

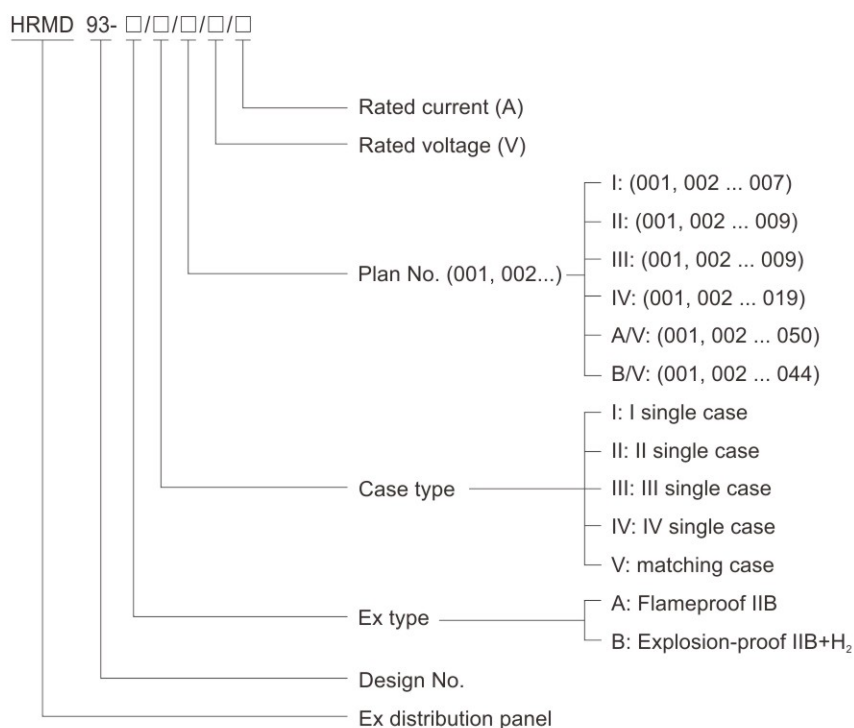
## Distribution Boxes

### HRMD93 Series Explosion-proof Distribution Panels



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- ◆ Main switch and branch switch are operated with external rotary actuator.
- ◆ Internal wiring to the terminal is finished.
- ◆ International brand of explosion-proof terminal blocks.
- ◆ Copper-free Aluminium Alloy, powder coated surface.
- ◆ Entries plugged. Cable glands on request (see P7/17~29).
- ◆ Special requirements on request.

#### Catalogue number logic



# Zones 1 & 2; 21 & 22

## Distribution Boxes

### HRMD93 Series Explosion-proof Distribution Panels

Technical data	
Explosion-proof distribution panels HRMD93-□/□/□/□	
<b>Explosion protection</b>	
Global (IECEx)	IECEx PCET 22.0011X
Gas and dust	Ambient temperature range: $-60^{\circ}\text{C} \leq T_a \leq +40(+60)^{\circ}\text{C}$ Ex db IIB T6...T4 Gb Ex db IIB+H <sub>2</sub> T6...T4 Gb Ex tb IIIC T80°C...T130°C Db Ambient temperature range: $-40^{\circ}\text{C} \leq T_a \leq +40(+60)^{\circ}\text{C}$ Ex db [ia Ga] IIB T6...T4 Gb Ex db [ib Gb] IIB T6...T4 Gb Ex db [ia Ga] IIB+H <sub>2</sub> T6...T4 Gb Ex db [ib Gb] IIB+H <sub>2</sub> T6...T4 Gb Ex tb IIIC T80°C...T130°C Db
Europe (ATEX)	TPS 23 ATEX 089761 0029 X
Gas and dust	Ambient temperature range: $-60^{\circ}\text{C} \leq T_a \leq +40(+60)^{\circ}\text{C}$ ⊕ II 2 G Ex db IIB T6...T4 Gb ⊕ II 2 G Ex db IIB+H <sub>2</sub> T6...T4 Gb ⊕ II 2 D Ex tb IIIC T80°C...T130°C Db Ambient temperature range: $-40^{\circ}\text{C} \leq T_a \leq +40(+60)^{\circ}\text{C}$ ⊕ II 2 G Ex db [ia Ga] IIB T6...T4 Gb ⊕ II 2 G Ex db [ib Gb] IIB T6...T4 Gb ⊕ II 2 G Ex db [ia Ga] IIB+H <sub>2</sub> T6...T4 Gb ⊕ II 2 G Ex db [ib Gb] IIB+H <sub>2</sub> T6...T4 Gb ⊕ II 2 D Ex tb IIIC T80°C...T130°C Db
<b>Certificates</b>	IECEx; ATEX
<b>Conformity to standards</b>	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
<b>Rated voltage</b>	Low voltage: MAX. 1000V AC 50/60Hz; MAX. 1500V DC High voltage: 6kV, 10kV, 24kV, 35kV AC 50/60Hz
<b>Rated current</b>	Max. 2000A
<b>Exposed fastener</b>	Stainless steel
<b>Enclosure material</b>	Copper-free Aluminium Alloy, powder coated surface
<b>Enclosure colour</b>	Window grey (RAL7040)
<b>Built-in components</b>	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Terminal	International brand of terminal blocks
Indicator	Red, green, yellow
<b>Degree of protection</b>	IP66
<b>Internal&amp;external earthing</b>	M6/M8, M8/M8
<b>Ambient temperature</b>	$-40^{\circ}\text{C} \leq T_a \leq +40(+60)^{\circ}\text{C}$ , $-60^{\circ}\text{C} \leq T_a \leq +40(+60)^{\circ}\text{C}$
<b>Cable entries</b>	Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT □ plug on request.
<b>Cable gland (optional)</b>	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
<b>Entry direction</b>	Bottom
<b>Mounting</b>	Surface type (standard) Pedestal type (optional)



## Distribution Boxes

### HRMD93 Series Explosion-proof Distribution Panels

#### Form of maximum power dissipation and temperature rise

Ta=60℃	HRMD93 with full metal cover without glass window					
	T4(T130℃)		T5(T95℃)		T6(T80℃)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD93-B/I	178	50	106	35	52	18
HRMD93-B/II	300	50	132	35	63	18
HRMD93-B/III	425	50	250	35	130	18
HRMD93-B/IV	700	50	410	35	215	18

Ta=60°C	HRMD93 with full metal cover with glass window						
	T4(T130°C)		T5(T95°C)		T6(T80°C)		
	Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
	HRMD93-B/I	150	50	85	35	38	18
	HRMD93-B/II	185	50	112	35	58	18
	HRMD93-B/III	325	50	210	35	95	18
	HRMD93-B/IV	700	50	410	35	180	18

Ta=40°C	HRMD93 with full metal cover without glass window						
	T4(T130°C)		T5(T95°C)		T6(T80°C)		
	Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
	HRMD93-B/I	255	70	178	55	116	38
	HRMD93-B/II	375	70	215	55	150	38
	HRMD93-B/III	575	70	425	55	276	38
	HRMD93-B/IV	975	70	700	55	480	38

Ta=40°C	HRMD93 with full metal cover with glass window					
	T4(T130°C)		T5(T95°C)		T6(T80°C)	
Type	Power (W)	T Rise (K)	Power (W)	T Rise (K)	Power (W)	T Rise (K)
HRMD93-B/I	255	70	150	55	96	38
HRMD93-B/II	375	70	185	55	130	38
HRMD93-B/III	575	70	325	55	215	38
HRMD93-B/IV	975	70	660	55	460	38

#### Power consumption at Ta=60°C

Type	Type of combination	T4/T130°C	T5/T95°C	T6/T80°C
*HRMD93-A/V/045	type III and IV	III: 310W IV: 460W	III: 155W IV: 310W	III: 80W IV: 160W
*HRMD93-A/V/046	type II and III and IV	II: 146W III: 280W IV: 383W	II: 115W III: 155W IV: 310W	II: 50W III: 80W IV: 160W
*HRMD93-A/V/047	type I and II and III and IV	I: 108W II: 146W III: 280W IV: 383W	I: 55W II: 110W III: 150W IV: 305W	I: 30W II: 50W III: 80W IV: 160W
*HRMD93-A/V/048	type I and III and IV	I: 103W III: 275W IV: 378W	I: 60W III: 155W IV: 310W	I: 30W III: 80W IV: 160W





## Distribution Boxes

### HRMD93 Series Explosion-proof Distribution Panels

Power consumption at Ta=40°C				
Type	Type of combination	T4/T130°C	T5/T95°C	T6/T80°C
*HRMD93-A/V/045	type III and IV	III: 370W IV: 787W	III: 310W IV: 460W	III: 155W IV: 310W
*HRMD93-A/V/046	type II and III and IV	II: 245W III: 393W IV: 787W	II: 146W III: 280W IV: 383W	II: 115W III: 155W IV: 310W
*HRMD93-A/V/047	type I and II and III and IV	I: 150W II: 220W III: 320W IV: 700W	I: 108W II: 146W III: 280W IV: 383W	I: 55W II: 110W III: 150W IV: 305W
*HRMD93-A/V/048	type I and III and IV	I: 150W III: 385W IV: 787W	I: 103W III: 275W IV: 378W	I: 60W III: 155W IV: 310W

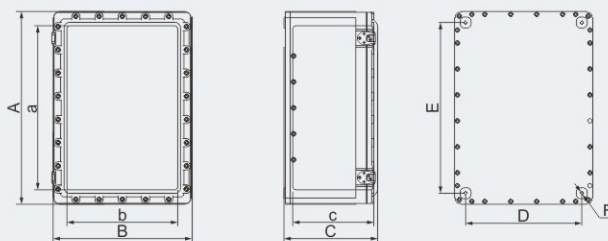
Power consumption at Ta=60°C				
Type	Type of combination	T4/T130°C	T5/T95°C	T6/T80°C
*HRMD93-B/V/025	type I and II	I: 116W II: 153W	I: 60W II: 115W	I: 30W II: 50W
*HRMD93-B/V/020	type II and IV	II: 146W IV: 460W	II: 115W IV: 310W	II: 50W IV: 160W
*HRMD93-B/V/019	type III and IV	III: 310W IV: 460W	III: 155W IV: 310W	III: 80W IV: 160W

Power consumption at Ta=40°C				
Type	Type of combination	T4/T130°C	T5/T95°C	T6/T80°C
*HRMD93-B/V/025	type I and II	I: 150W II: 225W	I: 116W II: 153W	I: 60W II: 115W
*HRMD93-B/V/020	type II and IV	II: 245W IV: 787W	II: 146W IV: 460W	II: 115W IV: 310W
*HRMD93-B/V/019	type III and IV	III: 385W IV: 787W	III: 310W IV: 460W	III: 155W IV: 310W

Note: \*reference represents a representative type, which can cover the type of HRMD93-B/V and HRMD93-A/V.



#### Dimension drawings (all dimensions in mm) - subject to alteration



Version	External dimension			Internal dimension			Mounting dimension		
	A	B	C	a	b	c	D	E	F
I	250	200	215	175	125	173	125	175	M10
II	350	250	290	280	180	236	175	175	M10
III	500	350	298	420	270	233	275	425	M12
IV	700	500	343	610	410	278	425	625	M12

#### Note

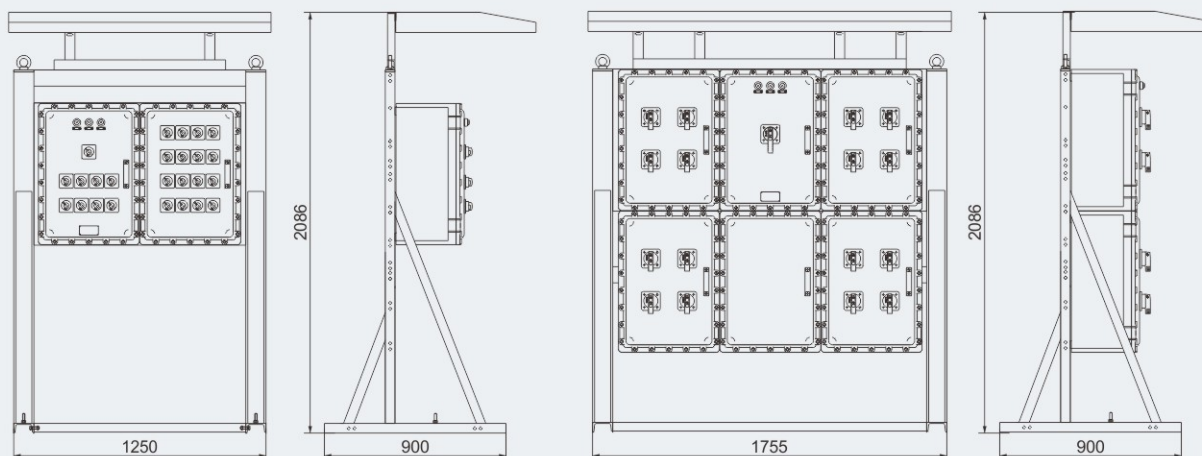
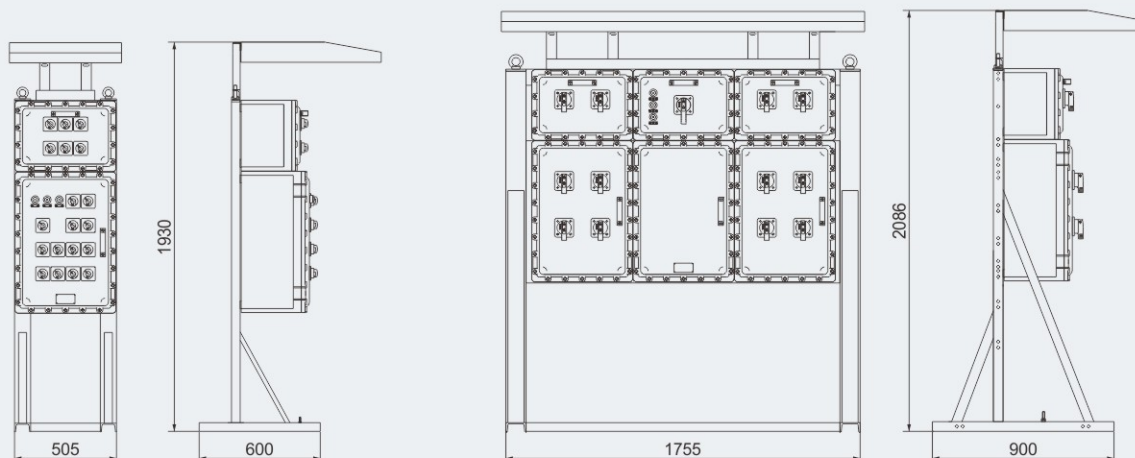
1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

## Distribution Boxes

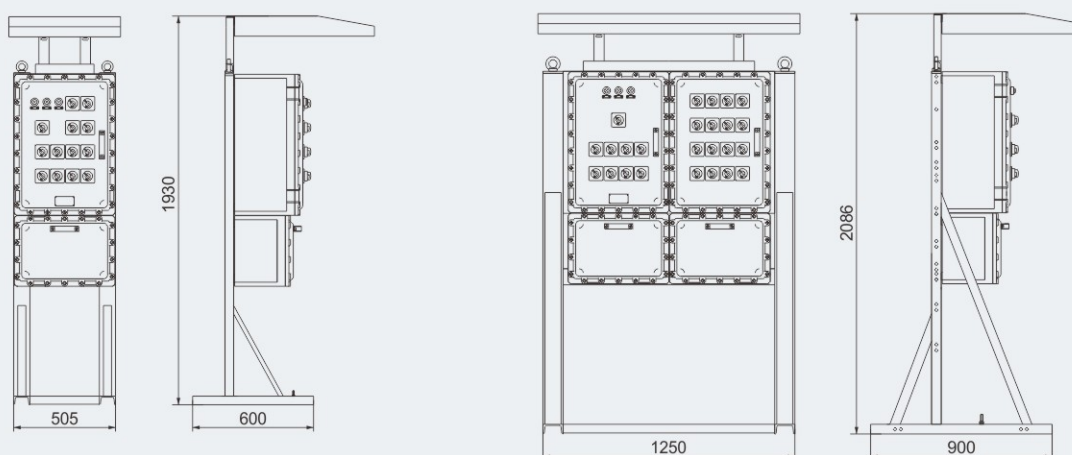
### HRMD93 Series Explosion-proof Distribution Panels

**Dimension drawings** (all dimensions in mm) - subject to alteration

From 2B



From 4B

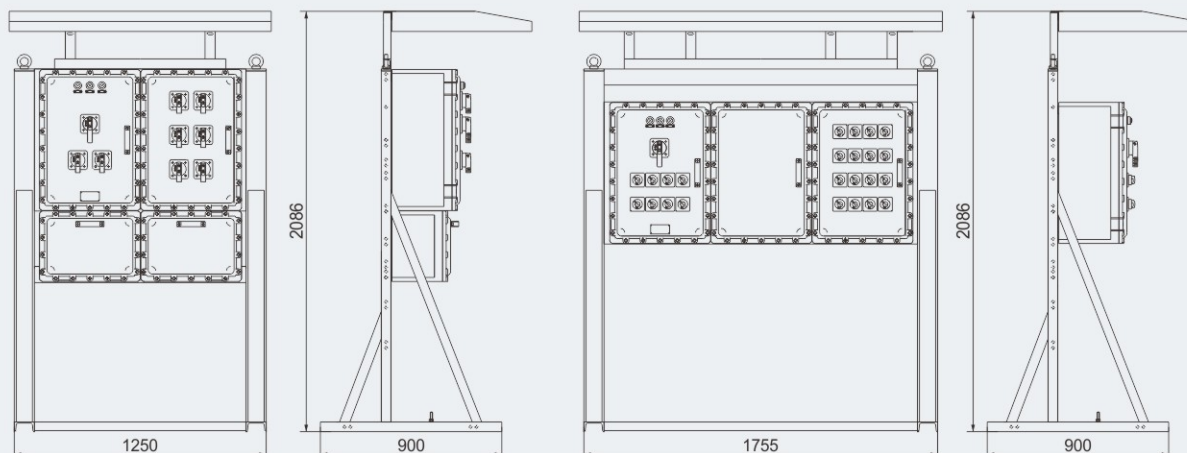


## Distribution Boxes

### HRMD93 Series Explosion-proof Distribution Panels

#### Dimension drawings (all dimensions in mm) - subject to alteration

From 4B



Independent type

