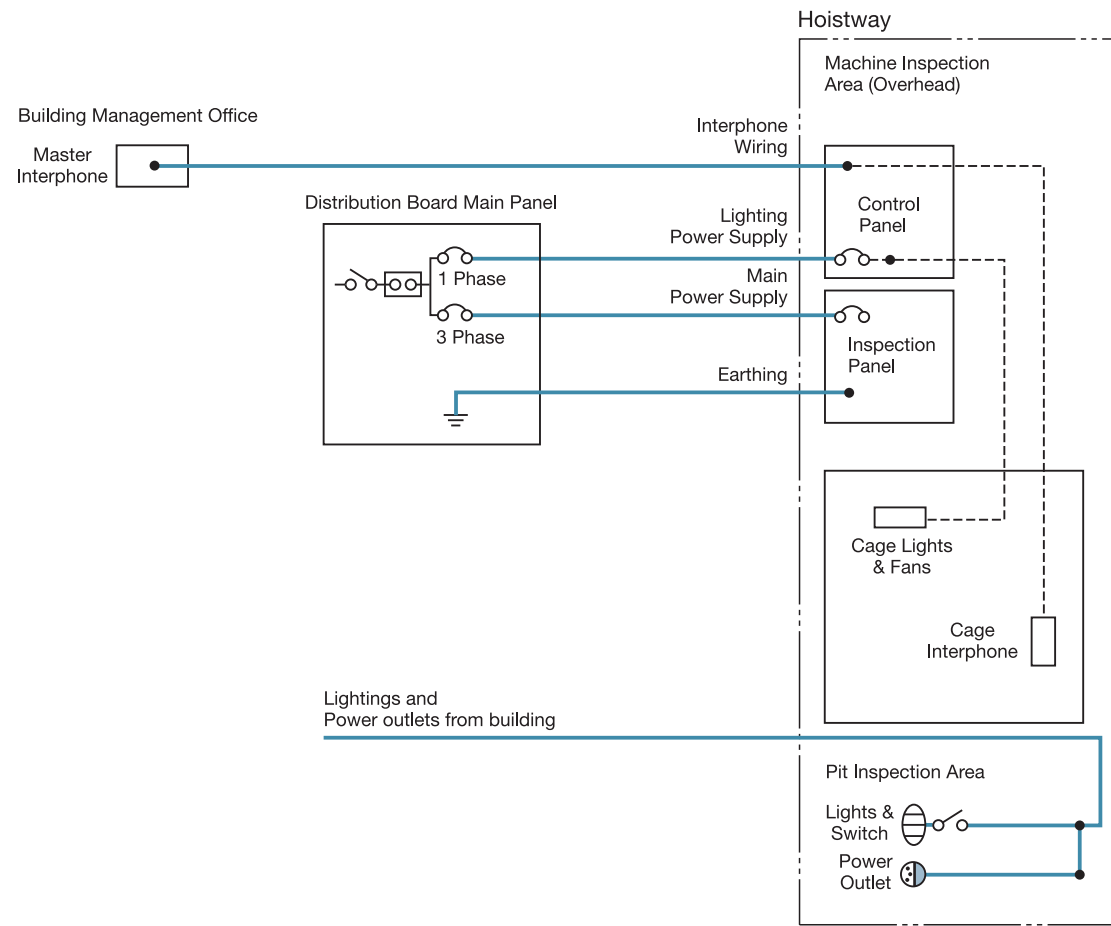


## Wiring Diagram

shows the works to be done by building.



## Work to be provided by building

Item	Works to be provided by building
Main power supply <sup>*1</sup>	To provide AC 3 phase 200 to 480V 50/60Hz main power supply with maintaining to ensure that the power supply does not fluctuate outside the range of -10% to +10% of the normal voltage rating and to ensure that the unbalance factor of voltage does not exceed 5%.
Lighting power supply <sup>*1</sup>	To supply and install AC single phase (20Amp) lighting power supply for car lighting, EBOPS and maintenance work.
Interphone <sup>*1</sup>	To provide piping and wiring (12 wires of 0.9mm <sup>2</sup> /elevator) for interphone located outside the hoistway.
Pit, hoistway lightings & power outlets	To supply and install AC single phase power outlet and lighting with switch located at accessible area from the entrance at bottom landing level for maintenance purpose. Arrange necessary to comply to local code & regulation.

Notes  
 - In the case that builder provides leak current detector at the side of main power, please use "inverter type" or "detector which does not do unnecessary operation for high frequency".  
 \*1 Main power, lighting power, indicator power supply and interphone wiring shall be led into the hoistway at the highest lift landing.

# MACHINE ROOM-LESS ELEVATOR

## Model UAG Series SN1

### PLANNING INFORMATION



### Based on Hitachi standard for bed

No.	Load [kg]	Persons	Rated speed [m/s] (m/min)	Door type	Door OP width W [mm]	Car internal size A × B [mm]	Hoistway X × Y [mm]	Location [mm]								Pit reaction loading*2 [kN]					
								X3	X4	C*1	D	E	F	RGC	RGW	Car side			Counterweight side		
																RC1	RC2	RC3	RW1	RW2	RW3
1	750	11	1.0(60)	2S2P	1100	1300×2300	2050×2750	1260	790	1182 [1187]	640	975	95	1420	900	90.5	44.0	36.5	76.0	21.0	32.5
2			1.5(90)																		
3			1.75(105)																		
4	1000	15	1.0(60)	2S2P	1200	1500×2500	2250×2950	1410	840	1282 [1287]	640	1075	145	1620	900	108.0	49.5	41.0	88.5	22.0	36.0
5			1.5(90)																		
6			1.75(105)																		

Notes  
 - Above tables shows the dimensions on the following conditions  
 (1) Single elevator in hoistway (2) Without counterweight safety  
 Please consult Hitachi or local agent if other specifications are required.

\*1 [ ]: With fire rated door  
 \*2 Travel distance ≤ 60m

### Based on Malaysian regulations

No.	Load [kg]	Persons	Rated speed [m/s] (m/min)	Door type	Door OP width W [mm]	Car internal size A × B [mm]	Hoistway X × Y [mm]	Location [mm]								Pit reaction loading*2 [kN]						
								X3	X4*1	C	D	E	F	RGC	RGW	Car side			Counterweight side			
																RC1	RC2	RC3	RW1	RW2	RW3	
1	750	11	1.0(60)	2PCO	800	1350×1400	1950×1750 (2000×1750)	1070	880 (930)	665	530	915	—	1470	800	79.0	223.5	216.5	64.5	198.5	213.0	
2			1.5(90)																			
3			1.75(105)																			
4			1.0(60)		900	2050×1750	1110	740 (790)	1087	790	45	1220	96.0	229.5		221.0	77.0	198.5		216.0		
5			1.5(90)																			
6			1.75(105)																			
7	955	14	1.0(60)	2S2P	1000	1100×2100	1850×2550 (1900×2550)	1110	740 (790)	1087	790	45	1220	800	117.0	382.0	371.0	77.0	198.5	216.0		
8			1.5(90)																			
9			1.75(105)																			
10			1.0(60)		1100	1800×1500	1390	1210	715	1210	—	1940	117.0		382.0	371.0	94.5		342.0	366.0		
11			1.5(90)																			
12			1.75(105)																			
13	1160	17	1.0(60)	2PCO	1100	2650×1960	1375	1275	640	1010	95	1540	900	117.0	382.0	371.0	94.5	342.0	366.0			
14			1.5(90)																			
15			1.75(105)																			
16			1.0(60)		1200	1400×2400	2200×2850 (2250×2850)	1310	890 (940)	1237	1010	95		1540	71.5x2sets	390.5		377.5	113.5	341.5	371.0	
17			1.5(90)																			
18			1.75(105)																			
19	1500	22	1.0(60)	2S2P	1100	2000×1750	2800×2100	1485	1315	840	1310	—	2140	900	75.25x2sets	393.0	380.0	119.5	341.5	372.5		
20			1.5(90)																			
21			1.75(105)																			
20	1565	23	1.0(60)	2PCO	1100	2000×1750	2800×2100	1485	1315	840	1310	—	2140		900	76.25x2sets	498.5		484.5	121.5	445.0	477.0
19			1.5(90)																			
18	1.75(105)																					

Notes  
 - Above tables shows the dimensions on the following conditions  
 (1) Single elevator in hoistway (2) Without counterweight safety  
 (3) With fire rated door  
 Please consult Hitachi or local agent if other specifications are required.

\*1 ( ): Travel distance > 60m  
 \*2 Rated speed 1.0m/s : Travel distance ≤ 60m  
 Rated speed 1.5 , 1.75m/s : Travel distance ≤ 80m

# Dimension of Hoistway and Pit Reaction Loading

## Dimension and reaction loading of hoistway

Based on Hitachi standard for India

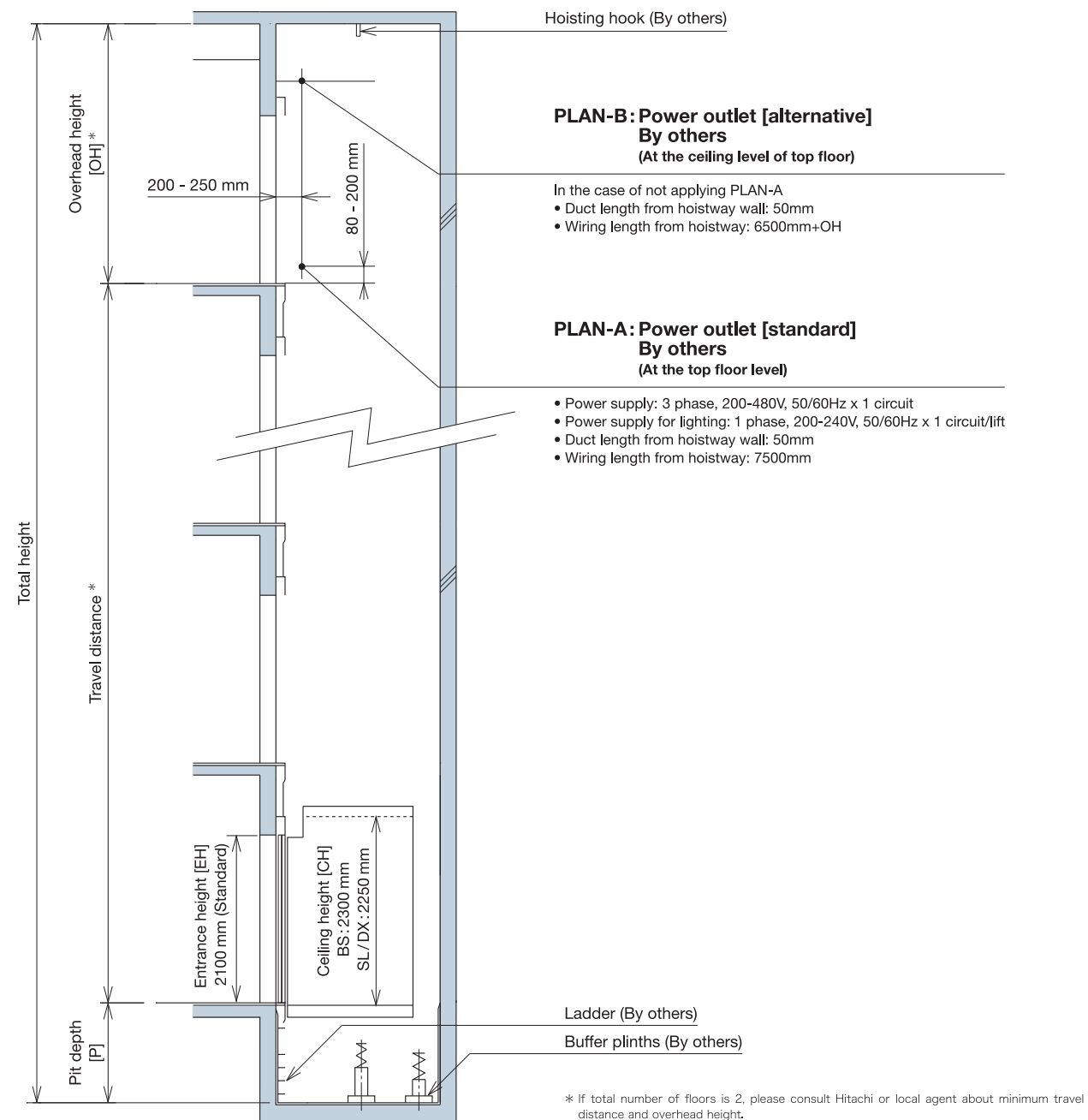
No.	Load [kg]	Persons	Rated speed [m/s] (m/min)	Door type	Door OP width W [mm]	Car internal size A x B [mm]	Hoistway X x Y [mm]	Location [mm]							Pit reaction loading #3 [kN]					
								X			Y				Car side			Counterweight side		
								X3	X4 #1	C #2	D	E	F	RGC	RGW	RC1	RC2	RC3	RW1	RW2
1			1.0(60)	2PCO	800	1100x1400	1850x1750	945	905	655 [665]	790	1220	71.5	34.0	28.0	59.5	16.0	25.0		
2			1.5(90)											37.5	31.0		18.5	28.0		
3			1.75(105)		900	2000x1750	1000	1000	1095 (955)	605 [615]	940	1520	71.0	34.0	28.0	59.0	15.5	25.0		
4			1.0(60)											37.5	31.0		18.5	28.0		
5			1.5(90)		800	1400x1100	2000x1700 (2050x1700)	1095 (955)	605 [615]	940	1520	1630	71.5	34.0	27.5	59.0	15.5	25.0		
6			1.75(105)											37.5	31.0		18.5	28.0		
7			1.0(60)		900	2150x1700 (2200x1700)	1150 (1050)	1000 (1050)	605 [615]	995	1630	1720	79.0	37.0	30.0	64.5	16.5	26.5		
8			1.5(90)											40.5	33.0		19.0	29.5		
9			1.75(105)		800	1350x1400	1950x1750 (2000x1750)	880 (930)	655 [665]	915	1470	1720	94.5	42.5	34.0	76.0	17.5	29.5		
10			1.0(60)											46.0	37.5		20.0	32.5		
11			1.5(90)		900	2050x1750	1070	980	655 [665]	915	1470	1720	95.5	42.5	34.0	76.0	17.5	29.5		
12			1.75(105)											46.0	37.5		20.0	32.5		
13			1.0(60)		800	1850x2450	945	905	1005 [1015]	530	800	1720	95.5	46.0	37.5	77.0	20.0	32.5		
14			1.5(90)											46.0	37.5		20.0	32.5		
15			1.75(105)		1000	1850x2550 (1900x2550)	1110	740 (790)	1082 [1087]	45	800	1720	94.5	42.0	34.0	75.5	17.0	29.5		
16			1.0(60)											45.5	37.0		20.0	32.5		
17			1.5(90)	900	1600x1400	2200x1750 (2250x1750)	1005 (1055)	655 [665]	1040	1720	1720	94.0	42.0	34.0	75.5	17.0	29.5			
18			1.75(105)										45.5	37.0		20.0	32.5			
19			1.0(60)	1000	2300x1750	1195	1105	655 [665]	1040	1720	1720	97.5	43.0	35.0	77.5	17.5	30.0			
20			1.5(90)										46.5	38.0		20.0	33.0			
21			1.75(105)	900	1600x1500	2200x1850 (2250x1850)	1005 (1055)	705 [715]	640	900	1720	117.0	54.5	44.0	94.5	23.5	39.0			
22			1.0(60)										61.5	50.0		28.0	44.5			
23			1.5(90)	1100	1800x1500	2600x1950 [2600x1960]	1390	1210	640	900	1720	117.0	54.5	44.0	94.5	23.5	39.0			
24			1.75(105)										61.5	50.0		28.0	44.5			
25			1.0(60)	1100	2000x1400	2800x1900 [2800x1910]	1490	1310	640	900	1720	123.0	57.0	46.0	99.0	24.0	40.5			
26			1.5(90)										63.5	51.5		103.0	28.5	45.5		
27			1.75(105)	2000x1500	2800x1950 [2800x1960]	1490	1310	705 [715]	640	900	1720	127.0	63.5	51.5	103.0	28.5	45.5			
28			1.0(60)										64.0x2sets	58.5		47.0	102.5	24.5	41.0	
29			1.5(90)	66.5x2sets	65.5	53.0	107.5	29.0	46.5	33.0	1720	133.0	63.5	50.5	113.5	25.5	44.0			
30			1.75(105)										63.5x2sets	58.0		46.5	99.5	24.0	40.5	
31			1.0(60)	64.75x2sets	63.5	52.0	102.0	28.5	45.5	32.5	1720	129.5	63.5	50.5	113.5	25.5	44.0			
32			1.5(90)										71.5x2sets	63.5		50.5	113.5	25.5	44.0	
33			1.75(105)	72.5x2sets	69.5	56.0	115.5	29.5	49.0	32.5	1720	145.0	69.5	56.0	115.5	29.5	49.0			
34			1.0(60)										70.0x2sets	62.0		50.0	110.0	25.0	43.0	
35			1.5(90)	71.0x2sets	68.5	55.5	112.0	29.5	48.0	32.5	1720	142.0	68.5	55.5	112.0	29.5	48.0			
36			1.75(105)										71.5x2sets	68.5		55.5	112.0	29.5	48.0	
37			1.0(60)	75.25x2sets	66.0	53.0	119.5	26.0	45.5	32.5	1720	142.0	72.0	58.0	121.5	30.0	50.0			
38			1.5(90)										76.25x2sets	72.0		58.0	121.5	30.0	50.0	
39			1.75(105)	152.5	72.0	58.0	121.5	30.0	50.0	32.5	1720	152.5			121.5					

Notes  
 - Above tables shows the dimensions on the following conditions  
 (1) Single elevator in hoistway (2) Without counterweight safety  
 Please consult Hitachi or local agent if other specifications are required.

\*1 ( ): Travel distance > 60m  
 \*2 [ ]: With fire rated door  
 \*3 Rated speed 1.0m/s : Travel distance ≤ 60m  
 Rated speed 1.5, 1.75m/s : Travel distance ≤ 80m

# Overhead Height and Pit Depth

## Hoistway section



## Dimensions for overhead height, pit depth and other specifications

No.	Rated speed [m/s] (m/min)	Standard overhead height : OH #1 #2 #3 [mm]				Minimum pit depth : P #4 [mm]					
		Hitachi standard Hitachi standard for bed Hitachi standard for India	EN81-20/50 SASO-EN81-20/50	Malaysian regulations	Hitachi standard Hitachi standard for bed Hitachi standard for India EN81-20/50 SASO-EN81-20/50	Malaysian regulations	Hitachi standard Hitachi standard for bed Hitachi standard for India EN81-20/50 SASO-EN81-20/50	Malaysian regulations			
		Load ≤ 1050kg	Load ≥ 1150kg	Load ≤ 1050kg	Load ≥ 1150kg	Load ≤ 1050kg	Load ≥ 1150kg	Load ≤ 1050kg	Load ≥ 1150kg		
1	1.0(60)	3750 (3870)	4150 (4270)	4150 (4270)	4250 (4370)	4200(4320)	4300(4420)	1350	1600	1500	1750
2	1.5(90)	4050(4170)	4350(4470)	4350(4470)	4350(4470)	4400(4520)	4400(4520)	1450	1700	1600	1850
3	1.75(105)	4050(4170)	4350(4470)	4350(4470)	4350(4470)	4450(4570)	4450(4570)	1450	1700	1650	1950

No.	Rated speed [m/s] (m/min)	Other specifications		
		Maximum number of stops	Maximum travel distance [m]	Minimum floor pitch [mm]
1	1.0(60)	24	60	2600
2	1.5(90)		80*5	
3	1.75(105)			

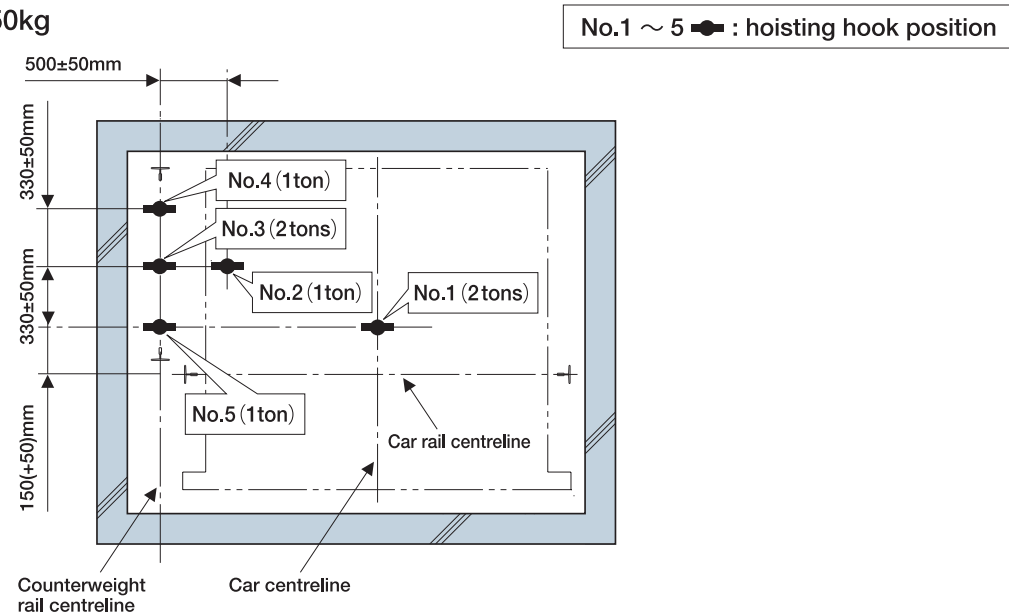
\*1 ( ): SL/DX series ceiling  
 \*2 Travel distance ≤ 30m  
 30m < Travel distance ≤ 60m : Above overhead height + 50mm  
 60m < Travel distance ≤ 80m : Above overhead height + 100mm  
 \*3 Overhead height will be increased accordingly if either EH or CH increases.  
 \*4 Travel distance ≤ 45m  
 LOAD ≥ 1050kg 45m < Travel distance ≤ 60m : Above pit depth + 50mm  
 60m < Travel distance : Above pit depth + 200mm  
 LOAD ≥ 1150kg 45m < Travel distance : Above pit depth + 50mm  
 \*5 Hitachi standard for bed : 60m

# Location of hoisting hook and hoisting beam

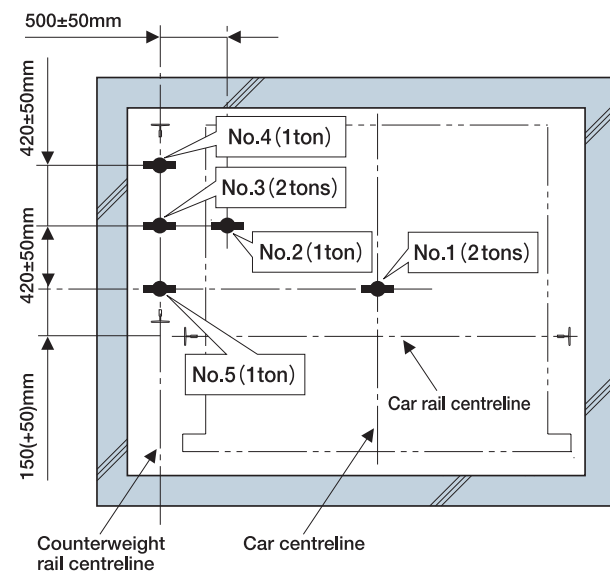
If the hoistway is made of reinforced concrete, hoisting hooks (installed by other contractors) are required at the top of the hoistway. If the hoistway is a steel structure, hoisting beams (installed by other contractors) are required at the top of the hoistway. The details of the hoisting hook and hoisting beam mounting position are as follows:

## ① Hoisting hooks

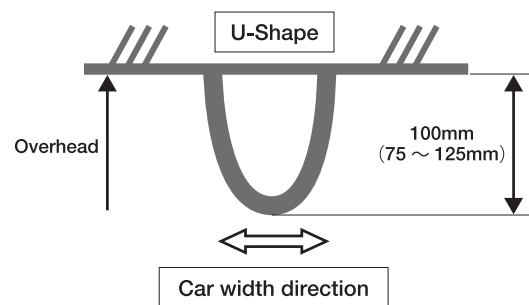
### 1. Rated Load ≤ 1050kg



### 2. Rated Load ≥ 1150kg



### 3. Orientation and size of Hoisting Hooks

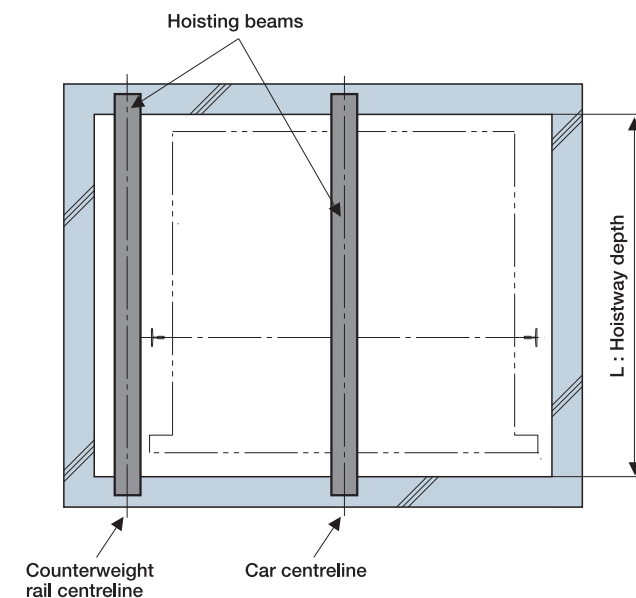


Notes  
 - The hoisting hooks should be orientated such that the U-shape is facing the hoistway landing entrance.  
 - This hoisting hook size is required to ensure that the hoisting equipment can fit in.

## ② Hoisting beams

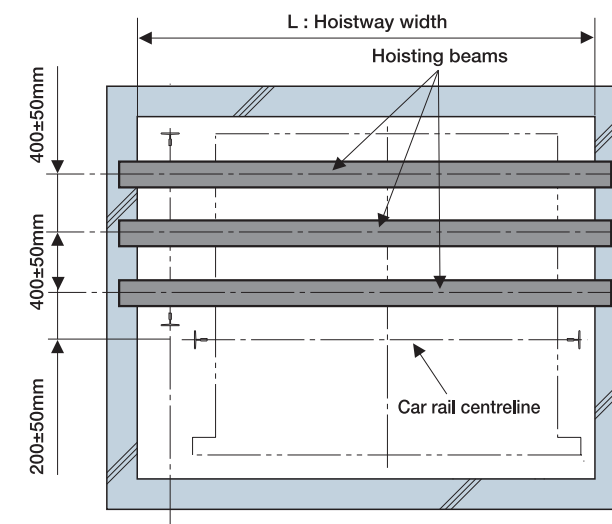
### 1. Hoisting beams layout (Standard)

Hoisting beams in the direction of car depth

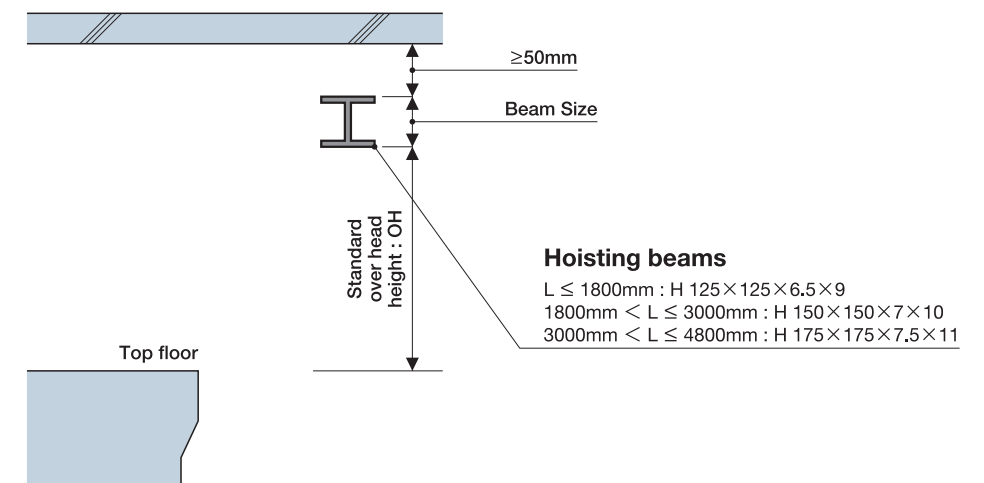


### 2. Hoisting beams layout (Alternative)

Hoisting beams in the direction of car width



### 3. Height of Hoisting beams



## Required capacity of circuit breaker, transformer & starting power at building side

### Electrical Data

No.	Load [kg]	Rated speed [m/s] (m/min)	Motor capacity [kW]	Supply voltage [V]	Breaker capacity [A]			Transformer capacity [kVA]			Starting power [kVA]	Lead-in wire for drive [mm <sup>2</sup> ]			Earth wire [mm <sup>2</sup> ]	Calorific value*1 [kcal/hr]
					1 unit	2 units	3 units	1 unit	2 units	3 units		1 unit	2 units	3 units		
1	630 (612)	1.0(60)	3.9	220-230	100	125	150	5	9	12	15	22	38	60	3.5	830 (810)
2				380-415	20	30	30					5.5	14	14	2.0	
3				440-480	50	75	100					8	14	2.0		
4		1.5(90)	5.8	220-230	100	125	150	6	11	15	20	22	60	60	3.5	1250 (1210)
5				380-415	30	30	40					8	14	22	2.0	
6				440-480	50	75	100					5.5	14	14	2.0	
7		1.75(105)	6.8	220-230	100	125	150	7	12	17	23	38	60	100	3.5	1460 (1420)
8				380-415	30	40	50					8	14	22	2.0	
9				440-480	50	75	100					8	14	14	2.0	
10	750 (748)	1.0(60)	4.6	220-230	100	125	150	5	9	12	16	22	38	60	3.5	990
11				380-415	20	30	40					5.5	14	14	2.0	
12				440-480	50	75	100					8	14	14	2.0	
13		1.5(90)	6.9	220-230	100	125	150	7	12	17	23	38	60	100	3.5	1490 (1480)
14				380-415	30	40	50					8	14	22	2.0	
15				440-480	50	75	100					8	14	14	2.0	
16		1.75(105)	8.1	220-230	100	125	150	7	12	17	26	38	60	100	3.5	1730
17				380-415	40	40	50					14	22	22		
18				440-480	50	75	100					8	14	14		
19	1050 (952/1020) [955]	1.0(60)	6.5	220-230	100	125	150	9	16	22	22	38	60	100	2.0	1390 (1260/1350) [1260]
20				380-415	30	40	40					8	14	22		
21				440-480	50	75	100					5.5	14	14		
22		1.5(90)	9.7	220-230	100	125	150	8	14	19	30	38	100	150	5.5	2080 (1890/2020) [1890]
23				380-415	40	40	60					14	22	38	3.5	
24				440-480	50	75	100					8	14	22	3.5	
25		1.75(105)	11.7	220-230	100	125	150	10	17	24	36	60	100	150	5.5	2430 (2200/2360) [2210]
26				380-415	40	50	75					14	38	38		
27				440-480	50	75	100					14	22	38		
28	1200/1350 (1156/1224/1292) [1160]	1.0(60)	8.3	220-230	100	125	150	8	14	19	27	38	60	100	3.5	1590/1780 (1530/1620/1710) [1530]
29				380-415	40	40	50					14	22	38		
30				440-480	50	75	100					8	14	22		
31		1.5(90)	13.0	220-230	100	125	150	11	19	26	40	60	100	150(146m)*2	5.5	2380/2670 (2290/2420/2560) [2300]
32				380-415	50	60	75					14	38	38		
33				440-480	75	100	14					22	38	3.5		
34		1.75(105)	15.0	220-230	100	125	150	12	21	29	45	60	150	150(128m)*2	5.5	2770/3120 (2670/2830/2980) [2680]
35				380-415	50	60	100					22	38	60	3.5	
36				440-480	75	100	14					22	38	3.5		
37	1600 (1360/1496/1564) [1565]	1.0(60)	10.0	220-230	100	125	150	9	16	22	31	38	100	150	5.5	2110 (1800/1980/2070) [2070]
38				380-415	40	50	60					14	22	38	3.5	
39				440-480	50	75	100					8	14	22	3.5	
40		1.5(90)	15.0	220-230	100	125	150	12	21	29	45	60	150	150(128m)*2	5.5	3170 (2690/2960/3100) [3100]
41				380-415	50	60	100					22	38	60	3.5	
42				440-480	75	100	14					22	38	3.5		
43		1.75(105)	18.0	220-230	100	125	150	15	26	36	53	100	150	150(109m)*2	5.5	3690 (3140/3450/3610) [3610]
44				380-415	60	75	100					22	38	60	3.5	
45				440-480	50	75	100					14	38	38	3.5	

Notes

- Maximum length of lead-in wire is 150m.

\*1 ( ): For India use only.

[ ]: For Malaysia use only.

\*2 Maximum lead-in wire size is 150mm<sup>2</sup>.

( ): Maximum length of lead-in wire with 150mm<sup>2</sup>.

