

## TECHNICAL COMPARISON OF TRIZEN UPS AND DIESEL GENERATOR SET

<b>TECHNICAL PARAMETER</b>	<b>D.G.SET</b>	<b>LIFT BACK UP SYSTEM</b>
<i>TECHNOLOGY</i>	Electro-Mechanical	Electronic
<i>CAPACITY REQUIRED</i>	Almost 2.5 times of UPS	As per Actual Requirement
<i>NOISE LEVEL</i>	Very High	No Noise
<i>SPACE REQUIRED</i>	Large Floor Space	Compact
<i>AIR POLLUTION</i>	Smoke, High Pollution	No
<i>VIBRATION</i>	Very High	No
<i>INSTALLATION</i>	Essentially Ground Floor	No Limitation
<i>FOUNDATION*</i>	Essential	Not required
<i>MAINTENANCE</i>	Frequent Tuning Req'd.	Only Battery Maintenance
<i>SPARES REPLACEMENTS</i>	Duplication Possible	Only Genuine Spares
<i>LIFE</i>	Less Rotary Parts Calls For Mechanical Wear & Tear Converter	More Life Span – Static No Moving Parts
<i>ACCESSORIES*</i>	Canopy, Exhaust Arrangement AMF Panel, Anti Vibration Mounts, Silencer Required	No
<i>OPERATION</i>	Manual & Tedious	Fully automatic
<i>USAGE</i>	Has to be kept ON continuously During power cut Irrespective of whether the LIFT is being	Battery gets discharged only when LIFT IS WORKING in case
<i>NO-LOAD LOSSES</i>	Very High	Almost zero
<i>OUTPUT</i>	RPM Controlled, Poor Volt, Frequency Regulation	Regulated voltage, frequency, microcontroller used
<i>RELIABILITY / SAFETY</i>	Very Low	Highly Reliable & Safe
<i>EMERGENCY RESCUE DEVICE</i>	No	Available/optional

## COMMERCIAL COMPARISON OF TRIZEN UPS AND DIESEL GENERATOR SET

COMMERCIAL PARAMETERS	DIESEL GENERATOR	COST	LIFT UPS WITH BATTERY SET	COST
<i>INITIAL INVESTMENT</i>	15 KVA Branded Gen Set AMF Panel	220,000/-	8 KVA UPS with Tubular batteries 12V 150AH x 8 Nos. for 4 Hrs.Back up	160000/-
<i>HIDDEN COST</i>	Almost 2.5 times of UPS	15,000/-	N.A.	N.A.
<i>RUNNING COST</i>	Diesel Consumption 2 liters / Hr. Average Usage 3 Hrs. / Day Yearly cost = 2 x 3 x 365 x 65 For 3 years	142350/- 427050/-	Battery charging expenses 8 KVA x 3 Hrs. x 70% Duty Cycle Yearly cost = 8 x 3 x 365 x 10 x 0.7 For 3 years	61320/- 183960/-
<i>MAINTENANCE COST</i>	AMC charges for 3 Years Consumables during 3 Yrs Engine Oil, Filter, Labour Single Engine Overhaul exp. Crank Grinding, Piston Change	90000/-	AMC charges for 3 Years (Including UPS spares and Consumables) Battery Replacement Cost (After deducting old battery scrap)	120000/-
<i>WARRANTY</i>	In terms of No. of Hours	-	In terms of No. of Years	-
<i>DESIGN LIFE</i>	12,000 - 15,000 Hrs. Only.	-	UPS : 12-15 Years min. Battery : 4-5 Years min.	-
<i>TOTAL</i>		752050/-		463960/-

**TOTAL SAVINGS-288090/-**

### ASSUMPTIONS-

Average Power Cut of Daily 3 Hrs

Diesel Rate Rs.65/- per liter

M.S.E.B. Rs.10/- per KWH

Tubular Batteries with 4 year warranty

Lift travel time during power cut 70%