

Single & Multi Output Medium Power

RB SERIES

400-1000 Watts



CE Marked - LVD

•

1 to 10 Outputs

•

Power Factor Corrected

•

85-264 V AC Input

•

Low Earth Leakage Versions Available

•

Fully Featured Signals Set

•

3 Day Delivery for Proto Production

Specification

Input Voltage	• 85-264 V AC (120 to 350 V DC)
Input Frequency	• 47-440 Hz
Power Factor	• Typically 0.99 (compliant with EN61000-3-2)
Inrush Current	• 40 A peak.max.
Efficiency	• 70 - 80% @ FL and 115 V AC
Fuse Rating (Internal)	• 15 A
Hold Up Time	• 20 ms Min (25 ms typical). Independent of Input Voltage
Earth Leakage Current	• 2 m A max @ 264 V AC (option for low leakage use 500 µA max)
Output Voltage	• See Tables
Adjustment	• $\pm 10\%$ min all outputs
Margining	• $\pm 4-6\%$ of nominal set voltage
Load & Line Regulation	• 0.4% or 20 mV max (36 W modules 4% max)
Output Ripple & Noise	• 0.1% RMS, 1% PK-PK typical @ 20 MHz BW
Minimum Load	• No min. load required on single & triple output modules, & 10% required on dual output modules
Dynamic Response & Recovery	• <2% or 100 mV deviation any output for 25% load step, recovery to within 1% in 300 µs
Overload Protection	• Single, main of dual outputs @ 105% to 120% of rated output, aux. O/P of dual 105% to 140%. Triple output module is internally protected
Short Circuit Protection	• Continuous protection all outputs, auto recovery
Overvoltage Protection	• Single output modules 2-5 V outputs 122-134%, 6-60 V outputs 110-120%. Dual output modules 2-6 V outputs 122-134%, 8-28 V outputs 110-120%. Triple output modules have no OVP. Recycle AC to Reset output
Remote Sense	• Compensates for up to 0.5 V drop
Current Sharing	• Single wire parallel current share to 2% of total rated current
Operating Temperature	• -20 °C to +70 °C (for operating above 50 °C derate linearly to 50% at +70 °C) • -20 °C to +40 °C with rear air option.
Storage Temperature	• -40 °C to +85 °C
Temperature Coefficient	• 0.02% per °C
Shock & Vibration	• To MIL-HDBK-810E
EMC	• Meets the requirements of VFG243, EN55022 Level B & EN55011 Level B conducted and radiated (Low leakage Version. Level A conducted)
Safety Approvals	• UL1950, CSA22.2-No 234, IEC 950, EN60950
MTBF	• Consult sales for individual configurations

Output Voltage & Current Ratings - 2 to 6 V Single Outputs						
Adjustment	2 V OUTPUTS (1.8-2.2 V)	3.3 V OUTPUTS (2.97-3.63 V)	5 V OUTPUTS (4.5-5.5 V)	5.2 V OUTPUTS (4.68-5.72 V)	5.5 V OUTPUTS (4.95-6.05 V)	6 V OUTPUTS (5.4-6.6 V)
360 W	RB4-80-00 2 V @ 120 A (240 W)	/	RB4-34-00 5 V @ 60 A (300 W)	RB4-46-00 5.2 V @ 60 A (312 W)	RB4-48-00 5.5 V @ 58 A (319 W)	RB4-49-00 6 V @ 42 A (252 W)
400 W	RB4-81-30 2 V @ 180 A (360 W)	RB4-82-00 3.3 V @ 120 A	RB4-83-00 5 V @ 80 A	RB4-84-00 5.2 V @ 77 A	RB4-85-00 5.5 V @ 72 A	RB4-86-00 6 V @ 66 A
600 W	/	RB6-83-30 3.3 V @ 180 A	RB6-84-00 5 V @ 120 A	RB6-95-00 5.2 V @ 115 A	RB6-98-00 5.5 V @ 109 A	RB6-99-30 6 V @ 100 A
800 W	RB8-11-30 2 V @ 240 A (480 W)	RB8-12-30 3.3 V @ 240 A	RB8-18-30 5 V @ 160 A	RB8-26-30 5.2 V @ 153 A	RB8-27-30 5.5 V @ 145 A	RB8-28-30 6 V @ 133 A
1000 W	RB1-01-90 2 V @ 275 A (550 W)	RB1-02-90 3.3 V @ 275 A (908 W)	RB1-03-90 5 V @ 200 A	RB1-04-90 5.2 V @ 192 A	RB1-05-90 5.5 V @ 181 A	RB1-06-90 6 V @ 166 A

Output Voltage & Current Ratings - 8 to 24 V Single Outputs						
Adjustment	8 V OUTPUTS (7.2-8.8 V)	10 V OUTPUTS (9-11 V)	12 V OUTPUTS (10.8-13.2 V)	15 V OUTPUTS (13.5-16.5 V)	18 V OUTPUTS (16.2-19.8 V)	24 V OUTPUTS (21.6-26.4 V)
360 W	RB4-50-00 8 V @ 36 A (288 W)	RB4-51-00 10 V @ 32 A	RB4-52-00 12 V @ 30 A	RB4-56-00 15 V @ 20 A (300 W)	RB4-33-00 18 V @ 19 A (342 W)	RB4-58-00 24 V @ 15 A
400 W	RB4-150-00 8 V @ 50 A	RB4-87-00 10 V @ 40 A	RB4-88-00 12 V @ 33 A	RB4-89-00 15 V @ 26 A	RB4-79-00 18 V @ 22 A	RB4-90-00 24 V @ 16.6 A
600 W	RB6-196-30 8 V @ 75 A	RB6-103-00 10 V @ 60 A	RB6-104-00 12 V @ 50 A	RB6-109-00 15 V @ 39 A (585 W)	RB6-111-00 18 V @ 33.3 A	RB6-112-00 24 V @ 23.5 A (564 W)
800 W	RB8-10-30 8 V @ 100 A	RB8-30-30 10 V @ 78 A (780 W)	RB8-31-30 12 V @ 66 A	RB8-32-30 15 V @ 53 A	RB8-33-30 18 V @ 44.3 A	RB8-35-30 24 V @ 33.3 A
1000 W	RB1-07-90 8 V @ 124 A	RB1-08-90 10 V @ 100 A	RB1-09-30 12 V @ 80 A (960 W)	RB1-10-90 15 V @ 66 A	RB1-11-30 18 V @ 52.3 A (942 W)	RB1-12-30 24 V @ 38.5 A

Output Voltage & Current Ratings - 28 to 60 V Single Outputs						
Adjustment	28 V OUTPUTS (25.2-30.8 V)	30 V OUTPUTS (27-33 V)	36 V OUTPUTS (32.4-39.6 V)	48 V OUTPUTS (43.2-52.8 V)	54 V OUTPUTS (48.6-59.4 V)	60 V OUTPUTS (54-66 V)
360 W	RB4-66-00 28 V @ 12.8 A	RB4-70-00 30 V @ 11 A	RB4-71-00 36 V @ 10 A	RB4-76-00 48 V @ 7.5 A	RB4-77-00 54 V @ 6 A	RB4-78-00 60 V @ 6 A
400 W	RB4-91-00 28 V @ 14.3 A	RB4-92-00 30 V @ 13.3 A	RB4-93-00 36 V @ 11.1 A	RB4-94-00 48 V @ 8.3 A	RB4-95-00 54 V @ 7.4 A	RB4-96-00 60 V @ 6.6 A
600 W	RB6-115-00 28 V @ 21.4 A	RB6-120-00 30 V @ 20 A	RB6-123-00 36 V @ 16.6 A	RB6-131-00 48 V @ 12.5 A	RB6-133-00 54 V @ 11 A	RB6-134-00 60 V @ 10 A
800 W	RB8-36-30 28 V @ 28.5 A	RB8-37-30 30 V @ 26.5 A	RB8-38-30 36 V @ 22.2 A	RB8-39-30 48 V @ 16.5 A	RB8-40-30 54 V @ 14.7 A	RB8-41-30 60 V @ 13.3 A
1000 W	RB1-13-30 28 V @ 34.2 A	RB1-14-30 30 V @ 32 A	RB1-15-30 36 V @ 26.6 A	RB1-16-30 48 V @ 20 A	RB1-17-30 54 V @ 17 A	RB1-18-30 60 V @ 16 A

Output Voltage & Current Ratings - Multi Output Models							
Max Power	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Model Number
400 W	5 V @ 60 A	3.3 V @ 35 A	*12 V @ 10 A	*12 V @ 4 A	-	-	RB4-39-00
400 W	5 V @ 60 A	*12 V @ 10 A	*12 V @ 4 A	-	-	-	RB4-37-00
400 W	24 V @ 15 A	5 V @ 35 A	12 V @ 17 A	-	-	-	RB4-61-00
600 W	5 V @ 60 A	3.3 V @ 35 A	*12 V @ 10 A	*12 V @ 4 A	-	-	RB6-35-00
600 W	24 V @ 15 A	5 V @ 35 A	12 V @ 17 A	-	-	-	RB6-54-00
600 W	5 V @ 60 A	*12 V @ 10 A	*24 V @ 2 A	*12 V @ 10 A	*5 V @ 10 A	-	RB6-44-00
800 W	5 V @ 120 A	3.3 V @ 60 A	*12 V @ 10 A	*12 V @ 4 A	-	-	RB8-25-00
800 W	5 V @ 120 A	3.3 V @ 35 A	12 V @ 17 A	*12 V @ 10 A	*12 V @ 4 A	-	RB8-22-00
800 W	15 V @ 20 A	5 V @ 35 A	15 V @ 14 A	24 V @ 8.5 A	*15 V @ 8 A	*5 V @ 10 A	RB8-06-00
1000 W	5 V @ 120 A	3.3 V @ 60 A	*12 V @ 10 A	*12 V @ 4 A	-	-	RB1-19-00
1000 W	5 V @ 120 A	5.2 V @ 60 A	12 V @ 17 A	12 V @ 17 A	-	-	RB1-20-00
1000 W	5 V @ 120 A	12 V @ 30 A	5 V @ 35 A	12 V @ 1 A	12 V @ 1 A	5 V @ 2 A	RB1-21-00

NOTES:

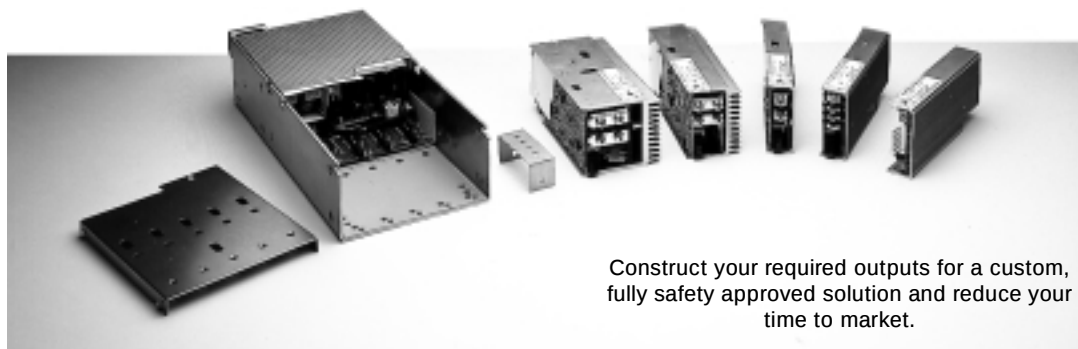
1. For higher power see RM series.

2. For other increments of voltage & current not shown see modular concept on next page and consult our technical sales team.

* These outputs are part of Dual Output Modules and the total combined output power from both outputs must not exceed 144 W maximum.

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RB Modular Concept



Construct your required outputs for a custom, fully safety approved solution and reduce your time to market.

Output Voltage & Current Ratings

VOLTS	AMPS	OUTPUT POWER	No. OF SLOTS	MODULE PART No.	VOLTS	AMPS	OUTPUT POWER	No. OF SLOTS	MODULE PART No.	VOLTS	AMPS	OUTPUT POWER	No. OF SLOTS	MODULE PART No.	VOLTS	AMPS	OUTPUT POWER	No. OF SLOTS	MODULE PART No.	VOLTS	AMPS	OUTPUT POWER	No. OF SLOTS	MODULE PART No.
2 VOLTS					5.2 VOLTS					11 VOLTS					20 VOLTS					36 VOLTS				
2 V	35 A	70 W	1	1A	5.2 V	35 A	182 W	1	1F	11 V	17 A	187 W	1	1K	20 V	10.5 A	210 W	1	1P	36 V	5.8 A	209 W	1	1U
2 V	60 A	120 W	2	2A	5.2 V	60 A	312 W	2	2F	11 V	31 A	341 W	2	2K	20 V	18 A	360 W	2	2P	36 V	10 A	360 W	2	2U
2 V	120 A	240 W	3	3A	5.2 V	115 A	598 W	3	3F	11 V	54.5 A	600 W	3	3K	20 V	30 A	600 W	3	3P	36 V	16.6 A	598 W	3	3U
2.2 VOLTS					5.5 VOLTS					12 VOLTS					24 VOLTS					42 VOLTS				
2.2 V	35 A	77 W	1	1B	5.5 V	34 A	187 W	1	1G	12 V	17 A	204 W	1	1L	24 V	8.5 A	204 W	1	1Q	42 V	4.2 A	176 W	1	1V
2.2 V	60 A	132 W	2	2B	5.5 V	58 A	319 W	2	2G	12 V	30 A	360 W	2	2L	24 V	15 A	360 W	2	2Q	42 V	7.5 A	315 W	2	2V
2.2 V	120 A	264 W	3	3B	5.5 V	109 A	600 W	3	3G	12 V	50 A	600 W	3	3L	24 V	23.5 A	564 W	3	3Q	42 V	12.5 A	525 W	3	3V
3 VOLTS					6 VOLTS					14 VOLTS					28 VOLTS					48 VOLTS				
3 V	35 A	105 W	1	1C	6 V	23 A	138 W	1	1H	14 V	14 A	196 W	1	1M	28 V	6.7 A	188 W	1	1R	48 V	4 A	192 W	1	1W
3 V	60 A	180 W	2	2C	6 V	42 A	252 W	2	2H	14 V	21 A	294 W	2	2M	28 V	11.0 A	308 W	2	2R	48 V	7.5 A	360 W	2	2W
3 V	120 A	360 W	3	3C	6 V	78 A	468 W	3	3H	14 V	40.5 A	567 W	3	3M	28 V	21.4 A	600 W	3	3R	48 V	12.5 A	600 W	3	3W
3.3 VOLTS					8 VOLTS					15 VOLTS					30 VOLTS					54 VOLTS				
3.3 V	35 A	115 W	1	1D	8 V	20 A	160 W	1	1I	15 V	14 A	210 W	1	1N	30 V	6.5 A	195 W	1	1S	54 V	3.7 A	200 W	1	1X
3.3 V	60 A	198 W	2	2D	8 V	36 A	288 W	2	2I	15 V	20 A	300 W	2	2N	30 V	11 A	330 W	2	2S	54 V	6 A	324 W	2	2X
3.3 V	120 A	396 W	3	3D	8 V	68 A	544 W	3	3I	15 V	39 A	585 W	3	3N	30 V	20 A	600 W	3	3S	54 V	11 A	594 W	3	3X
5 VOLTS					10 VOLTS					18 VOLTS					33 VOLTS					60 VOLTS				
5 V	35 A	175 W	1	1E	10 V	18 A	180 W	1	1J	18 V	11 A	198 W	1	1O	33 V	6.2 A	205 W	1	1T	60 V	3.5 A	210 W	1	1Y
5 V	60 A	300 W	2	2E	10 V	32 A	320 W	2	2J	18 V	19 A	342 W	2	2O	33 V	10.9 A	360 W	2	2T	60 V	6 A	360 W	2	2Y
5 V	120 A	600 W	3	3E	10 V	60 A	600 W	3	3J	18 V	33.3 A	600 W	3	3O	33 V	18.2 A	600 W	3	3T	60 V	10 A	600 W	3	3Y

See module selection section for construction rules and how to obtain part number.

Output Voltage & Current Ratings - Dual & Triple Outputs

Dual Output Modules				EXAMPLE of Dual Output Module Part No. Select 1 voltage from each section. All Dual Output Module Part No.s. are prefixed with 4.	Triple Output Modules				EXAMPLE of Triple Output Module Part No. Select 1 voltage from each section. All Triple Output Module Part No.s. have no prefix				
Maximum continuous power from Dual Output Module is 144 Watts					Maximum continuous power from Triple Output Module is 36 Watts					Prefix None			
Output 1	Voltage Code	Volts	Adjustment Range	Amps	Output 1	Voltage Code	Volts	Adjustment Range	Amps				
	E	5 V	(4.5-5.5 V)	10 A		I	8 V	(7.2-8.8 V)	1 A				
	I	8 V	(7.2-8.8 V)	10 A		J	10 V	(9-11 V)	1 A				
	J	10 V	(9-11 V)	10 A		K	11 V	(9.9-12.1 V)	1 A				
	K	11 V	(9.9-12.1 V)	10 A		L	12 V	(10.8-13.2 V)	1 A				
	L	12 V	(10.8-13.2 V)	10 A		M	14 V	(12.6-15.4 V)	1 A				
	M	14 V	(12.6-15.4 V)	9 A		N	15 V	(13.5-16.5 V)	1 A				
	N	15 V	(13.5-16.5 V)	8 A			Voltage Code	Volts	Adjustment Range	Amps			
	Q	24 V	(21.06-26.4 V)	4 A			I	8.0 V	(7.2-8.8 V)	1 A			
	R	28 V	(25.2-30.8 V)	3 A			J	10 V	(9-11 V)	1 A			
	Output 2	Voltage Code	Volts	Adjustment Range			Amps	K	11 V	(9.9-12.1 V)	1 A		
A		2 V	(1.8-2.2 V)	10 A	L		12 V	(10.8-13.2 V)	1 A				
B		2.2 V	(1.98-2.42 V)	10 A	M		14 V	(12.6-15.4 V)	1 A				
C		3 V	(2.7-3.3 V)	10 A	N		15 V	(13.5-16.5 V)	1 A				
D		3.3 V	(2.97-3.63 V)	10 A	O		18 V	(16.2-19.8 V)	0.5 A				
E		5 V	(4.5-5.5 V)	10 A	P		20 V	(18-22 V)	0.5 A				
F		5.2 V	(4.68-5.72 V)	10 A	Q		24 V	(21.6-26.4 V)	0.5 A				
G		5.5 V	(4.95-6.05 V)	10 A	R	28 V	(25.2-30.8 V)	0.5 A					
H		6.0 V	(5.4-6.6 V)	10 A	Output 3	Voltage Code	Volts	Adjustment Range	Amps				
I		8.0 V	(7.2-8.8 V)	4 A		A	2 V	(1.8-2.2 V)	2 A				
J	10 V	(9-11 V)	4 A	B		2.2 V	(1.98-2.42 V)	2 A					
K	11 V	(9.9-12.1 V)	4 A	C		3 V	(2.7-3.3 V)	2 A					
L	12 V	(10.8-13.2 V)	4 A	D		3.3 V	(2.97-3.63 V)	2 A					
M	14 V	(12.6-15.4 V)	4 A	E		5 V	(4.5-5.5 V)	2 A					
N	15 V	(13.5-16.5 V)	4 A	F		5.2 V	(4.68-5.72 V)	2 A					
Q	24 V	(21.6-26.4 V)	2 A	G		5.5 V	(4.95-6.05 V)	2 A					
R	28 V	(25.2-30.8 V)	2 A	H		6.0 V	(5.4-6.6 V)	2 A					
S	30 V	(27-33 V)	1.5 A	I		8.0 V	(7.2-8.8 V)	1 A					
T	33 V	(29.7-36.3 V)	1.5 A	J	10 V	(9-11 V)	1 A						
U	36 V	(32.4-39.6 V)	1.5 A	K	11 V	(9.9-12.1 V)	1 A						
EXAMPLE of Dual Output Module Part No. Select 1 voltage from each section. All Dual Output Module Part No.s. are prefixed with 4. Prefix 4 Output 1 L 12 V @ 10 A ↓ Output 2 E 5 V @ 10 A ↓ Module Part No. = 4LE 12 V @ 10 A 5 V @ 10 A 144 W max.					L	12 V	(10.8-13.2 V)	1 A					
					M	14 V	(12.6-15.4 V)	1 A					
					N	15 V	(13.5-16.5 V)	1 A					
					O	18 V	(16.2-19.8 V)	0.5 A					
					P	20 V	(18-22 V)	0.5 A					
					Q	24 V	(21.6-26.4 V)	0.5 A					
					R	28 V	(25.2-30.8 V)	0.5 A					
					EXAMPLE of Triple Output Module Part No. Select 1 voltage from each section. All Triple Output Module Part No.s. have no prefix Prefix None Output 1 N 15 V @ 1 A ↓ Output 2 Q 24 V @ 0.5 A ↓ Output 3 E 5 V @ 2 A Module Part No. = NQE 15 V @ 1 A 24 V @ 0.5 A 5 V @ 2 A 36 W max. NOTE: Not all combinations are possible - contact sales office.					A	2 V	(1.8-2.2 V)	2 A
										B	2.2 V	(1.98-2.42 V)	2 A
										C	3 V	(2.7-3.3 V)	2 A
D	3.3 V	(2.97-3.63 V)	2 A										
E	5 V	(4.5-5.5 V)	2 A										
F	5.2 V	(4.68-5.72 V)	2 A										
G	5.5 V	(4.95-6.05 V)	2 A										
H	6.0 V	(5.4-6.6 V)	2 A										
I	8.0 V	(7.2-8.8 V)	1 A										
J	10 V	(9-11 V)	1 A										

NOTES:

- Not all combinations are possible - see next page.
- All dual output module part no.s are prefixed 4.
- All dual and triple output modules are 1 slot.

Output Voltage & Current Ratings				
V1 DC Output		V2 DC Output		Module Code
Voltage	Current	Voltage	Current	
5.0 V	10.0 A	2.0 V	10.0 A	4 EA
		2.2 V		4 EB
		3.0 V		4 EC
		3.3 V		4 ED
		5.0 V		4 EE
		5.2 V		4 EF
		5.5 V		4 EG
		6.0 V		4 EH
12.0 V	10.0 A	2.0 V	10.0 A	4 LA
		2.2 V		4 LB
		3.0 V		4 LC
		3.3 V		4 LD
		5.0 V		4 LE
		5.2 V		4 LF
		5.5 V		4 LG
		6.0 V		4 LH
14.0 V	9.0 A	2.0 V	10.0 A	4 MA
		2.2 V		4 MB
		3.0 V		4 MC
		3.3 V		4 MD
		5.0 V		4 ME
		5.2 V		4 MF
		5.5 V		4 MG
		6.0 V		4 MH
15.0 V	8.0 A	2.0 V	10.0 A	4 NA
		2.2 V		4 NB
		3.0 V		4 NC
		3.3 V		4 ND
		5.0 V		4 NE
		5.2 V		4 NF
		5.5 V		4 NG
		6.0 V		4 NH
12.0 V	10.0 A	12.0 V	4.0 A	4 LL
		14.0 V		4 LM
		15.0 V		4 LN
14.0 V	9.0 A	12.0 V	4.0 A	4 ML
		14.0 V		4 MM
		15.0 V		4 MN
15.0 V	8.0 A	12.0 V	4.0 A	4 NL
		14.0 V		4 NM
		15.0 V		4 NN
12.0 V	10.0 A	24.0 V	2.0 A	4 LQ
		28.0 V		4 LR
14.0 V	9.0 A	24.0 V		4 MQ
		28.0 V		4 MR
15.0 V	8.0 A	24.0 V	2.0 A	4 NQ
		28.0 V		4 NR
24.0 V	4.0 A	2.0 V	10.0 A	4 QA
		2.2 V		4 QB
		3.0 V		4 QC
		3.3 V		4 QD
		5.0 V		4 QE
		5.2 V		4 QF
		5.5 V		4 QG
		6.0 V		4 QH
28.0 V	8.0 A	2.0 V	10.0 A	4 RA
		2.2 V		4 RB
		3.0 V		4 RC
		3.3 V		4 RD
		5.0 V		4 RE
		5.2 V		4 RF
		5.5 V		4 RG
		6.0 V		4 RH
24.0 V	4.0 A	24.0 V	2.0 A	4 QQ
		28.0 V		4 QR
28.0 V	3.0 A	24.0 V	2.0 A	4 RQ
		28.0 V		4 RR

Module Selection & Power Supply Construction

Case size
 4 = 2.5 x 5 x 10, 5 available slots, 400 W max
 6 = 2.5 x 5 x 11, 5 available slots, 600 W max
 8 = 2.5 x 7 x 10, 6 available slots, 800 W max
 1 = 2.5 x 8 x 11, 7 available slots, 1000 W max

Option Code
 0 = No Options
 1 = Rear Air Exhaust
 3 = Global Enable
 5 = Option Package (Options 1 & 3)

M = Low Leakage
 N = Low Leakage plus Option 1
 P = Low Leakage plus Option 3
 R = Low Leakage plus Option 5

RB [Slot #1] [Slot #2] [Slot #3] [Slot #4] [Slot #5] [Slot #6 (RB8 & RB1 Only)] [Slot #7 (RB1 Only)] [OPTION CODE] - X X X

2 OR 3 DIGIT CODE SEE CHART ON PREVIOUS PAGE

USE "-" FOR STANDARD REMOTE SENSE
 USE "/" WHEN USING REMOTE SENSE WITH OR-ING DIODE (REDUNDANCY)

PARALLEL CODE USE ONLY FOR MODIFIED STANDARD, CONSULT TECHNICAL SALES

RB4 & RB6 available slots

Slot 5	Slot 4	Slot 3	Slot 2	Slot 1
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RB8 available slots

Slot 6	Slot 5	Slot 4	Slot 3	Slot 2	Slot 1
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RB1 available slots

Slot 7	Slot 6	Slot 5	Slot 4	Slot 3	Slot 2	Slot 1
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Notes:

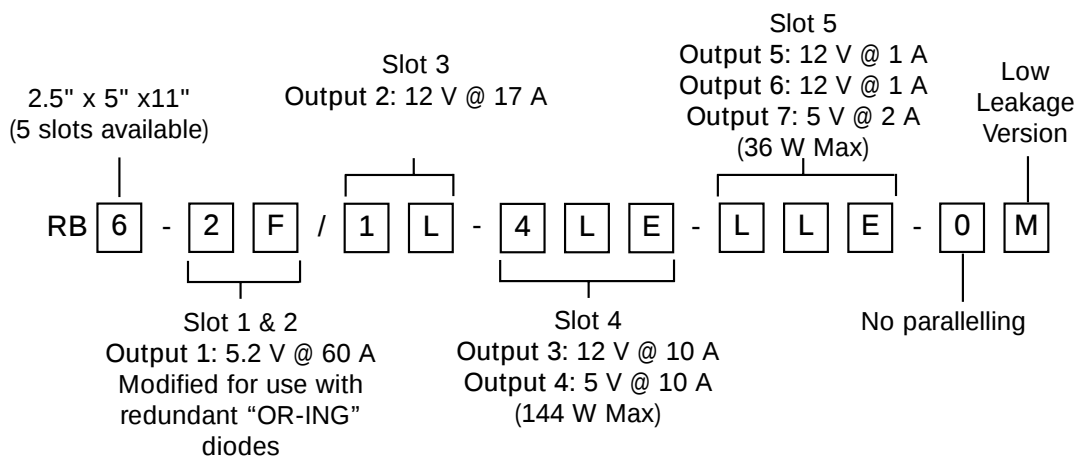
- Omit digits in slots that do not apply
- Specify modules from lowest number of outputs to highest. (Single/Dual/Triple)
- If number of outputs are equal, specify modules from highest to lowest power increments. If power increments are equal, specify in alphabetical order (1A, 1B, 1C...).
- Always start with SLOT 1.
- All RB model constructions created using this selection guide are standard RB products with standard availability and lead times.
- Contact technical sales for a unique part number that denotes the construction specified

***Standard Parallel Codes**

Parallel Codes	7	6	5	4	3	2	1
0 = no parallel	•	•	•	•	•	•	•
1 = 1 & 2	•	•	•	•	•	•	•
2 = 2 & 3	•	•	•	•	•	•	•
3 = 3 & 4	•	•	•	•	•	•	•
4 = 4 & 5	•	•	•	•	•	•	•
5 = 3 & 4 & 5	•	•	•	•	•	•	•
6 = 5 & 6	•	•	•	•	•	•	•
7 = 4 & 5 & 6	•	•	•	•	•	•	•
8 = 6 & 7	•	•	•	•	•	•	•
9 = 3 & 4, 6 & 7	•	•	•	•	•	•	•

Examples of Power Supply Construction & model Numbering

For custom Series & parallel configurations, contact technical sales

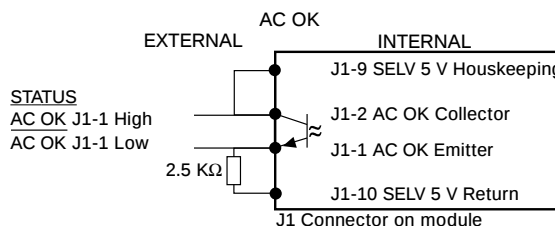
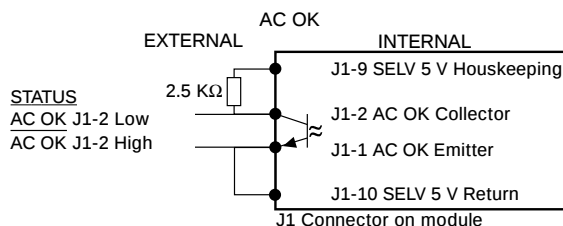


Part Number for above construction :
RB6-198-0M

Control Chassis Signal Information - Standard on RB4, RB6, RB8 & RB1**INPUT CONTROL & MONITOR SIGNALS (Connector reference = J1. i.e. J1-1 = connector J1 Pin 1)**

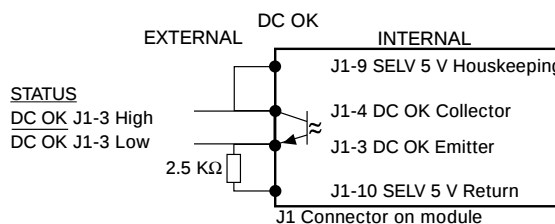
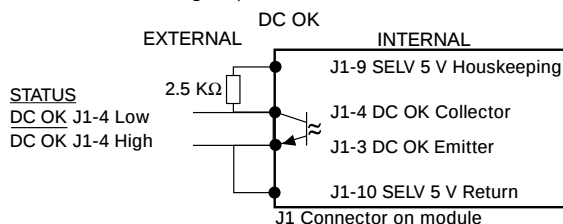
Pins 9 and 10 provide a 5 V housekeeping voltage for use with pull up resistors and all other signals (see Diagram below). This housekeeping supply is always present when AC is applied to the unit.

Pins 1 and 2 - AC OK. This is an isolated signal which indicates either a logic '1' or logic '0' (dependant on connection, See Diagram). To provide >5 ms min early warning before outputs lose regulation. LED indicator also fitted.



Pins 1 and 2 also provide >5 ms min overtemperature warning prior to outputs being disabled.

Pins 3 and 4 - DC OK. This is an isolated signal which monitors single output modules and main (V1) output of dual output modules. Should any monitored output deviate (-2% to -8%) the signal indicates a logic '1' or logic '0' (dependant on connection, see Diagram). LED indicator also fitted.



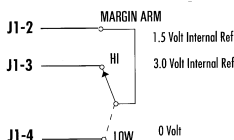
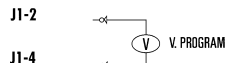
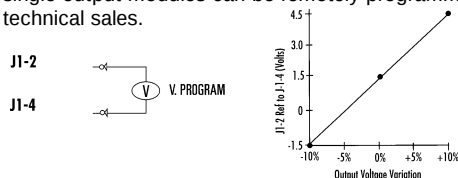
Pins 6, 7 and 8 - (Global inhibit/optional enable). This control allows you to turn all outputs off with either a logic '0' (pins 6 and 8) or a logic '1' (pins 7 and 8).

OPTIONALLY (see Part No. codes on previous page). This control function can be reversed to allow all outputs to be switched on with either a logic '0' (Pins 6 and 8) or a logic '1' (Pins 7 and 8).

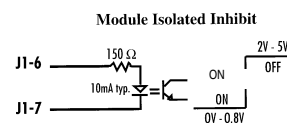
MODULE OUTPUT CONTROL & MONITOR SIGNALS (Connector reference = J1. i.e. J1-1 = connector J1 Pin 1)

Pins 1 and 4 single output modules and Pins 1, 4, 9 and 10 dual output modules provide remote sense to compensate for voltage drops in application wiring. Compensates for up to 0.5 V drop. It is recommended that shielded twisted pair wire be used.

Pins 2, 3 and 4 - Voltage programming and remote margin high and low, by applying an external voltage the output voltage of single output modules can be remotely programmed a minimum of $\pm 10\%$. See Diagram - for wider programme range consult technical sales.

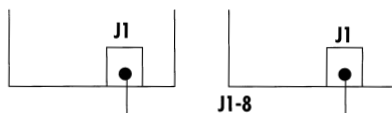


Pins 6 and 7 - Module Inhibit. This control is fitted to single and dual output modules & allows outputs to be individually switched on and off independent of other outputs. (Both outputs of dual will operate together).



Pin 8 - Single Wire Parallel (SWP) - This signal when connected to Pin 8 of another module or unit (like voltages) will provide forced current sharing of the outputs. The signal is fitted to single output modules and main output (V1) of dual output modules.

Can also be used as a relative current monitor using proportional voltage: 2-6 V, high impedance, do not load this pin, use buffer.

**Paralleling and Redundancy**

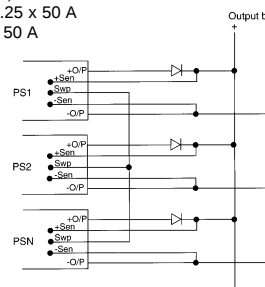
Power supply outputs can be paralleled and be forced to share current by connecting the single wire parallel line (J1-8). If power supply outputs require isolation from the bus, use external OR-ing diodes as shown and specify a "I": after each paralleled module in the model number description, and ensure that the sense connection is made after the OR-ing diode.

Current Monitor

By using a high impedance buffer, the current share signal (J1-8) can be monitored. A 2-6 volt output is directly proportional to 0-100% of full rated load.

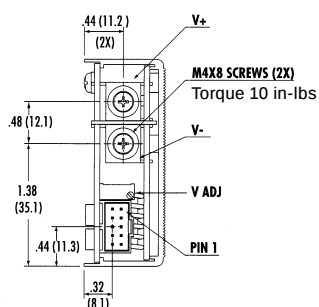
For example:

$$\begin{aligned} I_{out} &= (J1-8 - 2.0) \times .25 \times \text{Full rated load} \\ \text{If full rated load (FL) is } 50 \text{ A and we measure } 4 \text{ volts on Pin J1-8-} \\ I_{out} &= (4.0 - 2.0) \times .25 \times 50 \text{ A} \\ &= 2.0 \times .25 \times 50 \text{ A} \\ &= 25 \text{ A} \end{aligned}$$



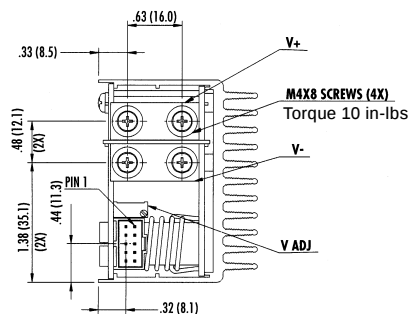
Modules - Output Connector Details

Single Output 210 Watt
(1 Slot Module)



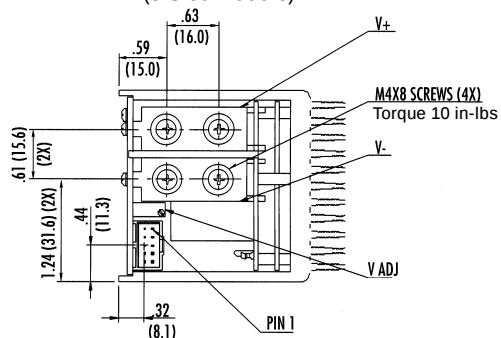
Weight 0.27 kgs

Single Output 360 Watt
(2 Slot Module)



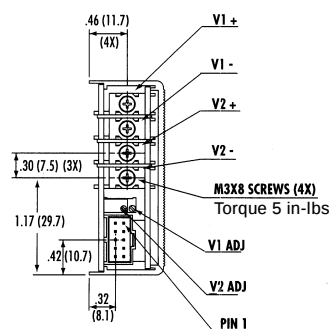
Weight 0.45 kgs

Single Output 600 Watt
(3 Slot Module)



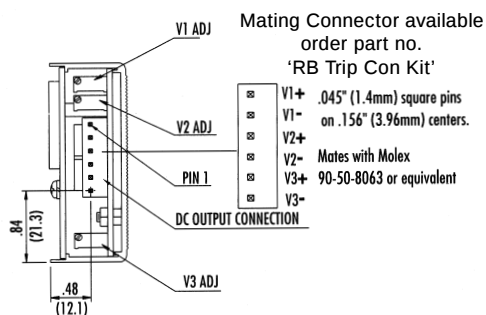
Weight 0.9 kgs

Dual Output 144 Watt
(1 Slot Module)



Weight 0.27 kgs

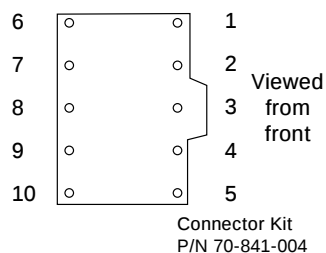
Triple Output 36 Watt
(1 Slot Module)



Weight 0.22 kgs

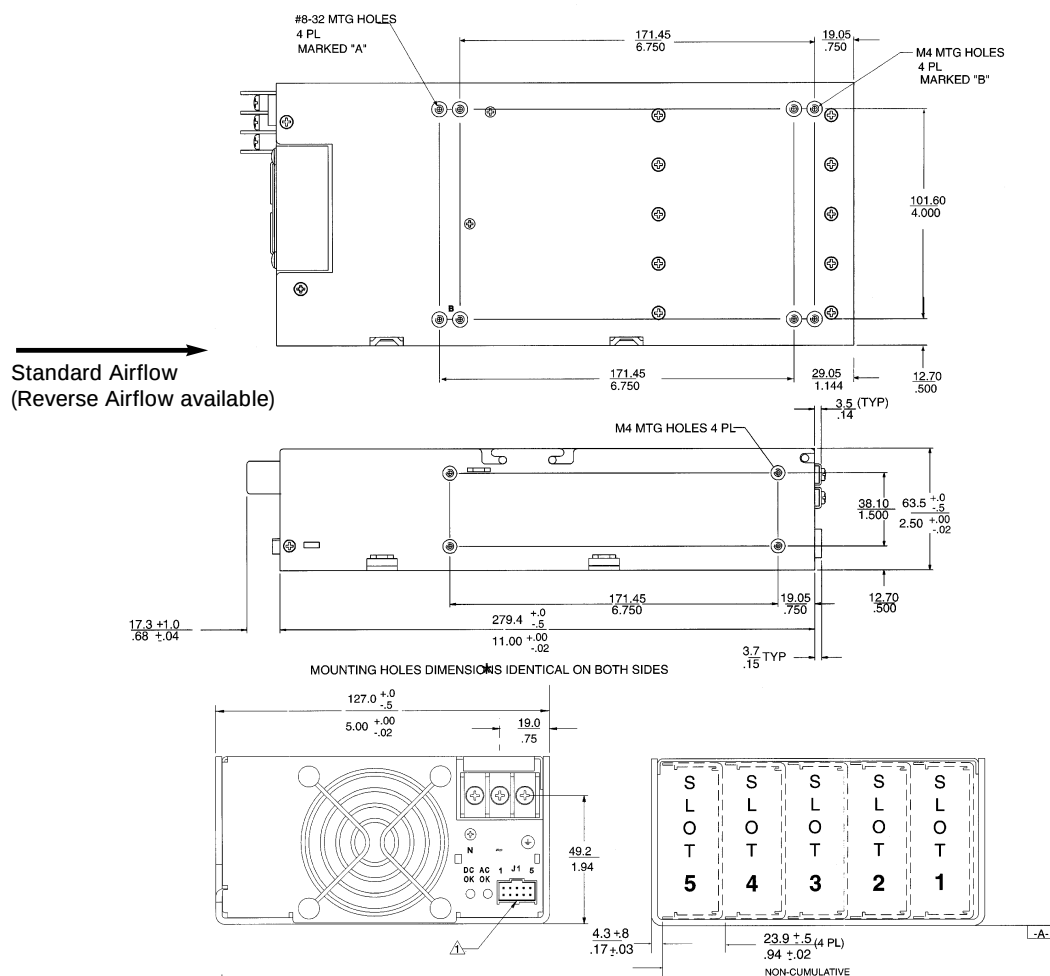
J1 Control Connector (OUTPUT MODULES)	
Pin	Function
1	+ Remote Sense single or dual o/p main
2	Remote Margin / V. Programme single o/p
3	Margin High single o/p
4	- Remote Sense / Margin Low single or dual o/p main
5	Spare
6	Module, Isolated Inhibit single or dual o/p
7	Module Inhibit return single or dual o/p
8	Current Share (SWP) single or dual o/p main
9	+ Remote Sense V2 dual o/p single is spare
10	- Remote Sense V2 dual o/p single is spare

J1-J2 Mating Connector Details
Control connectors; (J1 and J2) 10 position
Molex 90130-3210 housing, gold plated contacts.
Mates with Molex 90153-0210 (IDT) housing, or
90142-0010 housing with 90119-2110 crimp contacts
(Molex C - Grid III Series).
Crimping tool - Molex P/N 69008-0005.
Mating connectors can be supplied by XP



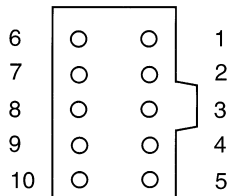
Mechanical Details - RB4 & RB6

Shown for RB6 which is 2.5" x 5" x 11" (*RB4 length is 10" All other dimensions are the same)



J1 Control Connector	
Pin	Function
J1-1	Input AC OK - "Emitter"
J1-2	Input AC OK - "Collector"
J1-3	Global DC OK - "Emitter"
J1-4	Global DC OK - "Collector"
J1-5	Spare
J1-6	Global Inhibit/Optional Enable Logic "0"
J1-7	Global Inhibit/Optional Enable Logic "1"
J1-8	Global Inhibit/Optional Enable Return
J1-9	SELV 5 V Housekeeping
J1-10	SELV 5 V Housekeeping Return
Ten (10) position Molex 90130-3210 housing with select gold plated contacts.	

Viewed from front



Unit Connector

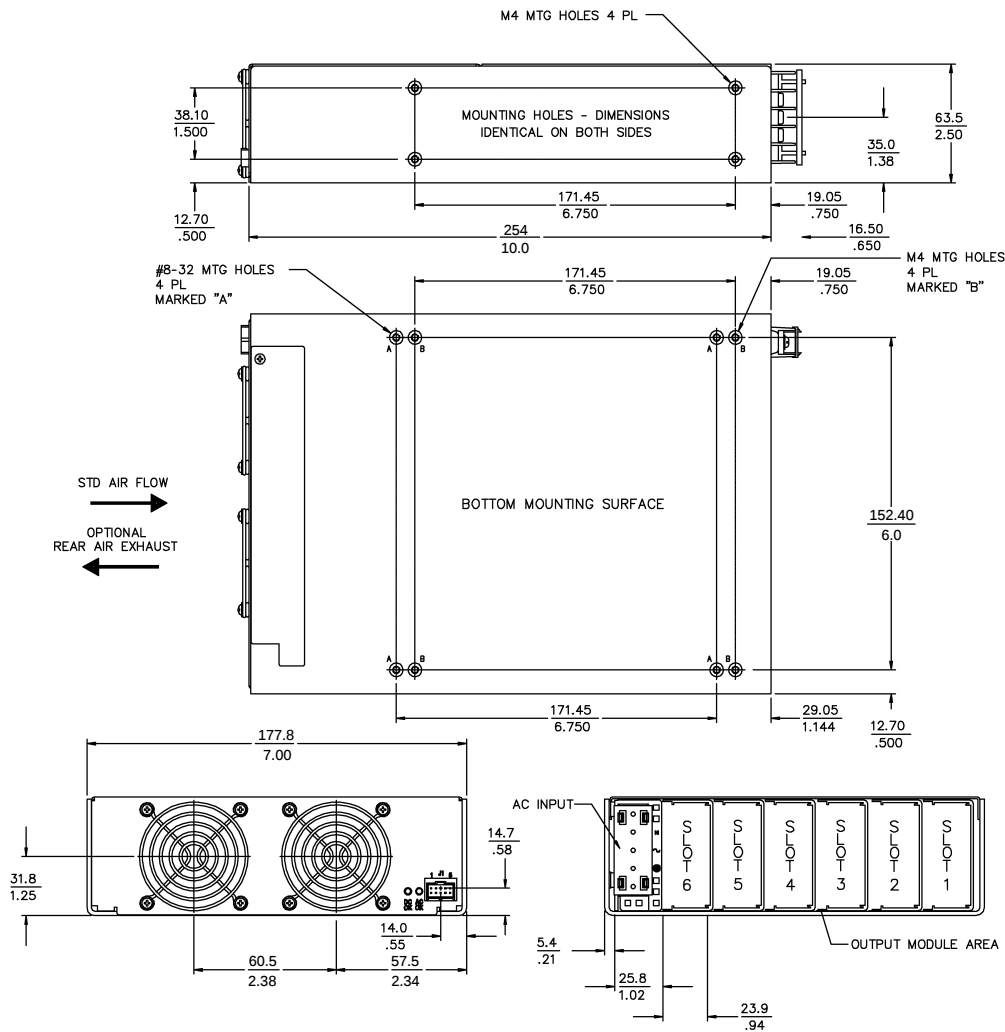
Mating Housing
90142-0010 (Molex)
87977-3 (AMP)

Pins
90119-2110 gold plated (Molex)
87309-8 (AMP)

Crimp Tool
69008-0005 (Molex)



Mechanical Details - RB8



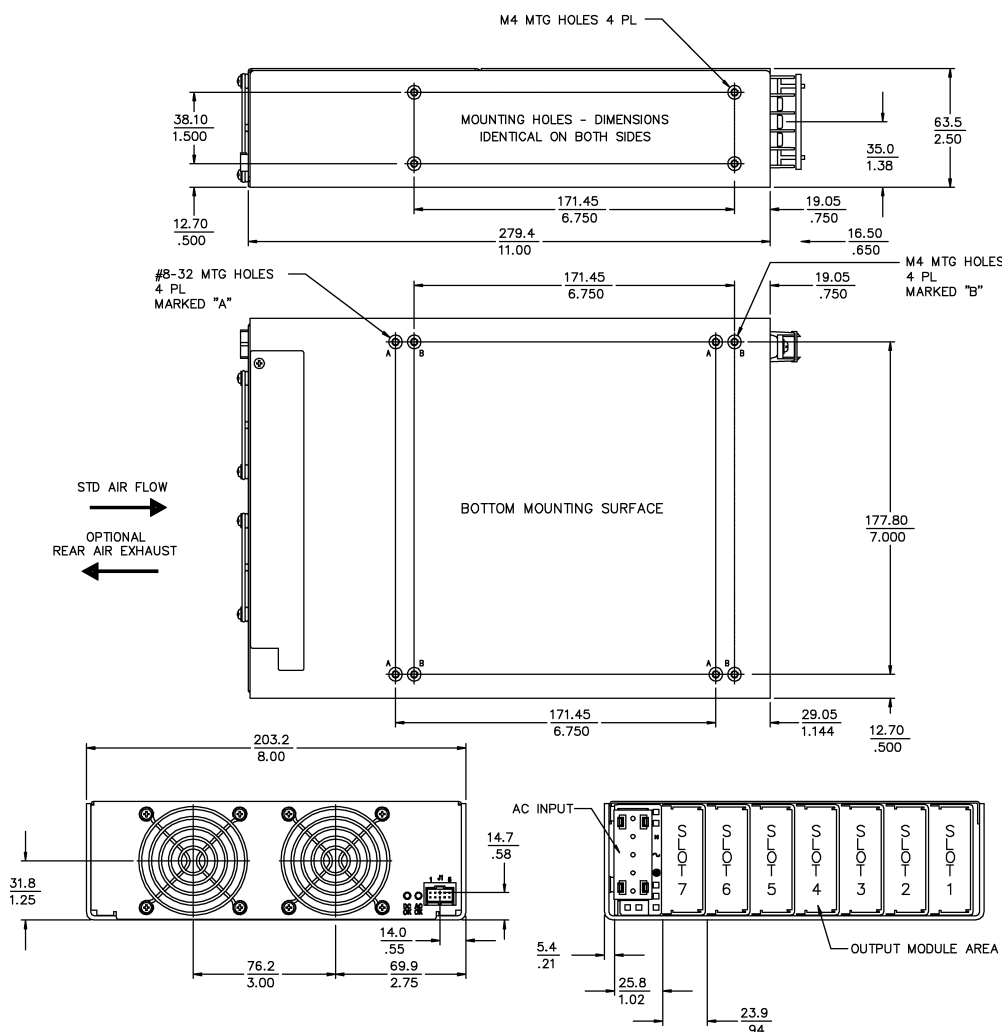
Weight RB8 Chassis 1.86 kgs

J1 Control Connector	
Pin	Function
J1-1	Input AC OK - "Emitter"
J1-2	Input AC OK - "Collector"
J1-3	Global DC OK - "Emitter"
J1-4	Global DC OK - "Collector"
J1-5	Spare
J1-6	Global Inhibit/Optional Enable Logic "0"
J1-7	Global Inhibit/Optional Enable Logic "1"
J1-8	Global Inhibit/Optional Enable Return
J1-9	SELV 5 V Housekeeping
J1-10	SELV 5 V Housekeeping Return
Ten (10) position Molex 90130-3210 housing with select gold plated contacts.	

J1-J2 Mating Connector Details

Control connectors; (J1 and J2) 10 position Molex 90130-3210 housing, gold plated contacts. Mates with Molex 90153-0210 (IDT) housing, or 90142-0010 housing with 90119-2110 crimp contacts (Molex C - Grid III Series). Crimping tool - Molex P/N 69008-0005. Mating connectors can be supplied by XP, P/N 70-841-004



Mechanical Details - RB1

Weight RB1 Chassis 2.3 kgs

J1 Control Connector	
Pin	Function
J1-1	Input AC OK - "Emitter"
J1-2	Input AC OK - "Collector"
J1-3	Global DC OK - "Emitter"
J1-4	Global DC OK - "Collector"
J1-5	Spare
J1-6	Global Inhibit/Optional Enable Logic "0"
J1-7	Global Inhibit/Optional Enable Logic "1"
J1-8	Global Inhibit/Optional Enable Return
J1-9	SELV 5 V Housekeeping
J1-10	SELV 5 V Housekeeping Return
Ten (10) position Molex 90130-3210 housing with select gold plated contacts.	

J1-J2 Mating Connector Details

Control connectors; (J1 and J2) 10 position Molex 90130-3210 housing, gold plated contacts. Mates with Molex 90153-0210 (IDT) housing, or 90142-0010 housing with 90119-2110 crimp contacts (Molex C - Grid III Series). Crimping tool - Molex P/N 69008-0005. Mating connectors can be supplied by XP, P/N 70-841-004

