

Sabre *EcoTec*

Package Substation

Handling Manual



TABLE OF CONTENTS

- 1 VALIDATION 2
 - 1.1 Validity2
 - 1.2 Safety2
- 2 DOCUMENT SYMBOLS 3
- 3 UNIT DETAILS 4
 - 3.1 Weights4
 - 3.2 Centre Of Gravity5
 - 3.3 Dimensions5
- 4 STORAGE 6
 - 4.1 Storage Guide6
- 5 LIFTING 7
 - 5.1 By Slings7
 - 5.2 By Forklift8
- 6 TRANSPORT 9

1. VALIDATION

1.1 Validity

This is not a commercial document, it is strictly a technical document provided by Lucy Electric Technical Department.

The objective of this publication is to provide directives for correct installation, test and commissioning procedures for the SabreEcoTec Package Substation range. Produced in March 2025, this manual applies to the SabreEcoTec Package Substation range only.

Due to Lucy Electric's policy of continuous research and development, Lucy Electric reserves the right to change the design and specification of products without prior notice.

1.2 Safety



WARNING

Operators of this equipment must have experience and expertise with switchgear.

To prevent personal injury or equipment damage, this manual must be read carefully.



WARNING

This manual MUST be readily available whenever the unit is handled or installed.

If this equipment suffers from any fault or damage, contact the manufacturer and/or supplier immediately.

- Before commencing any work, ensure that the necessary safety precautions, risk assessments, and safety documents are in place.
- Installation must be carried out observing the Operational Safety Rules.
- Check substation earth is intact - if missing, seek advice.
- In all instances, risk assessments should be undertaken prior to undertaking any new activity where potential hazards are concerned. This is particularly important in order to identify the necessity for specific Personal Protective Equipment, that may be required and that cannot be avoided even with safe systems of work in place.
- It is strongly recommended when undertaking any form of switching operation that the appropriate PPE is worn. PPE suppliers provide Flash resistant or Arc Flash clothing for this purpose.



INFORMATION

This manual covers the complete range of SabreEcoTec Package Substation units and therefore images shown may not be the unit being installing.

2. DOCUMENT SYMBOLS

The symbols shown below are found throughout this document, indicating awareness and hazard levels depending on the situation.

All symbols below are to ISO 3864-2.



INFORMATION: please pay special attention to this instruction.



CAUTION: Failure to follow this instruction may result in injury or damage to plant.



WARNING: Failure to follow this instruction may result in death or serious injury or damage to plant.



DANGER: Failure to follow this instruction will result in death or serious injury or damage to plant.



IMPORTANT: Failure to follow this instruction may lead to potential issues, or damage to plant.

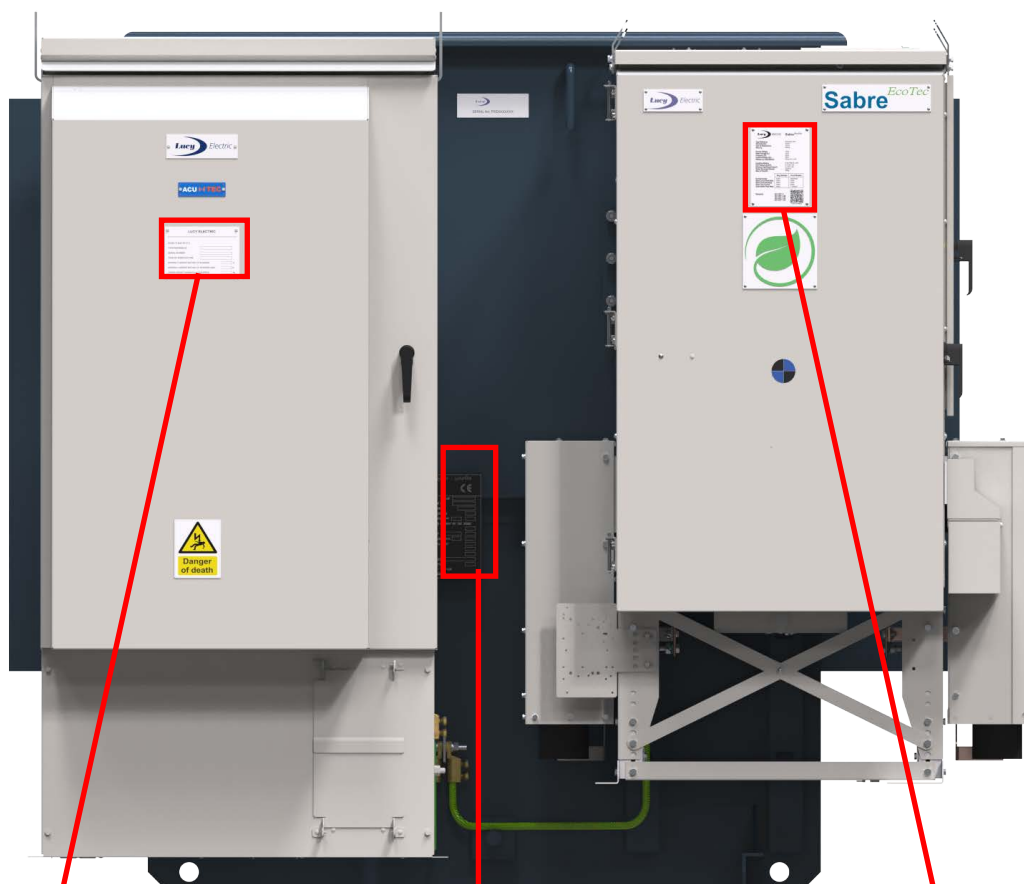
3. UNIT DETAILS



INFORMATION

Unit weight will vary depending on type of transformer, LV and RMU used for the package substation. Due to this it is advised to calculate the total weight of the transformer, LV and RMU together. These weights can be obtained from each rating plate, which are located as shown below.

3.1 Weights



LUCY ELECTRIC	
SCDB TO ENA TS 37-2	
TYPE REFERENCE	
SERIAL NUMBER	
YEAR OF MANUFACTURE	
NORMAL CURRENT RATING OF BUSBARS	<input type="text"/> A
NORMAL CURRENT RATING OF INCOMING UNIT	<input type="text"/> A
GROSS WEIGHT WHEN FULLY EQUIPPED	<input type="text"/> Kg

**'GROSS WEIGHT WHEN'
FULLY EQUIPPED'**

DISTRIBUTION TRANSFORMER SSEP SPECIFICATION SP-PS-142 - Rev.1.04.			
RATED POWER (AT ANY RATED VOLTAGE)	kVA	1250	TYPE OF COOLING
			ONAN
VOLTS (NO LOAD AT NORMAL TAPPING)	H.V.	11000	FREQUENCY
	OR		Hz
			50
	L.V.	433	IMPEDANCE
			%
			11
AMPERES (AT NORMAL TAPPING)	H.V.	65.61	VECTOR GROUP SYMBOL
	OR		Dyn11
	L.V.	1667	WINDINGS MATERIAL HV/LV
			Cu/Cu
			kg
			715
			CORE MATERIAL
			Oriented grain steel
			kg
			1740
			TOTAL MASS
			kg
			4080
			UNINHIBITED MINERAL OIL (IEC 60296)
			kg
			1040
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			1040
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			Cu/Cu
			kg

3.2 Centre Of Gravity



INFORMATION

The centre of gravity shown are for guidance only due to the variations in the size of the transformers.



3.3 Dimensions

If overall dimensions are required for your contract Package Substation, please contact Lucy Electric for more details.

4. STORAGE



INFORMATION

Where possible, check the information on the rating plates and compare against the order confirmation.



CAUTION

If any anomaly or damage to the unit is apparent, do not install it, and please contact Lucy Electric as soon as possible.

4.1 Storage Guide



Keep dry



This way up



Storage Temp



Do not stack



Handle with care



Do not step on



High centre of gravity



Keep away from direct
sunlight

The unit must be kept in its original packaging throughout its whole storage period.

- When storing long term, regularly check the condition of the protective cover.



CAUTION

Following prolonged storage periods, all insulating parts must be thoroughly cleaned before use. Clean using a sponge and clean water. Do not use any alcohol or other cleaning solvents.

All panels are to be dusted using a clean, dry cloth.

5. LIFTING

5.1 By Slings



CAUTION

The Package Substation must be lifted by the transformer **ONLY** and using the **YELLOW** marked lifting lugs.



WARNING

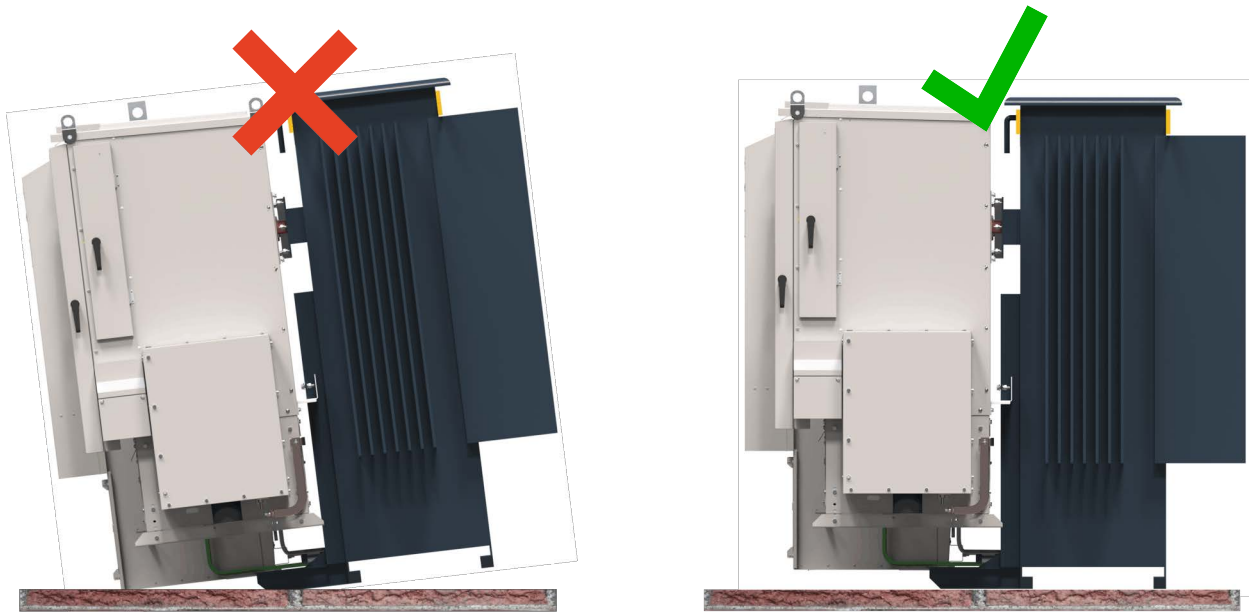
UNBALANCED LOAD

The Package substation must be lifted using a sling arrangement with the sling lengths varying depending on the substation arrangement being lifted.

The sling lengths must be assessed by the crane operator before lifting to ensure safe lifting.



When lowering the unit, ensure it rests on the transformer first and not either the RMU or LV units. This is to ensure the weight of the Package Substation is not solely resting on either the RMU or LV units.



5.2 By Forklift



The Package Substation can only be lifted by a forklift truck if mounted on a pallet and lifted by the transformer only.



UNBALANCED LOAD



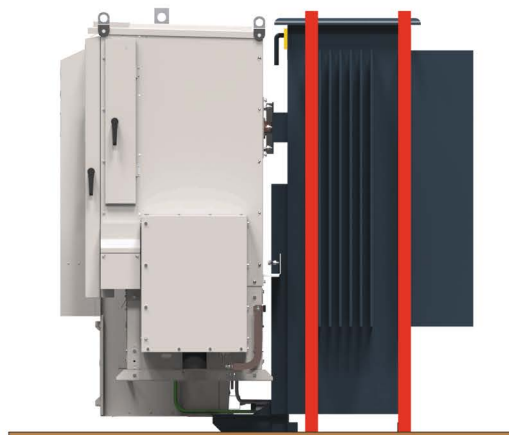
6. TRANSPORT



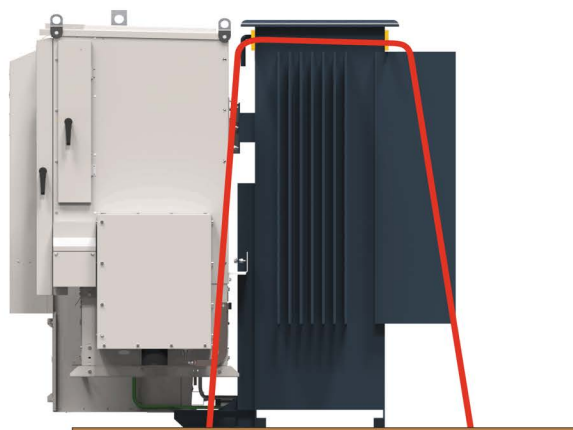
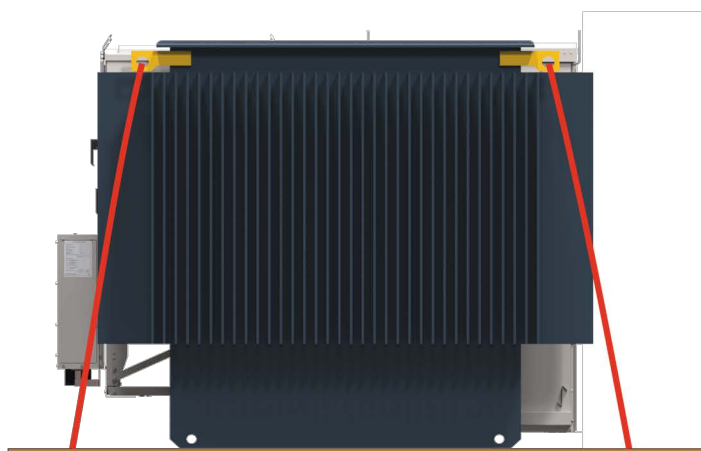
CAUTION

If the Package Substation is to be transported on a flat bed lorry, then it must be secured from the transformer only, as shown below.

Strapping Option1



Strapping Option2



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