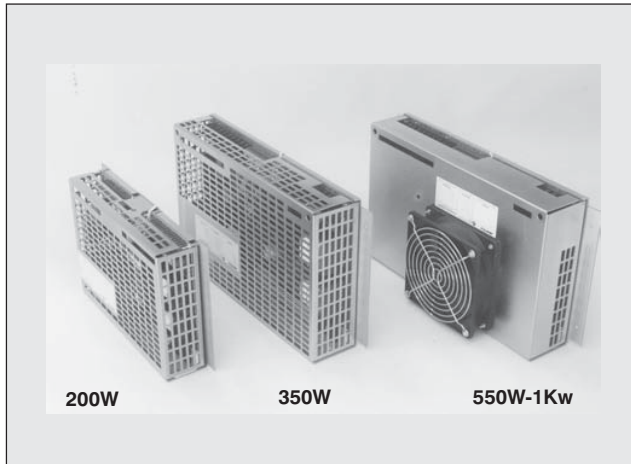


ZA / ZX SERIES

AC/DC & DC Single & Multi Output: 200 - 1000 Watts



Specifications

INPUT VOLTAGE: (AC input options)	55VAC (50~65) 110/240VAC (90~132/175~264) 400VAC (300~450) 90~264VAC with PFC per EN610003-2
INPUT VOLTAGE: (DC input options)	12VDC (11~15) 24VDC (21~30) 48VDC (40~60) 36VDC (30~45) 60VDC (48~75) 100VDC (90~135) 125VDC (125~360) 220VDC (180~270) 300VDC (250~370) 500VDC (425~635)
FREQUENCY:	44~66Hz (400Hz optional)
EARTH LEAKAGE:	Model dependent <2.5mA
EFFICIENCY:	Model dependent 70-96%
INPUT PROTECTION:	Inrush current limiting and input fuse
SAFETY:	Designed to meet IEC950/EN60950, AS3260 approved
HOLD UP TIME:	AC input models typically 18ms DC input models typically 5ms
ISOLATION: (AC Input Models)	Input - output 6-KVDC Input - chassis 2200VDC Output - chassis 500VDC
ISOLATION: (DC Input Models)	Input - output 6KVDC for >100V inputs Input - output 1KVDC for <60V inputs Input - chassis 2200VDC Output - chassis 500VDC
EMC EMISSIONS:	EN55022 Class A radiated EN55022 Class B conducted
EMC IMMUNITY:	EN61000 -4 - 2 level 3,4 ESD EN61000 -4 - 5 level 3 SURGE EN61000 -4 - 4 level 3 BURST EN50140 level 3 radiated EN50140 level 3 conducted
OVP:	Set at approx 120% of nominal electronic crow bar. Rycycle input power to reset
OVERLOAD PROTECTION:	Single output models constant current limit with auto reset and short circuit protection. Multi output models primary power foldback V2, V3, & V4 also protected by output PTC fuse
RIPPLE & NOISE:	Model dependent <0.2% rms <2% pk-pk
DYNAMIC REGULATION:	<1% for 10% load change singles <1% for 25% load change multi outputs
STATIC REGULATION:	<1% for 0-100% load change singles <2% for 20-80% load change multi outputs
LINE REGULATION:	0.5% over input range
MINIMUM LOAD:	Singles will operate with zero load, but require 10% to maintain stated regulation. Multi output 10% required on V1.
REMOTE SENSE:	On main output only, compensate 0.5V max.
COOLING:	200 and 350W models convection cooled. 300, 550 and 750W models fan forced.
OPERATING TEMP:	0° to 40°C at rated power. Consult office for derating graphs to 70°C
CONNECTIONS:	ZX series screw terminals ZE series DIN 4162 H15
MTBF:	Model dependent: typically 100 - 200khrs, consult office for more details

Features

- AC input options from 55V to 450V
- DC input options from 12V to 600V
- Universal input 90-264 VAC with PFC option
- Meets EN55022/AS3548 radiated and conducted
- AS3260 safety approved No: CS7346N
- Parallel operation with power share option
- Series operation of outputs
- High power systems up to 5KW available in 1KW blocks
- N+1 redundant operation option with alarms
- External signalling options
- Flexible design allowing for special outputs and low volume, with short order-to delivery times
- Chassis mount or Eurocard option modules
- Suitable for battery charging applications

Options:

- T:** Over temperature protection. Operates when internal temperature exceeds design maximum. Reset by switching input power off and allowing unit to cool down.
- S:** Signals Board TTL signals indicating System Reset, Input Fail, Output Fail, Power Monitor, Power Share, Remote on/off.
- F:** Signals Board with following functions:
Input Power Fail, Output Power fail via voltage free changeover relay contacts & Power Share, Power Monitor.
- R:** Signals Board with following functions:
Power Fail, via voltage free changeover relay contacts. Power Monitor, Power Share, Remote on/off.
- D:** Isolation diode on singles for N+1 redundancy applications.
- E:** Conformal coating for operation in high humidity environments.

ZA / ZX SERIES

AC/DC & DC Single & Multi Output: 200 - 1000 Watts

Input:

AC single phase 55 to 455V; 47 to 440Hz.
 AC auto-ranging; AC universal input, power factor correction.
 3 phase 415V option is possible. DC inputs from 12V to 700V are possible.

Output:

Single output modules from 2V up to 300V. Multiple outputs with up to 5 separate voltages from 2V to 100V.
 Adjustable constant current option. Externally programmable voltage and current options.

Ruggedised:

Units can be ruggedised and conformally coated for operation in mobile applications or corrosive high humidity environments.

Mechanics:

Apart from our standard ZX/ZE/ZC units, we can package systems in a variety of formats to meet special applications. 19" rack mount solutions featuring N+1 redundancy with isolation diodes, alarms, custom connections and LED's to "Hot Swap" plug-in modular systems.

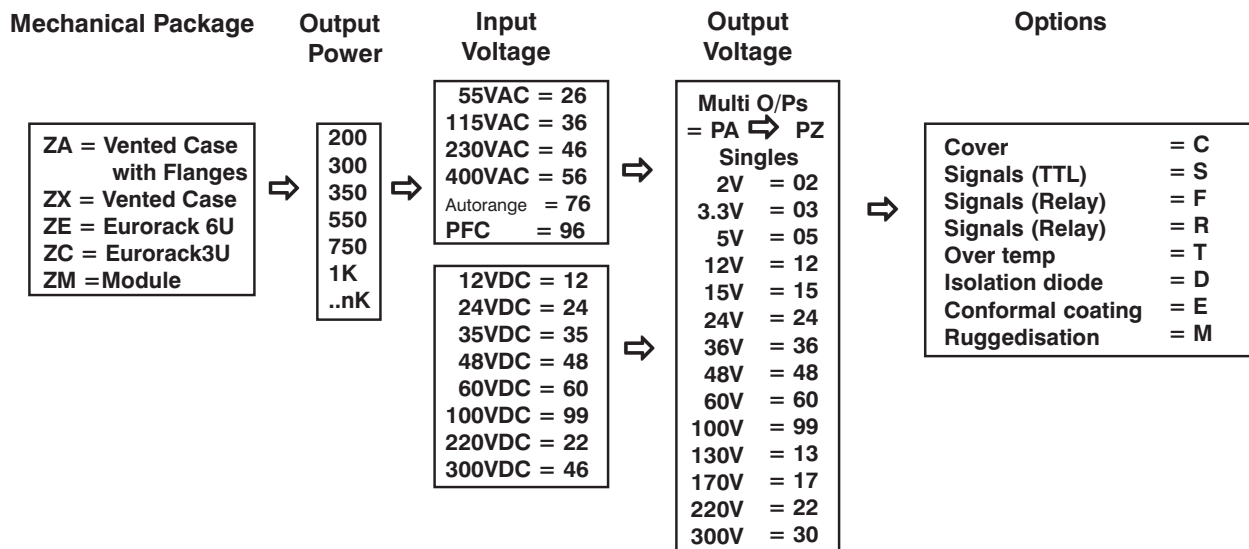
High Peak Power Applications:

Units can be made available to supply up to 250% of the rated power. For example, a 200W unit could deliver 500W for up to 20 seconds for high power applications such as solenoids and printers, disc drives etc.

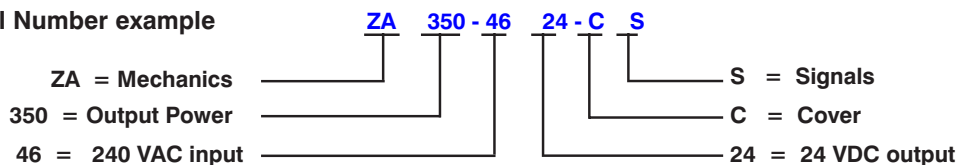
Battery Charging

Our ZX series is also offered as *Battery Charging* units, see Battery Charging section of our catalogue.

Model Numbering



Model Number example



Note: Some input/output combinations may not be available

Mechanics

	(H x W x L)
ZA200	55 x 160 x 260mm
ZA300	82 x 160 x 260mm
ZA350	63 x 190 x 340mm
ZA550	102 x 190 x 340mm
ZA750	102 x 190 x 340mm
ZA1K	102 x 190 x 340mm

Eurorack

ZE200	6U x 12TE x 160mm
ZE300	6U x 18TE x 160mm
ZE350	6U x 14TE x 340mm
ZE550	6U x 22TE x 340mm
ZE550	6U x 22TE x 340mm

Eurocassette

-	-
-	-
ZC350	3U x 42TE x 340mm
ZC550	3U x 42TE x 340mm
ZC750	3U x 42TE x 340mm

ZA / ZX SERIES



AC/DC & DC Single & Multi Output: 200 - 1000 Watts

SINGLE OUTPUT RATINGS TABLE

The following table illustrates the "standard" range of input and output voltages and their corresponding maximum output current for a given input voltage.

INPUT VOLTAGE	OUTPUT VOLTAGE & CURRENT												
	2V	3V	5V	12V	15V	24V	36V	48V	60V	100V	130V	170V	220V
ZA200													
12 vdc	38A	33A	24A	11.0A	9.0A	5.7A	3.9A	3.0A	2.4A	1.46A	1.12A	0.86A	0.66A
24 vdc & 36 vdc	56A	46A	33A	14.9A	12.1A	7.7A	5.2A	4.0A	3.3A	1.95A	1.50A	1.15A	0.89A
48 vdc	63A	50A	37A	16.4A	13.4A	8.5A	5.8A	4.4A	3.6A	2.1A	1.65A	1.26A	0.97A
60 vdc	65A	50A	37A	17.0A	13.8A	8.8A	6.0A	4.6A	3.7A	2.2A	1.71A	1.31A	1.0A
100 vdc	65A	50A	37A	17.6A	14.3A	9.1A	6.2A	4.7A	3.8A	2.3A	1.77A	1.35A	1.04A
55 vac	60A	49A	35A	15.8A	12.9A	8.2A	5.6A	4.2A	3.4A	2.0A	1.59A	1.22A	0.94A
115 vac	65A	50A	37A	17.0A	13.8A	8.8A	6.0A	4.6A	3.7A	2.2A	1.71A	1.31A	1.0A
230 vac & 220 vdc	65A	50A	37A	17.9A	14.6A	9.3A	6.3A	4.8A	3.8A	2.3A	1.80A	1.35A	1.0A
400 vac	65A	50A	37A	18.2A	14.8A	9.4A	6.4A	4.8A	3.8A	2.3A	1.80A	1.35A	1.0A
115~230 vac PFC	63A	50A	37A	16.4A	13.4A	8.5A	5.8A	4.4A	3.6A	2.1A	1.65A	1.26A	0.97A
ZA300													
12 vdc	72A	59A	42A	19A	15.5A	9.9A	6.7A	5.1A	4.2A	2.5A	1.9A	1.5A	1.15A
24 vdc & 36 vdc	97A	74A	55A	25A	20A	12.8A	8.7A	6.6A	5.4A	3.2A	2.5A	1.9A	1.45A
48 vdc	97A	74A	55A	27A	22A	14.0A	9.5A	7.2A	5.7A	3.4A	2.6A	2.0A	1.54A
60 vdc	97A	74A	55A	28A	23A	14.3A	9.5A	7.2A	5.7A	3.4A	2.6A	2.0A	1.54A
100 vdc	97A	74A	55A	28A	23A	14.3A	9.5A	7.2A	5.7A	3.4A	2.6A	2.0A	1.54A
55 vac	97A	74A	55A	26A	21A	13.5A	9.2A	7.0A	5.7A	3.4A	2.6A	2.0A	1.54A
115 vac	97A	74A	55A	28A	23A	14.3A	9.5A	7.2A	5.7A	3.4A	2.6A	2.0A	1.54A
230 vac & 220 vdc	97A	74A	55A	28A	23A	14.3A	9.5A	7.2A	5.7A	3.4A	2.6A	2.0A	1.54A
400 vac	97A	74A	55A	28A	23A	14.3A	9.5A	7.2A	5.7A	3.4A	2.6A	2.0A	1.54A
115~230 vac PFC	97A	74A	55A	27A	22A	14.0A	9.5A	7.2A	5.7A	3.4A	2.6A	2.0A	1.54A
ZA350													
12 vdc	67A	57A	42A	19.3A	15.7A	10.0A	6.8A	5.2A	4.3A	2.6A	2.0A	1.5A	1.15A
24 vdc & 36 vdc	98A	81A	58A	26A	21A	13.5A	9.2A	7.0A	5.7A	3.4A	2.6A	2.0A	1.54A
48 vdc	111A	84A	64A	29A	23A	14.9A	10.0A	7.7A	6.3A	3.8A	2.9A	2.2A	1.7A
60 vdc	111A	84A	65A	30A	24A	15.4A	10.4A	8.0A	6.5A	3.9A	3.0A	2.3A	1.7A
100 vdc	111A	84A	65A	31A	25A	15.9A	10.8A	8.1A	6.5A	3.9A	3.0A	2.3A	1.7A
55 vac	106A	84A	62A	28A	22.5A	14.3A	9.7A	7.4A	6.0A	3.6A	2.8A	2.1A	1.61A
115 vac	111A	84A	65A	30A	24A	15.4A	10.4A	8.0A	6.5A	3.9A	3.0A	2.3A	1.7A
230 vac & 220 vdc	111A	84A	65A	31A	25A	16.2A	10.8A	8.1A	6.5A	3.9A	3.0A	2.3A	1.7A
400 vac	111A	84A	65A	32A	26A	16.2A	10.8A	8.1A	6.5A	3.9A	3.0A	2.3A	1.7A
115~230 vac PFC	111A	84A	64A	29A	23.4A	14.9A	10.1A	7.7A	6.3A	3.8A	2.9A	2.2A	1.7A
ZA550													
12 vdc	132A	109A	77A	35A	28A	18A	12.3A	9.4A	7.6A	4.6A	3.5A	2.7A	2.0A
24 vdc & 36 vdc	176A	132A	102A	46A	37A	23A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
48 vdc	176A	132A	104A	48A	38A	24A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
60 vdc	176A	132A	104A	48A	38A	24A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
100 vdc	176A	132A	104A	48A	38A	24A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
55 vac	176A	132A	104A	48A	38A	24A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
115 vac	176A	132A	104A	48A	38A	24A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
230 vac & 220 vdc	176A	132A	104A	48A	38A	24A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
400 vac	176A	132A	104A	48A	38A	24A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
115~230 vac PFC	176A	132A	104A	48A	38A	24A	16A	12A	9.5A	5.7A	4.4A	3.4A	3.0A
ZA750													
48 vdc				55A	45A	29A	20A	14.9A	12.2A	7.3A	5.6A	4.3A	3.3A
60 vdc				58A	47A	30A	20A	15.5A	12.6A	7.6A	5.8A	4.5A	3.45A
100 vdc				60A	49A	31A	21A	16.1A	13.0A	7.8A	6.0A	4.5A	3.45A
230 vac & 220 vdc				61A	50A	32A	21A	16.2A	13.0A	7.8A	6.0A	4.5A	3.45A
400 vac				62A	51A	32A	22A	16.2A	13.0A	7.8A	6.0A	4.5A	3.45A
ZA1Kw													
100 vdc						46A	31A	24A	19.0A	11.5A	8.9A	6.5A	5.0A
230 vac & 220 vdc						46A	31A	24A	19.0A	11.7A	9.0A	6.5A	5.0A
400 vac						47A	32A	24A	19.0A	11.9A	9.0A	6.5A	5.0A
Output Voltage Adj. Range	1.8 to 2.4V	3.0 to 4.0V	4.5 to 6.0V	10.8 to 14.4V	13.5 to 18.0V	21.6 to 28.8V	32.5 to 43.2V	43.5 to 57.5V	54.0 to 72.0V	90.0 to 120.0V	120.0 to 155.0V	155.0 to 202.0V	200.0 to 260.0V

ZA / ZX SERIES



AC/DC & DC Single & Multi Output: 200 - 1000 Watts

MULTI OUTPUT RATINGS TABLE

The following table illustrates the "standard" range of input and output voltages and their corresponding maximum output current and total output power.

UNIT POWER	OUTPUT VOLTAGE CODE	OUTPUT VOLTAGE & CURRENT						
		V1	V2	V3	V4	V5	Power (1)(4)	
ZA200	PA	+5V 20A	-5V 4A	-12V 4A	+12V 8A	+24V 4A	200W	
	PB	+5V 20A	-5V 4A	-15V 3A	+15V 3A	+24V 4A	200W	
	PC	+5V 20A	-8V 3A	-15V 3A	+15V 3A	+24V 4A	200W	
	PD	+5V 20A	-5V 4A	-12V 4A	+12V 8A	+12V 8A	200W	
	PE	+8V 12A	-8V 3A	-15V 3A	+15V 3A	+24V 4A	200W	
	PF	+5V 20A	-15V 2A	-12V 4A	+12V 8A	+15V 2A	200W	
	PG	+5V 20A	-5V 4A	-15V 3A	+15V 3A	+28V 3A	200W	
ZA300	PA	+5V 30A	-5V 5A	-12V 5A	+12V 10A	+24V 5A	300W	
	PB	+5V 30A	-5V 5A	-15V 4A	+15V 4A	+24V 5A	300W	
	PC	+5V 30A	-8V 4A	-15V 4A	+15V 4A	+24V 5A	300W	
	PD	+5V 30A	-5V 5A	-12V 5A	+12V 10A	+12V 10A	300W	
	PE	+8V 18A	-8V 4A	-15V 4A	+15V 4A	+24V 5A	300W	
	PF	+5V 30A	-15V 3A	-12V 5A	+12V 10A	+15V 3A	300W	
	PG	+5V 30A	-5V 5A	-15V 4A	+15V 4A	+28V 4A	300W	
ZA350	PA	+5V 50A	-5V 4A	-12V 4A	+12V 8A	+24V 4A	350W	
	PB	+5V 50A	-5V 4A	-15V 4A	+15V 4A	+24V 4A	350W	
	PC	+5V 50A	-8V 3A	-15V 4A	+15V 4A	+24V 4A	350W	
	PD	+5V 50A	-5V 4A	-12V 4A	+12V 8A	+12V 8A	350W	
	PE	+8V 30A	-8V 3A	-15V 4A	+15V 4A	+24V 4A	350W	
	PF	+5V 50A	-15V 3A	-12V 4A	+12V 8A	+15V 3A	350W	
	PG	+5V 50A	-5V 4A	-15V 4A	+15V 4A	+28V 3A	350W	
ZA550	PA	+5V 60A	-5V 5A	-12V 5A	+12V 10A	+24V 5A	550W	
	PB	+5V 60A	-5V 5A	-15V 5A	+15V 5A	+24V 5A	550W	
	PC	+5V 60A	-8V 4A	-15V 5A	+15V 5A	+24V 5A	550W	
	PD	+5V 60A	-5V 5A	-12V 5A	+12V 10A	+12V 10A	550W	
	PE	+8V 40A	-8V 4A	-15V 5A	+15V 5A	+24V 5A	550W	
	PF	+5V 60A	-15V 4A	-12V 5A	+12V 10A	+15V 4A	550W	
	PG	+5V 60A	-5V 5A	-15V 5A	+15V 5A	+28V 4A	550W	
ZA750	PA	+5V 60A	-5V 5A	-12V 5A	+12V 12A	+24V 8A	750W	
	PB	+5V 60A	-5V 5A	-15V 5A	+15V 5A	+24V 8A	750W	
	PC	+5V 60A	-8V 4A	-15V 5A	+15V 5A	+24V 8A	750W	
	PD	+5V 60A	-5V 5A	-12V 5A	+12V 12A	+12V 12A	750W	
	PE	+8V 40A	-8V 4A	-15V 5A	+15V 5A	+24V 8A	750W	
	PF	+5V 60A	-15V 4A	-12V 5A	+12V 12A	+15V 4A	750W	
	PG	+5V 60A	-5V 5A	-15V 5A	+15V 5A	+28V 5A	750W	

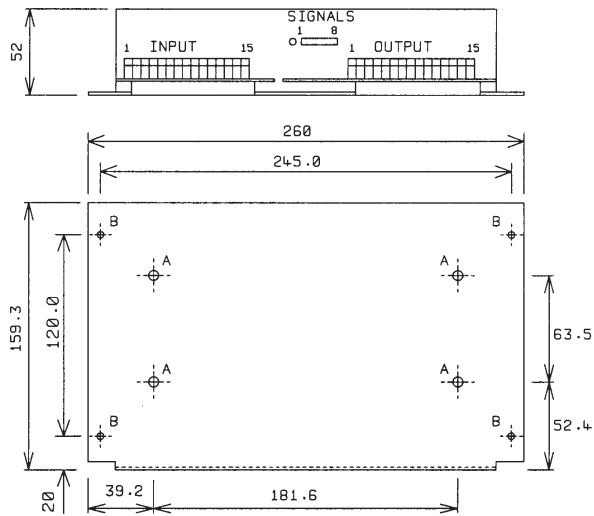
Notes:

1. Minimum load of 10% required on V1 to meet regulation specification.
2. Total output power indicated is for an input of $\geq 48\text{VDC}$ or $\geq 115\text{VAC}$.
3. Consult for output power rating for other input voltages.
4. All outputs can deliver 200% peak current for up to 10 seconds within the total power limit.
5. Peak power ZA200/ZA300 = 300 watts. ZA350/550 = 600 watts, ZA750 = 750 watts.
6. Output voltage adjustment V1 only $\pm 10\%$.
7. ZA200 & ZA350 convection cooled. ZA300, ZA550 & ZA750 internal fan cooling.

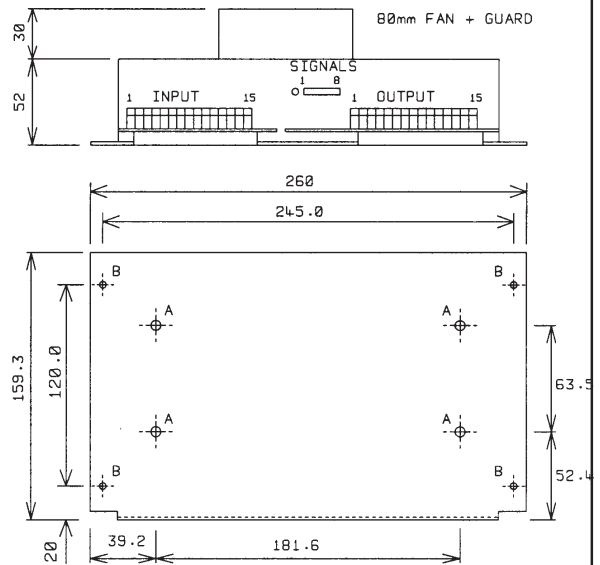
ZA / ZX SERIES

AC/DC & DC Single & Multi Output: 200 - 1000 Watts

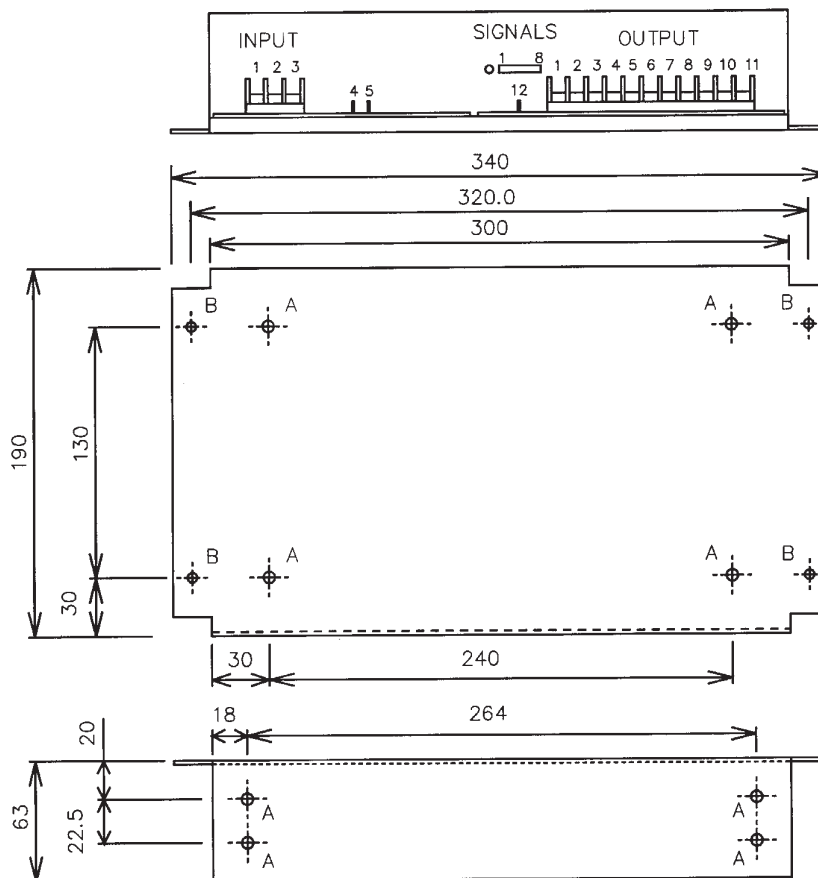
ZA200



ZA300



ZA350



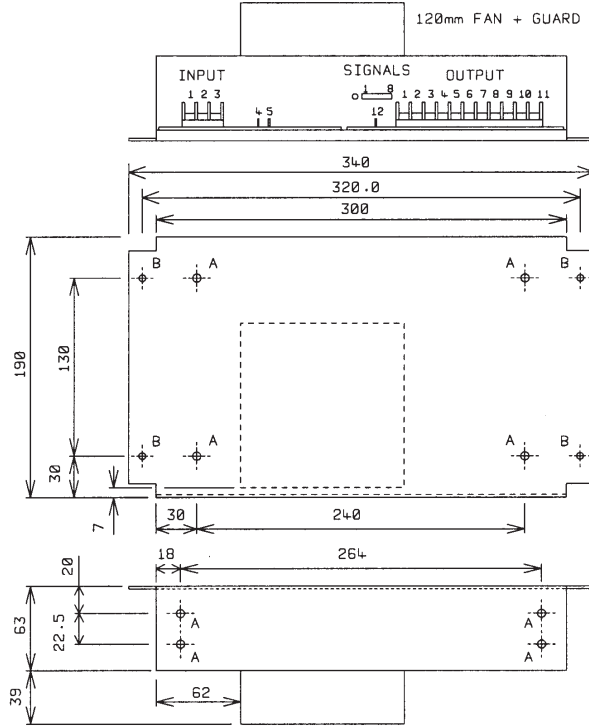
All dimensions in mm

ZA / ZX SERIES

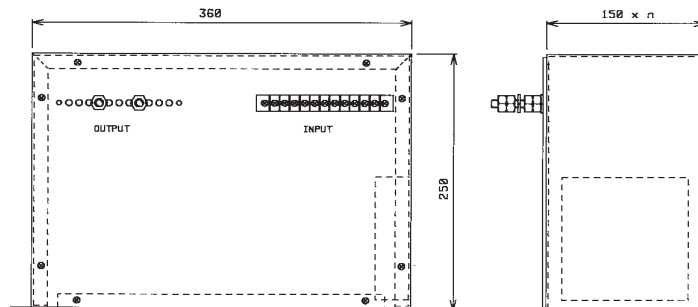
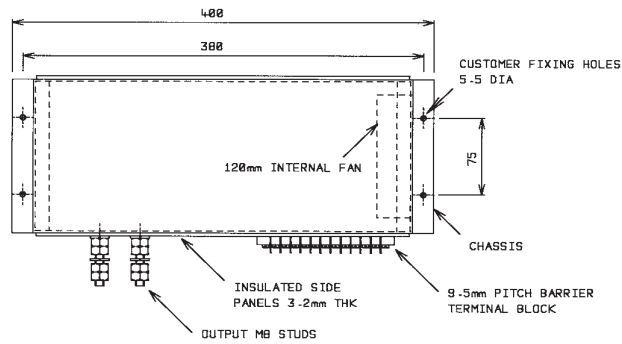


AC/DC & DC Single & Multi Output: 200 - 1000 Watts

ZA550, ZA750, ZA1K



M - HIGH POWER SYSTEMS



Note:
Width "n" = number
of 1Kw modules x 150mm

All dimensions in mm