

COMPACT LOW-NOISE DC POWER SUPPLY (CV·CC)

PMC/PMC-A series

NOTE

- *Specifications, design and so forth are subject to change without prior notice to improve the quality.
- *Product names and prices are subject to change and production may be discontinued when necessary.
- *Product names, company names and brand names contained in this catalogue represent the respective registered trade name or trade mark.
- *All products contained in this catalogue are equipment and devices that are premised on use under the supervision of qualified personnel, and are not designed or produced for home-use or use by general consumers.
- *Colors, textures and so forth of photographs shown in this catalogue may differ from actual products due to a limited fidelity in printing.
- *Although every effort has been made to provide the information as accurate as possible for this catalogue, certain details have unavoidably been omitted due to limitations in space.
- *If you find any misprints or errors in this catalogue, it would be appreciated if you would inform us.
- *Please contact our distributors to confirm specifications, price, accessories or anything that may be unclear when placing an order or concluding a purchasing agreement.



KIKUSUI ELECTRONICS CORP.

1-1-3, HIGASHIYAMATA, TSUZUKI-KU,
YOKOHAMA, 224-0023, JAPAN

TEL: (045)593-7570, Fax: (045)593-7571, Telex: J36475 KECJPN

PMC/PMC-A series

COMPACT LOW-NOISE DC POWER SUPPLY (CV-CC)



Both the PMC and PMC-A Series Deliver High Reliability and Sophisticated Features in a Compact Body

Outline

The PMC and PMC-A series are compact, highperformance, constant voltage, constant current series regulated DC power supplies. The adoption of series regulated design realizes a highly stable output with a low level of output noise. LED digital meter which is legible even in dimly lit location, and electronic switches which eliminate relay chattering, are also featured in this series. In addition, members of the PMC-A series are equipped with various remote control functions, and when combined with any member of our PIA3200 series, allow compatibility with GPIB systems. These compact, general-purpose power supplies feature outstanding cost and performance that allow them to accommodate a diverse range of operations, from research and development applications to aging and system power supplies used in production and service applications.

By combining a member of the PMC-A series with our PIA3200 power supply controllers, the following functions can be controlled via GPIB.

- Setting of output voltage and output current
- Readout of output current with an optional shunt unit.



PMC/PMC-A series

COMPACT LOW-NOISE DC POWER SUPPLY (CV-CC)

Features



PMC-A Series

Equipped with a full range of functions to accommodate automated testing and other applications.

Features:

- Simultaneous digital display of voltage and current values
- GPIB control by combining with the PIA3200 series
- External analog remote control of voltage and current
- Front Panel Output ON/OFF switch (also operated by remote control)
- 10-turn potentiometer for setting of voltage and current
- Remote sensing function to compensate for voltage drops caused by resistance of wires to load. (Only models of which rated output voltage is 18V or 35V)

Model	CV(V)	CC(A)
PMC18-1A	0 to 18	0 to 1
PMC18-2A		0 to 2
PMC18-3A		0 to 3
PMC18-5A		0 to 5
PMC35-0.5A	0 to 35	0 to 0.5
PMC35-1A		0 to 1
PMC35-2A		0 to 2
PMC35-3A		0 to 3
PMC70-1A	0 to 70	0 to 1
PMC110-0.6A	0 to 110	0 to 0.6
PMC160-0.4A	0 to 160	0 to 0.4
PMC250-0.25A	0 to 250	0 to 0.25
PMC350-0.2A	0 to 350	0 to 0.2
PMC500-0.1A	0 to 500	0 to 0.1

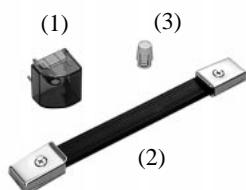
PMC Series

Outstanding cost performance by providing all necessary functions in a simple and efficient package.

Features:

- Front panel output ON/OFF switch
- 10-turn potentiometer for setting of voltage (single-turn potentiometer for setting of current)
- Reasonably priced

Model	CV(V)	CC(A)
PMC18-2	0 to 18	0 to 2
PMC18-3		0 to 3
PMC18-5		0 to 5
PMC35-1	0 to 35	0 to 1
PMC35-2		0 to 2
PMC35-3		0 to 3



User Options

- (1) Output Terminal Cover: OTC01-PMC*¹
- (2) Carrying Handle: CH01-PMC*²
- (3) Guard Cap: GP01-PMC

*1: Available for models output rating are 70V and more

*2: Available for type II models

PMC/PMC-A series

COMPACT LOW-NOISE DC POWER SUPPLY (CV-CC)

Features

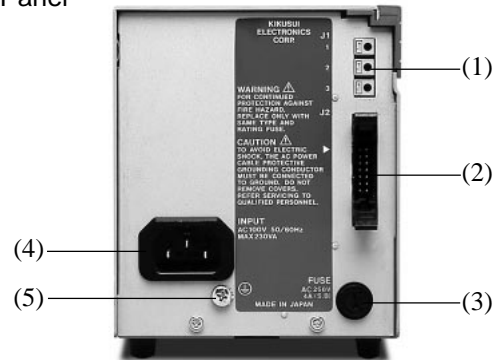
PMC and PMC-A Series Common Features

- Capacity can be expanded by one-control parallel operation
- Green LED digital meter that is easily visible even in dimly lit locations
- Improved, operator safety by enclosing the heat sink within the case
- Various adjustment dials and switches are centralized on the sub-front panel for ease of operation and ease of maintenance
- Overvoltage protector (OVP) provided as standard equipment



Various adjustment dials and remote control setting switches are located on the sub-front panel.

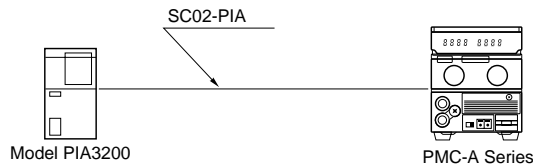
Rear Panel



- (1) One-control parallel operation input and output terminals
- (2) Analog remote control terminal (PMC-A Series only)
- (3) AC input fuse holder
- (4) AC input terminal
- (5) Ground terminal

PIA 3200 Controller and PMC-A Series Power Supplies

(1) Basic System



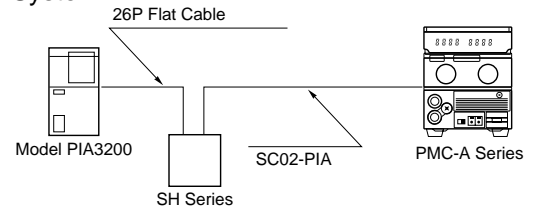
- The PIA3200 Controller can be connected directly to the control terminal board on the back of the PMC-A series power supplies.

[Required System Components]

- at control of two power supplies
- 1 : Power Supply Controller — PIA3200
 - 2 : DC Power Supply — PMC-A
 - 3 : 2-core shielded cable — SC02-PIA

1
2
2

(2) Full System



- Combining of a shunt unit allows a system to be composed that is equipped with the listener/talker function.

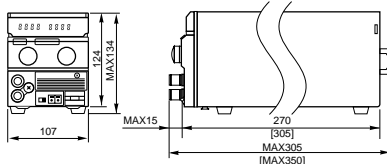
[Required System Components]

- at control of two power supplies
- 1 : Power Supply Controller — PIA3200
 - 2 : DC Power Supply — PMC-A
 - 3 : Shunt Unit — SH Series
 - 4 : 26P Flat Cable (SH Series Option)
 - 5 : 2-core shielded cable — SC02-PIA

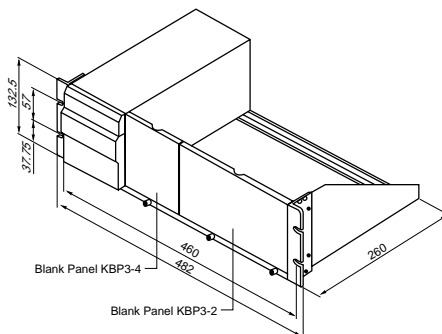
1
2
2
2
2

Dimensional Drawings and Rack Mounting Options

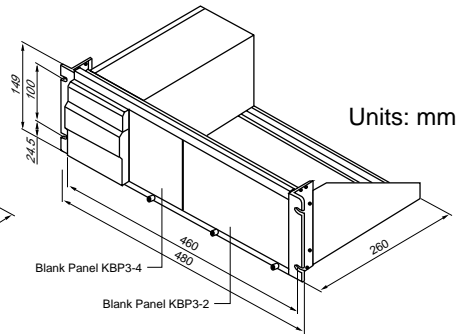
Dimensional Drawings [] for Type II



KRA3 Rack mounting adapter for inch type racks



KRA150 Rack mounting adapter for metric type racks



Units: mm

PMC/PMC-A series

COMPACT LOW-NOISE DC POWER SUPPLY (CV-CC)

Specifications

*Specifications are based on the conditions indicated as follow unless otherwise specified: Resistance load, output grounded, remote sensing off, warm-up period of 30 minutes.

- Output Voltage** Continuously Variable by 10-turn potentiometer
 Output voltage temperature coefficient:
 100 ppm/°C(typ)
 Transient response time: 50μs
- Output Current** Continuously variable by 10-turn potentiometer (PMC-A series)
 Continuously variable by single-turn potentiometer(PMC series)
 Output current temperature coefficient:
 200 ppm/°C(typ)
- Meter Display Error** (Green LED)
 - **Output Voltage** Display error ±(0.5% rdg +2 digits) at 23°C ±5°C (typ)
 Temperature coefficient: 300 ppm/°C(typ)
 - **Output Current** Display error ±(1% rdg +5 digits) at 23°C ±5°C (typ)
 Temperature coefficient: 400 ppm/°C(typ)
- Voltmeter Display(Fixed Range)**

Rated Output Voltage	Max.Digit Displayed
18V	19.99
35V, 70V, 110V, 160V	199.9
250V, 350V, 500V	999
- Ammeter Display(Fixed Range)**

Rated Output Ampere	Max.Digit Displayed
less than 1A	0.999
more than 1A	9.99
- Isolation Voltage** Models of which rated output voltage is 18V and 35V: ±250V
 from Ground Other Models: ±500V
- Protective Circuitry** Output overvoltage protection(OVP)
 Setting range: 5% to 105% of rating
 Input fuse / temperature fuse(130°C)
- Functions** (PMC-A series only) Output voltage remote control
 By external voltage: 0 to 10V
 By external resistance: 0 to 10kΩ
 Output current remote control
 By external voltage: 0 to 10V
 By external resistance: 0 to 10kΩ
 Output ON/OFF control(Output off by external make contact)
 Remote sensing(Only models of which rated output voltage is 18V and 35V)
- Operation** Series operation*¹
 Parallel operation and one control parallel operation are available with same model.*²
- Options** Rack mounting adapters
 JIS standards:KRA150
 EIA standards:KRA3
 Power supply controller: model PIA3200
 2-core shielded cable for connecting PMC-A series with model PIA3200: SC02-PIA
 Shunt unit: model SH-10
- Polarity** Positive or negative ground
- Ambient Temperature** 0 to 40°C(with no condensation of dew)
- Ambient Humidity** 10 to 80% RH(with no condensation of dew)
- Cooling Method** Conventional air cooling

Specifications	Output		Ripple		Line Regulation		Load Regulation		Power Source* ³	Power Consumption	Type	Weight
	CV	CC	CV	CC	CV	CC	CV	CC	AC	Approx.	I	Approx. kg
	V	A	mVrms	mArms	mV	mA	mV	mA	V±10%	VA		
Model												
PMC18-1A	0 to 18	0 to 1	0.5	1	1	10	2	5	100	50	I	3.5
PMC18-2A	0 to 18	0 to 2	0.5	1	1	10	2	5	100	100	I	4.0
PMC18-3A	0 to 18	0 to 3	0.5	1	1	10	4	5	100	160	I	5.0
PMC18-5A	0 to 18	0 to 5	0.5	2	1	5	5	10	100	230	II	6.0
PMC35-0.5A	0 to 35	0 to 0.5	0.5	1	3	10	3	5	100	50	I	3.5
PMC35-1A	0 to 35	0 to 1	0.5	1	3	10	3	5	100	95	I	4.0
PMC35-2A	0 to 35	0 to 2	0.5	1	3	10	3	5	100	190	I	5.0
PMC35-3A	0 to 35	0 to 3	0.5	1	3	5	4	10	100	240	II	6.0
PMC70-1A	0 to 70	0 to 1	1	1	5	2	5	10	100	150	II	5.5
PMC110-0.6A	0 to 110	0 to 0.6	2	1	7	2	7	5	100	150	II	5.5
PMC160-0.4A	0 to 160	0 to 0.4	3	1	10	2	10	5	100	150	II	5.5
PMC250-0.25A	0 to 250	0 to 0.25	3	1	15	1	15	5	100	150	II	5.5
PMC350-0.2A	0 to 350	0 to 0.2	5	1	25	1	25	5	100	150	II	5.5
PMC500-0.1A	0 to 500	0 to 0.1	10	1	30	10	30	3	100	110	II	5.0
PMC18-2	0 to 18	0 to 2	0.5	1	1	10	2	5	100	100	I	4.0
PMC18-3	0 to 18	0 to 3	0.5	1	1	10	4	5	100	160	I	5.0
PMC18-5	0 to 18	0 to 5	0.5	2	1	5	5	10	100	230	II	6.0
PMC35-1	0 to 35	0 to 1	0.5	1	3	10	3	5	100	95	I	4.0
PMC35-2	0 to 35	0 to 2	0.5	1	3	10	3	5	100	190	I	5.0
PMC35-3	0 to 35	0 to 3	0.5	1	3	5	4	10	100	240	II	6.0

*1:The number of Power Supplies that can be connected in series is limited by the voltage rating with isolation voltage. For example, for 35V type 250/35=7.14...up to seven units can be connected.

*2:The number of Power Supplies that can be connected in parallel is limited up to four units including the master power supply.

*3:POWER SOURCE:(1)105V to 130V (2)180V to 220V (3)195V to 239V (4) 210V to 250V are available at request.