

AVANTI
MARKETING INTERNATIONAL™

MINING CHARGER RACKS



MINE RACKS

CUSTOM BUILD

280 Cap Lamp Charging Racks



Scope

The 280 point charger rack is designed for the charging of miners cap lamp and should be used for this purpose only. The Rack is equipped with:

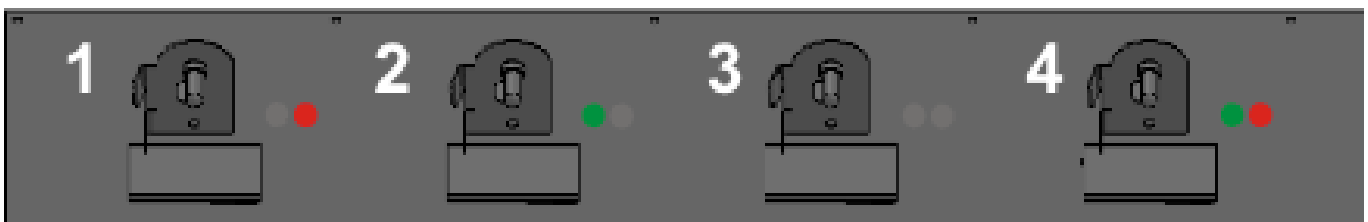
- 28 Mean Well power supplies
- 280 indication PCB's
- Toggle switch for on and off mode with red bulb for indication
- 10amp circuit breaker (Reset Switch)
- The Body of the charger is made form stainless steel.

Indication PCB

- The PCB is equipped with DIP switch and 2 LED's, Red and Green.
- The Dip switch can be set to compensatep for different levels of parasitic load

SW No	SW	LED/ON	Total Current	Other Current
1	R-S1	R	>420mA	0 mA
2	R-S2	R	>520mA	100mA
3	R-S3	R	>570mA	150mA
4	R-S4	R	>620mA	200mA
5	R-S5	R	>670mA	250mA

SW No	SW	LED/ON	Total Current	Other Current
6	G-S1	G	100mA<l<420mA	0 mA
7	R-S2	G	150mA<l<520mA	100mA
8	R-S3	G	200mA<l<570mA	150mA
9	R-S4	G	250mA<l<620mA	200mA
10	R-S5	G	300mA<l<420mA	250mA



1. RED ON = CHARGING
2. GREEN ON = FULL CHARGE REACHED (+/-14.1V)
3. RED AND GREEN OFF = BATTERY PROTECTION TERMINATE CHARGE (+/-4.3V)
4. THE LED WILL BE RED AND START FLICKERING GREEN CLOSE TO FULL CHARGE.



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Charging supply Specification

General

1. Mean Well switch mode power supplies are used for the conversion of 230VAC to 5VDC
2. 230VAC is transferred from the Distribution box to the charger with 1.0mm cab tyre 3 core cable.
3. The 230VAC enters the charger trough a series of bus bars where all 28 power supplies are connected.
4. A 10amp circuit breaker is placed inline for over current protection.
5. The PS will transfer constant 5VDC to bus bar.
6. A negative key together with a positive plate taht is connected to teh bus bar will supply 1.5A at 5.2DC. (The supply Voltage is adjustable between 4.75V - 5.5V)
7. Please refer to the Specification atatched hereto for details on the Mean Well.

Distribution Box Wurring

1. Each of the Mean Well power supply units have a worst case scenario earth leakage current of The parallel sum of the 28 supplies is potentially 56mA leakage current. This is substantially higher than the rating of a standard 30mA earth leakage Circuit breaker(ELCB).
2. Electrical wiring regulations only requires a 3DmA ELCB for standard plug sockets that can accommodate portable tools. The cap lamp charging racks are deemed to be a fixed installation and do not require to be supplied mains power through a 30mA ELCB.
3. The cap lamp charging racks must be supplied mains power through a miniature circuit breaker(MCB) that is fed through a 250mA to 50DmA ELCB_ Alliteratively the MCB that supplies mains power to the racks, must to bc installed in front of ELCB. If these guidelines are not followed. the rack will continuously trip the ELCB.
4. The 280 point rack can consume a minimum mains current of 7A. This will be in the event of a rack Laden with 280 completely discharged lamps.
5. The MCB rating must be determined by multiplying the number of racks on a single loop installation with a factor of 7



IMPORTANT NOTICE.

Mains power that is not protected through a 30mA ELCB must not be installed in. Such a manner that it is in any way accessible for use with portable tools or devices. It must be accessible through a standard 3-pin mains plug socket.



MINE RACKS

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120 WAY COMBINATION CAPLAMP CHARGER RACK WITH SRQP HOLDER

Specification

Material

- 430BA (Bright Annealing steel) or 3CR12 SS
- Rack base from 1.5mm Stainless Steel
- 600mm Ground clearance

Single Point Charger

- 5.2V 1.5-2.0amp Single point charger
- Reinforced stop plate fitted to single point charger to avoid lamp head to turn beyond charge point without breakage.

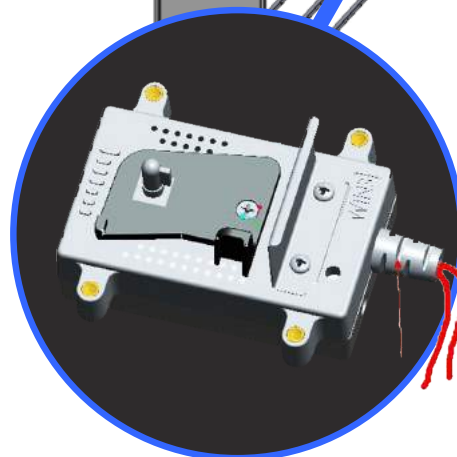
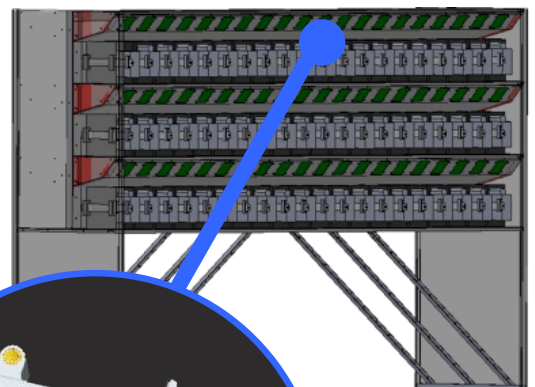
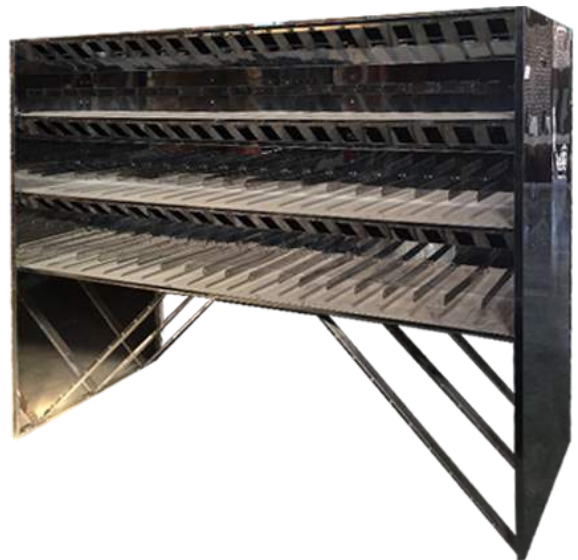
Electrical Integration

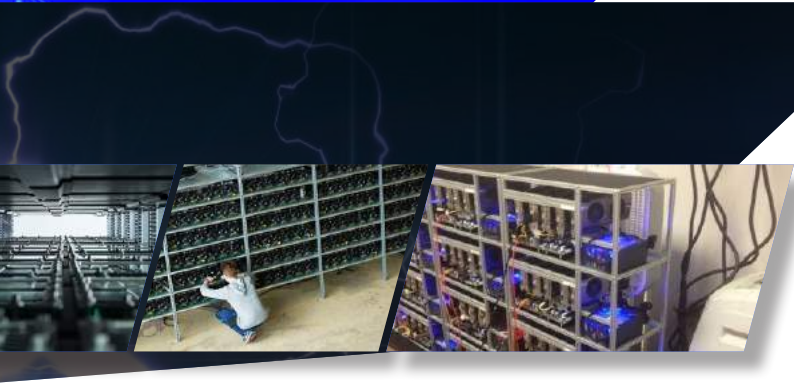
- Each single point charger is fitted with 1.5mm cabtyre.
- Loom wire connected to each single point is made up with 1.5mm cabtyre.
- 220V connection point pass through 16amp breaker fitted on the top centre of each cabinet.

Charger Rack

- Fits 120 Cap lamps
- Fits 120 Self Rescue packs
- Each Holder stores SRQP and Caplamp
- 8mm hole on the holder bracket accommodate a 40mm brass padlock to lock both SRQP and lamp battery base.

120 way Combination charger rack for Miners lamp and Rescue pack. Fitted with 120 single point chargers.

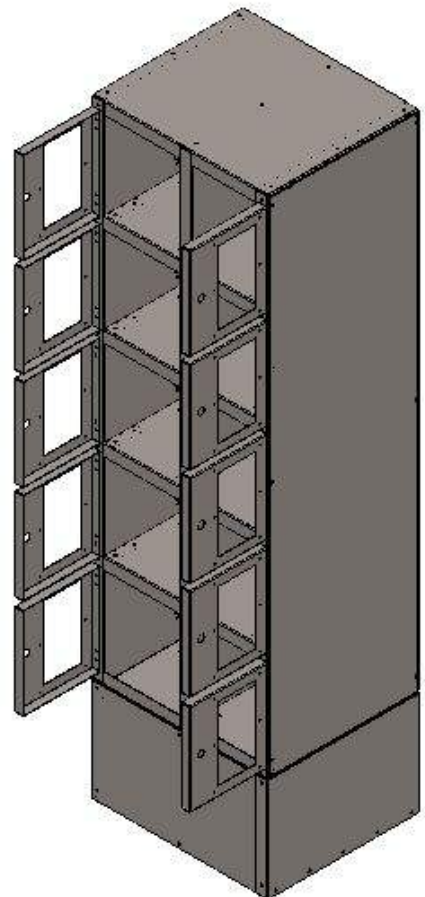
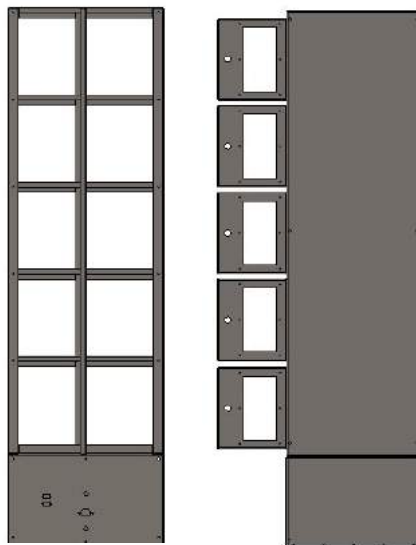




48 Piont Charging Rack



10 Piont Charging Rack





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