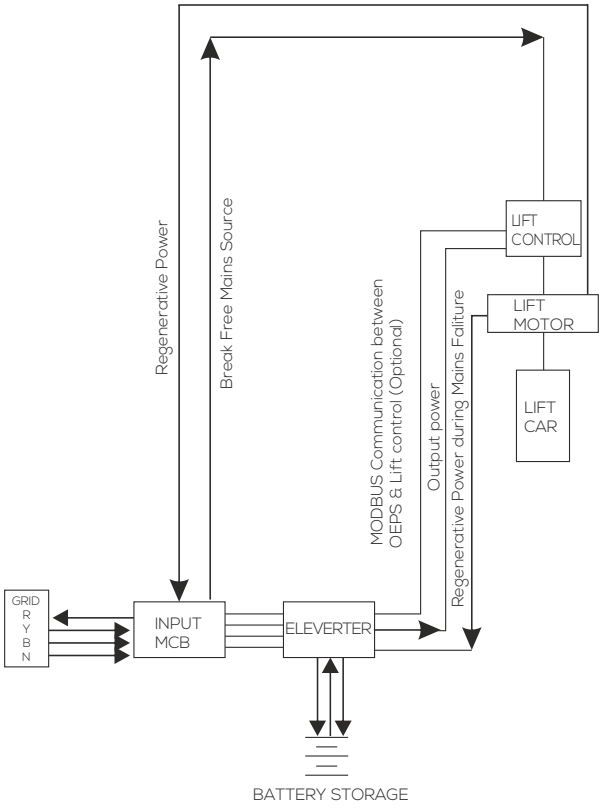
AMAZE

ELEVERTER

EMERGENCY LIFT OPERATION BY ALTERNATIVE POWER SOURCE

During power transition from mains to backup system, there is a jerk in lifts which can be scary. Overcome this issue with the help of Amaze Eleverter and avoid the need to purchase the UPS systems anymore. Eleverter provides a smooth transition with absolutely no jerk during the power transition and a seamless experience for people inside the lift. Now, the lifts are safer during the power failure with Amaze Lift Inverter range.

Eleverter



ELEVERTER is an intelligent device which is grid synchronized, offering a break-free transfer from mains mode to inverter mode, or vice versa, in addition to the three sources of grid, battery and DG.

ELEVERTER is equipped with MODBUS communication protocol for remote monitoring

The real-time status of the system helps the customer as well as the user to verify the performance and status. The System comes with built-in capability to notify the passengers whenever there is a power failure or a low battery condition through the display panel and/or through a voice-over.

Thus, the passenger would have the option to exit at the nearest landing. This will ensure that the passengers are not trapped inside the lift car. In case of a system failure, the lift maintenance agency will get a notification before the customer raises a ticket.

ELEVERTER is designed to take the loads of emergency lights, CCTV, or any other single-phase loads.

ELEVERTER provides longer battery backup and life

In the case of regen drive, the back EMF would be fed back into the local grid during mains mode, and during mains failure, this power will be utilized to recharge the battery, eliminating the need for a return energy dump circuit. This will ensure that the battery delivers a significantly longer life and runtime as compared to online UPS or asynchronised Inverter system.

SKUs	ELEVERTER 5	ELEVERTER 5.5	ELEVERTER 8	ELEVERTER 12	ELEVERTER 15	ELEVERTER 20	ELEVERTER 30
System Rating (KVA/kW)	6.6KVA/ 5.25kW	6.6KVA/ 5.25kW	10.1KVA/ 8kW	13.1KVA/ 10.5KW	17.5KVA/ 14KW	26KVA/ 21KW	35KVA/ 28kW
Recommended Motor Capacity* (HP)	~5	~5	~8	~12	~15	~20	~30
GRID							
Input supply	415 VAC, 3 Phases, 4 wire (+15%,-15%)						
Input Frequency	50Hz ±6%						
BATTERY							
Battery Voltage	48V	72V	120V	180V	240V	240V	360V
Charger type	Bi-Directional						
Battery Charging current	Battery Charging Current upto 30A						
Output current	10A	10A	16A	21A	28A	43A	57A
Input PF during Grid Charging	>0.99 when inverter loaded from 50% to 100% of Inverter capacity						
Battery Type	Tubular/SMF/Lithium ion*						
Recommended Tubular Battery	150Ah & Above for tubular	100Ah & Above for tubular					
INVERTER							
Switching Element	SEMITOP MOSFET	SEMITOP MOSFET	IGBT	IGBT	IGBT	IGBT	IGBT
Output waveform	Pure Sine wave	Pure Sine wave	Pure Sine wave	Pure Sine wave	Pure Sine wave	Pure Sine wave	Pure Sine wave
Output Nominal Voltage	415VAC ±2%,3Ph						
Load Power Factor	0.6 lag to 1(within kVA and KW rating)						
Inverter Peak Efficiency	90%						
Vthd with 100% linear load	Mains mode: Same as Grid /Inverter mode:<5%						
Galvanic isolation	Inbuilt isolation transformer at inverter output						
Voltage stability in Dynamic condition	Complies with IEC/EN 62040-3,Class1						
Overload Conditions	110% for 60sec /125% for 10sec /150% for 1 sec						
Regenerative Drive Application	Suitable for Regenerative Drive (Lift Drive Regen Power capacity confirmation require)						
DG Compatibility	1.5 times of Inverter Capacity						
Change Over Time	<3 milliseconds						
PROTECTION							
Protection	Input Under and Over voltage, Input High and Low Frequency Output Over load, Output short circuit, Output over and Under voltage, Over Temperature, Battery Over and Under voltage.						
Display Parameter, LED Indication and Alarm							
Display Parameter	Grid - Voltage Current Power • Output - Voltage, Current, Total Power, Load Percentage. Battery- Voltage, Current, DC Power •Event log: Up to 5No's on LCD. (Optional : USB storage up to 1000no's).						
LED Indication	Grid ON/OFF, Grid Static Switch ON/OFF, Inverter ON/OFF, Inverter static Switch ON/OFF, Load ON/OFF, Battery Charging and Discharging						
Alarm	Audible alarm for Fault conditions and Warnings						
CONFIGURATION							
Parameter Setting	All main parameters can be set through LCD display						
BYPASS	Manual bypass switch available for maintenance and service						
Degree Of protection	IP 20						
Dimension (L*W*H) mm	630 x 285 x 590	630 x 285 x 590	710 x 300 x 790	710 x 300 x 790	770 x 400 x 880	900 x 400 x 880	925 x 535 x 1190
Net Weight (Approx in Kg's)	62	62	120	120	134	150	295
ENVIRONMENT							
Temperature Operating	0-40°C						
Max. Relative humidity@25°C (noncondensing)	Up to 95%						
Max.Altutude above sea level without de-rating	up to 1000 mtr						
Standard Compliance	IEC 60068-2, IEC62040-3						
CONNECTIVITY							
Communication	Modbus RS 485- Optional						

Stock Availability: 8 to 10 weeks from date of Purchase Order.

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ELEVERTER offers significant advantages as compared to Online UPS

ELEVERTER enables substantial savings in energy consumption

For eg. a 10HP motor demands a 15kVA online UPS, whereas ELEVERTER can meet that requirement with a 10kW system, offering the customers significant cost benefit over UPS. Online UPS being a double-conversion technology, the power losses at input and output would be significant during the operation. Online UPS will have an additional power loss of 10% over ELEVERTER. Considering the cost difference between online UPS and ELEVERTER, coupled with the energy savings, the payback period shall be less than 15 months.

ELEVERTER has a significantly longer life-cycle

Since online UPS works 24x7x365, the life-cycle would be significantly low as compared to ELEVERTER as they would come into operation only when power fails. The housekeeping power required to keep the internal circuit on would also be negligible as compared to online UPS.

Comparison of different solutions for lift backup

FEATURES	ARD	3 PH INVERTER	3 PH ONLINE UPS	ELEVERTER
Automatic Functions	Yes	Yes	Yes	Yes
Uninterrupted Transfer of Load	No	No	Yes	Yes
Jerk-Free Operation	No	No	Yes	Yes
Blackout-Free Operation in Lift Car	No	Yes	Yes	Yes
Long Autonomy	No	No	Yes	Yes
IGB Based PFC Charger	No	No	Yes	Yes
MODBUS Communication	No	No	Yes	Yes
Li-ion Battery Compatibility	No	No	No	Yes*
Master Data Interface for Remote Monitoring	No	No	No	Yes
Generation Loss	8%	10%	15%	5%
Option to incorporate & Function	No	No	No	Yes
TCO	Low	High	Very High	Very Low

***Only Amaze Recommended Li-Ion battery. For others, advance confirmation from Amaze is required before applying the battery.**

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