

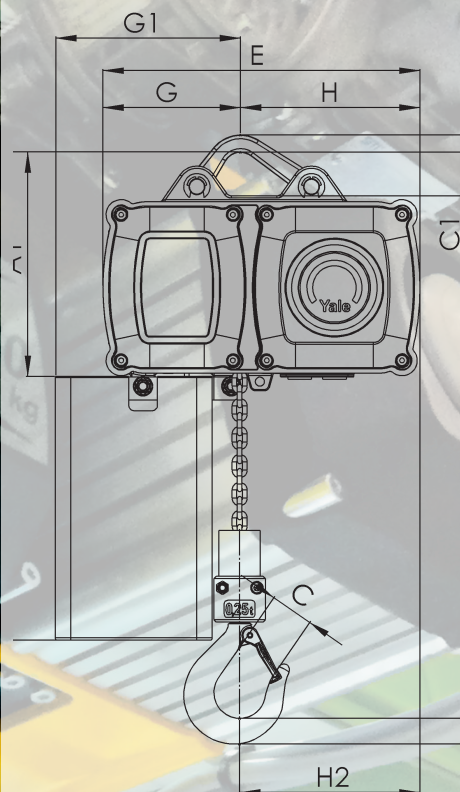
Yale CPV

CACO
COLUMBUS McKINNON

- Electric Chain hoists
- Capacities: 125-2000kg



NIKO ... Quality in Motion



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Yale CPV

The electric chain hoist series CPV combines modern design and technical innovation. The robust construction makes the hoist a versatile tool for various professional applications, and offers the proven performance at much more compact dimensions.

The service-friendly modular design enables easy access to all critical parts for time-saving maintenance and periodic inspections.

BENEFITS & FEATURES

SAFETY AND WARRANTY

The solid structure of the hoist and the selected quality of the critical units such as gearbox, brake, motor, slip clutch and controls enable safe operation of the hoist throughout its service life. The periodic inspections and maintenance are simple as all critical parts are easily accessible. Yale grants 2 year warranty (excluding wear parts) and a lifetime lubricated gearbox.

CONTROLS

The hoists series CPV are equipped with the low voltage control 42V as standard. This low voltage combined with the IP 65 protected pendant provides more operational safety. The hoist also features a main contactor which cuts the voltage supply as soon as the emergency stop is activated.

OVERLOAD PROTECTION

All CPV hoists are also protected against overload by means of a slip clutch. The clutch protects from overloading not only the hoist, but also the chain, hooks, bearing construction and cranes, attached slings and lifting accessories. The slip clutch is designed to guarantee a permanent connection between the load and the brake to meet higher safety requirements.

BRAKE

The electromagnetic spring pressure brake is maintenance-free and features a pre-set gap. It is easily accessible to inspect the gap during the periodic maintenance. It is normally-closed with the braking force applied by the pressure springs and holds the load safely even in the event of a power failure.

POWERED MOVEMENT AND LIMIT SWITCHES

The hoist comes with a fine tolerance, case hardened round steel chain in the length as specified in the client's order. A smooth run of the chain is ensured by the chain guide. The limit switches are located at the chain guide and activate as soon as the hook reaches its highest or lowest position. The activation occurs when the rubber buffers, placed at the hook and at the chain end stop, trip the limit switches.

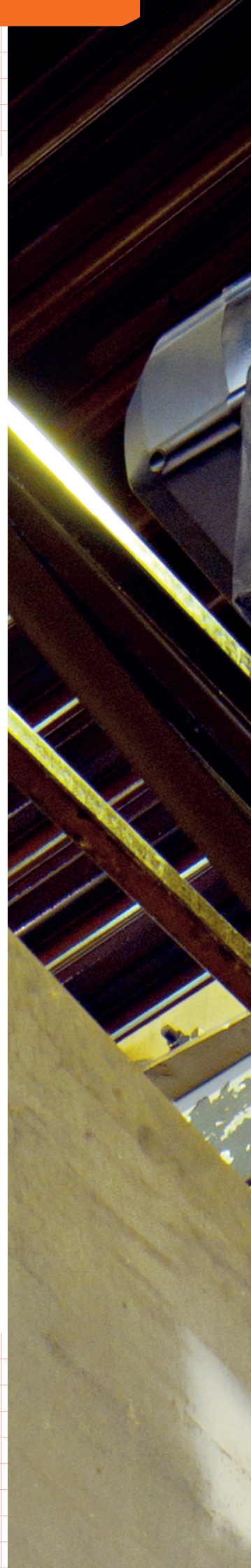
SUSPENSIONS

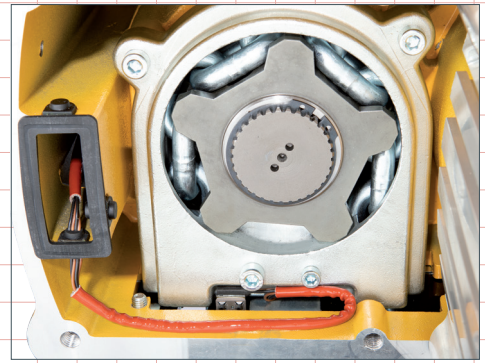
CMCO offers different Yale types of suspensions: the top hook is a universal suspension for various places of use, the suspension lug ensures compact low headroom and easy integration in close headroom applications. Adapter suspensions for light crane systems or special customized adapters are also available. The most common suspension is, however, the hoist integrated with push, geared or electric trolley.

CUSTOMER-ORIENTED

Many options offer application possibilities to meet various requirements, like

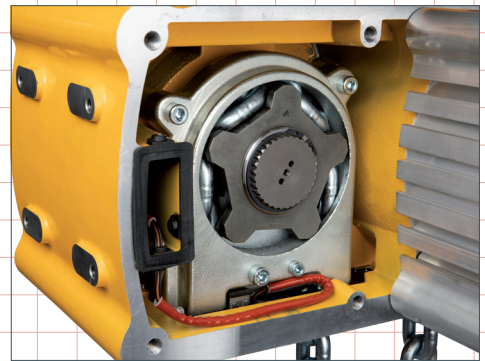
- For out-door use.
- For long lifting heights.
- For holding loads above persons.





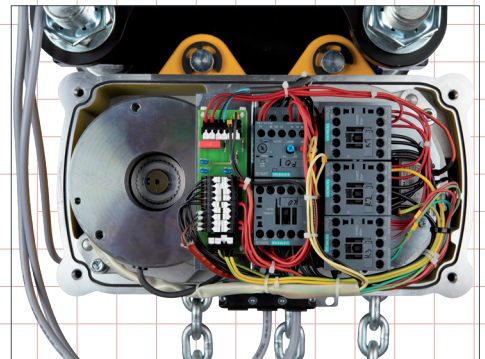
CHAIN GUIDE

The 5-pocket load sprocket, all-steel chain guide, micro switches and service-friendly cable routing.



OPTIMAL CABLE ROUTING

4 thread holes on the body side, to mount e.g. counter weights, radio controls etc.



LOW VOLTAGE CONTROL

The 42V low voltage control is a PCB or manually wired (with CPVF 25-8/50-4 on the image).



LIMIT SWITCHES AS STANDARD

End limit switches are bronze studs in the lower chain guide, which activate the well-protected micro-switches.

FEATURES AND FINISH

STANDARD 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.

FURTHER STANDARDS

To meet further customer expectations, the Yale CPV is also available in other standard versions, e.g.

- CPV with direct control



STANDARD
The image shows the electric chain hoist CPVF 5-8 with suspension hook.



MOTOR

The hoist features a ribbed aluminium motor housing in which the stator is pressed. The fan provides for a regular air movement along the ribs for better heat dissipation. The motor is IP 55 protected and has a sufficiently high duty cycle to prevent the motor from overheating even at longer lifting heights. Under the fan, there is the adjusting screw used to set the slip clutch (overload protection). Thus, to inspect the setting or to re-adjust the slip clutch is quick and easy.

TECHNICAL DATA

CPV/CPVF - 400 V, 3-PHASE, 50 HZ

Capacity kg	Model	Art.-No.	Number of chain falls	Chain dimensions d x p mm	Classifica- tion FEM/ISO	Lifting speed		Hoist motor kW	Motor rating ED %	Weight at standard lift (3 m) ¹		
						main lift m/min	fine lift m/min			suspen- sion lug kg	push trolley ² kg	electric trolley ³ kg
125	CPV 2-8	192060164	1	4 x 12.2	3m/M6	8	–	0.37	75	17	26	31
125	CPVF 2-8	192060165	1	4 x 12.2	3m/M6	8	2	0.37/0.09	50/25	18	27	32
250	CPV 2-8	N06700562	1	4 x 12.2	1Am/M4	8	–	0.37	50	17	26	31
250	CPVF 2-8	N06700547	1	4 x 12.2	1Am/M4	8	2	0.37/0.09	33/17	18	27	32
250	CPVF 2-18	N06700479	1	5 x 15.1	1Am/M4	18	4.5	0.75/0.18	33/17	27	42	50
320	CPV 5-8	192060166	1	5 x 15.1	3m/M6	8	–	0.75	67	26	41	49
320	CPVF 5-8	192060167	1	5 x 15.1	3m/M6	8	2	0.75/0.18	45/22	27	42	50
500	CPV 5-4	N06700563	2	4 x 12.2	1Am/M4	4	–	0.37	50	20	29	34
500	CPVF 5-4	N06700548	2	4 x 12.2	1Am/M4	4	1	0.37/0.09	33/17	21	30	35
500	CPV 5-8	N06700617	1	5 x 15.1	1Am/M4	8	–	0.75	50	26	41	49
500	CPVF 5-8	N06700618	1	5 x 15.1	1Am/M4	8	2	0.75/0.18	33/17	27	42	50
500	CPVF 5-18	N06700481	1	7.1 x 20.5	1Am/M4	18	4.5	1.5/0.37	33/17	59	78	85
630	CPV 10-8	192060168	1	7.1 x 20.5	3m/M6	8	–	1.5	67	58	77	84
630	CPVF 10-8	192060169	1	7.1 x 20.5	3m/M6	8	2	1.5/0.37	45/22	59	78	85
1000	CPV 10-4	N06700619	2	5 x 15.1	1Am/M4	4	–	0.75	50	28	43	51
1000	CPVF 10-4	N06700620	2	5 x 15.1	1Am/M4	4	1	0.75/0.18	33/17	29	44	52
1000	CPV 10-8	N06700621	1	7.1 x 20.5	1Am/M4	8	–	1.5	50	58	77	84
1000	CPVF 10-8	N06700622	1	7.1 x 20.5	1Am/M4	8	2	1.5/0.37	33/17	59	78	85
1500	CPV 20-4	192060170	2	7.1 x 20.5	2m/M5	4	–	1.5	62	63	82	89
1500	CPVF 20-4	192060171	2	7.1 x 20.5	2m/M5	4	1	1.5/0.37	41/21	64	83	90
2000	CPV 20-4	N06700623	2	7.1 x 20.5	1Am/M4	4	–	1.5	50	63	82	89
2000	CPVF 20-4	N06700624	2	7.1 x 20.5	1Am/M4	4	1	1.5/0.37	33/17	64	83	90
2000	CPVF 25-8	192060172	1	11.3 x 31	2m/M5	8	2	3.6/0.9	39/20	85	147	161

CPV - 230 V, 1-PHASE, 50 HZ

125	CPV 2-4	192067921	1	4 x 12.2	3m/M6	4	–	0.37	35
250	CPV 2-4	N06700593	1	4 x 12.2	1Bm/M3	4	–	0.37	25
500	CPV 5-2	N06700594	2	4 x 12.2	1Bm/M3	2	–	0.37	25
500	CPV 5-8	N06700205	1	5 x 15.1	1Bm/M3	8	–	1.0	25
1000	CPV 10-4	N06700206	2	5 x 15.1	1Bm/M3	4	–	1.0	25
1000	CPV 10-4/1	N06700207	1	7.1 x 20.5	1Bm/M3	4	–	0.75	25
2000	CPV 20-2	N06700208	2	7.1 x 20.5	1Bm/M3	2	–	0.75	25

¹ Other lifting heights on request.

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

2.5 kg

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



Depicted
chain container
optionally
available.

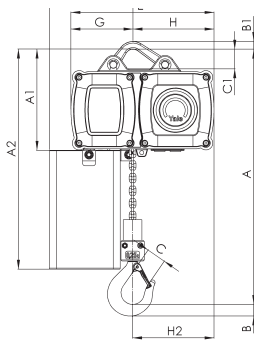
TROLLEY

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	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	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	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	0.18 or 0.18/0.06

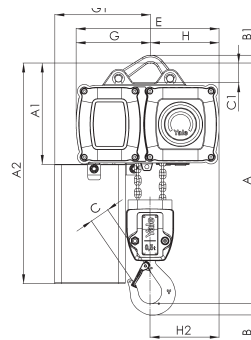
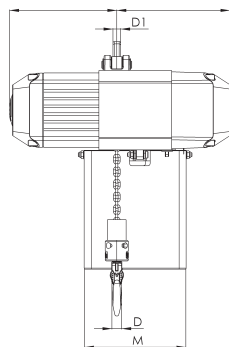
DIMENSIONS CPV/CPVF

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

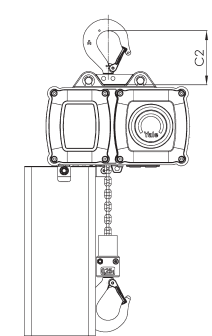
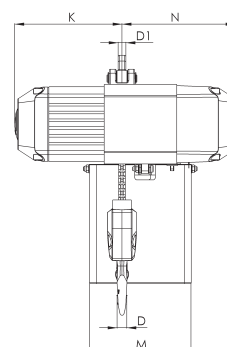
¹for 230V, 1-phase, 50 Hz: ca. +35 mm



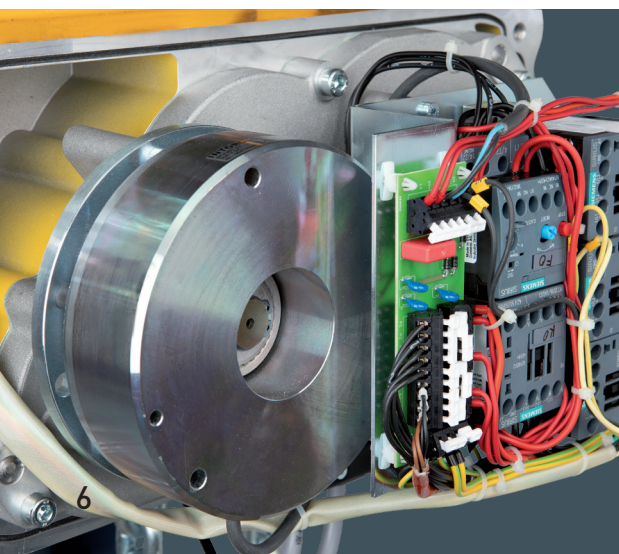
CPV/CPVF
with suspension lug, 125 - 2500 kg,
single fall



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



CPV/CPVF
with suspension hook,
125 - 2500 kg

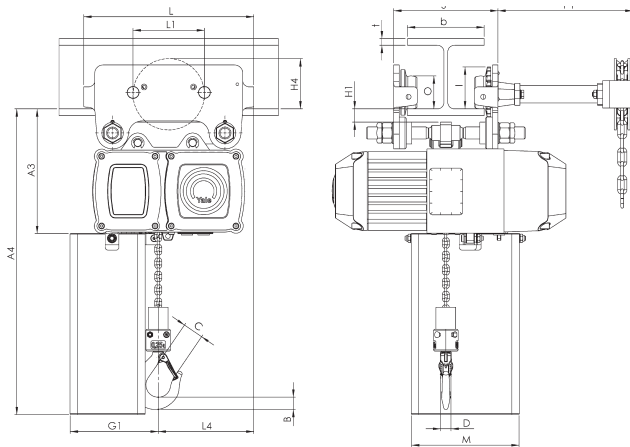


ELECTROMAGNETIC BRAKE

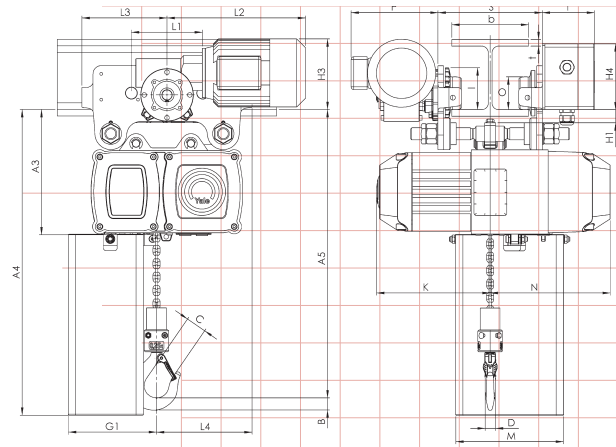
The braking torque is applied by the pressure springs and thus the brake is normally-closed, holding the load safely even in the event of power failure. As the brake is located inside the load force flow, the hoist can be upgraded to meet higher safety requirements for applications like e.g. holding stationary loads above persons. The brake is maintenance-free and must only undergo general function tests and a gap check during periodic inspections.

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	566	656
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

EASY MAINTENANCE AND INSPECTION

The CPV is an easy-to-maintain hoist, designed with a modular structure with all critical parts easily accessible. Re-adjusting the slip clutch and inspecting the brake is simple and time-saving. The access to the electrical parts is quick and easy as well.





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