Response	• 2% max. deviation, recovery to within 0.5% in 5 ms for a 50% load change
Ripple & Noise	• See tables
Oversoltage Protection	• See tables, recycle mains to reset
Overtemperature Protection	• Not fitted
Overload Protection	• >105% trip and restart (Hiccup mode), automatic recovery
Short Circuit Protection	• Trip and restart (Hiccup mode)
Temperature Coefficient	• 0.5 %/°C typical

General

Efficiency	• See tables
Isolation	• 3000 VAC Input to Output 2000 VAC Input to Ground 500 VAC Output to Ground
Switching Frequency	• 100 kHz typical
Power Density	• 1.2 W/In ³ max
Signals	• None
MTBF	• 10 W: >1040 kWhrs per EIAJ RCR 9102 15 W: >678 kWhrs per EIAJ RCR 9102

Environmental

Operating Temperature	• -10 °C to +71 °C, see derating curves
Cooling	• Convection-cooled
Operating Humidity	• 20-90% RH, non-condensing
Storage Temperature	• -20 °C to +75 °C
Operating Altitude	• 3000 m max
Shock	• 20 g once on each axis
Vibration	• 10-55 Hz, 2 g 3 minute period, 60 minutes along each axis

EMC & Safety

Emissions	• EN55022 (CISPR22), level B conducted
Harmonic Currents	• EN61000-3-2, class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 4 Perf Criteria A
Radiated Immunity	• EN61000-4-3, level 3 Perf Criteria A
EFT/Burst	• EN61000-4-4, level 4 Perf Criteria A
Surge	• EN61000-4-5, level 4 Perf Criteria A
Conducted Immunity	• EN61000-4-6, level 3 Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30 % 10 ms, 60 % 100 ms, 100 % 5000 ms Perf Criteria A, B, B
Safety Approvals	• UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178

Models and Ratings

Output Power	Output Voltage	Output Current	Output Voltage Trim	Oversvoltage Protection	Ripple & Noise ⁽²⁾ (pk-pk max)	Load Regulation (max)	Efficiency ⁽¹⁾ (Typ)	Model Number
10.0 W	5 VDC	2.00 A	4.5-5.5 VDC	5.75-7.00 VDC	160 mV	40 mV	74%	PBA10F-5
10.8 W	12 VDC	0.90 A	10.0-13.2 VDC	15.0-18.0 VDC	180 mV	100 mV	76%	PBA10F-12
12.0 W	24 VDC	0.50 A	19.2-27.0 VDC	30.0-37.0 VDC	180 mV	150 mV	77%	PBA10F-24
9.9 W	3.3 VDC	3.00 A	2.85-3.60 VDC	4.00-5.25 VDC	160 mV	40 mV	68%	PBA15F-3R3
15.0 W	5 VDC	3.00 A	4.5-5.5 VDC	5.75-7.00 VDC	160 mV	40 mV	75%	PBA15F-5
15.3 W	9 VDC	1.70 A	7.50-10.0 VDC	11.5-14.0 VDC	180 mV	100 mV	77%	PBA15F-9
15.6 W	12 VDC	1.30 A	10.0-13.2 VDC	15.0-18.0 VDC	180 mV	100 mV	78%	PBA15F-12
15.0 W	15 VDC	1.00 A	13.2-18.0 VDC	20.0-25.0 VDC	180 mV	120 mV	80%	PBA15F-15
16.8 W	24 VDC	0.70 A	19.2-27.0 VDC	30.0-37.0 VDC	180 mV	150 mV	78%	PBA15F-24
16.8 W	48 VDC	0.35 A	39.0-53.0 VDC	58.0-65.0 VDC	300 mV	240 mV	78%	PBA15F-48

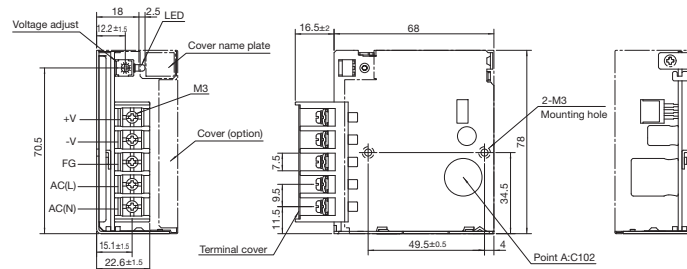
Notes

- Efficiency measured at 200 VAC and full load.
- Ripple & noise measured at 20 MHz bandwidth.

Mechanical Details

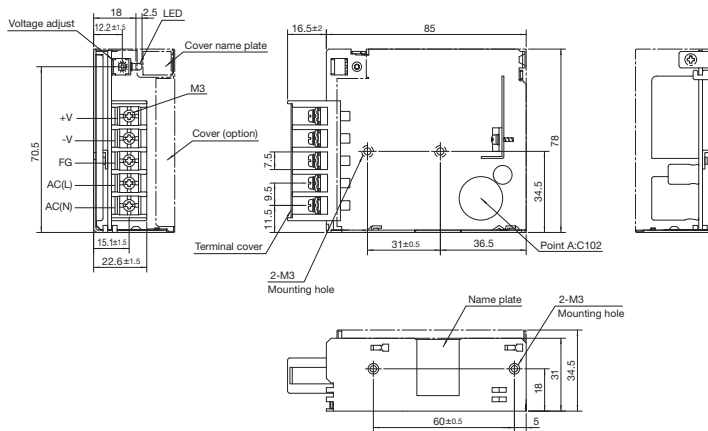
PBA10

Weight: <150g (without cover)



PBA15

Weight: <200g (without cover)



Options

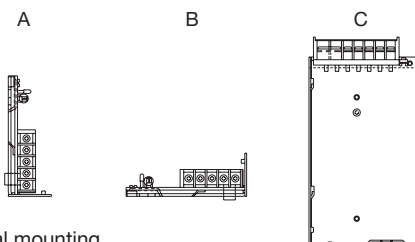
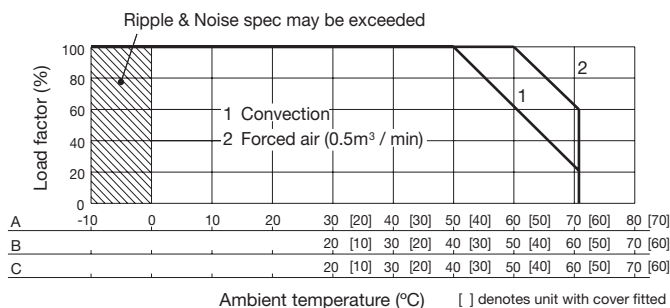
- C : Conformal Coating
- E : Low Leakage current and EMI class A
- G : Low Leakage current
- J : Molex Connectors*
- N : Cover fitted*
- N1 : Din Rail mountable*
- T : Vertical terminal block*
- V : Remote potentiometer*

Contact sales for option details
* These options will alter the dimensions shown

Notes

- All measurements are in mm.
- Tolerance: ±1 mm
- Mounting torque : 0.6 Nm
- Dual output models available contact sales.

Derating Curve



Normal mounting