

Retrofit Actuator Solutions

For Ring Main Unit Equipment



Retrofit Actuator

With a large population of installed ring main units and ring switches reaching their life expectancy, the need to retrofit, upgrade or replace existing distribution assets has become increasingly pressing for Electricity Utilities worldwide.

In the current economic and regulatory climate, Utilities are faced with reducing operational costs to remain competitive, while continuing to invest in new technology to provide improved network performance, high service levels and customer satisfaction.

One solution, which responds to these challenges and changes in the marketplace, is based on the fitting of actuators onto ring switches and circuit breakers of existing ring main equipment in selected parts of the network.

Features

- Single, left and right-hand or double ring switch actuator assemblies
- One common design for single and double configurations
- Proven and reliable actuator assembly
- Suitable for indoor and outdoor applications
- Non-intrusive design such that the equipment can be fitted with the RMU energised
- Majority of operations achieved in less than 10 seconds
- Manual override
- Provide open and close operations on ring switches (earthing remains a manual operation)
- Open and close ring switch indications provided for future SCADA requirements (earth indication available on some designs)
- Standard 24V actuator supply voltage



Benefits

- The retrofit actuator solutions offer significant benefits at minimum risks
- Product life extension of existing distribution assets
- Reduced initial capital expenditure and costs associated with asset replacement programmes
- Significant cost savings in terms of installation. The single or double actuator retrofit kit can be easily and rapidly fitted to the RMU on site while the unit remains in service, as no internal access is required
- Motorisation of the ring switches also enables local electrical operation, thus ensuring maximum operator safety
- Upgrade path for future automation and remote control, the retrofit actuators represent a first-stage investment in the field of automation



Remote Terminal Unit

Compatible solutions for today and tomorrow's challenges

Years of experience

With years of experience in developing distribution switchgear equipment, Lucy Electric has both the technical expertise and knowledge to design cost effective reliable retrofit actuators for ring main unit applications.

Working in partnership with our clients, our team is continuously developing new solutions to meet today's and tomorrow's challenges from retrofit actuator systems, secondary RTUs and SCADA to system integration services.

Our objective is to provide non industrial customers with a reliable and cost effective alternative to total asset replacement, while securing their investment in the latest technology.

Compatibility

Retrofittable actuator kits are compatible with Lucy Electric equipment and other third party ring main equipment such as Reyrolle ROKSS range and Long & Crawford T3GF3, T4GF3, J3 and J4.

Note: Lucy Electric can also provide a busbar transition joint to couple Long & Crawford extensible oil ring main units and derivatives to Lucy Electric oil insulated RMUs. A 15kV busbar joint coupling L&C compound filled chamber to Lucy Electric Raychem insulated chamber, is rated at 20kA 3sec and insulated to 95kV impulse to earth. Typical combinations include T4GF3 + DEOS or J4 + EOS.



FRMU



EOS



J4

Ease of installation

- One piece, quick release mechanism for actuator
- Can be easily and rapidly retrofitted with the RMU remaining energised
- Slide-on actuator cover with lifting handles

Safety

- One point of padlocking for actuator cover for maximum safety
- Motorisation of the ring switches/circuit breakers also enables local electrical operation

Retrofit package includes

- Single or double retrofit actuator kit complete with support brackets
- Motor control module to allow interfacing to the G2-RTU or other third party Remote Terminal Units
- Commissioning and installation services on request
- Integration services to existing SCADA systems using de-facto standard communication protocols
- Training services also available on request



Automation actuator installed on ring switch



ROKSS



T4GF3



VRN2a

Retrofit actuator options

Type	Manufacturer	Technology	Description	LHS	RHS	DOUBLE	RS	CB
SABRE VRN/VRE/VRN2 and VRN2a	Lucy Electric	Vacuum in SF6	Ring Main Unit (Extensible or Non Extensible)	3	3	3		3
SABRE VCN/VCE	Lucy Electric	Vacuum in SF6	Circuit Breaker (Extensible or Non Extensible)					3
SABRE SSE	Lucy Electric	SF6	Single Switch				3	
SABRE DSE	Lucy Electric	SF6	Double Switch	3	3	3		
SCRMU/SCRMUE*	Lucy Electric	Vacuum in SF6	Ring Main Unit (Extensible or Non Extensible)	3	3	3		
SCIMITAR SFRMU	Lucy Electric	SF6	Ring Main Unit	3	3	3		3 _(FS)
TRIDENT FRMU/FRMUE	Lucy Electric	Oil	Ring Main Unit (Extensible or Non Extensible)	3	3	3		
TRIDENT EOS	Lucy Electric	Oil	Single Switch				3	
TRIDENT DEOS	Lucy Electric	Oil	Double Switch	3	3	3		
T3GF3/T4GF3	Alstom T&D L&C	Oil	Ring Main Unit	3	3	3		
J3/J4	Alstom T&D L&C	Oil	Single Switch				3	
ROKSS	Reyrolle	Oil	Ring Main Unit	3	3	3		3 _(FS)
ROS	Reyrolle	Oil	Single Switch				3	
RN2	Schneider	SF6	Ring Main Unit	3	3	3		

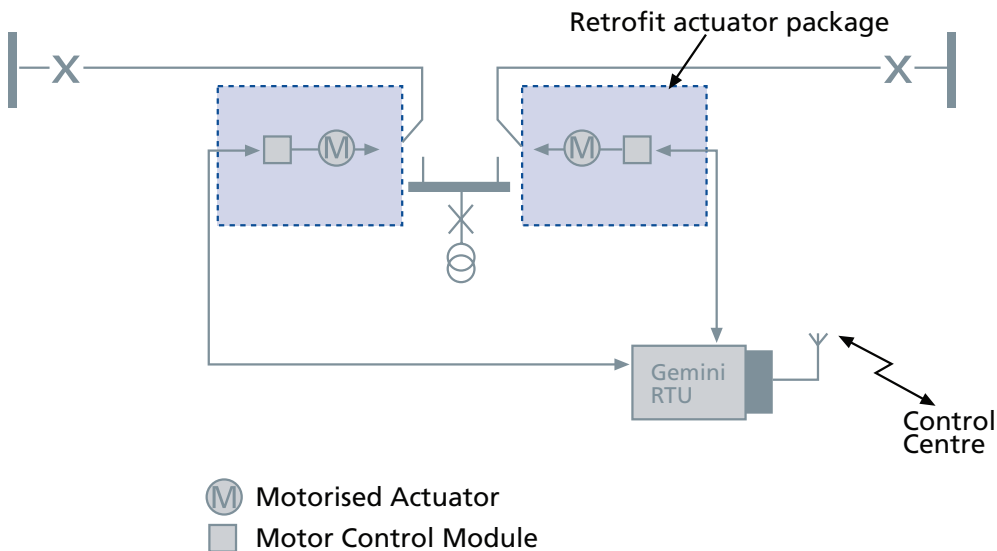
Key

LHS - Left Hand Side
 RHS - Right Hand Side
 RS - Ring Switch
 CB - Circuit Breaker
 FS - Fuse Switch

* - SCRMU (MK4) only available if unit was originally factory built for actuators. Please contact our sales team for information

3 - Product available now

Open Point Application



Our customers

Utilities UK

CE ELECTRIC
EDF ENERGY
CENTRAL NETWORKS
MANX ELECTRICITY AUTHORITY
NORTHERN IRELAND ELECTRICITY
POWER SYSTEMS
SCOTTISH & SOUTHERN ENERGY
UNITED UTILITIES
WESTERN POWER DISTRIBUTION

Industry UK

BT
FORD MOTOR COMPANY
INTERSERVE
MINISTRY OF DEFENCE
RUTHERORD APPLETON

Export Worldwide

Delivering Lucy Electric products worldwide:

ADWEA • ABU DHABI
CLP • HONG KONG
CODENSA • COLOMBIA
DEWA • DUBAI
ECG • GHANA
ENERGY AUSTRALIA • AUSTRALIA
KPLC • KENYA
MEW • KEWAIT
NEPA • NIGERIA
POWER GRID • SINGAPORE
UEB • UGANDA

A global network

In association with industrial partners and contractors, Lucy Electric has established a global network operating in over 50 countries. Currently its 50 agents, joint venture associates and trading partners represent Lucy Electric products all over the world from Europe, the Middle East, the Far East, Africa, Australasia, Central America, the Caribbean to South America thus strengthening the Lucy Electric presence globally.

With headquarters in Oxfordshire, UK, and a main regional office in Dubai servicing the Middle East, the Lucy group is constantly looking to develop further partnerships.

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