

Linear actuator

CAT 33H

Benefits

- Compact
- Robust
- Modular
- Lubricated for service life
- High speed
- Digital encoder feedback



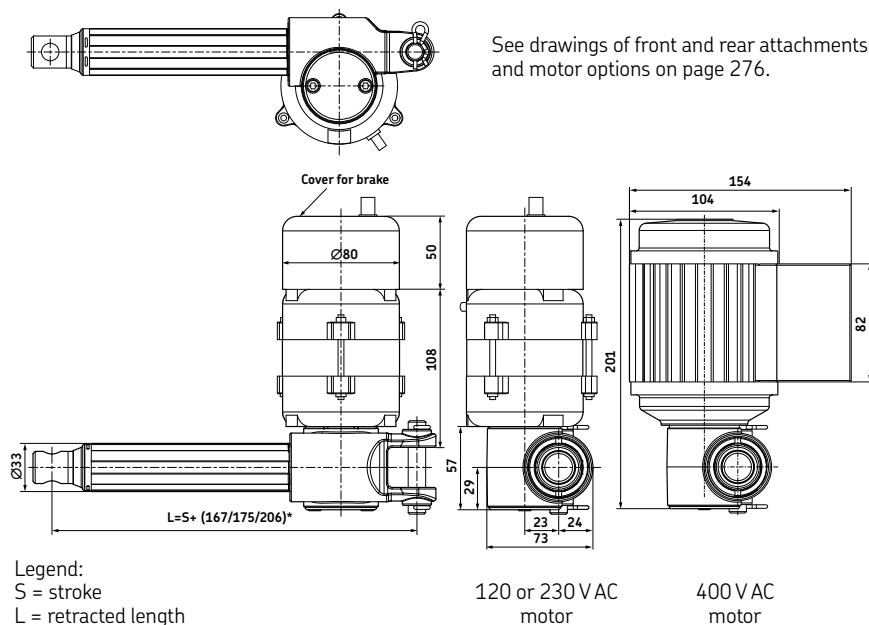
Suitable control units and accessories

Control unit		Encoder
	CAEV 110/220	E2 ¹⁾
E110C	•	•
E110CB	•	•
E220C	•	•
E220CB	•	•
E380C	•	•
CAES 31C		•

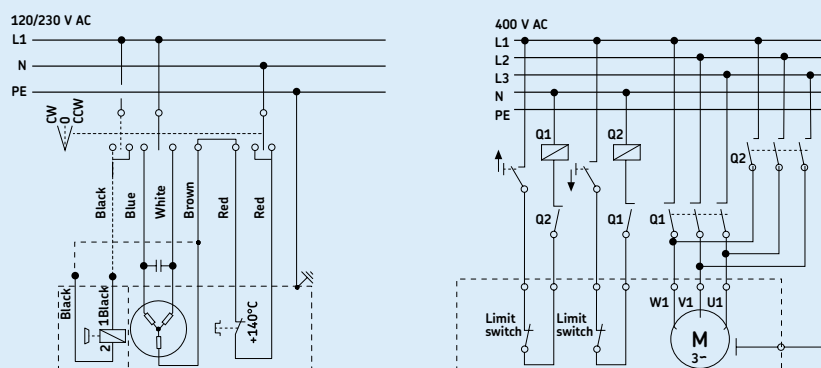
Hand switch
 Foot switch
 Desk switch

¹⁾ See page 380

Dimensional drawing – AC version



Connecting diagrams – AC version



Technical data

Unit		CAT 33H – AC version
Rated push load	N	500 to 1 200
Rated pull load	N	500 to 1 200
Speed (at full load)	mm/s	20 to 90 ¹⁾
Stroke	mm	100 to 400
Retracted length	mm	S+150/158/189 ²⁾
Voltage	V AC	120, 230 or 400
Power consumption	120 V AC W	98 (brake 133,2W)
	230 V AC W	92 (brake 117,3W)
	400 V AC W	80
Current consumption	120 V AC A	0,82 (brake +0,29A)
	230 V AC A	0,4 (brake +0,11A)
	400 V AC A	0,2
Duty cycle	%	30
Ambient temperature	°C	-20 to +50
Type of protection	IP	20/54/55
Weight	kg	2 to 2,7

¹⁾ Depending on selected motor

²⁾ Dimension depends on selected front attachment

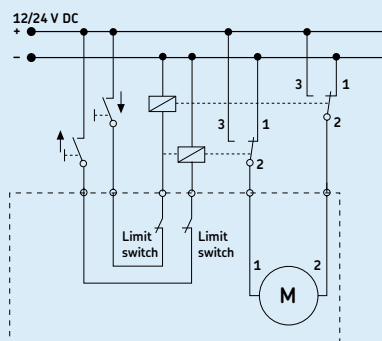
Suitable control units and accessories

	Control units	Encoder
	CAED 5-24R	CAED 9-24R
		E2 ¹⁾
C12C		
D12C		
C24C		
C24CW		
D24C		
D24CB		
D24CS		
D24CW		
CAES 31C		

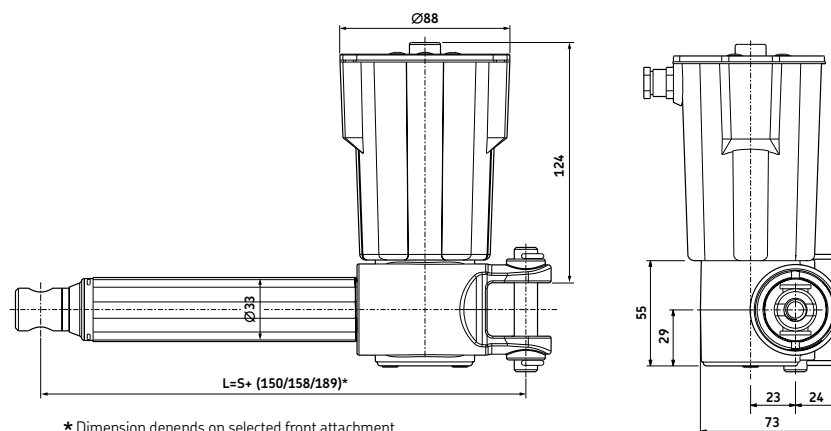
Hand switch
 Foot switch
 Desk switch

¹⁾ See page 380

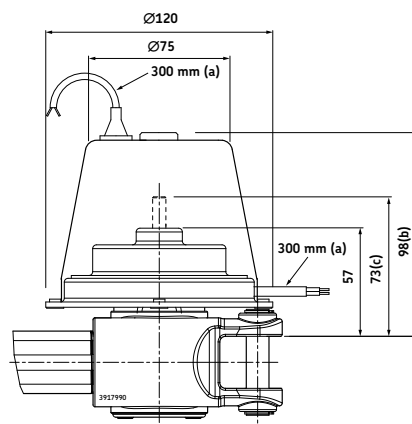
Connecting diagram – DC version



Dimensional drawing – DC version



* Dimension depends on selected front attachment



Legend:

S = stroke

L = retracted length

(a) = cable length

(b) = cover for brake (D24CB)

(c) = extended shaft (D24CS)

D12C, D24C, D24CB, D24CS, D24CW

See drawings of front and rear attachments and motor options on page 276.

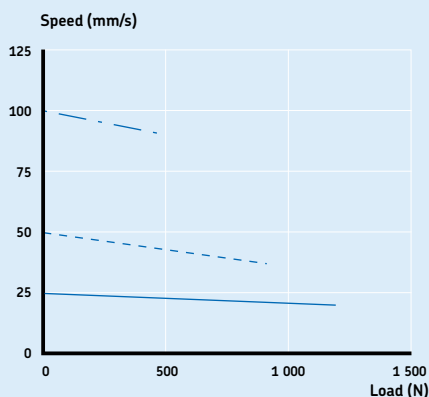
Technical data

	Unit	CAT 33H – DC version
Rated push load	N	400 to 1 200
Rated pull load	N	400 to 1 200
Speed (full load to no load)	mm/s	17 to 193 ¹⁾
Stroke	mm	100 to 400
Retracted length	mm	S+150/158/189 ²⁾
Voltage	V DC	12 or 24
Power consumption	W	N/A
Current consumption	12 V DC	A
	24 V DC	A
	24 V DC	A
Duty cycle	%	20
Ambient temperature	°C	-20 to +50
Type of protection	IP	20/44/65
Weight	kg	2 to 2,7

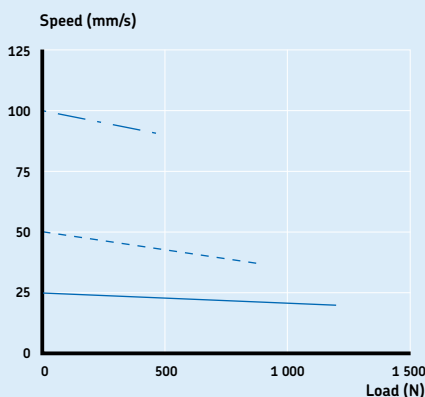
¹⁾ Depending on selected motor

²⁾ Dimension depends on selected front attachment

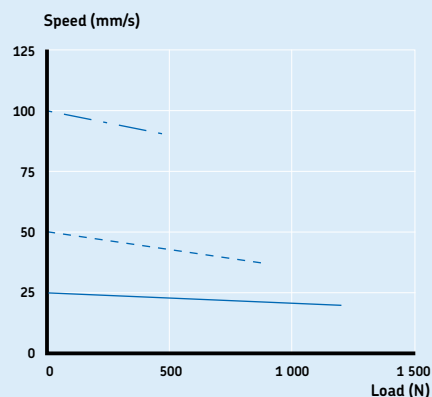
Performance diagrams – AC version



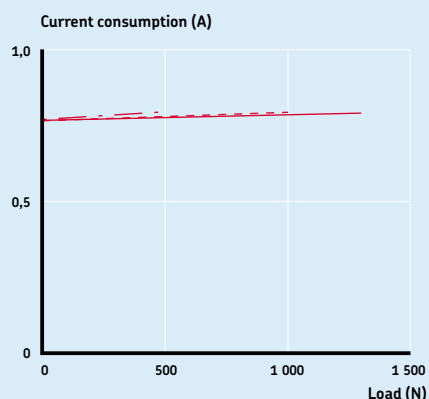
Speed-load diagram CAT 33H ... 120 V AC



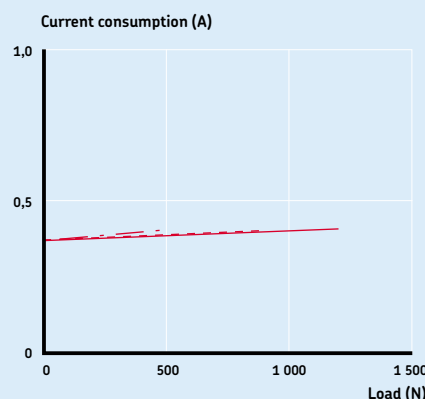
Speed-load diagram CAT 33H ... 230 V AC



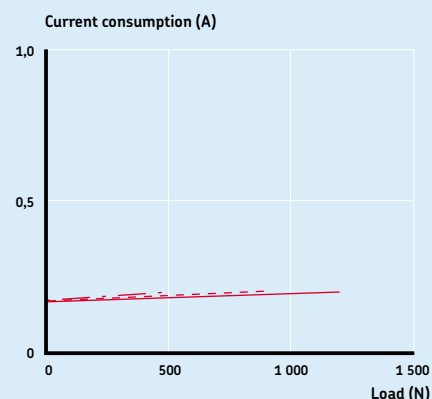
Speed-load diagram CAT 33H ... 400 V AC



Current-load diagram CAT 33H ... 120 V AC



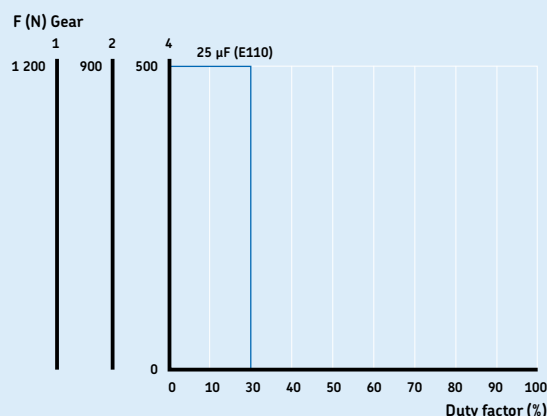
Current-load diagram CAT 33H ... 230 V AC



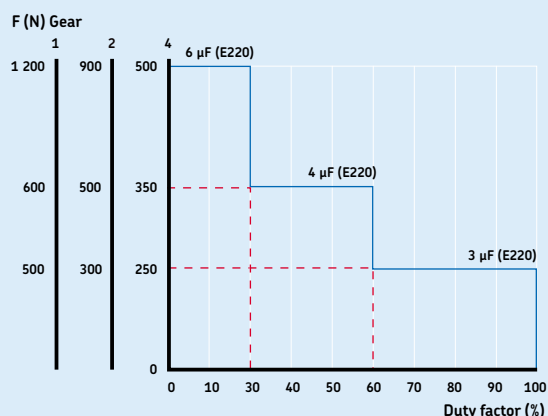
Current-load diagram CAT 33H ... 400 V AC

Gear 1 — V (mm/s)
— I (A)
Gear 2 - - - V (mm/s)
- - - I (A)
Gear 4 . . . V (mm/s)
- - - I (A)

Duty cycle

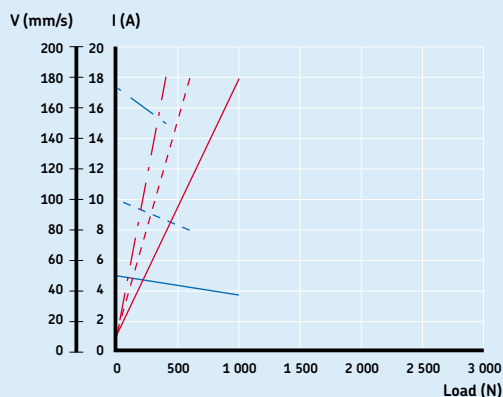


CAT 33H ... 120 V AC

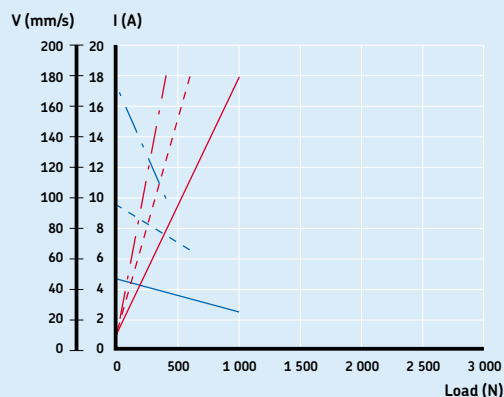


CAT 33H ... 230 V AC

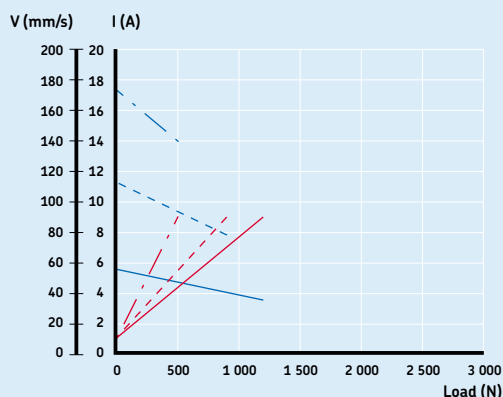
Performance diagrams – DC version



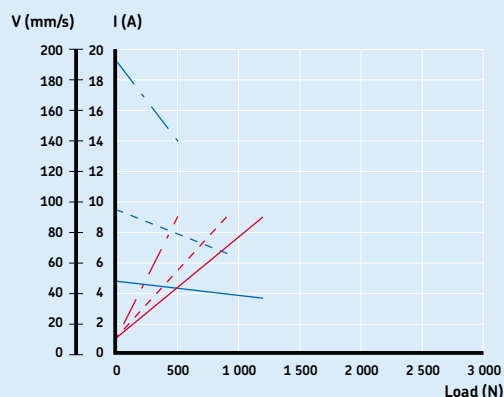
CAT 33H.../C12C



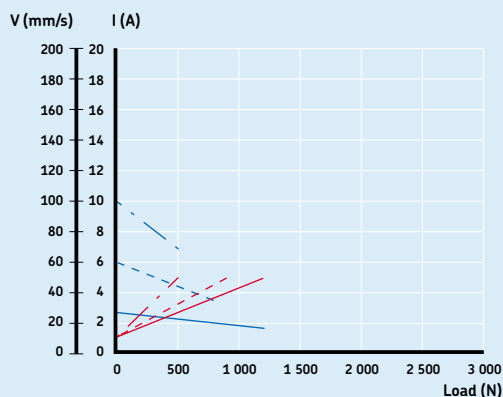
CAT 33H.../D12C



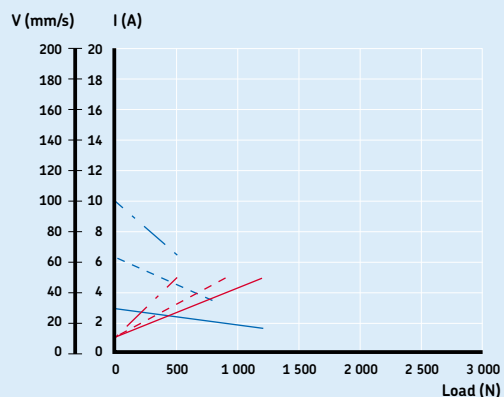
CAT 33H.../C24C



CAT 33H.../D24C/D24CB/D24CS

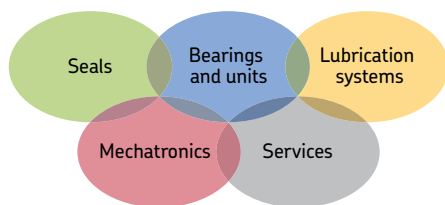


CAT 33H.../C24CW



CAT 33H.../D24CW

Gear 1 — V (mm/s)
— I (A)
Gear 2 - - - V (mm/s)
- - - I (A)
Gear 4 - - - V (mm/s)
- - - I (A)



The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over more than 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry world-wide. These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management systems. A global presence provides SKF customers uniform quality standards and worldwide product availability.

Ordering key

Dynamic load (N) / Speed (mm/s)			Motor options	
1 200/xx	900/xx	600/xx	No motor	0000
1 200/20	900/37	500/90	120 V AC/60 Hz, 1-phase, IP54	E110C
1 200/20	900/37	500/90	120 V AC/60 Hz, 1-phase, brake, IP20	E110CB
1 200/20	900/37	500/90	230 V AC/50 Hz, 1-phase, IP54	E220C
1 200/20	900/37	500/90	230 V AC/50 Hz, 1-phase, brake, IP20	E220CB
1 200/20	900/37	500/90	400 V AC/50 Hz, 3-phase, IP55	E380C
1 200/xx	900/xx	600/xx	No motor	0000
1 000/50-38	600/100-80	400/174-150	12 V DC, IP44 (65)	C12C
1 000/47-25	600/95-65	400/170-100	12 V DC, flat motor, IP44	D12C
1 200/56-36	900/113-79	500/174-140	24 V DC, IP44 (65)	C24C
1 200/27-17	800/60-35	500/100-69	24 V DC, low speed, IP44 (65)	C24CW
1 200/48-37	900/95-66	500/193-140	24 V DC, flat motor, IP44	D24C
1 200/48-37	900/95-66	500/193-140	24 V DC, flat motor, brake, IP20	D24CB
1 200/48-37	900/95-66	500/193-140	24 V DC, flat motor, ext. shaft, IP44	D24CS
1 200/30-17	800/63-35	500/100-65	24 V DC, flat motor, low speed, IP44	D24CW
1	2	4		

C A T 3 3 H X X /

Type

Motor assembly:

Right
Left

R
L

Stroke (S):

100 mm
200 mm
300 mm
400 mm

100
200
300
400

Other stroke lengths

Rear attachment (see page 276):

Fork ear, Ø=12,0 mm
Fork ear, Ø=12,7 mm
Single ear, Ø=12,0 mm
Single ear, Ø=12,7 mm

A1
A2
K1
K2

Front attachment (see page 276):

Hole, Ø=12,0 mm
Hole, Ø=12,7 mm
Male thread, M12
Female thread, M12
Fork ear, Ø=10,1 mm

G1
G2
G3
G4
G5

Feedback:

No encoder (no code)
Encoder (for all standard motors)

E2

Option:

Friction clutch (not available with option encoder)
No friction clutch

F
Z

Options shown in italics are only available on demand. Contact SKF for more information on minimum quantities and additional costs.

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