



General information about electric chain hoists

Apart from the usual criterion such as lifting capacity, lifting speed and dimensions also consider following:

1. Choosing a motor according to FEM 9.683

In addition to the torque the decisive criterion for rating an electric motor is the heat it generates. Here we differentiate between two operational modes:

1.1 Intermittent duty

In this case the motor is designed for a series of equal cycles consisting of duty periods with constant load and rest periods. The heat generation depends on the relative duty cycle, that is, the relationship between operating period under load, total operating time and the number of starts/hour.

$$ED = \frac{\text{Operating period}}{\text{Operating period} + \text{rest periods}} \%$$

The number of cycles that can be made under full load is calculated as follows:

$$S \approx 0.3 \times \frac{ED \times V}{H}$$

S = Cycles per hour

ED = Duty rating in %

V = Lifting speed in m/min

H = Average lifting height in m

A cycle consists of a motion of lifting, lowering and the rest periods. One must ensure that the lifting height does not exceed the value permitted by the percentage duty cycle referred to a cycle period of 10 minutes

$$H \leq \frac{ED \times V}{20}$$

and that simultaneously the permissible number of starts is not exceeded. It is generally accepted that a cycle consists of 6 starts.

1.2 Short time duty

Where special duty conditions exist (e.g. long hook path) the operating period must be of such length that the admissible temperature limit of the motor is not exceeded. For such cases intermittent duty must be replaced by short time duty. That is, the motor may be operated for up to 10 starts over a certain period (with Yale products 30 min). Thereafter the motor must cool down to room temperature.

1.3 Calculation example intermittent duty

Electric chain hoist	:	CPV 5-8
Lifting speed	:	8 m/min
Lifting height	:	2,8 m
Duty rating ED	:	50 %
c/h	:	180

Number of cycles per hour

$$S = 0.3 \times \frac{50 \times 8}{2.8} = 42.8$$

Max. lifting height

$$H = 2.8 \leq \frac{50 \times 8}{20} = 20 \text{ m}$$

Number of starts

$$N = \frac{25 \text{ cycles}}{\text{hour}} \times \frac{6 \text{ starts}}{\text{cycle}} = 150 \text{ c/h}$$

2. Classification of hoisting equipment according to FEM 9.511

To choose an optimal hoist the lifting capacity and also the classification group must be known. The classification group indicates the theoretical operating time of the mechanical components under full load:

Classification group	FEM ISO	1 Bm M3	1 Am M4	2 m M5	3 m M6
Operating time in h		400	800	1600	3200

If the hoist is operated as classified an actual operating time of around 10 years can be expected.

After this period a general overhaul is necessary.

To define the classification group following values must be determined:

2.1 Average operating time per day

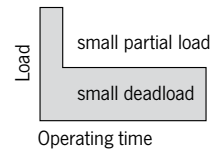
The average operating time can be estimated or calculated as follows:

$$\text{Operating time/day} = \frac{2 \times \text{average hook path} \times \text{cycles/hour} \times \text{operating time/day}}{60 \times \text{lifting speed}}$$

2.2 Load spectrum

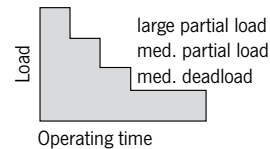
The load spectrum indicates to what extent a hoist or part thereof is subject to maximal stress or whether it is subject to smaller loads only. It can be calculated or estimated according to the diagrams on the right:

1 light



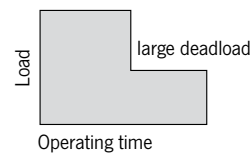
Hoists or parts thereof usually subject to very small loads and in exceptional cases only to maximum loads.

2 medium



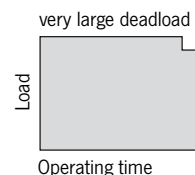
Hoists or parts thereof usually subject to small loads but rather often to maximum loads.

3 heavy



Hoists or parts thereof usually subject to medium loads but frequently to maximum loads.

4 very heavy



Hoists or parts thereof usually subject to maximum or almost maximum loads.

2.3 Classification

The classification group is defined by operating hours and load spectrum:

Load spectrum	Aver. op. hours per working day		
1 light	up to 2	2-4	4-8
2 medium	up to 1	1-2	2-4
3 heavy	up to 0.5	0.5-1	1-2
4 very heavy	up to 0.25	0.25-0.5	0.5-1
Classification group acc. to FEM/ISO	1 Bm/M3	1 Am/M4	2 m/M5



Motor surface cooled

Protection	1 st digit		2 nd digit
	Contact protection	Ingress of solid foreign particles	Ingress of liquid
IP 44	contact with tools or similar	against solid foreign bodies over 1 mm Ø	splashing from all directions
IP 50	complete protection against contact	damaging dust deposits	no protection
IP 54	contact with tools or similar	against solid foreign bodies over 1 mm Ø	splashing from all directions
IP 55	complete protection against contact	damaging dust deposits	water jets from all directions
IP 56	complete protection against contact	damaging dust deposits	momentarily flooding
IP 65	complete protection against contact	against ingress of dust	water jets from all directions

Protection against contact and solid foreign particles

First digit 0 No protection

No protection of persons against contact with live or moving parts inside the enclosure. No protection of equipment against ingress of solid foreign particles.

First digit 1 Protection against large solid foreign particles

Protection against accidental or inadvertent contact with live or moving parts inside the enclosure by a large surface of the human body, e.g. hand, but not protected against deliberate access to such parts.

First digit 2 Protection against med. size solid foreign particles

Protection against contact with live or moving parts inside the enclosure by fingers. Protection against ingress of medium size solid foreign particles of diameter greater than 12 mm.

First digit 3 Protection against small solid foreign particles

Protection against contact with live or moving parts inside the enclosure by tools, wires or such objects of thickness greater than 2.5 mm. Protection against ingress of small solid foreign particles of diameter greater than 2.5 mm.

First digit 4 Protection against granular structured foreign particles

Protection against contact with live or moving parts inside the enclosure by tools, wires or such objects of thickness greater than 1 mm. Protection against ingress of granular structured solid foreign particles of diameter greater than 1 mm.

First digit 5 Protection against dust deposits

Complete protection against contact with live or moving parts inside the enclosure. Protection against harmful deposits of dust. The ingress of dust is not totally prevented, but dust cannot enter in an amount sufficient to interfere with the satisfactory operation of the equipment enclosed.

First digit 6 Complete protection

Complete protection against contact with live or moving parts inside the enclosure. Protected against the ingress of dust.

IP protection according to EN 60529

Depending on the operating and environmental conditions the damaging effect of water, foreign particles and dust and the contact with live or moving parts inside a motor is to be prevented by choosing a suitable protection.

The marking used to indicate the degree of protection consists of the letters IP followed by two characteristic numerals.

The marking applies to the unit as it is supplied and the defined or usual location of the unit.

The protection can change if the unit is located or fitted differently.

Protection against liquids

Second digit 0 No protection

No particular protection

Second digit 1 Protection against vertical water drops

Droplets of condensed water falling on the enclosure shall have no harmful effects.

Second digit 2 Protection against diagonal falling water drops

Protection against dripping liquids. Droplets of falling liquid shall have no harmful effect when the enclosure is tilted at any angle up to 15° from the vertical.

Second digit 3 Protection against spray water

Protection against dripping liquids. Water falling as rain at an angle equal to or smaller than 60° in respect to the vertical shall have no harmful effect.

Second digit 4 Protection against splashing

Liquid splashed from any direction shall have no harmful effect.

Second digit 5 Protection against water jets

Water projected by a nozzle from any direction under stated conditions shall have no harmful effect.

Second digit 6 Protection against flooding

Protection against conditions on ships decks (deck watertight equipment). Water from heavy seas shall not enter the enclosure under prescribed conditions².

Second digit 7 Protection against immersion in water

It shall not be possible for water to enter the enclosure under stated conditions of pressure and time².

Second digit 8 Protection against indefinite immersion

Protection against indefinite immersion in water. Under specific pressure it shall not be possible for water to enter the enclosure²).

²) In certain cases water should not ingress. As required this is defined on the follow-on page of the unit in question.

Technical questionnaire to identify a suitable electric chain hoist

Company: _____

Date: _____

Contact: _____

e-Mail: _____

Phone: _____

Fax: _____

Details about intended use

Required capacity

Lifting height

Ambient conditions

- ☐ Normal
- ☐ Humidity
- ☐ Dust
- ☐ Dirt
- ☐ Particular temperatures _____ °C
- ☐ Increased rel. humidity _____ %
- Other _____

How long is the hoist in operation

- _____ Load cycles per hour
- _____ Hours per day
- _____ Days per week
- _____ Distance covered per lifting cycle

Unusual operating conditions that could be important for the choice and function of the electric chain hoist:

Type of load

- ☐ Permanent
- ☐ Changing
- ☐ Shocks
- ☐ Vibration
- ☐ Static

Trolley drive

- ☐ Motor
- ☐ Manual

Operating voltage

- ☐ 400 V
- ☐ 230 V
- ☐ 3-phase a.c.
- ☐ 1-phase a.c.

Power frequency

- ☐ 50 Hz
- ☐ 60 Hz

Protection

- ☐ IP 54
- ☐ Other

Hook suspension

☐

Other

☐



COMPLETE SERIES CPV
**CAPACITIES
125-5000 KG**
WITH
**SUSPENSION HOOK
AS STANDARD,
SUSPENSION LUG AS AN OPTION,
PUSH, GEARED OR
ELECTRIC TROLLEY**

Yale **CPV**

Electric chain hoist
with suspension hook or with
integrated trolley

Capacity 125 - 5000kg

The electric chain hoist CPV combines modern design and technical innovation. A robust construction makes the series a versatile tool for professional applications. The integrated limit switch for the highest and lowest hook position considerably extends the working life span of the slip clutch, motor and gearbox.

Features

- Increased operating safety through 42V control voltage (low voltage control) and the main contactor.
- The integrated limit switch for the highest and lowest hook position considerably extends the service life of the slip clutch, motor and gearbox.
- Overload protection (slip clutch) in all CPV hoists is outside force flow to meet higher safety requirements.
- Electromagnetic spring pressure brake holds the load safely even in the event of power failure.
- Different suspension types available such as top hook, lug or an integrated trolley. A retro-fit to another type of suspension is possible.
- Any chain length (lifting height) as per customer order.
- Oil bath gearbox (or semifluid grease with CPV/F 2-8 and 5-4 as well as CPV 2-4 and 5-2) with helical gearing for particularly smooth service and enhanced lifetime.
- All-steel chain guide.
- The chain guide of the smallest hoist CPV/F 2-8 and 5-4 as well as CPV 2-4 and 5-2 is a thermoplastic (POM) chain guide that is integral with the housing.
- CPV series are protected up to IP 55.
- 2 year warranty (excluding wear parts) and a lifetime lubricated gearbox.

INFO

Festooned cable systems please see pages 146-147.

Yale hoists and trolleys are not designed for passenger elevation applications and must not be used for this purpose.

Options

- Other operating and control voltages.
- Flexible chain containers
- Power supply cables, CEE plugs with phase changing switch.
- Radio remote controls, also acc. to EN 13849-1 PL “d” and “e”.
- Pluggable control pendants.
- Wall mounted controls.
- Rotary limit switch as a back-up to standard limit switches.
- Frequency controllers, stepless and ramp controls.
- Suspensions 90° turned.
- Thermal sensors.



Optional:
Radio remote control



Optional:
with suspension lug

Yale CPV

Further standards

CPV

“Quick Delivery” programme

Capacity 250 - 1000 kg

Features

- Top hook suspension
- Lifting height 6 m
- With chain container

SPECIAL MODEL CPV

“QUICK DELIVERY”

**THE HOIST CAN BE SHIPPED
EX CMCO WUPPERTAL
WITHIN 24 HOURS**

Technical data CPVF - 24 h “Quick Delivery” programme

Model	Art.-No.	Capacity kg	Number of chain falls	Lifting speed in m/min	
				main lift	fine lift
CPVF 2-8	192052434	250	1	8	2
CPVF 5-8	192052435	500	1	8	2
CPVF 10-8	192052436	1000	1	8	2

CPV ... DC

with direct control

Capacity 125 - 500 kg

Features

- Suspension hook as standard
- With overload protection, without limit switches
- With chain container

Technical data CPV ... DC - 400 V, 3 phase, 50 Hz

Model	Art.-No.	Capacity kg	Number of chain falls	Lifting speed m/min
CPV 1-8 DC	192059040	125	1	8
CPV 2-8 DC	192059042	250	1	8
CPV 5-4 DC	192059043	500	2	4

Hoisting Equipment Electric chain hoists

Technical data CPV/CPVF - 400V, 3 phase, 50Hz

Capacity kg	Model	Number of chain falls	Chain dimensions d x p mm	Classification FEM/ISO	Lifting speed		Hoist motor kW	Motor rating ED %	Weight at standard lift (3m) ¹		
					main lift m/min	fine lift m/min			suspension lug kg	push trolley ² kg	electric trolley ³ kg
125	CPV 2-8	1	4 x 12.2	3m/M6	8	–	0.37	75	17	26	31
125	CPVF 2-8	1	4 x 12.2	3m/M6	8	2	0.37/0.09	50/25	18	27	32
250	CPV 2-8	1	4 x 12.2	1Am/M4	8	–	0.37	50	17	26	31
250	CPVF 2-8	1	4 x 12.2	1Am/M4	8	2	0.37/0.09	33/17	18	27	32
250	CPVF 2-18	1	5x15.1	1Am/M4	18	4.5	0.75/0.18	33/17	27	42	50
320	CPV 5-8	1	5 x 15.1	3m/M6	8	–	0.75	67	26	41	49
320	CPVF 5-8	1	5 x 15.1	3m/M6	8	2	0.75/0.18	45/22	27	42	50
500	CPV 5-4	2	4 x 12.2	1Am/M4	4	–	0.37	50	20	29	34
500	CPVF 5-4	2	4 x 12.2	1Am/M4	4	1	0.37/0.09	33/17	21	30	35
500	CPV 5-8	1	5 x 15.1	1Am/M4	8	–	0.75	50	26	41	49
500	CPVF 5-8	1	5 x 15.1	1Am/M4	8	2	0.75/0.18	33/17	27	42	50
500	CPVF 5-18	1	7.1 x 20.5	1Am/M4	18	4.5	1.5/0.37	33/17	59	78	85
630	CPV 10-8	1	7.1 x 20.5	3m/M6	8	–	1.5	67	58	77	84
630	CPVF 10-8	1	7.1 x 20.5	3m/M6	8	2	1.5/0.37	45/22	59	78	85
1000	CPV 10-4	2	5 x 15.1	1Am/M4	4	–	0.75	50	28	43	51
1000	CPVF 10-4	2	5 x 15.1	1Am/M4	4	1	0.75/0.18	33/17	29	44	52
1000	CPV 10-8	1	7.1 x 20.5	1Am/M4	8	–	1.5	50	58	77	84
1000	CPVF 10-8	1	7.1 x 20.5	1Am/M4	8	2	1.5/0.37	33/17	59	78	85
1500	CPV 20-4	2	7.1 x 20.5	2m/M5	4	–	1.5	62	63	82	89
1500	CPVF 20-4	2	7.1 x 20.5	2m/M5	4	1	1.5/0.37	41/21	64	83	90
2000	CPV 20-4	2	7.1 x 20.5	1Am/M4	4	–	1.5	50	63	82	89
2000	CPVF 20-4	2	7.1 x 20.5	1Am/M4	4	1	1.5/0.37	33/17	64	83	90
2000	CPVF 25-8	1	11.3 x 31	2m/M5	8	2	3.6/0.9	39/20	85	147	161
2500	CPVF 25-8	1	11.3 x 31	1Am/M4	8	2	3.6/0.9	33/17	85	147	161
3200	CPVF 50-4	2	11.3 x 31	3m/M6	4	1	3.6/0.9	44/22	98	160	174
5000	CPVF 50-4	2	11.3 x 31	1Am/M4	4	1	3.6/0.9	33/17	98	160	174

CPV - 230V, 1 PH, 50HZ

125	CPV 2-4	1	4 x 12.2	3m/M6	4	–	0.37	35
250	CPV 2-4	1	4 x 12.2	1Bm/M3	4	–	0.37	25
500	CPV 5-2	2	4 x 12.2	1Bm/M3	2	–	0.37	25
500	CPV 5-8	1	5 x 15.1	1Bm/M3	8	–	1.0	25
1000	CPV 10-4	2	5 x 15.1	1Bm/M3	4	–	1.0	25
1000	CPV 10-4/1	1	7.1 x 20.5	1Bm/M3	4	–	0.75	25
2000	CPV 20-2	2	7.1 x 20.5	1Bm/M3	2	–	0.75	25

¹Other lifting heights on request.

²For trolleys type A and B: Additional weight for geared trolley (VTG): 2.5 kg

³For electric trolley with 2 speeds (VTEF) +2.0 kg



Depicted
chain container
optionally
available.

Trolleys

Suitable for	Capacity of the trolley kg	Size	All trolleys			Electric trolley	
			Beam flange width b mm	Beam flange thickness t max. mm	Curve radius min. m	travel speed m/min at 50 Hz	motor kW at 50 Hz
CPV/CPVF 2-8/5-4, CPV2-4/5-2	500	A	58 - 180	19	0.9	11 or 18	0.09
CPV/CPVF 2-8/5-4, CPV2-4/5-2	500	B	180 - 300	19	0.9	11 or 18	0.09
CPV/CPVF 5-8/10-4, CPVF 2-18	1000	A	58 - 180	19	0.9	18 or 18/4.5 ¹	0.18 or 0.18/0.06
CPV/CPVF 5-8/10-4, CPVF 2-18	1000	B	180 - 300	19	0.9	18 or 18/4.5 ¹	0.18 or 0.18/0.06
CPV/CPVF 10-8/20-4, CPVF 5-18, CPV 10-4/1, 20-2	2000	A	58 - 180	19	1.15	18 or 18/4.5 ¹	0.18 or 0.18/0.06
CPV/CPVF 10-8/20-4, CPVF 5-18, CPV 10-4/1, 20-2	2000	B	180 - 300	19	1.15	18 or 18/4.5 ¹	0.18 or 0.18/0.06
CPVF 25-8/50-4	5000	A	98 - 180	27	2.0	11 or 11/2.8	0.37 or 0.3/0.09
CPVF 25-8/50-4	5000	B	180 - 300	27	1.8	11 or 11/2.8	0.37 or 0.3/0.09

¹Alternatively 11 or 11/2.8m/min

Yale CPV

Options and features for applications

FOR CORROSIVE ENVIRONMENT & FOOD INDUSTRY

- Stainless steel load chains.
- Stainless steel load hooks for single fall hoists.
- Zinc- or copper- bottom blocks for double fall hoists.
- Zinc plated trolleys and/or 2-component topcoat.
- Food industry approved gearbox lubricants and grease (H1).
- Textile rain coats for hoists and trolleys.



FOR SIMULTANEOUS LIFTING

Yale offers solutions for lifting loads with two or more electric chain hoists simultaneously. Depending on the customer's application, the hoist system must meet various and sometimes very demanding requirements.

- Radio or cable controls.
- Movement selection: single or group movement.
- On trolleys or as point hoists.
- Coupled trolleys.

Please contact Columbus McKinnon to find a suitable solution.

FOR STATIONARY LOADS ABOVE PERSONS

Columbus McKinnon offers Yale electric chain hoists designed for holding stationary loads above persons in accordance with the EN 14492-2:2019.

We implement these increased safety requirements in our models CPV ... DB, offering load capacities from 125 kg to 1000 kg.

FOR CRANE BUILDING

- Beam locking device for trolleys.
- Rubber buffers for trolleys.
- Trolley travel end buffer stops.
- 90° suspension on trolley.
- Counter for operating hours.
- Trolley travel end limit switches.
- Signal horn or lamp for crane applications.
- Festoon cable systems or other power supply.
- Suspensions for light crane systems.
- Crane operation pendants.

FOR WIND ENERGY

- Chain lengths up to 200 m.
- Electric chain hoists with high lifting speed.
- Chain containers for longer chains and with special suspensions.
- Increased corrosion-resistance.
- Special suspensions.
- Load hooks with protective cover.

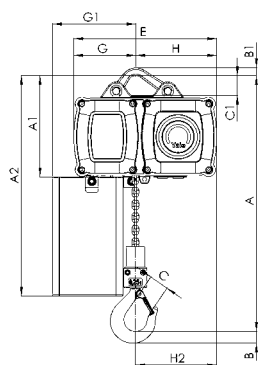


Model	Art.-No.	Capacity kg	Number of chain falls	Lifting speed m/min
CPV 2-8 DB	192054103	125	1	8
CPV 5-4 DB	192054104	250	2	4
CPV 5-8 DB	192054105	250	1	8
CPV 10-4 DB	192054107	500	2	4
CPV 10-8 DB	192054108	500	1	8
CPV 20-4 DB	192054109	1000	2	4

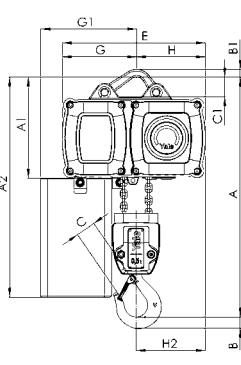
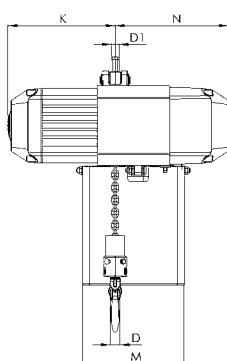
Dimensions CPV/CPVF

Model	CPV/CPVF 2-8 CPV 2-4	CPV/CPVF 5-4 CPV 5-2	CPVF 2-18 CPV/CPVF 5-8	CPV/CPVF 10-4	CPVF 5-18 CPV/CPVF 10-8 CPV 10-4/1	CPV/CPVF 20-4 CPV 20-2	CPVF 25-8	CPVF 50-4
A, mm	327	363	357	430	431	528	514	658
A1, mm	163	163	196	196	234	234	288	288
A2 (dimension with chain container), mm								
-Size I (for lift-height, m)	343 (15 m)	343 (7.5 m)	476 (10 m)	476 (5 m)	564 (12 m)	564 (6 m)	580 (13 m)	580 (6 m)
-Size II (for lift-height, m)	413 (32 m)	413 (16 m)	526 (22 m)	526 (11 m)	644 (18 m)	644 (9 m)	764 (25 m)	764 (12 m)
-Size III (for lift-height, m)	483 (52 m)	483 (26 m)	606 (40 m)	606 (20 m)	734 (25 m)	734 (12 m)	854 (30 m)	854 (15 m)
-Size IV (for lift-height, m)	–	–	798 (64 m)	798 (32 m)	934 (40 m)	934 (20 m)	–	–
B, mm	23	23	22	29	29	37	37	37
B1, mm	12	12	15	15	20	20	33	33
C, mm	30	30	29	35	35	40	46	46
C1, mm	30	30	38	38	45	45	71	71
C2, mm	105	105	105	105	154	154	194	194
D, mm	16	16	15	21	21	26	35	35
D1, mm	12	12	15	15	15	15	25	25
E, mm	205	205	277	277	326	326	409	409
G, mm	106	126	120	144	140	173	179	179
G1 (size I), mm	124	124	142	166	175	208	264	264
G1 (size II), mm	124	124	162	186	175	208	264	264
G1 (size III), mm	124	124	162	186	175	208	265	265
G1 (size IV), mm	124	124	162	186	175	208	–	–
H, mm	99	79	157	133	186	154	230	230
H2, mm	92	72	158	158	186	186	230	180
K, mm	215	215	208	208	285	285	335	335
M (size I), mm	157	157	162	162	209	209	300	300
M (size II), mm	157	157	197	197	209	209	300	300
M (size III), mm	157	157	197	197	209	209	301	301
M (size IV), mm	157	157	197	197	209	209	–	–
N ¹ , mm	159	159	219	219	274	274	299	299

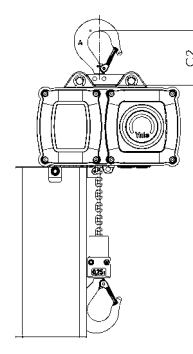
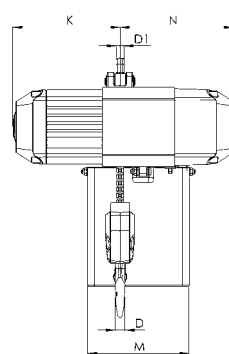
¹for 230V, 1-phase, 50 Hz: approx. +35 mm



CPV/CPVF
with suspension lug, 125 - 2500 kg, single fall



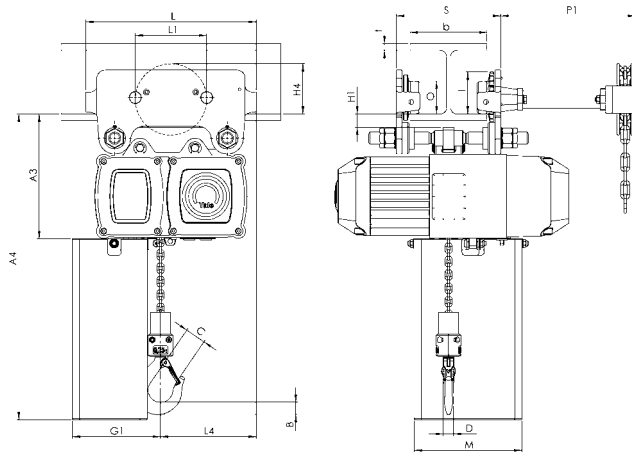
CPV/CPVF
with suspension lug, 500 - 5000 kg, double fall



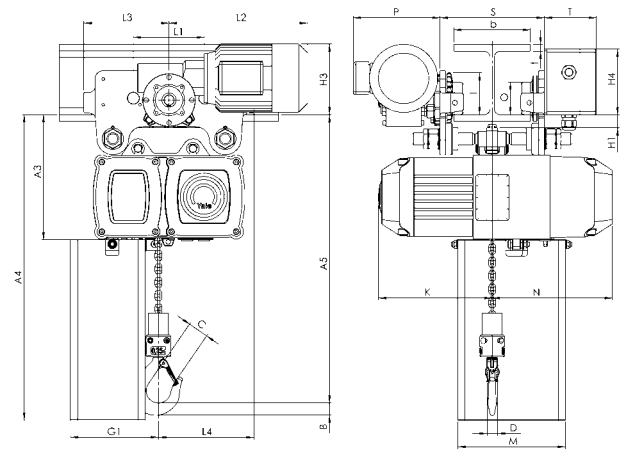
CPV/CPVF
suspension hook, 250 - 2500 kg

Dimensions CPV/CPVF

Model	CPV/CPVF 2-8 CPV 2-4	CPV/CPVF 5-4 CPV 5-2	CPVF 2-18 CPV/CPVF 5-8	CPV/CPVF 10-4	CPVF 5-18 CPV/CPVF 10-8 CPV 10-4/1	CPV/CPVF 20-4 CPV 20-2	CPVF 25-8	CPVF 50-4
A3, mm	199	199	228	228	263	263	339	339
A4 (dimension with chain container), mm								
- Size I (for lift-height, m)	379 (15 m)	379 (7.5 m)	508 (10 m)	508 (5 m)	593 (12 m)	593 (6 m)	631 (13 m)	631 (6 m)
- Size II (for lift-height, m)	449 (32 m)	449 (16 m)	558 (22 m)	558 (11 m)	673 (18 m)	673 (9 m)	815 (25 m)	815 (12 m)
- Size III (for lift-height, m)	519 (52 m)	519 (26 m)	638 (40 m)	638 (20 m)	768 (25 m)	768 (12 m)	905 (30 m)	905 (15 m)
- Size IV (for lift-height, m)	–	–	830 (64 m)	830 (32 m)	968 (40 m)	968 (20 m)	–	–
A5, mm	365	401	389	462	460	558	648	738
b, mm	A = 58 - 180 B = 180 - 300	A = 58 - 180 B = 180 - 300	A = 58 - 180 B = 180 - 300	A = 58 - 180 B = 180 - 300	A = 58 - 180 B = 180 - 300	A = 58 - 180 B = 180 - 300	A = 98 - 180 B = 180 - 300	A = 98 - 180 B = 180 - 300
H1, mm	25	25	24	24	23	23	30	30
H3, mm	113	113	129	129	129	129	178	178
H4 (VTG), mm	95	95	95	95	95	95	149	149
H4 (VTE), mm	142	142	142	142	142	142	121	121
I (Push trolley), mm	72	72	72	72	96	96	142	142
I (Geared trolley), mm	76	76	77	77	98	98	149	149
L (VTP/VTG), mm	310	310	310	310	360	360	525	525
L1, mm	130	130	130	130	150	150	209	209
L2 (VTE), mm	255	255	255	255	255	255	292	292
L2 (VTEF), mm	222	222	263	263	263	263	296	296
L3, mm	135	135	155	155	180	180	263	263
L4, mm	131	111	173	161	203	203	258	208
O, mm	60	60	60	60	80	80	125	125
P, mm	171	171	180	180	180	180	172	172
P1, mm	236	236	246	246	246	246	233	233
S, mm	b + 50	b + 50	b + 50	b + 50	b + 54	b + 54	b + 70	b + 70
T, mm	94	94	94	94	94	94	94	94
tmax., mm	12	12	19	19	19	19	27	27



CPV/CPVF
with integrated manual push or geared trolley



CPV/CPVF
with integrated electric trolley



The delivered product may differ from the product shown in the image.

- Stainless steel load chain.
- Suspension hook rotated 90°.
- Flexible chain container.
- Other operating voltages.
- Limit switches for highest and lowest hook positions (in combination with low voltage control).
- Radio remote control.
- Control for synchronized operation of several hoists.
- Manual and electric trolleys.
- Festooned cable system or conductor rail system.

CPEF Electric chain hoist with V or with integrated trolley

Capacity 1600 - 7500 kg

The CPEF series is a range of high quality products for professional applications. They are highly efficient and engineered for a long working life. The hoists are composed of three main component parts which makes service easy and inexpensive.

Features

- Classification 1 Am/M4, except CPEF 20-8, CPEF 30-5 und CPEF 40-4 with classification 1 Bm/M3.
 - 42 V low voltage control.
 - 2 year warranty (excluding wear parts) as well as a lifetime lubricated gear box.
 - Motor fitted with a bimetallic thermal protection
 - Duty cycle 40 % at one operating speed.
 - The heavy duty squirrel cage motor has an adjustable spring pressure brake that holds the load secure even in the event of a power failure.
 - Standard operating voltage: Euro-voltage 400 V, 3-phase, 50 Hz.
 - Motor protected to IP 54, insulation class F.
 - Encapsulated pendant control protected to IP 65, against ingress of dust and water jets.
 - The 5-pocket load chain sheave, manufactured from wear resistant case hardening steel, is matched perfectly to the load chain to guarantee smooth and precise chain motion.
 - The standard, oil bath lubricated planetary gearbox is particularly smooth running.
 - Forged suspension and load hooks are made from non-aging, high tensile steel and fitted with robust safety latches.
 - The standard case hardened and zinc-plated link chain is matched perfectly to the load chain to guarantee smooth and precise chain motion.
- All requirements of national and international standards and regulations are fulfilled.

Options

CPEF 100-2 Electric chain hoist with suspension hook or with integrated trolley

Capacity 10000 kg

The model CPEF 100-2 consists of two CPEF 50-2 units. They are connected by a framework. Hook suspension, geared or electric trolleys are available. Integrated limit switches for highest and lowest hook positions are standard. 42 V low voltage control as standard.

Options

- Stainless steel load chain.
- Flexible chain container.
- Other operating voltages.
- Motor with stainless steel brake.
- Radio remote control.
- Festooned cable system or conductor rail system.

INFO

The units are certified by the employer's liability insurance association (Berufsgenossenschaft) and fulfil the requirements of the machinery directive 2006/42/EG.

Festooned cable systems please see pages 146-147.



The delivered product may differ from the product shown in the image.



5-pocket load chain sheave machined for smooth, precise chain motion.



Universal connection to suspension hook, trolley or steel structures.



Double fall bottom block for capacities between 3200 up to 5000 kg.



Hoist connected directly to trolley with electric drive. Manual pull and geared trolleys also available.



Option: Flexible chain container made from wear resistant textile fabric.

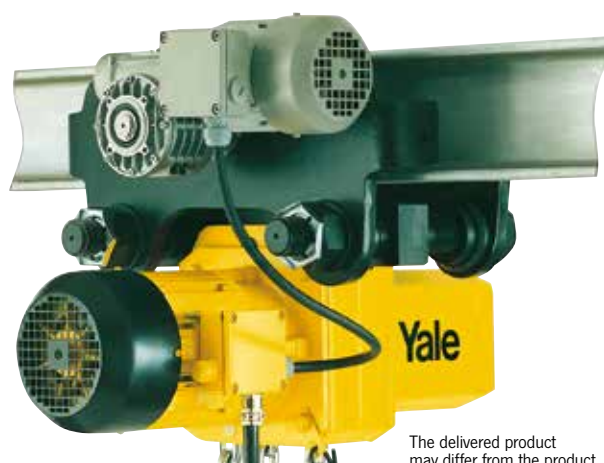


Technical data CPEF - 400V, 3 phase, 50 Hz

Model	Art.-No. CPEF with hook suspension	Capacity in kg/ Number of chain falls	Chain dimensions d x p mm	Classification FEM/ISO	Lifting speed		Hoist motor kW	Motor rating ED %
					main lift m/min	fine lift m/min		
CPEF 16-8	N06000246	1600/1	11 x 31	1 Am/M4	8	2	2.3/0.58	40/20
CPEF 20-8	N06000248	2000/1	11 x 31	1 Bm/M3	8	2	2.8/0.7	25/15
CPEF 25-5	N06000250	2500/1	11 x 31	1 Am/M4	5	1.25	2.3/0.58	40/20
CPEF 30-5	N06000252	3000/1	11 x 31	1 Bm/M3	5	1.25	2.8/0.7	25/15
CPEF 32-4	N06000254	3200/2	11 x 31	1 Am/M4	4	1	2.3/0.58	40/20
CPEF 40-4	N06000256	4000/2	11 x 31	1 Bm/M3	4	1	2.8/0.7	25/15
CPEF 50-2	N06000258	5000/2	11 x 31	1 Am/M4	2.5	0.6	2.3/0.58	40/20
CPEF 75-1,6	N06000278	7500/3	11 x 31	1 Am/M4	1.6	0.4	2.8/0.58	40/20
CPEF 100-2	N06041607	10000/4	11 x 31	1 Am/M4	2.5	0.6	2 x 2.3/0.58	40/20

Model	Weight at standard lift (3 m) ¹		
	suspension hook kg	manual geared trolley kg	electric trolley kg
CPEF 16-8	93	159	171
CPEF 20-8	93	159	171
CPEF 25-5	93	159	171
CPEF 30-5	93	159	171
CPEF 32-4	112	178	189
CPEF 40-4	112	178	189
CPEF 50-2	112	178	189
CPEF 75-1,6	226	326	348
CPEF 100-2	287	390	413

¹ Other lifting heights on request.



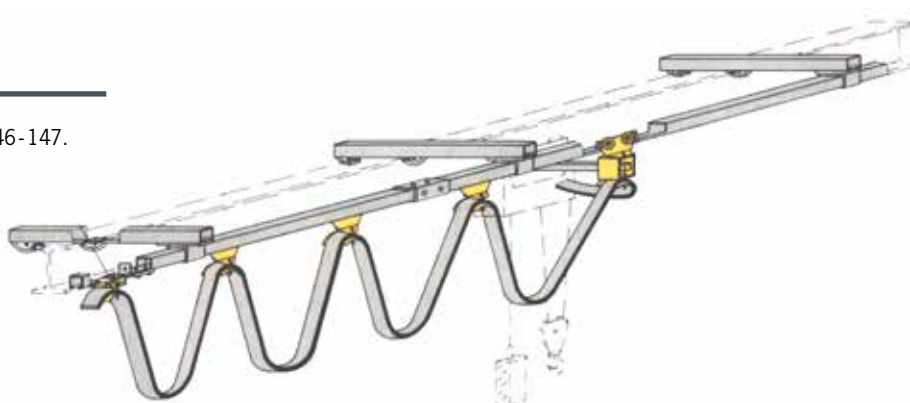
The delivered product may differ from the product shown in the image.

Technical data trolleys

Capacity kg	Size	Beam flange width b mm	Beam flange thickness t max. mm	Curve radius min. m	Electric trolley travel speed m/min at 50 Hz	Electric trolley motor kW at 50 Hz
1600 - 5000	A	98 - 180	27	2.0	11/2.8	0.3/0.09
1600 - 5000	B	180 - 300	27	1.8	11/2.8	0.3/0.09
7500 - 10000	B	125 - 310	40	1.8	5/1.25	0.55/0.12

INFO

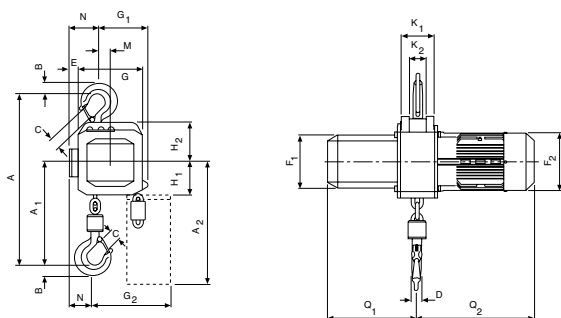
Festooned cable systems please see pages 146-147.



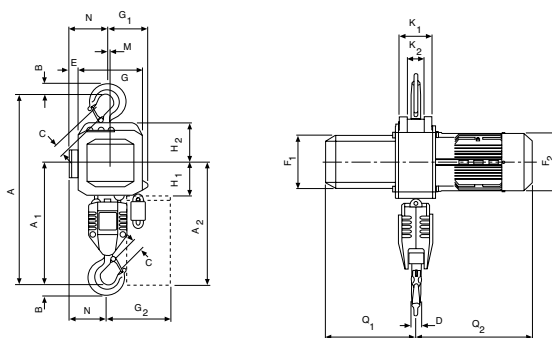
Dimensions CPE¹/CPEF

Model	CPE ¹ /CPEF 16-8	CPE ¹ /CPEF 20-8	CPE ¹ /CPEF 25-5	CPE ¹ /CPEF 30-5	CPE ¹ /CPEF 32-4	CPE ¹ /CPEF 40-4	CPE ¹ /CPEF 50-2	CPE ¹ /CPEF 75-1,6	CPE ¹ /CPEF 100-2
A, mm	516	516	516	516	681	681	681	950	1068
A1, mm	286	286	286	286	428	428	428	479	651
A2 (13 m), mm	430	430	430	430	430	430	430	–	–
A2 (21 m), mm	530	530	530	530	530	530	530	530	555
B, mm	35	35	35	35	45	45	45	60	60
C, mm	37	37	37	37	46	46	46	52	52
D, mm	24	24	24	24	30	30	30	40/45	40/45
E, mm	45/50	45/50	45/50	45/50	45/50	45/50	45/50	–	–
F1, mm	160	160	160	160	160	160	160	160	160
F2, mm	184/195	184/195	184/195	184/195	184/195	184/195	184/195	184/195	184/195
G, mm	220	220	220	220	220	220	220	220	–
G1, mm	180	180	180	180	140	140	140	293/298	340/345
G2 (13 m), mm	257	257	257	257	218	218	218	–	–
G2 (21 m), mm	277	277	277	277	238	238	238	345	408
H1, mm	110	110	110	110	110	110	110	110	135
H2, mm	135	135	135	135	135	135	135	307	256
K1, mm	100	100	100	100	100	100	100	92	92
K2, mm	51	51	51	51	51	51	51	62	62
M, mm	50	50	50	50	10	10	10	138	–
N, mm	105/110	105/110	105/110	105/110	145/150	145/150	145/150	136	390
Q1, mm	280	280	280	280	280	280	280	280	280
Q2, mm	382/438	382/438	382/438	382/438	382/438	382/438	382/438	382/438	382/438

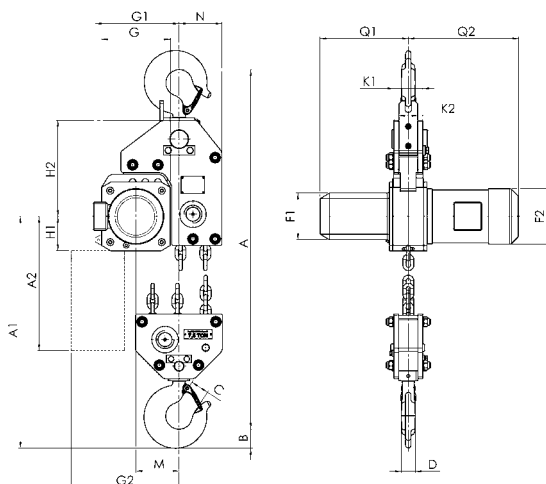
¹The model CPE (single speed hoist) is available on request. Please consider the deviating motor dimensions in the above table.



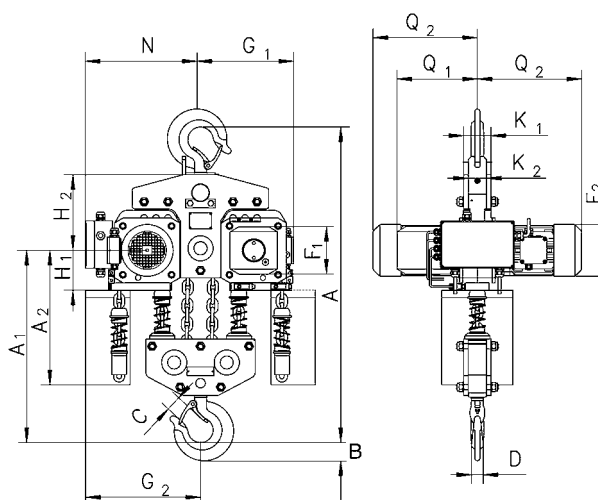
CPE¹/CPEF with suspension hook, 1600 - 3000 kg, single fall



CPE¹/CPEF with suspension hook, 3200 - 5000 kg, double fall



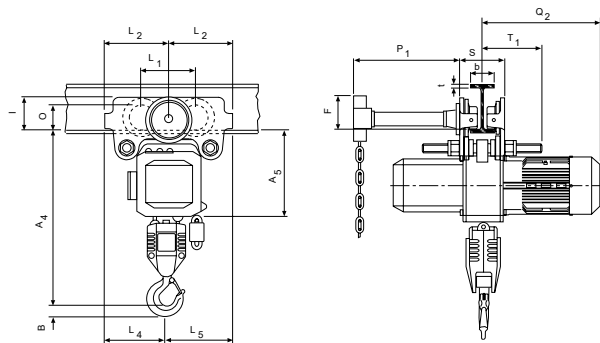
CPE¹/CPEF 75-1,6 with suspension hook, 7500 kg



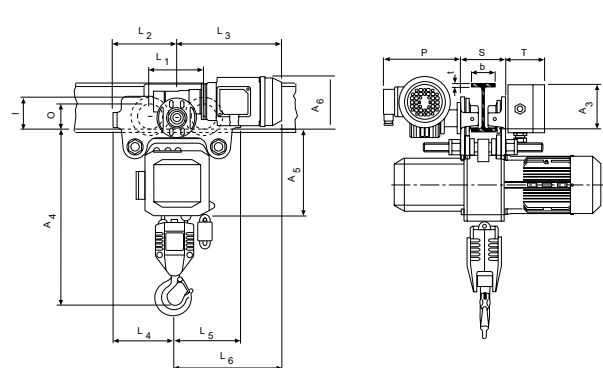
CPE¹/CPEF 100-2 with suspension hook, 10000 kg

Dimensions CPEF

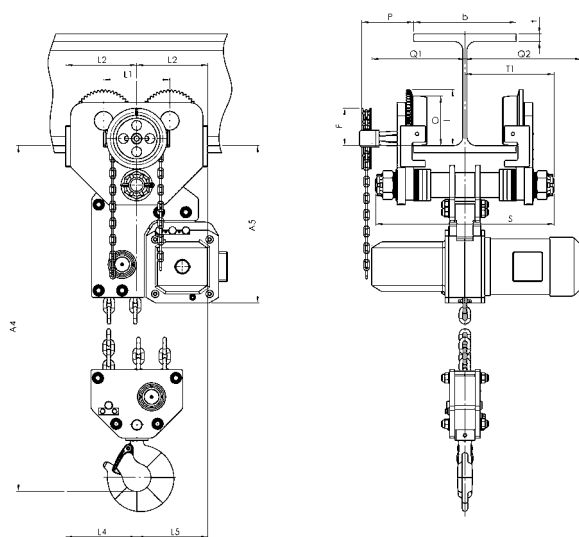
Model	CPEF 16-8	CPEF 20-8	CPEF 25-5	CPEF 30-5	CPEF 32-4	CPEF 40-4	CPEF 50-2	CPEF 75-1,6	CPEF 100-2
A3, mm	121	121	121	121	121	121	121	–	110
A4, mm	465	465	465	465	615	615	615	855	965
A5, mm	298	298	298	298	298	298	298	477	450
A6, mm	178	178	178	178	178	178	178	–	170
b, mm	A = 98 - 180/ B = 180 - 300	A = 98 - 180/ B = 180 - 300	A = 98 - 180/ B = 180 - 300	A = 98 - 180/ B = 180 - 300	A = 98 - 180/ B = 180 - 300	A = 98 - 180/ B = 180 - 300	A = 98 - 180/ B = 180 - 300	125 - 310	125 - 310
F, mm	150	150	150	150	150	150	150	113	113
I, mm	142.5	142.5	142.5	142.5	142.5	142.5	142.5	170	170
L1, mm	209	209	209	209	209	209	209	200	200
L2, mm	262.5	262.5	262.5	262.5	262.5	262.5	262.5	215	215
L3 (VTE), mm	292	292	292	292	292	292	292	–	335
L3 (VTEF), mm	296	296	296	296	296	296	296	–	335
L4, mm	213	213	213	213	253	253	253	215	390
L5, mm	312	312	312	312	272	272	272	215	215
L6 (VTE), mm	342	342	342	342	342	342	342	–	–
L6 (VTEF), mm	346	346	346	346	306	306	306	–	–
O, mm	125	125	125	125	125	125	125	150	150
P (VTE), mm	197	197	197	197	197	197	197	–	273
P (VTEF), mm	205	205	205	205	205	205	205	–	280
P1, mm	229	229	229	229	229	229	229	–	110
S, mm	b + 70	b + 70	b + 70	b + 70	b + 70	b + 70	b + 70	b + 98	b + 98
T, mm	94	94	94	94	94	94	94	–	94
tmax., mm	27	27	27	27	27	27	27	40	40



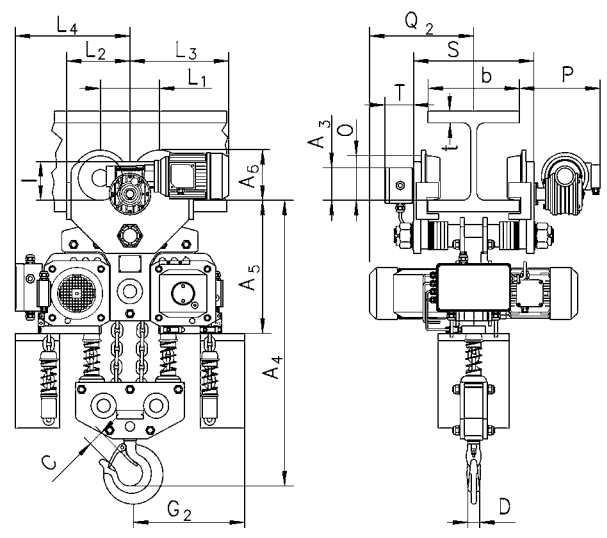
CPE1/CPEF with integrated manual geared trolley



CPE1/CPEF with integrated electric trolley



CPE1/CPEF with integrated geared or electric trolley, 7500 kg



CPE1/CPEF with integrated electric trolley, 10000 kg