



**AMERSON**  
**INDIA**

**ELEVATOR POWER  
FAILURE EMERGENCY  
LEVELING DEVICE**



# AMERSON INDIA

## ON-LINE LIFT UPS & ARD AUTOMATIC RESCUE DEVICE

### AMERSON ARD SERIES (5HP to 120 HP)

#### APPLICATION:

- Safe and reliable operation.
- Elevators & Escalators process and other mission- critical equipment

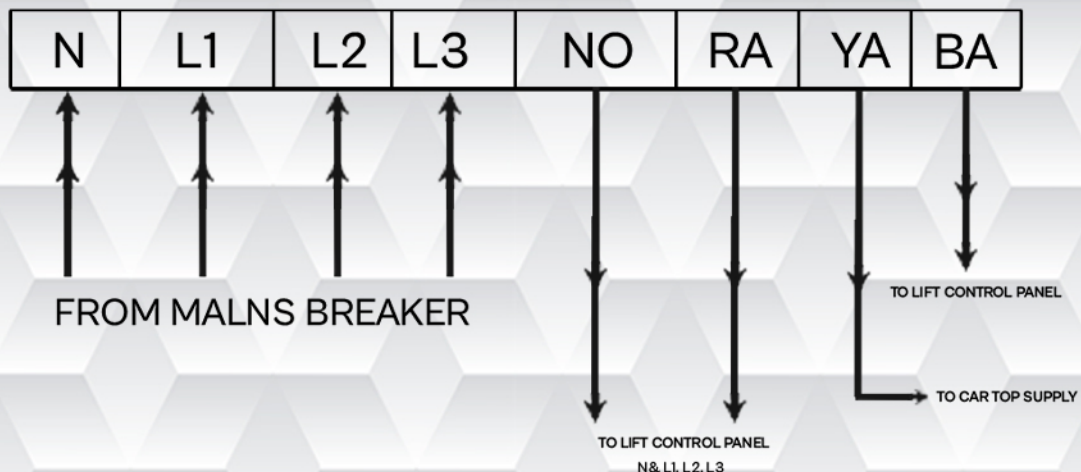
#### FEATURES:

- Advance operation mode
- Almost independent of lift controllers means Lesser wires are going & coming from controller to ARD.
- No need of emergency lights in the elevator car
- Door type cabinet for easy access inside the ARD in case of trouble shooting.
- Can be connected to single phase site.
- IGBT based charging for longer battery life.
- Digital Signal processing for constant pure sine wave output.
- IGBT technology for higher reliability of ARD.

#### ARD INSTALLATION DIAGR WHITE TERMINAL CONNECTIONS



#### BLACK TERMINAL CONNECTION





# ABOUT US

A short journey in the lifts could abruptly turn to something very tense and scary should there be a power failure with no ARD installed. Discover the relieving experience of getting out of trapped doors with "AMERSON INDIA" our reliable & economical lift ARD that brings you safely down to the nearest operating floor & opens the door.

Trusted and proven technology universally accepted by lift manufacturers.

## APPLICATION:

- MRL/Gearless/Geared and Hydraulic Motors.

## PRODUCT OFFERINGS :

- Regular ARD 5 HP to 120 HP (2 Phase Output/Single Phase Output)
- ARD for 3 Phase Operations-Otis, Kone, Sehindler
- 3 Phase ARD with Backup and Rescue.
- Jarkless ARD for Hotels/Hospitals.
- Servo Stabilizer with isolation transformer
- New Launch 3Phase ARD Low cost.
- 3Phase Input & 3Phase Output.
- Input Voltage 165Vac-275Vac Per Phase (3Phase+N).
- Input Frequency 50Hz  $\pm$  10%.
- Battery Voltage 72V to 120V available.
- Output Voltage 440Vac  $\pm$  5%.
- Output Wave Form Pure Sine Wave.
- Output Frequency 50HZ  $\pm$  5%.
- Inverter Efficiency  $\geq$  88%
- Waveform Distortion Liner Load  $\leq$  5%
- Inverter Overload 110% Shut down within 60sec. 120% Shut Down within 5sec.
- Over Temperature  $>$  80 °C
- Feedback Failure for  $>$ 100m Sec.
- Batter Voltage  $<$  1.60V Per Cell.
- Batter Voltage Starting 72V to 120V available.
- ARD for 3Phase Operations-Otis, Kone, Sehindler, Thyssenkrupp.



**SPECIAL FOR OTIS, KONE, SEHINDLER, THYSENKRUPP**



# ON-LINE LIFT UPS & ARD AUTOMATIC RESCUE DEVICE

with Isolation Transformer suitable for Three Phase AC Input, Single & 2 Phase, 3 Phase AC Output, Floor Mounted Type



## TECHNOLOGY

## INTELLIGENT ARD & LIFT UPS

## IGBT BASED

Switching Frequency

Greater than

17.5KHz

## INPUT

Voltage Window

300V to 450V AC

Frequency

45 to 55 Hz

Power Factor

0.9 at 100% Linear Load

Input Current THD

<3% at 100% Linear Road

## OUTPUT

Rated Voltage

400 V AC

Voltage Regulation

± 1%

Capacity

1 KVA to 60 KVA

Rated Power Factor

0.9 Lagging

Wave Form

Pure Sine Wave (No Load to Full Load)

Frequency Stability

±0.2% (Free Running)

Frequency Regulation

50 Hz ± 0.5%

Transfer Time

Zero

Crest Factor

3:1

Efficiency (AC to AC,  
Normal)

Better than 90%

Distortion (THD)

<2% for linear Load & < 5% for Non-Linear Load For 100% step load

Transient Response

change output stays within ±5% and recovers within ½ cycles.

LCD Display

Input Voltage, Output Voltage, Output Frequency, Output Current, Battery Voltage, Charging Current.

Overload Rating

100% Continuous & 150% for 30 Seconds.

Operation Temperature

0 to 50°C, 95% RH (Maximum)

Protections

Output Over/Under Voltage, Output Overload, Output short Circuit, Battery under Voltage, DC High

Genset Compatibility

UPS & ARD systems is fully compatible to any type of Genset

Indications

Main On, Mains fail, ARD & UPS on, UPS & ARD Trip,

Alarms

Battery Charging, Battery low, Overload, Battery Low Warning, Battery Low Trip, Overload, UPS & ARD Trip, Mains Fail

## BATTERY

Quantity

4 to 30 Nos.

DC Voltage

48V to 360V

Charging Current

0.7 Amp to 10 Amp

Battery Charger

Charger is designed on Boost/Trickle (CCCV) principal to keep batteries in good condition

## PHYSICAL

Dimensions WxHxD in mm

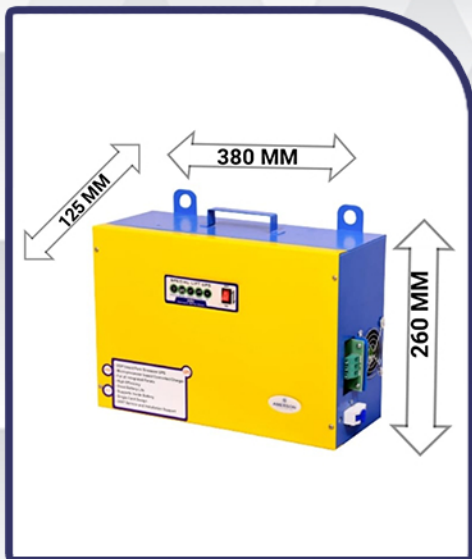
5 to 15KVA (460x610x1020) & 20 to 30KVA (460x770x1120) 40 to 60KVA (540x900x1320)  
Height Without Wheel

## ELEVATORS & ESCALATORS INTERFACE

Interface Type

Standard: ARD 5Hp & 25Hp









# WE MANUFACTURE ARD & UPS (SINGLE PHASE ARD) SUITABLE FOR ALL KIND OF CONTROLLER

**Mains Fail ARD on Time  
Seleted in Deep Switch  
ARD Board. 0 to 20  
Second Car Lift ARD  
Backup Time Urgestment  
1 Hourse to 6 Hourse  
Running High Speed**



**Mains Fail ARD on Time  
Seleted in Deep Switch  
ARD Board, 0 to 20  
Second Good Lift ARD  
Backup Time Urgestment  
1 Hourse to 3 Hourse  
Running High Speed**



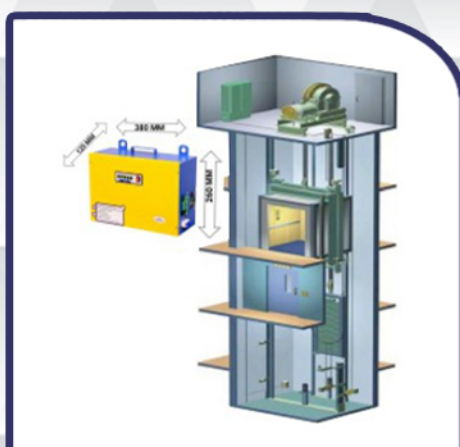
**Mains Fail ARD on Time  
Seleted in Deep Switch  
ARD Board. 0 to 20  
Second 30 Second to 3  
Mintue 2 Hospital Lift ARD  
Backup Time Urgestment**



**Mains Fail ARD on Time  
Seleted in Deep Switch  
ARD Board, 0 to 20  
Second Home Lift ARD  
Backup Time Urgestment**



**Mains Fail UPS on Time -0  
Off Time 3 Minute MRL  
Lift UPS Backup Time  
Urgestment**



**Mains Fail UPS on Time-0  
Off Time 3 Minate  
Hydraulic Lift Single  
Speed UPS Backup Time  
Urgestment**





**Monark Controller**



**Thita Controller**



**Philbrick Controller**



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**A to Z. Elevators &  
Escalators Controller**







# PRODUCT FEATURES

- ▶ Digital Signal Processing based design.
- ▶ PID control inverter for lower overshoot & undershoot.
- ▶ Feedback failure protection
- ▶ 6 Fault indications.
- ▶ Settable output delay & DZ shutdown delay using DIP switch.
- ▶ Automatic shutdown system if ARD in rescue mode and no DZ signal present then ARD will automatic shutdown after 3 minutes.
- ▶ LED Display with 6 fault indications.
- ▶ 3 Stage battery charge control system for fast charging & long battery life.
- ▶ Mains not transfer during rescue operation. if mains present during rescue operation ARD not transfer mains supply to control panel.
- ▶ ARD transfer mains 4 seconds after completion of rescue
- ▶ 1 Year standard warranty.
- ▶ Support 12 volt & 24 volt door zone shutdown input signal

# TECHNICAL SPECIFICATION

MODEL	5 HP	7.5 HP	10 HP	15HP & 20HP	25 HP
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## DISPLAY

Indicator on Panel	LED
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## AC Mode

Input Voltage	165Vac 275 Vac Per Phase (3 Phase + N)
Input Frequency	50Hz±10%
Battery Voltage	48V for 5HP & 72V for> 5HP

## INVERTER Mode

Output Voltage	440VAC±5%
Output Wave Form	Pure Sine Wave
Output Frequency	50Hz±0.5%
Inverter Efficiency	>88%
Waveform Distoration	Liner Load 5

## PROTECTIONS

Inverter Overload	110% Shut down within 60 sec.
Over Temperature	120% Shut Down within 5 sec
Feedback Failure	. >85 C
Battery Low	Feedback Fail for 100m sec. Battery Voltage 1.60V Per Cell

## BATTERY

DC Voltage	48V	72V	72V	72V	96V
Configuration	4x12V 7AH	6x12V 7AH	6x12V 12AH	6x12V 18AH	8x12V 18AH
Battery Type	SMF				
Charging Current	1.5A (Maximum)				



Ambient  
Temperature  
Recharge Time  
Backup Time  
Delayed Output  
Cooling System

**>90% Capacity After 8 Hours**  
**Depends on Battery Capacity**  
**Adjustable 6 Sec. to 20 Sec.**  
**Natural Air Cooling**

(LxWxH)



DIP Switch 1	DIP Switch 2	Door Zone Off Delay
OFF	OFF	18 SEC
OFF	ON	12 SEC
ON	OFF	06 SEC
ON	ON	01 SEC

DIP Switch 3	DIP Switch 4	Output Delay
OFF	OFF	18 SEC
OFF	ON	12 SEC
ON	OFF	06 SEC
ON	ON	<4 MSEC. (UPS MODE)



### GROUP OF COMPANIES

**Mfg.-Lift UPS Single Phase, Lift ARD, Single Phase Converter Online Lift UPS  
ARD Rescue Device, Lift UPS System**

# AMERSON INDIA

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