

COSEL

Unit type

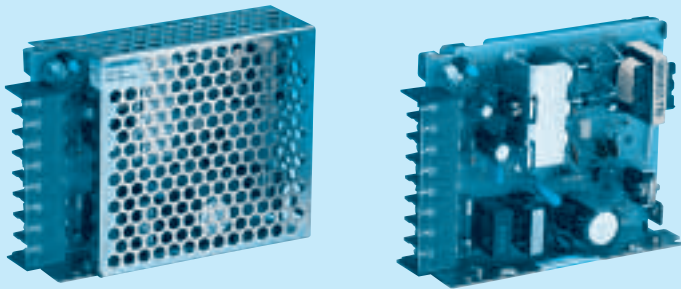
RMB15A

Ordering information

RMB 15A -1 -□

① ② ③ ④

RoHS



- ①Series name
②Output wattage
③Output voltage combination
④Optional
J :Connector type
N :with Cover

RMB

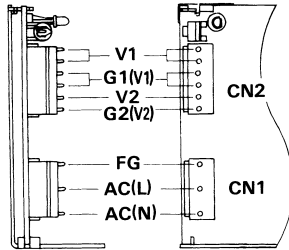
MODEL		RMB15A-1	RMB15A-2
DC OUTPUT	V1	+5V 0.8A	+5V 0.8A
	V2	+12V 1.0(Peak 1.3)A	+24V 0.5(Peak 0.65)A

SPECIFICATIONS

	MODEL		RMB15A-1	RMB15A-2		
INPUT	VOLTAGE[V]		AC85 - 132 1 ϕ or DC110 - 170			
	CURRENT[A]	ACIN 100V	0.45typ (Io=100%)			
	FREQUENCY[Hz]		47 - 440 or DC			
	EFFICIENCY[%]	ACIN 100V	68typ (Io=100%)			
	INRUSH CURRENT[A]	ACIN 100V	20typ (Io=100%) (At cold start)			
OUTPUT	VOLTAGE[V]		+5	+12	+5	+24
	CURRENT[A]		0 - 0.8	0 - 1.0 (Peak 1.3)	0 - 0.8	0 - 0.5 (Peak 0.65)
	LINE REGULATION[mV]		20max	48max	20max	96max
	LOAD REGULATION[mV]		150max	100max	150max	150max
	RIPPLE[mVp-p]	0 to +50 $^{\circ}$ C	100max	120max	100max	120max
		-10 - 0 $^{\circ}$ C	140max	160max	140max	160max
	RIPPLE NOISE[mVp-p]	0 to +50 $^{\circ}$ C	120max	150max	120max	150max
		-10 - 0 $^{\circ}$ C	160max	180max	160max	180max
	TEMPERATURE REGULATION[mV]	0 to +50 $^{\circ}$ C	150max	120max	150max	240max
		-10 to +50 $^{\circ}$ C	180max	150max	180max	290max
	START-UP TIME[ms]		100max (ACIN 85V, Io=100%)			
	HOLD-UP TIME[ms]		10typ (ACIN 85V, Io=100%, 0 to +50 $^{\circ}$ C) 20typ (ACIN 100V, Io=100%, 0 to +50 $^{\circ}$ C)			
PROTECTION CIRCUIT AND OTHERS	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		5.00 - 5.25	Fixed	5.00 - 5.25	Fixed
	OUTPUT VOLTAGE SETTING[V]		——	11.40 - 12.60	——	22.80 - 25.20
	OVERCURRENT PROTECTION		Works over 105% of rating (peak current for V2) and recovers automatically			
OVERVOLTAGE PROTECTION		By zener diode clamping (+5V)				
OPERATING INDICATION		LED (Green)				
ISOLATION	INPUT-OUTPUT		AC2,000V 1minute, DC500V 50M Ω min (At Room Temperature)			
	INPUT-FG, COVER		AC2,000V 1minute, DC500V 50M Ω min (At Room Temperature)			
	OUTPUT-FG, COVER		AC500V 1minute, DC500V 50M Ω min (At Room Temperature)			
	OUTPUT-OUTPUT(V1-V2)		AC100V 1minute, DC100V 10M Ω min (At Room Temperature)			
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-10 to +60 $^{\circ}$ C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max			
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75 $^{\circ}$ C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max			
	VIBRATION		10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axis			
	IMPACT		196.1m/s ² (20G), 11ms, once each X, Y and Z axis			
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL Complies with DEN-AN			
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B			
OTHERS	CASE SIZE/WEIGHT		28 $\times$ 80 $\times$ 100mm (W $\times$ H $\times$ D) /250g max (without cover)			
	COOLING METHOD		Convection			

- * Avoid prolonged use under over-load.
- * Series/Parallel operation with other model is not possible.
- * Derating is required when operated with case cover.

External view



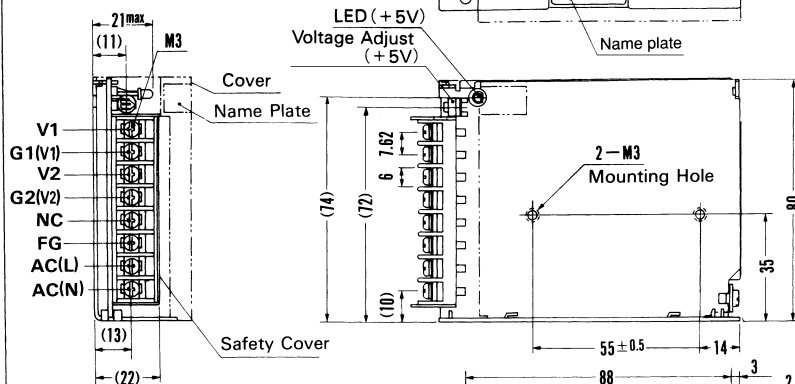
I/O Connector	Mating Connector
CN1 B3P5-VH	VHR-5N
CN2 B6P-VH	VHR-6N

(Mfr: J.S.T.)

Terminal
Chain : SVH-21-P1.1
Loose : BVH-21-P1.1

(Mfr: J.S.T.)

Connector type



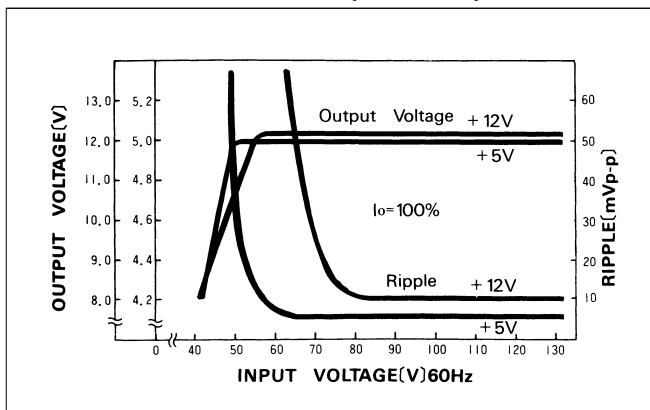
- ※Weight: 250g or less (without cover)
- ※Cover is optional
- ※Tolerance: ± 1
- ※Dimensions in mm.

Barrier strip type

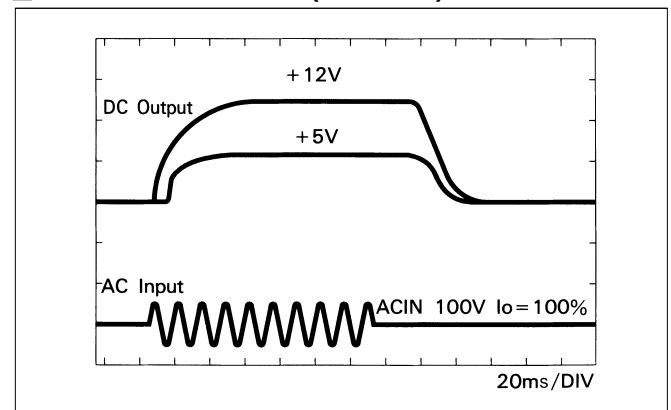
※Mounting torque : 0.6N·m (6.3kgf·cm) max

Performance data

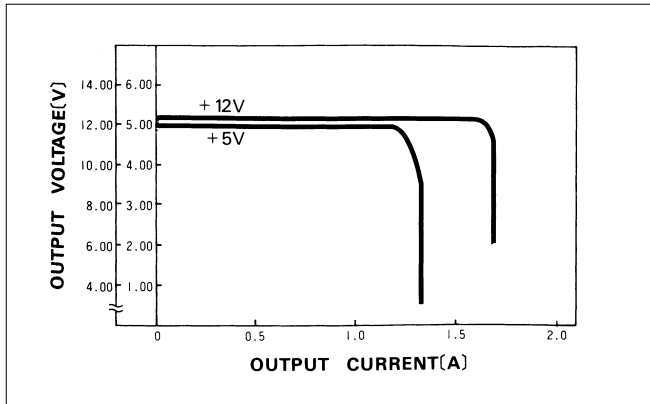
■STATIC CHARACTERISTICS (RMB15A-1)



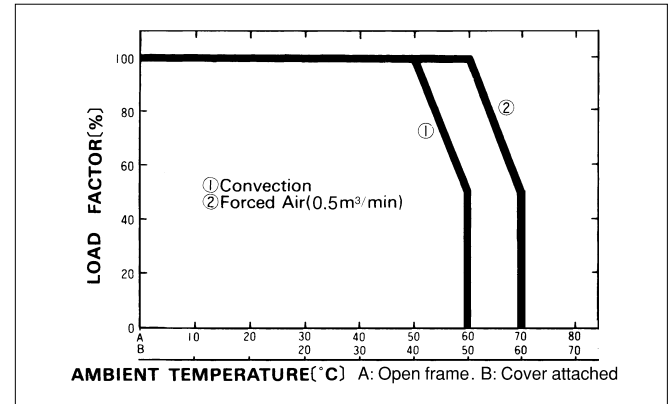
■RISE TIME & FALL TIME (RMB15A-1)



■OVERCURRENT CHARACTERISTICS (RMB15A-1)



■DERATING CURVE



COSEL

Unit type

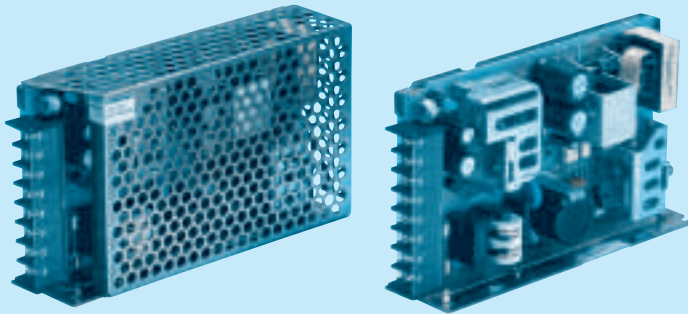
RMB30A

Ordering information

RMB 30A -1 -□

① ② ③ ④

RoHS



- ①Series name
②Output wattage
③Output voltage combination
④Optional
J :Connector type
N :with Cover

RMB

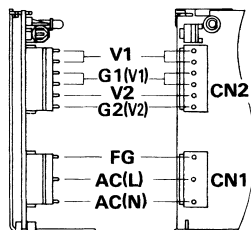
MODEL		RMB30A-1	RMB30A-2
DC OUTPUT	V1	+5V 1.5A	+5V 1.5A
	V2	+12V 2.0(Peak 2.8)A	+24V 1.0(Peak 1.4)A

SPECIFICATIONS

	MODEL		RMB30A-1		RMB30A-2	
INPUT	VOLTAGE[V]		AC85 - 132 1 ϕ or DC110 - 170			
	CURRENT[A]	ACIN 100V	0.9typ (Io=100%)			
	FREQUENCY[Hz]		47 - 440 or DC			
	EFFICIENCY[%]	ACIN 100V	69typ (Io=100%)			
	INRUSH CURRENT[A]	ACIN 100V	30typ (Io=100%) (At cold start)			
OUTPUT	VOLTAGE[V]		+5	+12	+5	+24
	CURRENT[A]		0 - 1.5	0 - 2.0 (Peak 2.8)	0 - 1.5	0 - 1.0 (Peak 1.4)
	LINE REGULATION[mV]		20max	48max	20max	96max
	LOAD REGULATION[mV]		150max	100max	150max	150max
	RIPPLE[mVp-p]	0 to +50 $^{\circ}$ C	100max	120max	100max	120max
		-10 - 0 $^{\circ}$ C	140max	160max	140max	160max
	RIPPLE NOISE[mVp-p]	0 to +50 $^{\circ}$ C	120max	150max	120max	150max
		-10 - 0 $^{\circ}$ C	160max	180max	160max	180max
	TEMPERATURE REGULATION[mV]	0 to +50 $^{\circ}$ C	150max	120max	150max	240max
		-10 to +50 $^{\circ}$ C	180max	150max	180max	290max
	START-UP TIME[ms]		100max (ACIN 85V, Io=100%)			
	HOLD-UP TIME[ms]		10typ (ACIN 85V, Io=100%, 0 to +50 $^{\circ}$ C) 20typ (ACIN 100V, Io=100%, 0 to +50 $^{\circ}$ C)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		5.00 - 5.25	Fixed	5.00 - 5.25	Fixed
OUTPUT VOLTAGE SETTING[V]		——	11.40 - 12.60	——	22.80 - 25.20	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (peak current for V2) and recovers automatically			
	OVERVOLTAGE PROTECTION		Works at 115 - 140% of rating (+5V)			
	OPERATING INDICATION		LED (Green)			
ISOLATION	INPUT-OUTPUT		AC2,000V 1minute, DC500V 50M Ω min (At Room Temperature)			
	INPUT-FG, COVER		AC2,000V 1minute, DC500V 50M Ω min (At Room Temperature)			
	OUTPUT-FG, COVER		AC500V 1minute, DC500V 50M Ω min (At Room Temperature)			
	OUTPUT-OUTPUT(V1-V2)		AC100V 1minute, DC100V 10M Ω min (At Room Temperature)			
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-10 to +60 $^{\circ}$ C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max			
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75 $^{\circ}$ C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max			
	VIBRATION		10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axis			
	IMPACT		196.1m/s ² (20G), 11ms, once each X, Y and Z axis			
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL Complies with DEN-AN			
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B			
OTHERS	CASE SIZE/WEIGHT		31 $\times$ 80 $\times$ 135mm (W $\times$ H $\times$ D) /350g max (without cover)			
	COOLING METHOD		Convection			

- * Avoid prolonged use under over-load.
- * Series/Parallel operation with other model is not possible.
- * Derating is required when operated with case cover.

External view



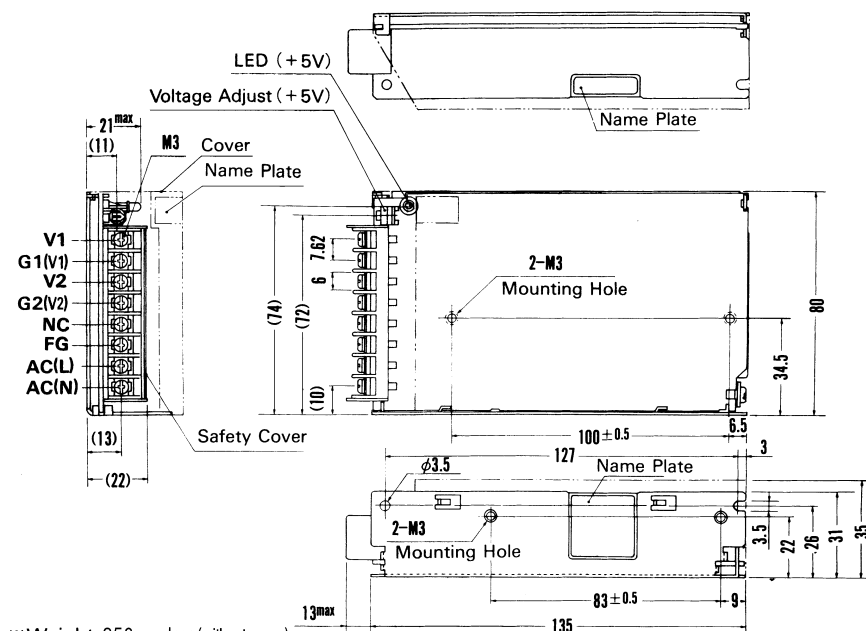
I/O Connector	Mating Connector
CN1	B3P5-VH
CN2	B6P-VH

(Mfr: J.S.T.)

Terminal
Chain : SVH-21-P1.1
Loose : BVH-21-P1.1

(Mfr: J.S.T.)

Connector type



※ Weight: 350g or less (without cover)

※ Cover is optional

※ Tolerance: ± 1

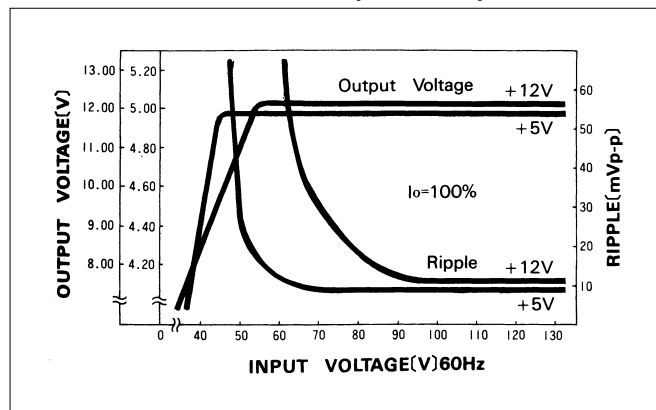
※ Dimensions in mm.

※ Mounting torque : 0.6N·m (6.3kgf·cm) max

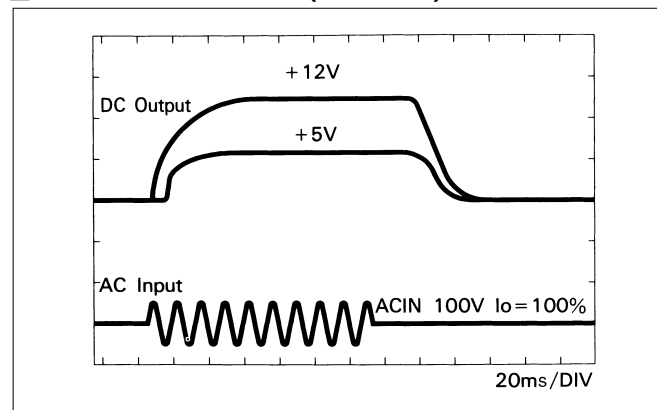
Barrier strip type

Performance data

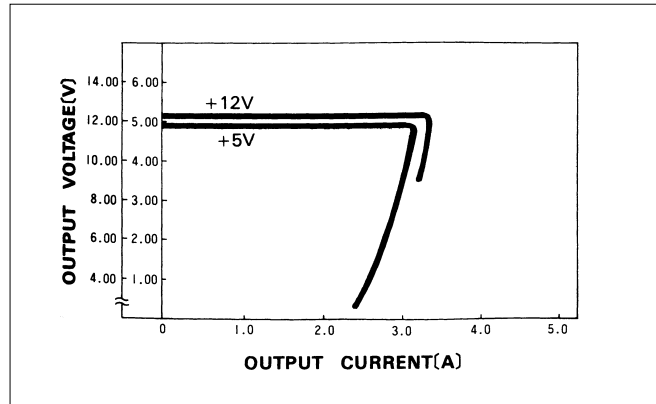
■ STATIC CHARACTERISTICS (RMB30A-1)



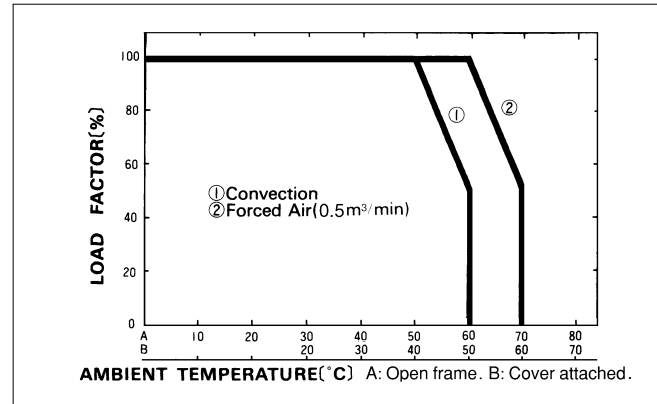
■ RISE TIME & FALL TIME (RMB30A-1)



■ OVERCURRENT CHARACTERISTICS (RMB30A-1)



■ DERATING CURVE



COSEL

Unit type

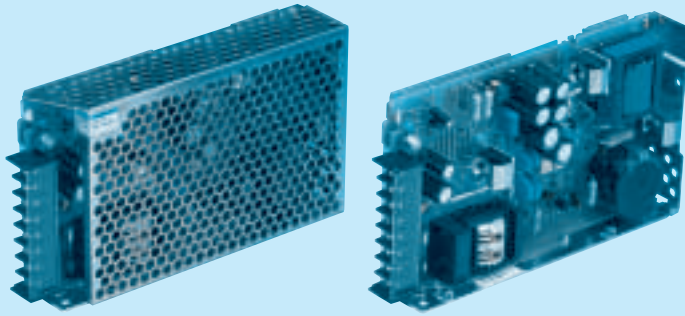
RMB50A

Ordering information

RMB 50A -1 -□

① ② ③ ④

RoHS



- ① Series name
- ② Output wattage
- ③ Output voltage combination
- ④ Optional
 - G : Low leakage current
 - J : Connector type
 - N : with Cover

RMB

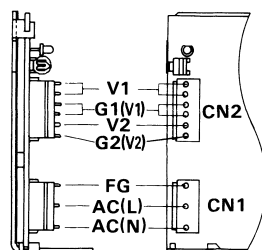
MODEL		RMB50A-1	RMB50A-2
DC OUTPUT	V1	+5V 1.5A	+5V 1.5A
	V2	+12V 3.6(Peak 4)A	+24V 1.8(Peak 2)A

SPECIFICATIONS

	MODEL		RMB50A-1	RMB50A-2		
INPUT	VOLTAGE[V]		AC85 - 132 1 ϕ or DC110 - 170			
	CURRENT[A]	ACIN 100V	1.4typ (Io=100%)			
	FREQUENCY[Hz]		47 - 440 or DC			
	EFFICIENCY[%]	ACIN 100V	74typ (Io=100%)			
	INRUSH CURRENT[A]	ACIN 100V	30typ (Io=100%) (At cold start)			
OUTPUT	VOLTAGE[V]		+5	+12	+5	+24
	CURRENT[A]		0 - 1.5	0 - 3.6 (Peak 4)	0 - 1.5	0 - 1.8 (Peak 2)
	LINE REGULATION[mV]		20max	48max	20max	96max
	LOAD REGULATION[mV]		150max	100max	150max	150max
	RIPPLE[mVp-p]	0 to +50 $^{\circ}$ C	80max	120max	80max	120max
		-10 - 0 $^{\circ}$ C	140max	160max	140max	160max
	RIPPLE NOISE[mVp-p]	0 to +50 $^{\circ}$ C	120max	150max	120max	150max
		-10 - 0 $^{\circ}$ C	160max	180max	160max	180max
	TEMPERATURE REGULATION[mV]	0 to +50 $^{\circ}$ C	150max	120max	150max	240max
		-10 to +50 $^{\circ}$ C	180max	150max	180max	290max
	START-UP TIME[ms]		100max (ACIN 85V, Io=100%)			
	HOLD-UP TIME[ms]		10typ (ACIN 85V, Io=100%, 0 to +50 $^{\circ}$ C) 20typ (ACIN 100V, Io=100%, 0 to +50 $^{\circ}$ C)			
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		5.00 - 5.25	Fixed	5.00 - 5.25	Fixed	
OUTPUT VOLTAGE SETTING[V]		——	11.40 - 12.60	——	22.80 - 25.20	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (peak current for V2) and recovers automatically			
	OVERVOLTAGE PROTECTION		Works at 115 - 140% of rating (+5V)			
	OPERATING INDICATION		LED (Green)			
ISOLATION	INPUT-OUTPUT		AC2,000V 1minute, DC500V 50M Ω min (At Room Temperature)			
	INPUT-FG, COVER		AC2,000V 1minute, DC500V 50M Ω min (At Room Temperature)			
	OUTPUT-FG, COVER		AC500V 1minute, DC500V 50M Ω min (At Room Temperature)			
	OUTPUT-OUTPUT(V1-V2)		AC100V 1minute, DC100V 10M Ω min (At Room Temperature)			
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-10 to +65 $^{\circ}$ C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max			
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75 $^{\circ}$ C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max			
	VIBRATION		10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axis			
	IMPACT		196.1m/s ² (20G), 11ms, once each X, Y and Z axis			
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL Complies with DEN-AN			
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B			
OTHERS	CASE SIZE/WEIGHT		31 $\times$ 93 $\times$ 155mm (W $\times$ H $\times$ D) /350g max (without cover)			
	COOLING METHOD		Convection			

- * Avoid prolonged use under over-load.
- * Series/Parallel operation with other model is not possible.
- * Derating is required when operated with case cover.

RMB



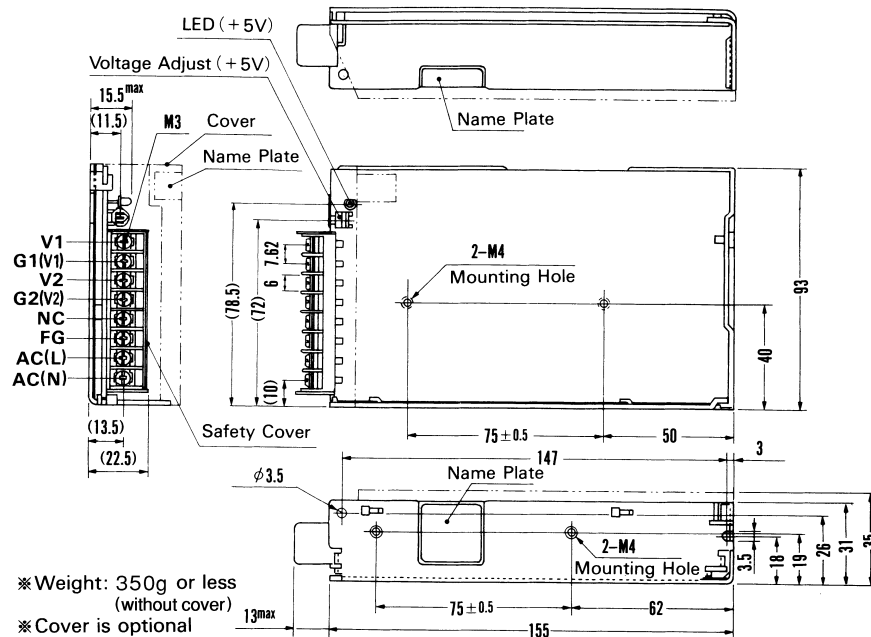
I/O Connector		Mating Connector
CN1	B3P5-VH	VHR-5N
CN2	B6P-VH	VHR-6N

(Mfr: J.S.T.)

Terminal
Chain : SVH-21-P1.1
Loose : BVH-21-P1.1

(Mfr: J.S.T.)

Connector type



※Weight: 350g or less

(without cover)

✱ Cover is optional

※Tolerance: ± 1

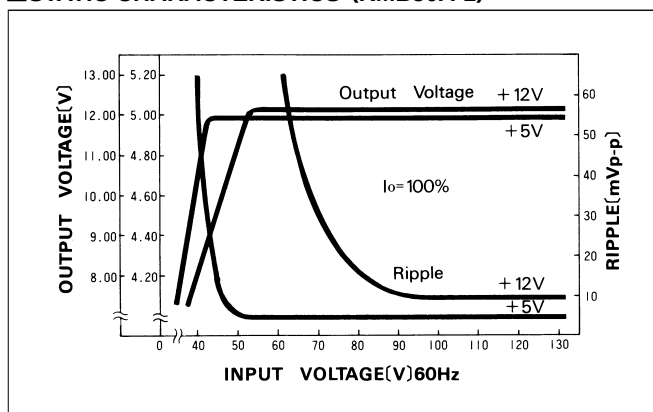
※Dimensions in mm.

※ Mounting torque : 1.2N・m (12.8kgf・cm) max

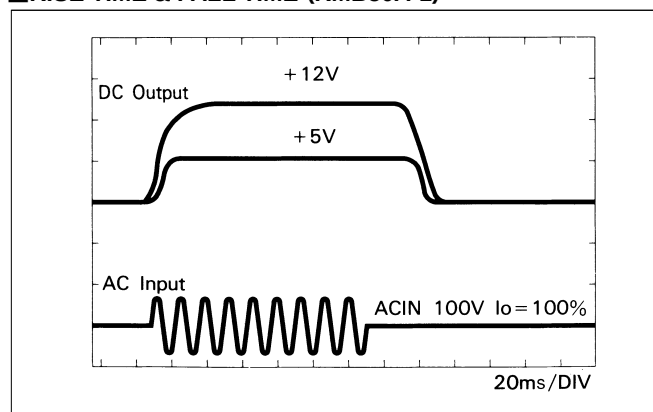
Barrier strip type

Performance data

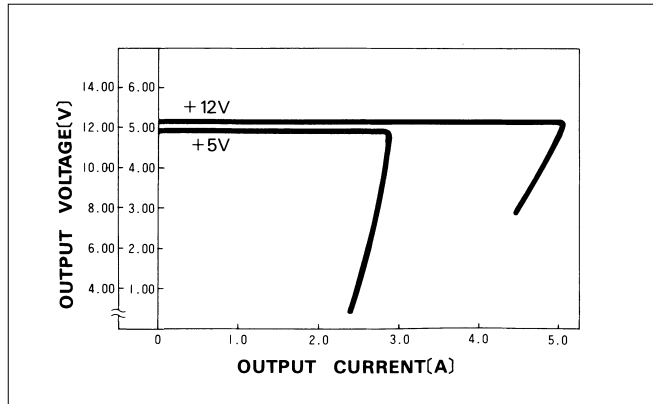
■ STATIC CHARACTERISTICS (RMB50A-1)



■ RISE TIME & FALL TIME (RMB50A-1)



■ OVERCURRENT CHARACTERISTICS (RMB50A-1)



■ DERATING CURVE

