

PBB20C Series

10-1500 WATTS SINGLE OUTPUT AC/DC GENERAL

FEATURES

- Universal input 85-264VAC
- Small size and light weight
- Harmonic current regulation
- Fan alarm, remote ON/OFF and other function (300W-1500W)
- Parallel operation & current sharing (300W-1500W)
- DC Input all models
- Short circuit, over current protected



SPECIFICATIONS

| INPUT | |
|--------------------|--|
| Voltage | 85~264Vac / 120~370Vdc. |
| Frequency | 47-63Hz. |
| Inrush current | PBB20C-D, F, H, J, L 30A typical PBB20C-M, R, T, X, W, V 40A typical. |
| Isolation | Input – output: 3000Vac Input – case: 2000Vac Output – case: 500Vac |
| OUTPUT | |
| Output voltage | See table. |
| Voltage adjustment | 3.3Vdc: 2.85Vdc to 3.60Vdc |
| 10W-30W: | 5Vdc: 4.5Vdc to 5.5Vdc 9Vdc: 7.5Vdc to 10.0Vdc 12Vdc: 10Vdc to 13.2Vdc 15Vdc: 13.2Vdc to 18.0Vdc 24Vdc: 19.2Vdc to 27.0Vdc 48Vdc: 39.0Vdc to 53.0Vdc |
| 50W-150W: | 3.3Vdc: 2.85Vdc to 3.60Vdc 5Vdc: 4.0Vdc to 5.5Vdc 9Vdc: 7.5Vdc to 10.0Vdc 12Vdc: 10Vdc to 13.2Vdc 15Vdc: 13.2Vdc to 18.0Vdc 24Vdc: 19.2Vdc to 27.0Vdc 36Vdc: 28.8Vdc to 39.0Vdc 48Vdc: 39.0Vdc to 53.0Vdc |
| 300W-1500W: | 3.3Vdc: 2.64Vdc to 3.96Vdc 5Vdc: 3.96Vdc to 6.0Vdc 7.5Vdc: 5.25Vdc to 8.25Vdc 12Vdc: 8.25Vdc to 13.2Vdc 15Vdc: 10.5Vdc to 16.5Vdc 24Vdc: 16.5Vdc to 26.4Vdc 36Vdc: 25.2Vdc to 39.6Vdc 48Vdc: 38.4Vdc to 56.0Vdc |
| Output current | See table. |
| Minimum load | Unit will operate with zero load. |
| Ripple | 3.3-5V output 80mV pk-pk 7.5-48V output 120-150mV pk-pk |
| Line regulation | Typically 0.4% |
| Load regulation | Typically 0.8% |

| | |
|-------------------------|---|
| Temperature drift | 1% over 0°C to 50°C |
| Over Current protection | Works at approximately 105% of rated current with auto recovery |
| Over Voltage protection | Model dependent 115%-140% Vout typical |
| Remote sense | Provided on PBB20C-T to V model |
| Remote inhibit | Provided on PBB20C-T to V model |
| Rise time | Model dependent 600ms max |
| Holdup time | 20ms typical |

| OPERATING | |
|---------------------------------|--|
| Efficiency | Model dependent 70% – 80%. |
| Thermal protection (300W-1500W) | Unit shuts down when temperature exceeds de-rating curve, when FAN stops or when air flow is interrupted |
| DC OK/ FAN alarm (300W-1500W) | Open Collector “Low DC OK” 0.5V “High DC not OK” 5V |
| Indicators | LED for V output |

| ENVIRONMENTAL | |
|-----------------------|---|
| Operating temperature | (10-150W) convection -10°C to 71°C derate 40°C to 71°C with cover, derate 50°C to 71°C no cover. (10-150W) convection -10°C to 71°C derate from 50°C to 71°C with cover, derate 60°C to 71°C no cover. (300-1500W) -20°C to 71°C derate linearly 50°C to 71°C to 50%. |
| Cooling | 50W-150W models convection cooled. 300W-1500W models internal fan cooling. |
| Humidity | 20%-90% non-condensing. |
| Vibration | 10Hz-55Hz at 2G |
| Shock | 20G 11ms X, Y, Z axis |

| STANDARDS | |
|-----------------|--|
| Safety | UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178, Complies with DEN-AN. |
| C-Tick | AS/NZS CISPR11 Group 1 Class A. |
| EMC compliances | EN61204-3, EN61000-6-2 EN61000-4-2,-3,-4,-5,-6,-8,-11 |
| EMI compliances | Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B |
| CE marking | Complies with LVD and EMC Directives |

OPEN FRAME & ENCLOSED

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SELECTION TABLE

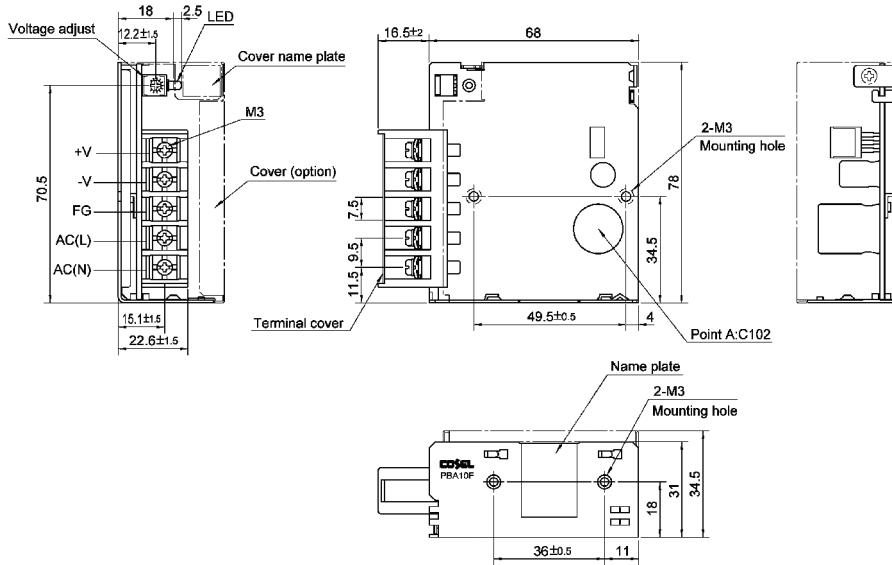
| MODEL NUMBER | OUTPUT | | RIPPLE NOISE | EFFI. | POWER |
|--------------|--------|-------|--------------|-------|-------|
| PBB20C-5D | 5V | 2A | 120mVp-p | 74% | 10W |
| PBB20C-12D | 12V | 0.9A | 150mVp-p | 76% | 10W |
| PBB20C-24D | 24V | 0.5A | 150mVp-p | 77% | 10W |
| PBB20C-3.3F | 3.3V | 3A | 120mVp-p | 68% | 15W |
| PBB20C-5F | 5V | 3A | 120mVp-p | 75% | 15W |
| PBB20C-9F | 9V | 1.7A | 150mVp-p | 77% | 15W |
| PBB20C-12F | 12V | 1.3A | 150mVp-p | 78% | 15W |
| PBB20C-15F | 15V | 1A | 150mVp-p | 80% | 15W |
| PBB20C-24F | 24V | 0.7A | 150mVp-p | 78% | 15W |
| PBB20C-48F | 48V | 0.35A | 250mVp-p | 78% | 15W |
| PBB20C-3.3H | 3.3V | 6A | 120mVp-p | 69% | 30W |
| PBB20C-5H | 5V | 6A | 120mVp-p | 77% | 30W |
| PBB20C-9H | 9V | 3.4A | 150mVp-p | 77% | 30W |
| PBB20C-12H | 12V | 2.5A | 150mVp-p | 78% | 30W |
| PBB20C-15H | 15V | 2A | 150mVp-p | 81% | 30W |
| PBB20C-24H | 24V | 1.3A | 150mVp-p | 81% | 30W |
| PBB20C-48H | 48V | 0.65A | 250mVp-p | 81% | 30W |
| PBB20C-3.3J | 3.3V | 10A | 120mVp-p | 76% | 50W |
| PBB20C-5J | 5V | 10A | 120mVp-p | 82% | 50W |
| PBB20C-9J | 9V | 5.6A | 150mVp-p | 81% | 50W |
| PBB20C-12J | 12V | 4.3A | 150mVp-p | 82% | 50W |
| PBB20C-15J | 15V | 3.5A | 150mVp-p | 83% | 50W |
| PBB20C-24J | 24V | 2.2A | 150mVp-p | 84% | 50W |
| PBB20C-36J | 36V | 1.4A | 250mVp-p | 85% | 50W |
| PBB20C-48J | 48V | 1.1A | 250mVp-p | 85% | 50W |
| PBB20C-3.3L | 3.3V | 15A | 120mVp-p | 78% | 75W |
| PBB20C-5L | 5V | 15A | 120mVp-p | 83% | 75W |
| PBB20C-9L | 9V | 8.4A | 150mVp-p | 82% | 75W |
| PBB20C-12L | 12V | 6.3A | 150mVp-p | 83% | 75W |
| PBB20C-15L | 15V | 5A | 150mVp-p | 84% | 75W |
| PBB20C-24L | 24V | 3.2A | 150mVp-p | 85% | 75W |
| PBB20C-36 | 36V | 2.1A | 250mVp-p | 86% | 75W |
| PBB20C-48L | 48V | 1.6A | 250mVp-p | 86% | 75W |
| PBB20C-3.3M | 3.3V | 20A | 120mVp-p | 79% | 100W |
| PBB20C-5M | 5V | 20A | 120mVp-p | 84% | 100W |
| PBB20C-9M | 9V | 10.5 | 150mVp-p | 82% | 100W |
| PBB20C-12M | 12V | 8.5A | 150mVp-p | 83% | 100W |
| PBB20C-15M | 15V | 7A | 150mVp-p | 86% | 100W |
| PBB20C-24M | 24V | 4.5A | 150mVp-p | 86% | 100W |
| PBB20C-36M | 36V | 2.8A | 250mVp-p | 86% | 100W |
| PBB20C-48M | 48V | 2.1A | 250mVp-p | 86% | 100W |
| PBB20C-3.3R | 3.3V | 30A | 120mVp-p | 82% | 150W |
| PBB20C-5R | 5V | 30A | 120mVp-p | 86% | 150W |
| PBB20C-9R | 9V | 16.7A | 150mVp-p | 85% | 150W |
| PBB20C-12R | 12V | 13A | 150mVp-p | 86% | 150W |
| PBB20C-15R | 15V | 10A | 150mVp-p | 87% | 150W |
| PBB20C-24R | 24V | 6.5A | 150mVp-p | 88% | 150W |
| PBB20C-36R | 36V | 4.3A | 250mVp-p | 88% | 150W |
| PBB20C-48R | 48V | 3.3A | 250mVp-p | 88% | 150W |

| MODEL NUMBER | OUTPUT | | RIPPLE NOISE | EFFI. | POWER |
|--------------|--------|------|--------------|-------|-------|
| PBB20C-3.3T | 3.3V | 60A | 120mVp-p | 71% | 300W |
| PBB20C-5T | 5V | 60A | 120mVp-p | 77% | 300W |
| PBB20C-7.5T | 7.5V | 40A | 150mVp-p | 79% | 300W |
| PBB20C-12T | 12V | 27A | 150mVp-p | 81% | 300W |
| PBB20C-15T | 15V | 22A | 150mVp-p | 81% | 300W |
| PBB20C-24T | 24V | 14A | 150mVp-p | 82% | 300W |
| PBB20C-36T | 36V | 9A | 200mVp-p | 84% | 300W |
| PBB20C-48T | 48V | 7A | 200mVp-p | 82% | 300W |
| PBB20C-3.3X | 3.3V | 120A | 120mVp-p | 72% | 600W |
| PBB20C-5X | 5V | 120A | 120mVp-p | 77% | 600W |
| PBB20C-7.5X | 7.5V | 80A | 150mVp-p | 79% | 600W |
| PBB20C-12X | 12V | 53A | 150mVp-p | 82% | 600W |
| PBB20C-15X | 15V | 43A | 150mVp-p | 82% | 600W |
| PBB20C-24X | 24V | 27A | 150mVp-p | 84% | 600W |
| PBB20C-36X | 36V | 18A | 200mVp-p | 84% | 600W |
| PBB20C-48X | 48V | 13A | 200mVp-p | 83% | 600W |
| PBB20C-3.3W | 3.3V | 200A | 120mVp-p | 76% | 1000W |
| PBB20C-5W | 5V | 200A | 120mVp-p | 81% | 1000W |
| PBB20C-7.5W | 7.5V | 134A | 150mVp-p | 83% | 1000W |
| PBB20C-12W | 12V | 88A | 150mVp-p | 84% | 1000W |
| PBB20C-15W | 15V | 70A | 150mVp-p | 84% | 1000W |
| PBB20C-24W | 24V | 44A | 150mVp-p | 86% | 1000W |
| PBB20C-36W | 36V | 29A | 200mVp-p | 86% | 1000W |
| PBB20C-48W | 48V | 22A | 200mVp-p | 86% | 1000W |
| PBB20C-3.3V | 3.3V | 300A | 120mVp-p | 75% | 1500W |
| PBB20C-5V | 5V | 300A | 120mVp-p | 81% | 1500W |
| PBB20C-7.5V | 7.5V | 200A | 150mVp-p | 83% | 1500W |
| PBB20C-12V | 12V | 125A | 150mVp-p | 84% | 1500W |
| PBB20C-15V | 15V | 100A | 150mVp-p | 86% | 1500W |
| PBB20C-24V | 24V | 70A | 150mVp-p | 87% | 1500W |
| PBB20C-36V | 36V | 47A | 200mVp-p | 87% | 1500W |
| PBB20C-48V | 48V | 35A | 200mVp-p | 87% | 1500W |

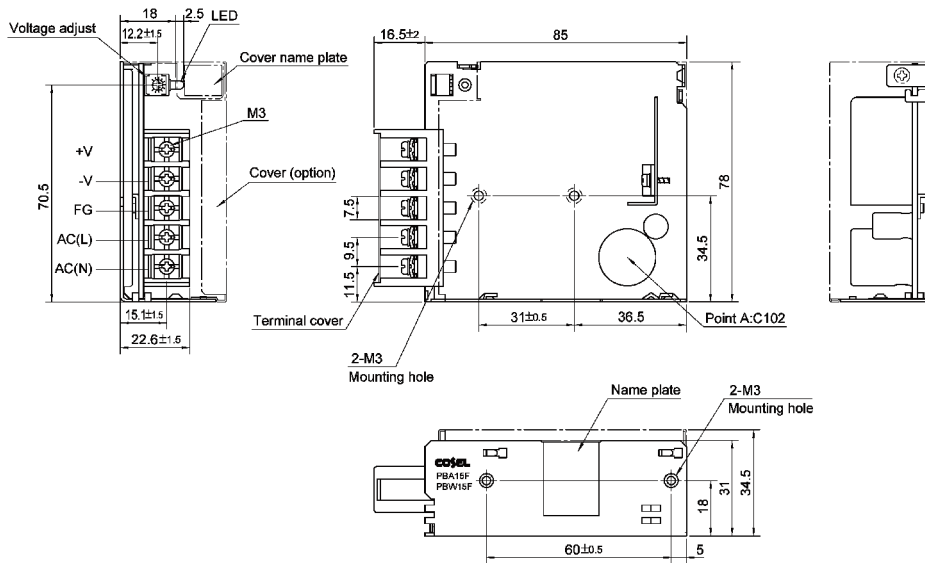
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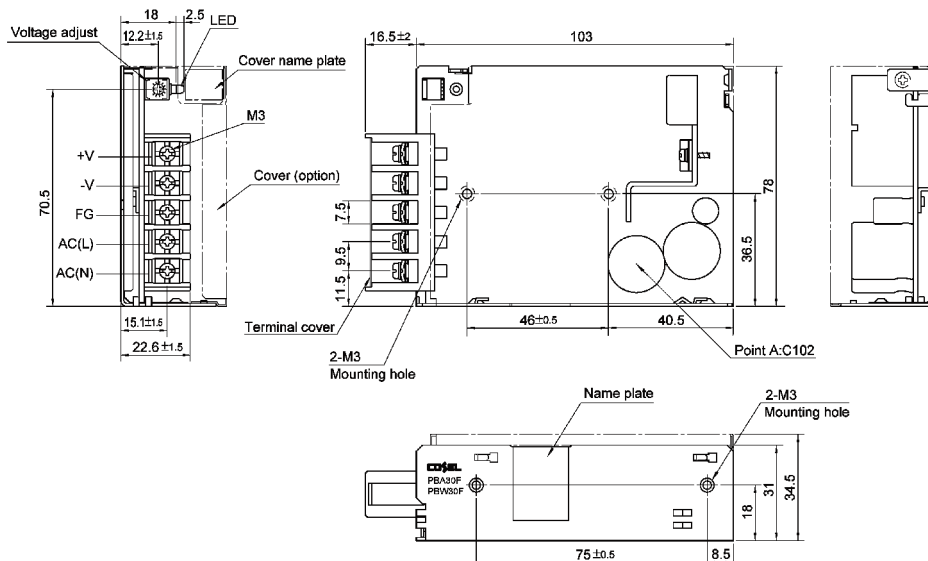
TECHNICAL ILLUSTRATIONS PBB20C-D



PBB20C-F



PBB20C-H



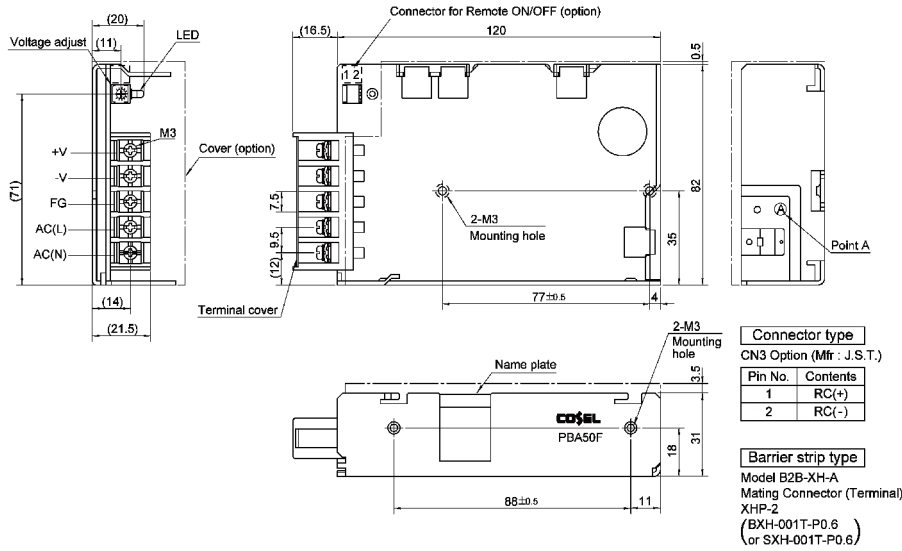
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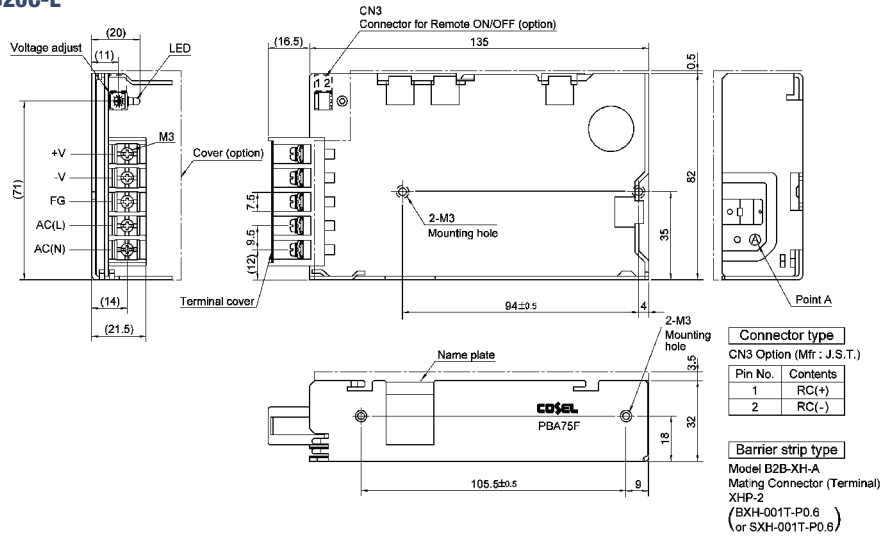
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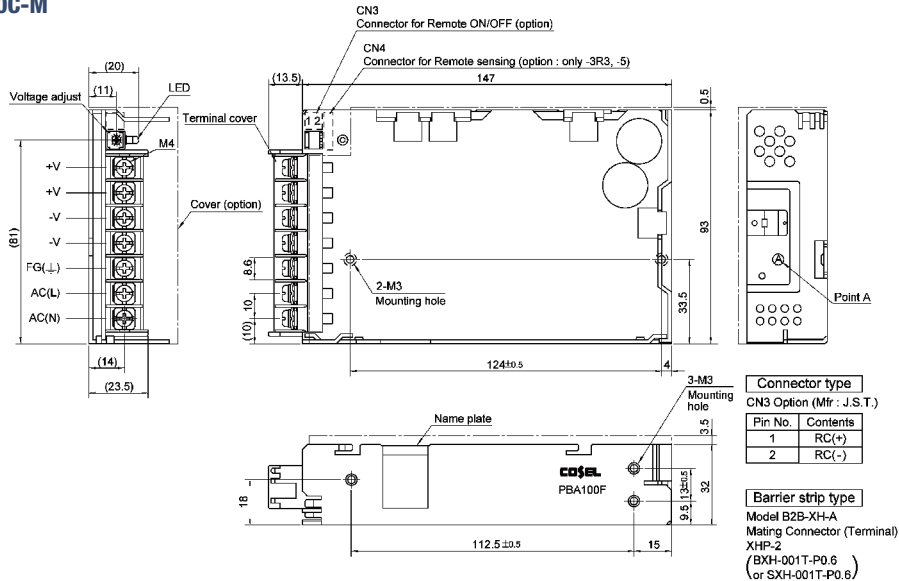
TECHNICAL ILLUSTRATIONS PBB20C-J



PBB20C-L



PBB20C-M

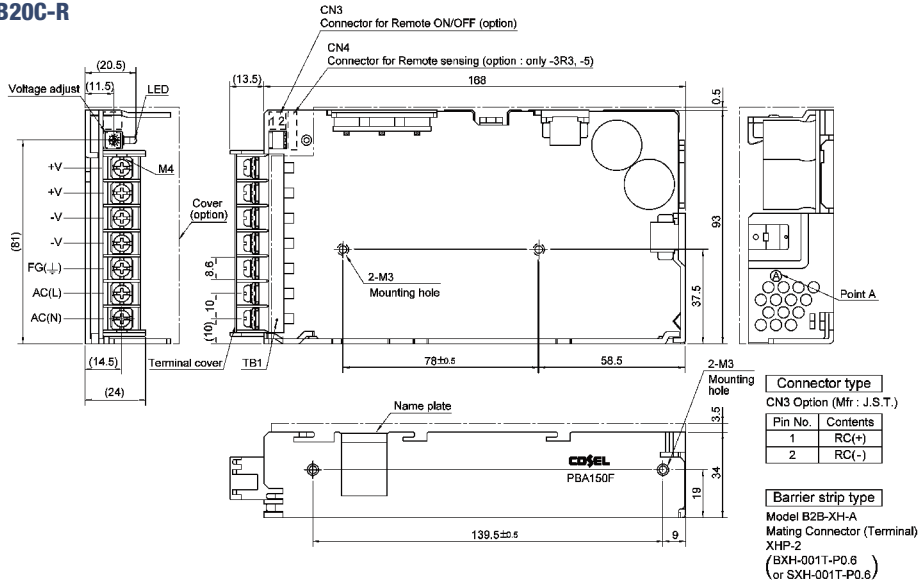


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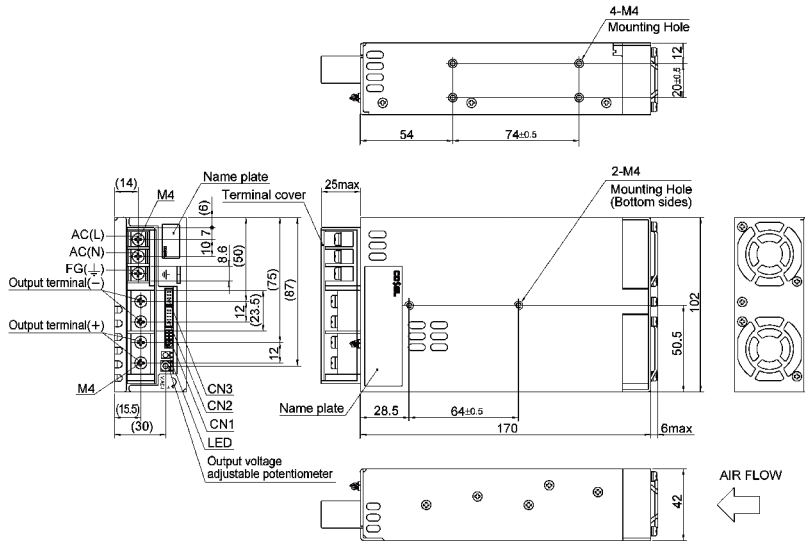
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TECHNICAL ILLUSTRATIONS

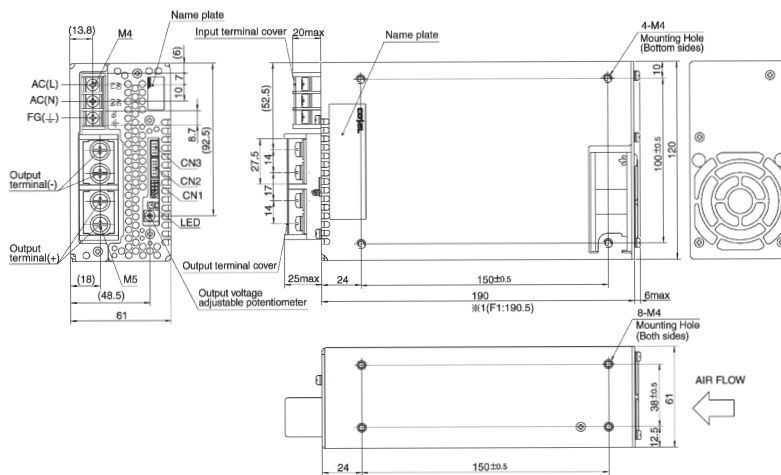
PBB20C-R



PBB20C-T



PBB20C-X



OPEN FRAME & ENCLOSED

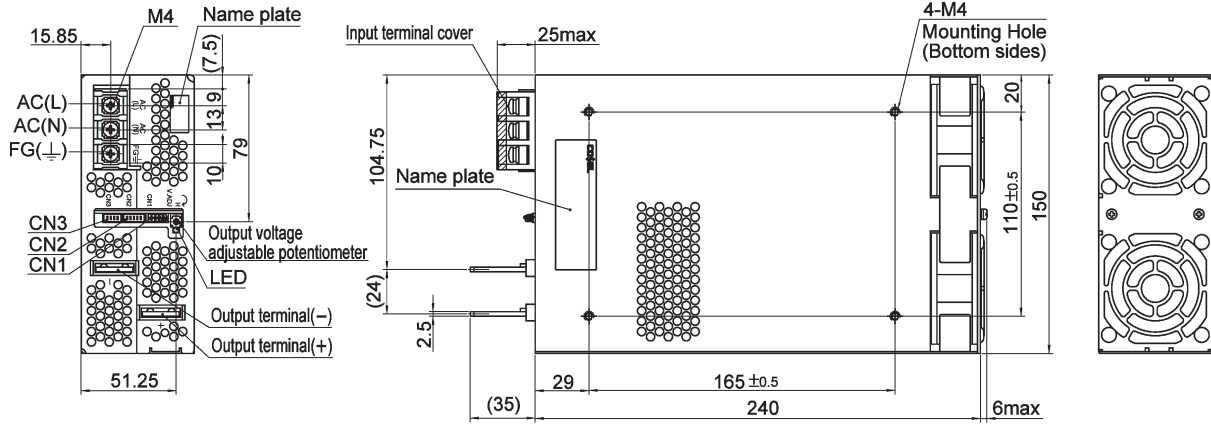
PBB20C Series

10-1500 WATTS - AC/DC SINGLE OUTPUT

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TECHNICAL ILLUSTRATIONS

PBB20C-W



PBB70C-V

