

PBIH Series

DC/DC SINGLE OUTPUT CONVERTER

FEATURES

- 15 - 150W DC/DC Converter
- Enclosed with Screw Terminals
- High Efficiency
- Low Output Ripple
- Good Thermal Margins
- Electrical & Water Utility - Industrial Control - Mining - Radio & Telecommunications - Rail Signalling - Security
- Conformal Coating option for wet areas



SPECIFICATIONS

INPUT	
Input voltage	12VDC (9.2–16) 24VDC (19–32) 48VDC (38–63) 110VDC (85–140)
Inrush current	20A max. for 110V only
OUTPUT	
Output voltage	See Selection Table
Voltage adjustment	±10%, ±5% for PBIH-F
Output current	See Selection Table
Ripple & noise	Output Volts x 1% + 50mV to -100mV pk-pk
Line regulation	0.8% over input range
Load regulation	0.9%, 0%–100% load
Drift	Output V x 0.5% + 15(mV) per 8 hrs after 1 hr warm-up
Rise Time	200ms max. – PBIH-F, M, R 100ms max. – PBIH-G, J (at 25°C)
Holdup time	10ms (only 110V input)
Efficiency	70%–89%
PROTECTION	
Overvoltage protection	O.V. clamp, PBIH-F Output shutdown, PBIH-G, J, M, R – input must be switched off for at least 30S to reactivate
Overcurrent protection	Fold back – PBIH-F Current limiting, PBIH-G, J, M, R (PBIH-R series is PBIH110xxR models are not adjustable)
Insulation resistance	50M Ω (500VDC) Input – Case
Safety isolation	Input - Output: 1500VAC Input - Case: 1500VAC Output - Case: 500VAC Type 110V input Input - Output: 2000VAC Input - Case: 2000VAC Output - Case: 500VAC 1 minute

ENVIRONMENTAL	
Operating temperature	0°C to 70°C ; Derate from 50°C @3.5% /°C
Cooling	Convection cooled
Storage temperature	-20°C to +85°C
Humidity	85%
Shock	30G, PBIH-F, G and J
Vibration	(5Hz–10Hz, 10mm), (10Hz–50Hz) 2G, PBIH-F, G and J
STANDARDS & APPROVALS	
Safety	Designed to UL1950
C-tick	AS/NZS CISPR11 Group 1, Class A
OPERATING	
Remote sense	PBIH-R Series only
Parallel operation	Consult sales office for details
Remote control	PBIH-R Series: Open link: output normal Short link: output off
MECHANICAL	
Connector	Screw Termination
Dimensions & Weight	PBIH-F : 118 x 25 x 80mm, 250g PBIH-G : 135 x 31 x 85mm, 380g PBIH-J : 160 x 323 x 96mm, 410g PBIH-M : 190 x 48 x 97mm, 800g PBIH-R : 217 x 61 x 97mm, 1.4kg
DIN Mounting	See Selection Table View PBIH DIN Mounting Bracket

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SELECTION TABLE

MODEL NUMBER	INPUT VOLTAGE	INPUT RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	OUTPUT POWER
PBIH-1205F	12V	9.2 - 16V	5V	3A	15W
PBIH-1212F	12V	9.2 - 16V	12V	1.2A	15W
PBIH-1215F	12V	9.2 - 16V	15V	1A	15W
PBIH-1224F	12V	9.2 - 16V	24V	0.62A	15W
PBIH-2405F	24V	19 - 32V	5V	3A	15W
PBIH-2412F	24V	19 - 32V	12V	1.2A	15W
PBIH-2415F	24V	19 - 32V	15V	1A	15W
PBIH-2424F	24V	19 - 32V	24V	0.62A	15W
PBIH-4805F	48V	38 - 63V	5V	3A	15W
PBIH-4812F	48V	38 - 63V	12V	1.2A	15W
PBIH-4815F	48V	38 - 63V	15V	1A	15W
PBIH-4824F	48V	38 - 63V	24V	0.62A	15W
PBIH-11005F	110V	85 - 140V	5V	3A	15W
PBIH-11012F	110V	85 - 140V	12V	1.2A	15W
PBIH-11015F	110V	85 - 140V	15V	1A	15W
PBIH-11024F	110V	85 - 140V	24V	0.67A	15W
PBIH-1205G	12V	9.2 - 16V	5V	5A	25W
PBIH-1212G	12V	9.2 - 16V	12V	2.1A	25W
PBIH-1215G	12V	9.2 - 16V	15V	1.7A	25W
PBIH-1224G	12V	9.2 - 16V	24V	1.1A	25W
PBIH-1248G	12V	9.2 - 16V	48V	0.5A	25W
PBIH-2405G	24V	19 - 32V	5V	5A	25W
PBIH-2412G	24V	19 - 32V	12V	2.1A	25W
PBIH-2415G	24V	19 - 32V	15V	1.7A	25W
PBIH-2424G	24V	19 - 32V	24V	1.1A	25W
PBIH-2448G	24V	19 - 32V	48V	0.5A	25W
PBIH-4805G	48V	38 - 63V	5V	5A	25W
PBIH-4812G	48V	38 - 63V	12V	2.1A	25W
PBIH-4815G	48V	38 - 63V	15V	1.7A	25W
PBIH-4824G	48V	38 - 63V	24V	1.1A	25W
PBIH-4848G	48V	38 - 63V	48V	0.5A	25W
PBIH-11005G	110V	85 - 140V	5V	5A	25W
PBIH-11012G	110V	85 - 140V	12V	2.1A	25W
PBIH-11015G	110V	85 - 140V	15V	1.7A	25W
PBIH-11024G	110V	85-140V	24V	1.1A	25W
PBIH-11048G	110V	85 - 140V	48V	0.5A	25W
PBIH-1205J	12V	9.2 - 16V	5V	8A	40W
PBIH-1212J	12V	9.2 - 16V	12V	3.3A	40W
PBIH-1215J	12V	9.2 - 16V	15V	2.7A	40W
PBIH-1224J	12V	9.2 - 16V	24V	1.7A	40W
PBIH-1248J	12V	9.2 - 16V	48V	0.8A	40W
PBIH-2405J	24V	19 - 32V	5V	10A	50W
PBIH-2412J	24V	19 - 32V	12V	4.3A	50W
PBIH-2415J	24V	19 - 32V	15V	3.4A	50W
PBIH-2424J	24V	19 - 32V	24V	2.5A	50W
PBIH-2448J	24V	19 - 32V	48V	1A	50W

Table continues to next page.

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MODEL NUMBER	INPUT VOLTAGE	INPUT RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	OUTPUT POWER
PBIH-4805J	48V	38 - 63V	5V	10A	50W
PBIH-4812J	48V	38 - 63V	12V	4.3A	50W
PBIH-4815J	48V	38 - 63V	15V	3.4A	50W
PBIH-4824J	48V	38 - 63V	24V	2.5A	50W
PBIH-4848J	48V	38 - 63V	48V	1A	50W
PBIH-11005J	110V	85 - 140V	5V	10A	50W
PBIH-11012J	110V	85 - 140V	12V	4.3A	50W
PBIH-11015J	110V	85 - 140V	15V	3.4A	50W
PBIH-11024J	110V	85 - 140V	24V	2.5A	50W
PBIH-11048J	110V	85 - 140V	48V	1A	50W
PBIH-1205M	12V	9.2 - 16V	5V	18A	100W
PBIH-1212M	12V	9.2 - 16V	12V	9A	100W
PBIH-1215M	12V	9.2 - 16V	15V	7A	100W
PBIH-1224M	12V	9.2 - 16V	24V	4.5A	100W
PBIH-1248M	12V	9.2 - 16V	48V	2A	100W
PBIH-2405M	24V	19 - 32V	5V	20A	100W
PBIH-2412M	24V	19 - 32V	12V	9A	100W
PBIH-2415M	24V	19 - 32V	15V	7A	100W
PBIH-2424M	24V	19 - 32V	24V	5A	100W
PBIH-2448M	24V	19 - 32V	48V	2A	100W
PBIH-4805M	48V	38 - 63V	5V	20A	100W
PBIH-4812M	48V	38 - 63V	12V	9A	100W
PBIH-4815M	48V	38 - 63V	15V	7A	100W
PBIH-4824M	48V	38 - 63V	24V	5A	100W
PBIH-4848M	48V	38 - 63V	48V	2A	100W
PBIH-11005M	110V	85 - 140V	5V	20A	100W
PBIH-11012M	110V	85 - 140V	12V	9A	100W
PBIH-11015M	110V	85 - 140V	15V	7A	100W
PBIH-11024M	110V	85 - 140V	24V	5A	100W
PBIH-11048M	110V	85 - 140V	48V	2A	100W
PBIH-1205R	12V	9.2 - 16V	5V	27A	150W
PBIH-1212R	12V	9.2 - 16V	12V	13A	150W
PBIH-1215R	12V	9.2 - 16V	15V	10A	150W
PBIH-1224R	12V	9.2 - 16V	24V	6.5A	150W
PBIH-1248R	12V	9.2 - 16V	48V	3.3A	150W
PBIH-2405R	24V	19 - 32V	5V	30A	150W
PBIH-2412R	24V	19 - 32V	12V	14A	150W
PBIH-2415R	24V	19 - 32V	15V	11A	150W
PBIH-2424R	24V	19 - 32V	24V	7A	150W
PBIH-2448R	24V	19 - 32V	48V	3.5A	150W
PBIH-4805R	48V	38 - 63V	5V	30A	150W
PBIH-4812R	48V	38 - 63V	12V	14A	150W
PBIH-4815R	48V	38 - 63V	15V	11A	150W
PBIH-4824R	48V	38 - 63V	24V	7A	150W
PBIH-4848R	48V	38 - 63V	48V	3.5A	150W
PBIH-11005R	110V	85 - 140V	5V	30A	150W
PBIH-11012R	110V	85 - 140V	12V	14A	150W
PBIH-11015R	110V	85 - 140V	15V	11A	150W
PBIH-11024R	110V	85 - 140V	24V	7A	150W
PBIH-11048R	110V	85 - 140V	48V	3.5A	150W

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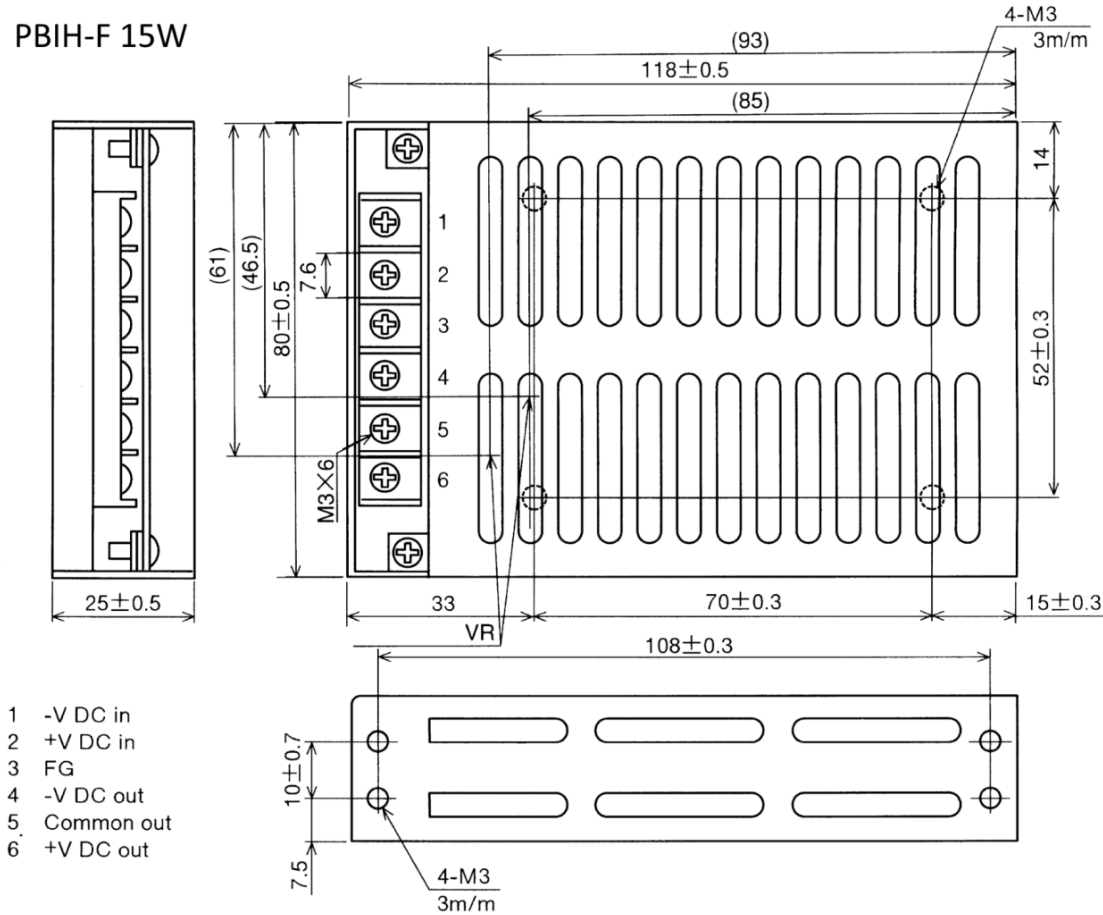
SELECTION TABLE

BRACKET	MODEL SUITED	POWER	BRACKET DIMENSIONS
FD-B	PBIH-xxxxF	15W	128x86x50mm
FD-A	PBIH-xxxxG	25W	178x86x50mm
FD-A	PBIH-xxxxJ	50W	178x86x50mm
PB-DIN-H-01	PBIH-xxxxM	100W	197x86x62mm
PB-DIN-H-02	PBIH-xxxxR	150W	225x86x88mm

Note: Customer to drill mounting holes in bracket to fit converter.

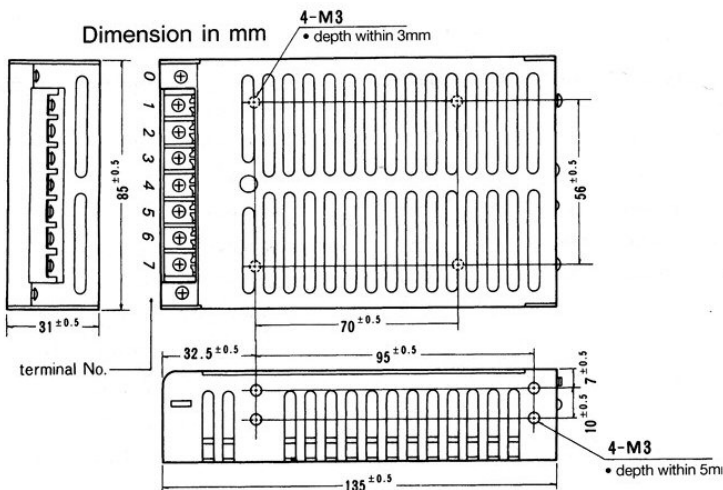
TECHNICAL ILLUSTRATIONS

PBIH-F 15W



- 1 -V DC in
- 2 +V DC in
- 3 FG
- 4 -V DC out
- 5 Common out
- 6 +V DC out

PBIH-G 25W



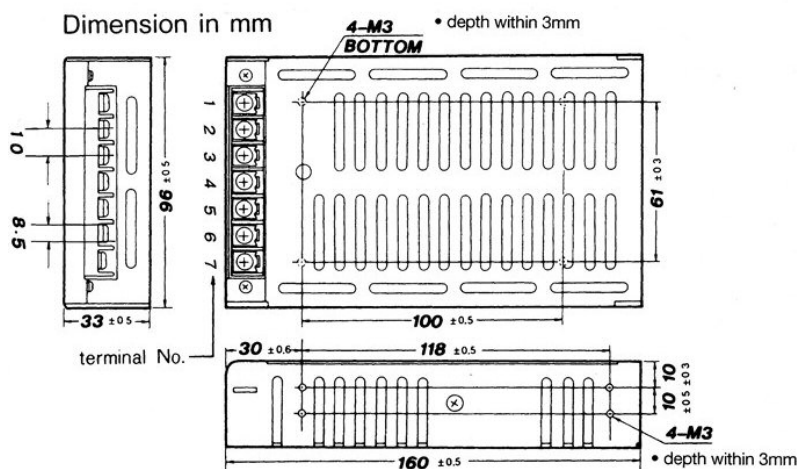
Terminal	Connection
0	FG
1	DC +V in
2	0V in
3	LFG
4	NO
5	NO
6	-V out
7	+V out

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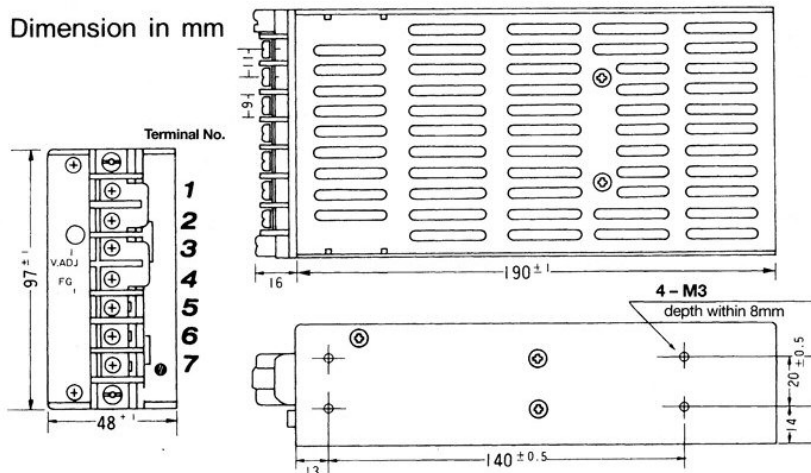
TECHNICAL ILLUSTRATIONS

PBIH-J 50W



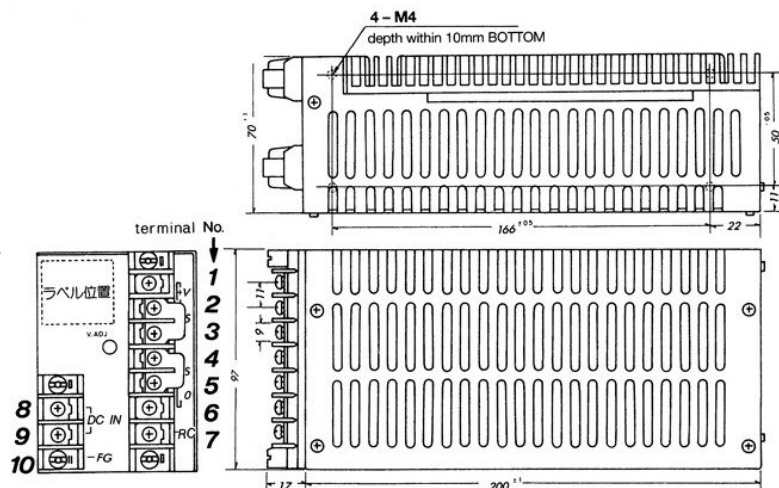
Terminal	Connection
1	FG
2	DC +V in
3	0V in
4	LFG
5	-V out
6	+V out
7	NC

PBIH-M 100W



Terminal	Connection
1	+V out
2	+V out
3	-V out
4	-V out
5	FG
6	-V in
7	+V in

PBIH-R 150W



Terminal	Connection
1, 2	+V out
3	+S
4	-S
5, 6	-V out
7	Remote Control
8	DC +V in
9	DC 0V in
10	FG