

# S3 HIGH PERFORMANCE ELECTRIC CHAIN HOISTS

## Experience Complete Innovation

For over a century the Morris name has been synonymous with engineering innovation and UK manufacturing excellence in lifting equipment.

The superb series of S3 electric chain hoists is a further example of our proven pedigree. Offering lifting capacities from 125kg to 50 tonnes, this outstanding range incorporates:

- High Performance Hoists
- High Capacity Hoists
- Mini Hoists
- Ultra Low Headroom Hoists

Quite simply there is an S3 hoist to meet practically all chain hoist lifting applications no matter how tough the demands on it. Compact and highly versatile with proven and long lasting performance in the most demanding environments, our range of S3 hoists includes some of the most advanced electric chain hoists currently available.

### The S3 High Performance Range

The S3 High Performance range offers lifting capacities from 125kg to 2 tonnes. Rugged, reliable and simple to maintain, the S3 High Performance hoists are packed with features to ensure they give years of outstanding service.

## All the features you expect from Morris, as standard

The combination of features and design standards make the S3 one of the safest hoists currently available.

- 300 ST/hr. With an M4 life (FEM I AM) the 3 phase hoist delivers 50% ED.
- Upper and lower limit switches.
- Sealed for protection from dust and water to IP55.
- Motor insulation class F.
- Mains contactor fitted for increased safety.
- A preset fail-safe brake secures the load in the event of a power supply failure (no adjustment necessary).
- Complete electrical protection by low voltage control circuit at 48 volts.
- Slipping clutch factory adjusted and set for life.
- Smooth operating, precision-machined case hardened alloy steel loadchain wheel.
- All units factory tested to 125% safe working load.
- Easy maintenance.
- 2 year warranty
- To suit 400v 3ph 50hz Power Supply.
- Single Phase units available to suit 110v and 230v 1ph 50hz power supply.
- Dual travel speeds of 20/5m/min
- Smooth acceleration and deceleration provided by inverter driven travel drive



Low Headroom

The S3 is capable of working to M6 (FEM 3m) when required. All the appropriate ISO, BS and FEM requirements are met or exceeded.



Fan Cooled Motor/Thermal Protection

Thermal protection and fan cooled motors are fitted as standard across the range. Delivering 50% ED this specification ensures cool running during arduous use.



Upper and Lower Limits

Limit switches are fitted as standard, increasing clutch, motor & gearbox life, protecting the hoist and user.

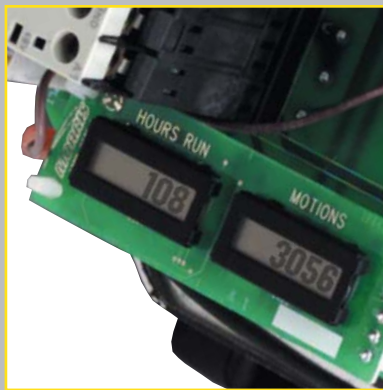


**Options:**

- Increased enclosure protection
- Hardened (xenoy) contactor covers
- Steel fan covers
- Hoist mounted parallel to runway beam, (90° rotation)
- Advanced condition monitoring
- Alternative power supplies (3 phase and single phase)
- Alternative dual and variable travel speeds via inverter control



**Inverter Travel Trolley**



**Advanced Condition Monitoring (Optional)**



**Single Phase Supply**

Dual travel speeds of 20/5m/min are supplied as standard. Alternative dual and variable speeds are available through inverter control. Beam widths from 64mm to 310mm can be accommodated as standard. Larger beam widths available on request.

Automatically records both hours of use and number of lifts. Provides information for you to monitor use, plan servicing and predict life expectancy of the unit.

Single phase models are available in 110v and 230v with M3 (FEM 1Bm) duty. The 110v model for construction sites has a metal fan cover and a toughened contactor cover to stand up to the toughest tasks.

# S3 HIGH PERFORMANCE SPECIFICATIONS

Technical Data: 400v 3ph 50hz

Capacity kg Rating M4 (ISO) 1AM (FEM9)	Model	Alternative Ratings		No. of Falls	Hoist Speeds		Hoist Motor Power kW	Hoist Motor Current		Weights kg (3m Lift)			
		M5 2m	M6 3m		Fast m/min	Slow m/min		Starting (A)	Running (A)	Hook Susp.	Push Travel Trolley	Geared Travel Trolley	Electric Travel Trolley
125	3012	125	125	1	8	-	0.4	5.0	1.1	21	26	34	43
125	3012	125	125	1	8	2	0.4/0.1	7.2/1.6	1.1/0.8	24	29	37	46
160	3016	125	100	1	12	-	0.4	5.0	1.1	21	26	34	43
160	3016	125	100	1	12	3	0.4/0.1	7.2/1.6	1.1/0.8	24	29	37	46
250	3025	200	160	1	8	-	0.4	5.0	1.1	21	26	34	43
250	3025	200	160	1	8	2	0.4/0.1	7.2/1.6	1.1/0.8	24	29	37	46
320	3016	250	200	2	6	-	0.4	5.0	1.1	23	28	38	45
320	3016	250	200	2	6	1.5	0.4/0.1	7.2/1.6	1.1/0.8	26	31	39	48
500	3025	400	320	2	4	-	0.4	5.0	1.1	23	28	36	45
500	3025	400	320	2	4	1	0.4/0.1	7.2/1.6	1.1/0.8	26	31	39	48
320	3032	250	200	1	12	-	0.8	10.8	2.3	33	44	46	55
320	3032	250	200	1	12	3	0.8/0.2	10.7/3.3	2.9/1.5	41	52	54	63
500	3050	400	320	1	8	-	0.8	10.8	2.3	33	47	49	55
500	3050	400	320	1	8	2	0.8/0.2	10.7/3.3	2.9/1.5	41	55	57	63
630	3032	500	400	2	6	-	0.8	10.8	2.3	36	47	49	58
630	3032	500	400	2	6	1.5	0.8/0.2	10.7/3.3	2.9/1.5	44	55	57	66
1000	3050	800	630	2	4	-	0.8	10.8	2.3	36	47	49	58
1000	3050	800	630	2	4	1	0.8/0.2	10.7/3.3	2.9/1.5	44	55	57	66
630	3063	500	400	1	12	-	1.6	21.4	4.1	51	70	71	81
630	3063	500	400	1	12	3	1.6/0.4	21.3/5.9	4.1/2.5	62	81	82	92
1000	3100	800	630	1	8	-	1.6	21.4	4.1	51	70	71	81
1000	3100	800	630	1	8	2	1.6/0.4	21.3/5.9	4.1/2.5	62	81	82	92
1250	3063	1000	800	2	6	-	1.6	21.4	4.1	58	77	78	92
1250	3063	1000	800	2	6	1.5	1.6/0.4	21.3/5.9	4.1/2.5	69	88	89	103
2000	3100	1600	1250	2	4	-	1.6	21.4	4.1	58	77	78	92
2000	3100	1600	1250	2	4	1	1.6/0.4	21.3/5.9	4.1/2.5	69	88	89	103

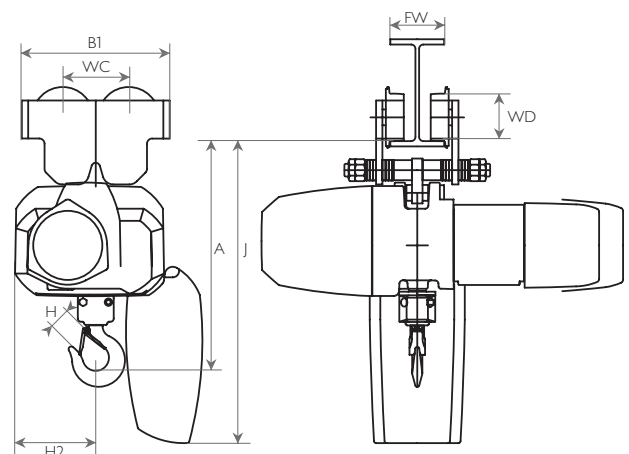
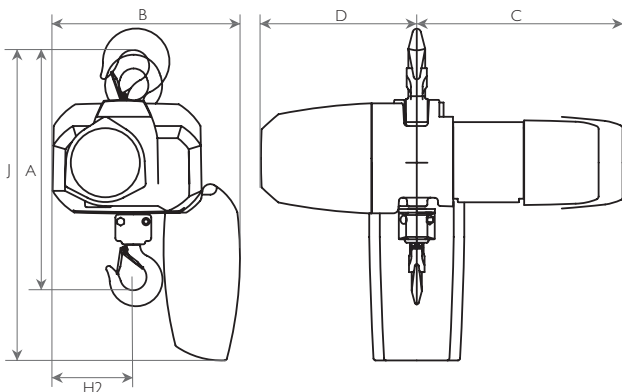
## Trolley Data

Capacity kg	Model	Beam Width min-max mm	Min. Radius m	Speed m/min DS	Power kW DS	Current Running DS(A)
125-1000	3012-3100	64-310	2	20/5	0.15	1.1
2000	3100	64-310	2	20/5	0.3	1.2

- Please advise beam width with order
- Alternative and variable travel speeds available through inverter control

## Hook/Eye Suspension

## Push Travel



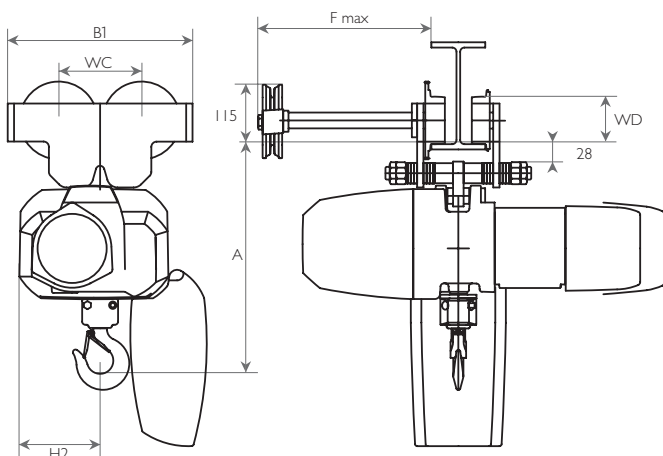
## Dimensions (mm)

	SWL No.of Falls	125kg one	250kg one	500kg two	500kg one	1t two	1t one	2t two		SWL No.of Falls	125kg one	250kg one	500kg two	500kg one	1t two	1t one	2t two
<b>A</b>	Eye	295	295	368	330	442	420	530	<b>F</b>	Max	295	295	295	340	340	345	345
	Hook	317	317	390	365	475	455	565	<b>G</b>		109	109	109	109	109	109	117
	Push/Geared	305	305	390	365	475	435	550	<b>G1</b>	-	117	117	117	117	117	117	126
	ETT	350	350	434	380	492	440	569	<b>H</b>	Hook admittance	27	27	27	32	32	40	40
<b>B1</b>	Push/Geared	161	161	161	200	200	280	280	<b>H</b>	Top hook	20	20	27	27	32	32	40
	ETT	262	262	262	262	262	262	320	<b>I</b>	Load hook	-	25	25	25	25	25	33
<b>B</b>	size 1 box	286	286	286	-	-	-	-	<b>J</b>	Eye	box1	box1	box1	box2	box2	box3	box3
	size 2 box	296	296	296	317	317	-	-		Top hook	390	390	390	464	464	555	555
	size 3 box	-	-	-	320	320	355	355		Push	412	412	412	497	497	575	575
	size 4 box	-	-	-	326	326	360	360		Geared	412	412	445	492	492	575	575
	size 5 box	-	-	-	360	360	395	395	<b>H2</b>	ETT	425	425	445	502	502	575	575
<b>C</b>	ss hoist	285	285	285	285	285	345	345	<b>WC</b>	Push	-	111	111	133	122	147	153
	ds hoist	310	310	310	365	365	390	390		Geared	70	70	70	90	90	125	125
<b>D</b>	-	240	240	240	295	295	295	295	<b>WD</b>	ETT	128	128	128	128	128	157	157
<b>E</b>	-	30	30	30	30	30	30	34		ETT	105	105	105	105	105	130	130
<b>E1</b>	-	297	297	297	297	297	297	337		Push	50	50	50	65	65	90	90
										Geared	65	65	65	65	65	90	90
										ETT	62	62	62	62	62	62	80

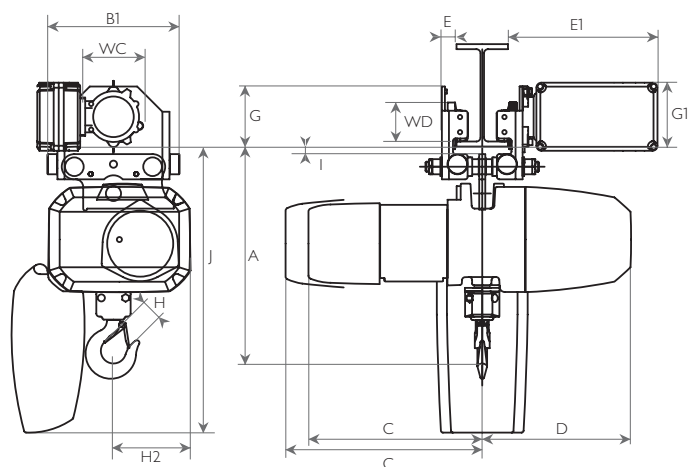
## Single Phase Data | 110v and 230v | ph 50hz

Capacity Kg M3 1BM	Volts	Model	No. of Falls	Lifting Speed m/max	ED % Rating	Hoist Motor Power kW	Hoist Motor Current		Fuse Rating (A)	Max Supply Cable Length		
							Starting (A)	Running (A)		3C x 1.5mm <sup>2</sup>	3C x 2.5mm <sup>2</sup>	3C x 4mm <sup>2</sup>
250	110	3025	1	8	25	0.4	39	7.9	20	7	12	20
250	230	3025	1	8	25	0.4	21	3.2	10	28	45	72
500	110	3025	2	4	25	0.4	39	7.9	20	7	12	20
500	230	3025	2	4	25	0.4	21	3.2	10	28	45	72
500	230	3050	1	8	25	0.8	34	7.3	20	-	21	33
1000	230	3050	2	4	25	0.8	34	7.3	20	-	21	33
1000	110	3100	1	4	25	0.8	60	16	32	-	7	11
1000	230	3100	1	4	25	0.8	31	8	20	-	28	44
2000	110	3100	2	2	25	0.8	60	16	32	-	7	11
2000	230	3100	2	2	25	0.8	31	8	20	-	28	44

### Geared Travel



### Electric Travel



Note! Nominal increases in dimensions for single phase 3-25/3-50 units  
 A +10mm B +70mm H2 +10mm. Option: All units may be turned through 90 degrees, in line with track. Specifications subject to change without notice.

Note! For electric trolleys with long (ie Heavy) chain lengths anti-tip stop roller may be required. Extended size 5 steel box option available. This box may require a special suspension.

# S3 HIGH CAPACITY ELECTRIC CHAIN HOISTS

## Heavy Weight Performance

Compact and versatile, Morris S3 High Capacity electric chain hoists are designed to meet the demands of many heavy duty industrial lifting and handling applications.

Available in a range of capacities from 2000kg to 5000kg, the S3 High Capacity is a rugged workhorse providing the power and reliability to ensure a long and effective working life. Many of the advanced features that are included as standard on S3 High Performance models are also available, as options, on S3 High Capacity Hoists.

## Outstanding Versatility

S3 High Capacity Hoists are available in single and dual falls. Used in conjunction with a variety of suspension options including single and dual speed trolleys, they offer a versatile solution to many lifting applications.

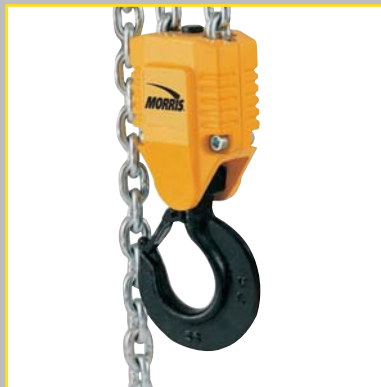
## Features and benefits

- Lifting range from 2000kg to 5000kg.
- Offered as hook suspension or with a range of push, geared or single and dual speed electric trolleys.
- Thermal overload device fitted as standard.
- 42 Volt low voltage control as standard.
- Sealed from dust and water to IP54, insulation class F.
- Quiet and smooth hoist operation is ensured by the oil lubricated planetary gearbox.
- The heavy-duty squirrel cage motor features an adjustable spring pressure brake, guaranteeing reliable load retention even in the event of a power failure.
- Internal slipping clutch prevents overload damage and protects against over hoisting and over lowering.
- Case hardened, zinc plated load chain gives an extended life and increased corrosion resistance, 1 chain fall up to 3000kg, 2 falls from 3200kg to 5000kg.
- Heat treated suspension and load hooks are fracture resistant.
- Designed for easy maintenance and service. Easy access to slipping clutch for adjustment, servicing and part replacement.



Suspensions

Choice of hook suspension, push, geared or electric travel trolley.



Fracture Resistant Hooks

Fracture resistant hooks used in single and two fall bottom blocks and hook suspension units.



5 Pocket Load Wheel

Precision machined from case hardened high tensile steel for smooth operation.



**Options:**

- Protection to IP55 available.
- Hoist mounted parallel to runway beam (90° rotation).
- Other voltages on request.
- Upper and lower limit switches.
- Motor with stainless steel brake.



**Flexible Chain Container**

Long life chain containers made from durable strain resistant fabric.



**Adjustable Slipping Clutch**

Integral slipping clutch is easily accessible and adjusted.



**Pneumatic S3**

The S3 High Capacity is available as a Pneumatic hoist in various capacities to 5 tonnes.

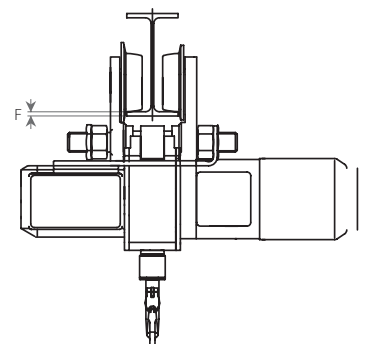
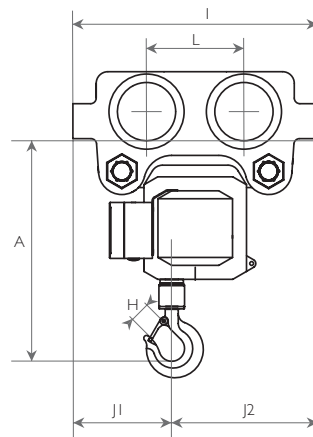
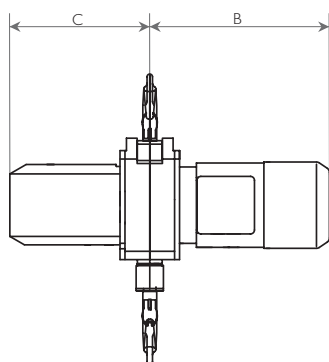
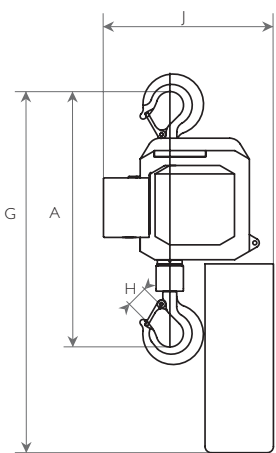
# S3 HIGH CAPACITY SPECIFICATIONS

Technical Data: 400v 3ph 50hz

Capacity kg	Model	Rating FEM (ISO)	Falls	Hoist Speeds		Power kW	Hoist Motor Current			Weights kg (3m lift)			
				Fast m/min	Slow m/min		Starting (A)	Running (A)	ED% Rating	Hook Suspension	Push Trolley	Geared Trolley	Electric Trolley
2000	3200	1Bm(M3)	1	8	-	2.8	30	6.4	25	88	150	154	164
2000	3200	1Bm(M3)	1	8	2	2.8/0.7	30/7.2	6.8/4.0	25/15	93	155	159	169
2500	3250	1Am(M4)	1	5	-	2.3	25	5.3	40	88	150	154	164
2500	3250	1Am(M4)	1	5	1.25	2.3/0.58	24/5.9	5.5/3.3	40/20	93	155	159	169
3000	3300	1Bm(M3)	1	5	-	2.8	30	6.4	25	88	150	154	164
3000	3300	1Bm(M3)	1	5	1.25	2.8/0.7	30/7.2	6.8/4.0	25/15	93	155	159	169
3200	3320	1Am(M4)	2	4	-	2.3	25	5.3	40	107	169	173	183
3200	3320	1Am(M4)	2	4	1	2.3/0.58	30/7.2	6.8/4.0	40/20	112	174	178	188
4000	3400	1Bm(M3)	2	4	-	2.8	30	6.4	25	107	169	173	183
4000	3400	1Bm(M3)	2	4	1	2.8/0.7	30/7.2	6.8/4.0	25/15	112	174	178	188
5000	3500	1Am(M4)	2	2.5	-	2.3	25	5.3	40	107	169	173	183
5000	3500	1Am(M4)	2	2.5	0.6	2.3/0.58	24/5.9	5.5/3.3	40/20	112	174	178	188

Top Hook Suspension

Push Travel



## Dimensions (mm)

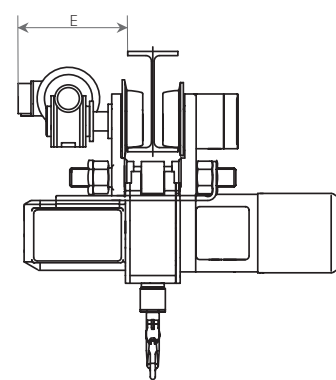
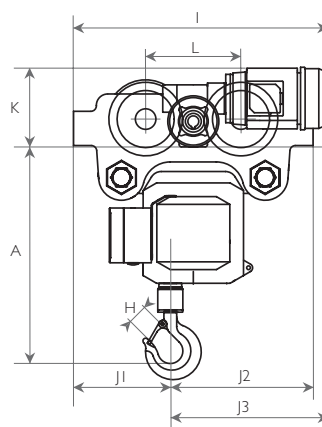
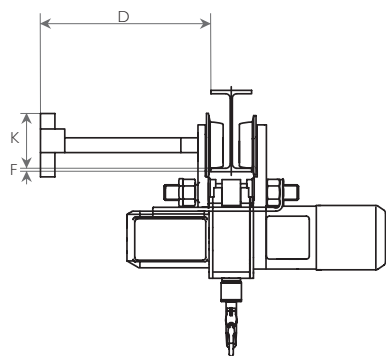
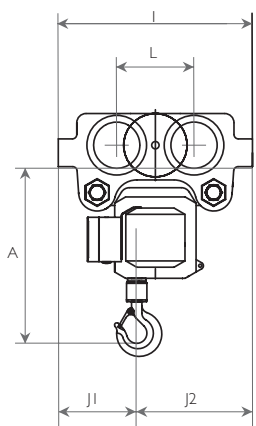
Capacity kg	Falls	Model	A		B		C	D	E	F	G		H		I		J	J1	J2	J3	K			L
			Hook	Travel	Hoist						Grd.	SS	Flange	STD Chain Bag		Hook Throat					Trolley Width		Beam to Highest	
			Unit	Unit	SS	DS	Hook Only	DS	Top	Built in				Top	Load	Push & Geared	SS DS	Overall Width	Point Push	Grd	ETT	Wheel Centres		
2000	1	3200	516	465	362	417	272	264	240	27	660	609	37	37	525	559	341	213	312	346	143	150	178	209
2500	1	3250	516	465	362	417	272	264	240	27	660	609	37	37	525	559	341	213	312	346	143	150	178	209
3000	1	3300	516	465	362	417	272	264	240	27	660	609	37	37	525	559	341	213	312	346	143	150	178	209
3200	2	3320	681	615	362	417	272	264	240	27	683	617	46	46	525	559	341	253	272	306	143	150	178	209
4000	2	3400	681	615	362	417	272	264	240	27	683	617	46	46	525	559	341	253	272	306	143	150	178	209
5000	2	3500	681	615	362	417	272	264	240	27	683	617	46	46	525	559	341	253	272	306	143	150	178	209

## Trolley Data

Capacity kg	Model	Range	Beam Width min/max	Min Radius m	Speeds		Power kW		Motor Current			
					Fast m/min	Slow m/min	SS	DS	SS Motor		DS Motor	
									Starting (A)	Running (A)	Starting (A)	Running (A)
2000-5000	All	A	98-180	1.8	11	2.8	0.37	0.3/0.09	8.4	1.2	6.1/4.6	0.87/0.66
2000-5000	All	B	180-300	1.8	11	2.8	0.37	0.3/0.09	8.4	1.2	6.1/4.6	0.87/0.66

### Hand Geared Travel

### Electric Travel



Specifications subject to change without notice.

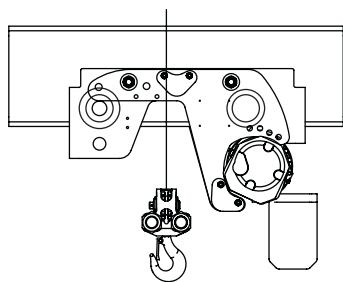
# S3 ULTRA LOW HEADROOM HOIST

## Hoist with Ultra Low Integral Trolley

This range of High Capacity S3 hoists is designed for applications where headroom is at a premium. The Ultra Low headroom range starts with a 1 tonne lifting capacity with a remarkably small 155mm headroom. Lifting capacities range from 1 to 50 tonnes.

### Features

- Ultra low headroom.
- Mechanical overload protection by slipping clutch up to 6300kg.
- Mechanical overload protection by current cut-off from 8000kg up.
- Upper Limit switch.
- Pendant control switch with emergency stop.
- High-tensile zinc plated round steel link chain.
- Low voltage control included as standard.
- Chain container included as standard.
- All electric trolleys are fitted with rubber buffers.



**Dimensional Data sheet available on request**



Capacity Kg	Falls No.	Flange Width from - to			Ratings FEM	Hoist Speed m/min	ED% Rating	Headroom mm	Power kW	Hoist Motor Current		Weights kg (3m Lift)	
		R1 mm	R2 mm	R3 mm						Starting (A)	Running (A)	Geared Trolley	Electric Trolley
1000	2	74-150	151-220	221-310	1Bm	4.5/1.1	30/20	155	0.9/0.2	5.8/2.0	2.4/1.1	118	128
2000	2	82-156	157-210	211-306	1Am	4.0/1.0	30/20	185	1.5/0.4	18.5/4.5	4.4/2.1	195	205
2500	2	106-223	224-310	-	1Am	5.5/1.3	40/25	213	2.6/0.7	38.2/7.6	6.7/3.1	245	255
3200	2	106-223	224-310	-	1Bm	4.0/1.1	40/40	213	2.1/0.6	38.2/7.6	6.7/3.1	245	255
4000	4	119-215	224-310	-	2m	2.8/0.7	40/25	254	2.6/0.7	38.2/7.6	6.7/3.1	380	395
5000	4	119-215	224-310	-	1Am	2.8/0.7	40/25	254	2.6/0.7	38.2/7.6	6.7/3.1	380	395
6300	4	119-215	224-310	-	1Bm	2.0/0.5	40/40	254	2.1/0.6	38.2/7.6	6.7/3.1	380	395
8000	2	155-310	-	-	2m	2.0/0.7	60/60	305	4.0/1.0	38.2/7.6	6.7/3.1	1060	1080
10000	2	155-310	-	-	1Am	2.8/0.7	40/40	360	5.5/1.4	38.2/7.6	6.7/3.1	1065	1085
12000	2	155-310	-	-	1Bm	2.8/0.7	30/30	360	6.0/1.5	38.2/7.6	6.7/3.1	1065	1085
16000	4	185-310	-	-	1Am	1.4/0.3	40/40	407	5.5/1.4	38.2/7.6	6.7/3.1	1650	1670
20000	4	185-310	-	-	1Bm	1.4/0.3	30/30	487	5.5/1.4	38.2/7.6	6.7/3.1	1650	1670
25000	6	185-310	-	-	1Bm	1.0/0.2	40/40	560	5.5/1.4	38.2/7.6	6.7/3.1	2150	2170
30000	6	185-310	-	-	1Cm	1.0/0.2	30/30	560	5.5/1.4	38.2/7.6	6.7/3.1	2150	2170
40000	2x4	300-400	-	-	1Bm	1.4/0.3	40/40	630	2x5.5/1.4	2x38.2/7.6	2x6.7/3.1	2500	2540
50000	2x5	300-400	-	-	1Bm	1.1/0.3	40/40	670	2x5.5/1.4	2x38.2/7.6	2x6.7/3.1	3000	3040

## Experience Complete Innovation

The S3 minihoist lifts loads up to 125kg - yet weighs only 12kgs. With an M4 (FEM I AM) high duty rating, the lightweight minihoist is easy to install and maintain, making it ideal for light crane systems. The minihoist offers the highest levels of build quality and reliability. Our two year warranty, repair and full after-sales service will allow you to use this excellent product with confidence.

### Features and benefits

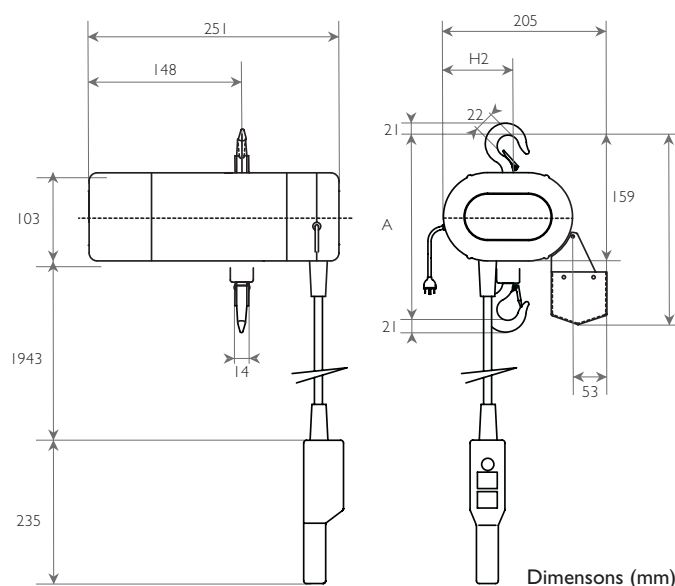
- M4 (FEM I AM) Duty, 40% ED, 240 motor-starts per hour.
- Easy installation and maintenance.
- Overload protection device as standard.
- 10-pocket load wheel for smooth chain operation, constant chain speed and reduced chain wear.
- Optional impact-resistant chain container
- Gear train lifetime lubricated with non-oxidising grease.
- Thermally protected hoist motor.
- Rugged cast aluminium alloy body.
- 5:1 factor of safety.
- Small, compact design.
- Hardened forged steel lower hooks with safety latch rotates 360°
- Two year warranty.
- IP54 Protection.
- 12kg in weight.
- Drawn up dimension, 276mm
- Available for 400v 3ph 50hz, 110v & 230v 1ph 50hz supplies.



Voltage (V)	Hoist Speed m/min	Power kW	Hoist Motor Current		ED% Rating
			Starting (A)	Running (A)	
400v3ph	4	0.25	2	0.65	40%
400v3ph	10	0.25	2.4	0.8	40%
230v1ph	4	0.1	4.2	1.4	40%
110v1ph	4	0.08	10.2	3.4	40%

Chain Box	Max Height of Lift (metres)		Weight kg at 3m Track Height
	Single fall		
Size 1	3.05	0.45	
Size 2	6.1	0.63	
Size 3	12.2	0.63	
Size 4	24.4	0.63	
Size 5	36.6	1	

Capacity No. of Falls Dimensions	125kg one
A	276
B	76
C	75
D	99



Specifications subject to change without notice.