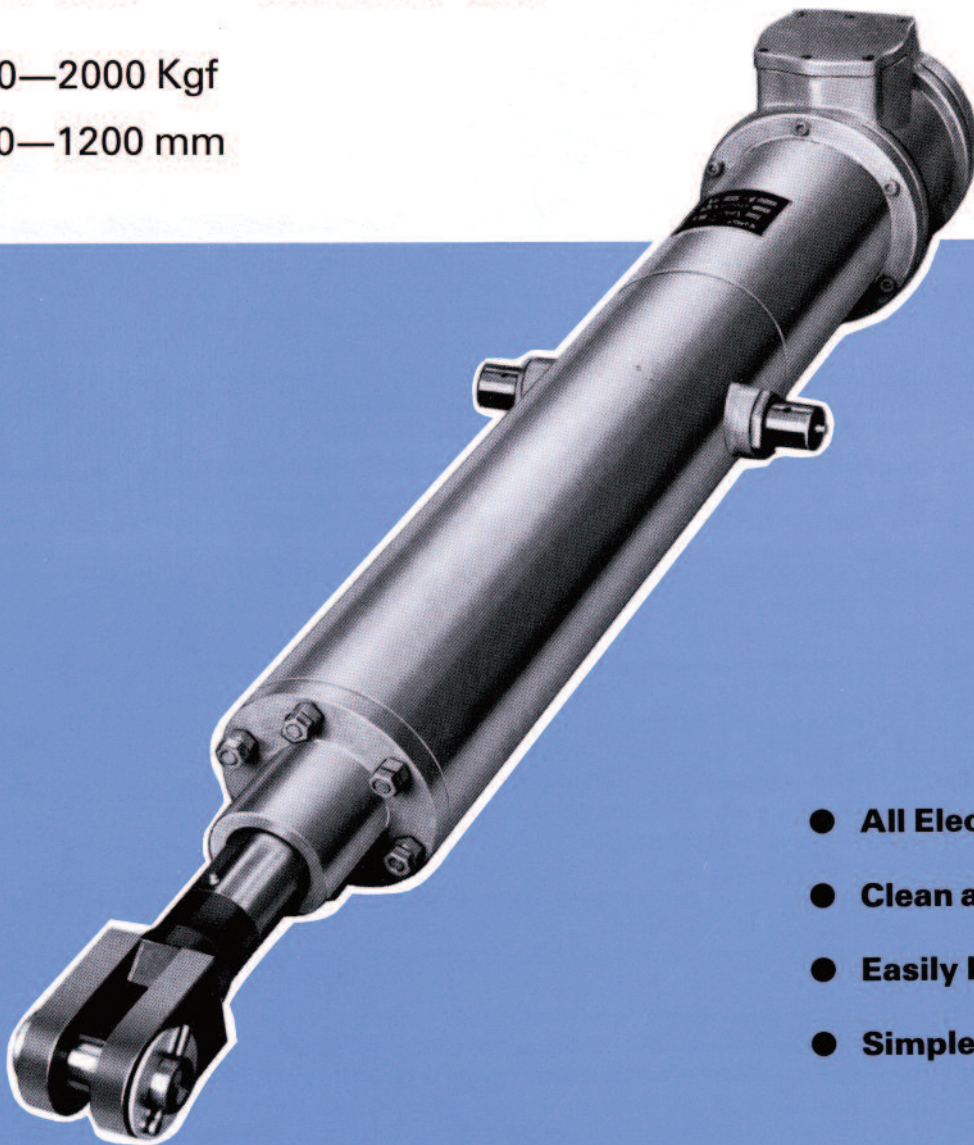


LINEAR ACTUATORS SMX 06 — SMX 07

Thrusts 0—2000 Kgf

Strokes 0—1200 mm



- All Electric
- Clean and Compact
- Easily Installed
- Simple Construction

ELECTRIC ACTUATOR
COMPANY LIMITED

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TECHNICAL DATA

SIZE	PUSH/PULL FORCE		PUSH/PULL SPEED		STROKE		Motor POWER KW	Motor SPEED SYNCH. rpm	NETT WEIGHT			
	kgf	lb.	mm/sec.	ins./sec.	mm.	ins.			kg	lb.		
SMX 06	1200	2640	130	5	0-200	0-7.9	4.1	1500	164	361		
					0-300	0-11.8			169	373		
					0-400	0-15.7			175	385		
					76	3	0-600	0-23.6	2.7	1000	186	410
							0-800	0-31.5			198	435
					60	2.4	0-1000	0-39.4	2.1	750	209	460
				0-1200	0-47.2	220	485					
SMX 07	2000	4500	150	5.9	0-200	0-7.9	6.9	1500	171	376		
					0-300	0-11.8			176	388		
					0-400	0-15.7			182	400		
					95	3.7	0-600	0-23.6	4.5	1000	193	425
							0-800	0-31.5			204	450
					76	3	0-1000	0-39.4	3.4	750	216	475
				0-1200	0-47.2	227	500					

Higher push/pull forces, longer strokes and slower or faster speeds are available.

OPTIONAL FEATURES

- PACK 1** Two adjustable end-of-stroke limit switches.
PACK 2 Two adjustable signalling switches.
PACK 3 Potentiometer for positional indication or proportional control.

Combinations

- Pack 1 + 2
 Pack 1 + 3
 Pack 2 + 3
 Pack 1 + 2 + 3
 Hard-chromed Shaft — for abrasive or corrosive conditions.
 Bellows — for protection of push/pull shaft.
 Tropical finish — for working in high humidity or tropical areas.
 High temperature — for high ambient temperatures and sustained switching.
 Current Sensor — to adjust to the thrust required and to switch off the actuator if the demand exceeds the selected thrust.
 Hand winding — with electrical interlock.
 Brake — electro-magnetic type for accurate positioning.

MOUNTING

Trunnion or front flange.

CONSTRUCTION

Steel and cast iron housings.

ENCLOSURES AVAILABLE

Weatherproof IP54.
 Weatherproof and hoseproof IP55.
 Dustproof and hoseproof IP65.
 CSA ENC4.
 Flameproof and explosion proof models to BS 4683 part 2 1971 groups I, IIA and IIB.
 British Coal Electrical Acceptance Certificate No 1996 covers Group I enclosures..
 CSA explosion proof to Class I group D and class II groups F and G.

PRINCIPLE

Rotation of an electric motor is converted into linear motion by using a long motor spindle as a lead screw. The push/pull shaft is connected to a nut and is either extended or retracted as the nut travels along the lead screw. Reversal of the motor reverses the direction of the push/pull shaft. The lead screw is protected from ingress of dust and dirt by the push/pull tube, and a dust seal fitted in the front guide bush. The drive nut is mounted between disc springs to provide cushioning and also to absorb rotor kinetic energy if there is an obstruction or when the actuator reaches the end of its stroke.

GENERAL INFORMATION

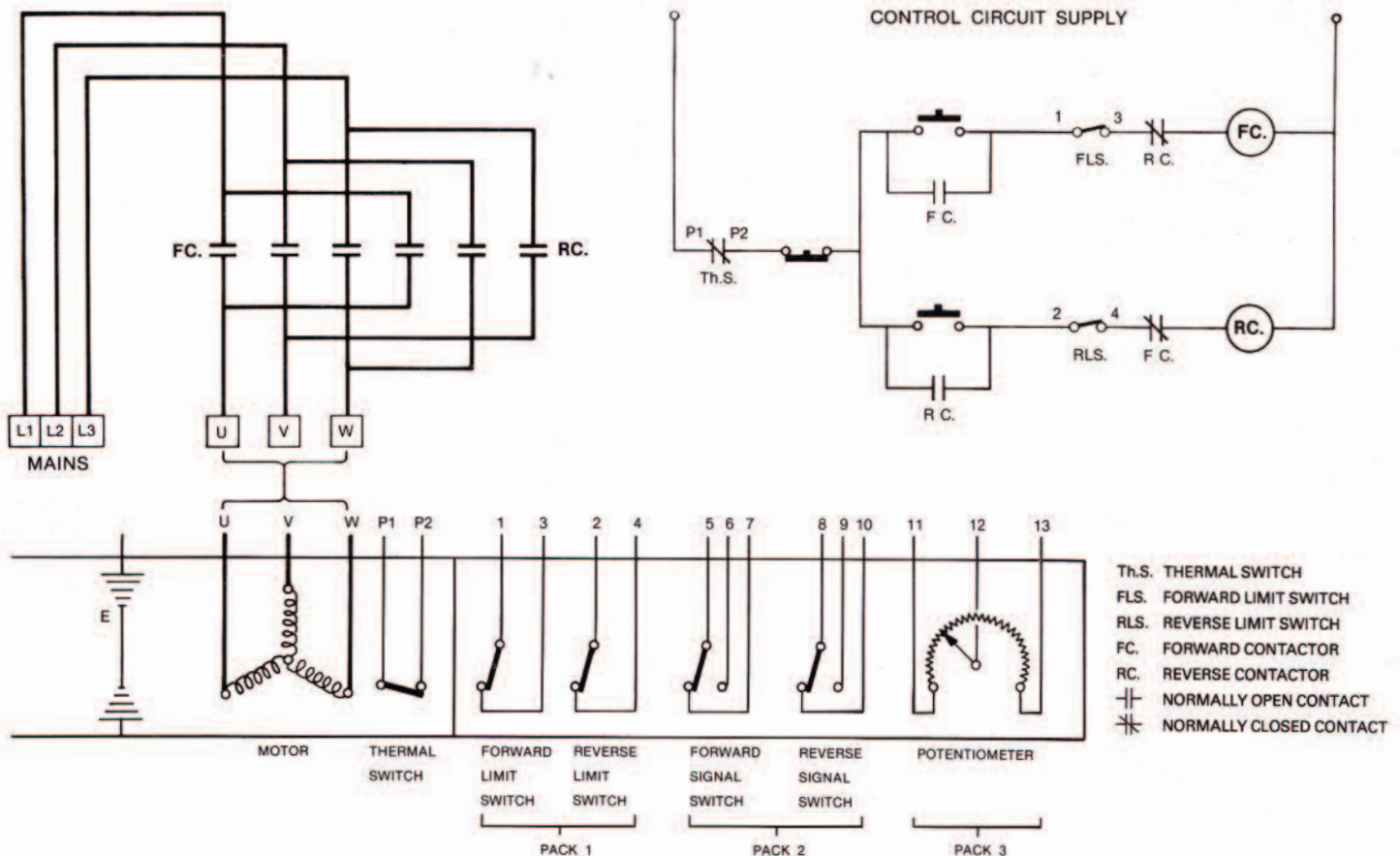
Advantages and economics of "All electric" installations —
 No compressed air or hydraulic supply is required.
 Quick response to control signals.
 Maintains full thrust with power off.
 No power consumption when not operating.
 Can be mounted in any position.
 Auxiliary switches can be provided inside actuator enclosure.
 Maintenance responsibilities are not duplicated due to all electric.
 Electrical components for control are generally inexpensive.

ELECTRICS

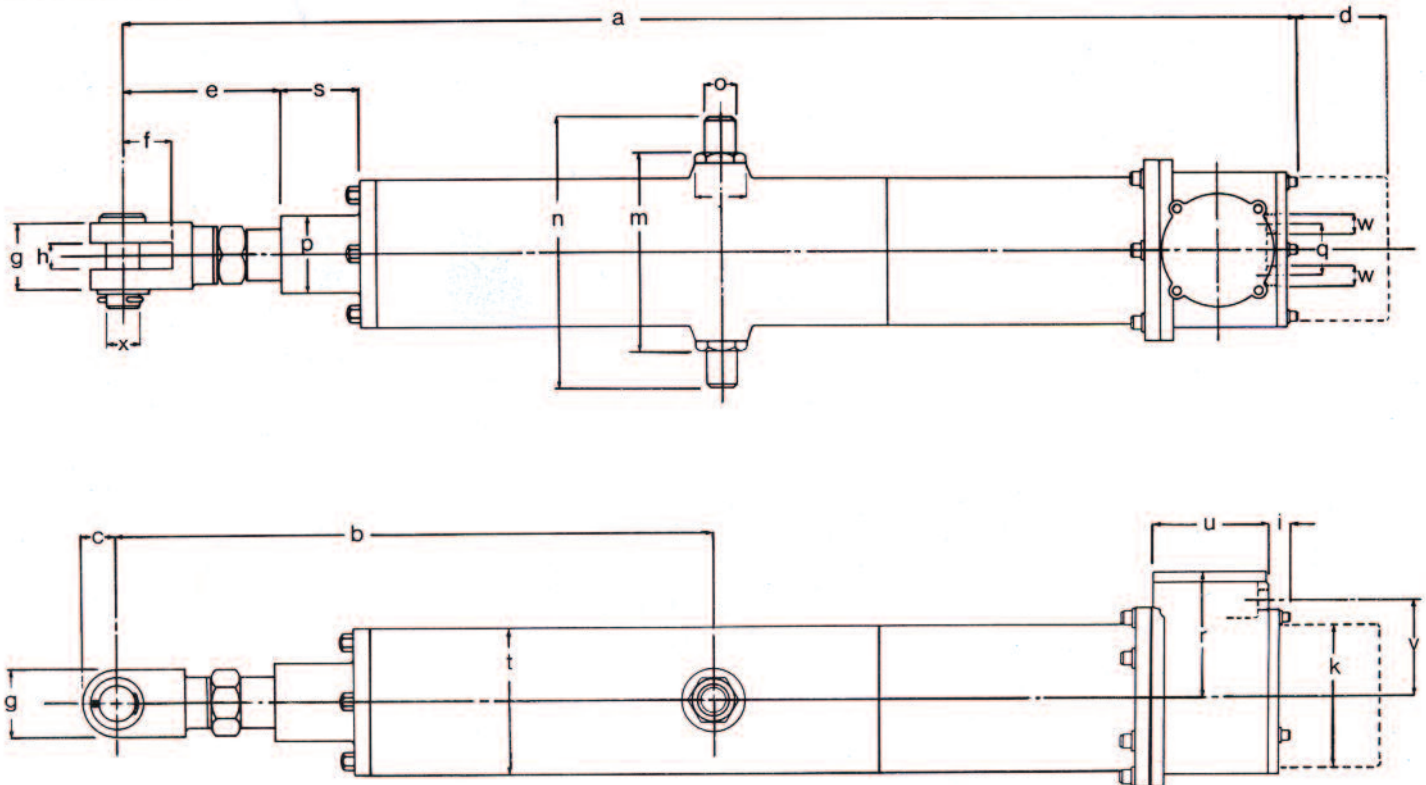
- MOTOR** — The motor is a squirrel cage type with die cast aluminium rotor, designed with a low starting current and low inertia. These characteristics have been chosen because an actuator is often required to start and stop frequently with accurate positioning.
- THERMAL SWITCH** — Provided in the motor winding to prevent overheating. The thermal switch has to be connected into the control circuit.
- STARTING** — This is by reversing contactors. These can be initiated by push buttons or from an automatic control system.
- POTENTIOMETER** — When fitted, will provide remote indication of the shaft position or can be used with proportional control units. Accurate positioning may require a brake to be fitted.
- SWITCHES** — For end-of-stroke and signalling; they are adjustable with locking cams.
 Inductive Ratings: 15 amps at 110 volts A.C.
 10 amps at 220 volts A.C.
 6 amps at 440 volts A.C.
 0.5 amps at 110 volts D.C.
 The switch housing provides easy access for switch setting and potentiometer adjustment.
- SUPPLY** — A.C., 3-phase up to 600 volts; frequencies up to 60 Hz.
- CABLES** — Tapped holes provided for incoming cable glands. Mains and control connections are made in a weatherproof terminal box with ample space for cabling.

The Technical Data table shows motor speeds and linear speeds on 50 Hz supply — other frequencies give speeds pro rata.

TYPICAL SCHEMATIC



DIMENSIONS



TYPE	STROKE	SMX 06 a	SMX 07 a	b	c	e	f	g	h	i	j	k	m	n	o	p	q	r
SMX 06	0 – 200 mm 0 – 7.9"	1212 47.71	1292 50.86	650 25.6	40 1.6	168 6.6	60 2.36	80 3.15	32 1.25	24 0.94	64 2.5	165 6.5	235 9.25	316 12.44	40 1.57	95 3.8	64 2.5	156 6.1
	0 – 300 mm 0 – 11.8"	1312 51.65	1392 54.80	700 27.57														
	0 – 400 mm 0 – 15.7"	1412 55.59	1492 58.74	750 29.53														
and	0 – 600 mm 0 – 23.6"	1612 63.46	1692 66.61	850 33.47														
SMX 07	0 – 800 mm 0 – 31.5"	1812 71.33	1892 74.48	950 37.4														
	0 – 1000 mm 0 – 39.4"	2012 79.20	2092 82.35	1050 41.35														
	0 – 1200 mm 0 – 47.2"	2212 87.07	2292 90.22	1150 45.29														

TYPE	STROKE	s	t	u	v	w	x
SMX 06	0 – 200 mm 0 – 7.9"	95 3.74	178 7.0	140 5.5	121 4.8	25mm conduit	40 1.575
	0 – 300 mm 0 – 11.8"						
	0 – 400 mm 0 – 15.7"						
and	0 – 600 mm 0 – 23.6"						
SMX 07	0 – 800 mm 0 – 31.5"						
	0 – 1000 mm 0 – 39.4"						
	0 – 1200 mm 0 – 47.2"						

LUBRICATION

Retract the shaft and inject grease Rocol grade MTS 1000 through grease nipple provided on push/pull shaft every 200,000 operations or every 12 months

Add the following dimensions 'd' for extras.

TYPE	Pack 1 Pack 2 Pack 3	Pack 1 + 2 Pack 1 + 3 Pack 2 + 3 Pack 1 + 2 + 3
SMX 06 and SMX 07	98 3.86	181 7.13

Bellows diameter 178mm (7") when fitted.