How to Choose What Service Classification You Need

WEIGHT CAPACITY	INPUT VOLTAGE	LIFT SPEED	CHAIN LENGTH (Lift)	LOAD MOVEMENT	NUMBER OF LIFTS	START/STOPS	OPERATING TIME
Determine the max. weight you need to lift. (include lifting, supporting, and positioning devices).	What is the nominal voltage (±10% of rated voltage) in your facility? Single-Phase 115 or 230V 3-Phase 208, 230, or 460V.	What speed do you want to lift the load? Industry standard for ⅛ to 1 ton is 16 ft./min. (fpm). 2 ton is 8 fpm. For flexibility consider a variable-speed lift.	Measure from the point of mount to the floor.	What is the actual distance the load must be lifted and lowered?	Determine the number of lifts per hour for the job.	How many times does an operator activate the push-button control? Rule of thumb: 8 start/stops per cycle (load lift and lower).	Hoists have a "Service Classification" rating. To determine this classification for your job, use the following calculation: Minutes Run Time = Feet of Load Lift x Lifts per Hour x 2 ÷ Hoist Speed Then calculate: % On Time = Minutes Run Time ÷ 60
Ex: 2400 lb. includes all the components of the load (pallet, drum, sling, etc.).	Ex: 230V	Ex: 8 fpm	Ex: 12 ft.	Ex: 7 ft.	Ex: 15	Ex: 120 start/stops	Ex: 12 ft.

Hoist Service Classifications

Service Classification	Total Equipment Running Time	Max. Start/Stops Per Hour	Typical Areas of Application
H4 - Industry Standard	Approaching 50% of the work period	300	High-volume handling in steel warehousing, machine shops, fabricating plants, mills, and foundries. Manual or automatic cycling operations in heat-treating and plating operations.
H3	Not to exceed 25% of the work period	150	General machine shop, fabricating, assembly, storage, and warehousing use, where loads and operation are randomly distributed.
H2	Not to exceed 15% of the work period	75	Light machine shop, fabricating industries, and service and maintenance work, where loads and use are randomly distributed with capacity loads infrequently handled.

Note: For higher duty cycles, refer to the Air Hoist section.

452R33

452R42

Dayton

H4-Rated Single-Speed Electric Chain Hoists

- Lubrication: grease
- Positive braking, under all load conditions
- Include chain container
- Heat-treated steel alloy
- Meet ANSI/ASME B30.16 UL 1340

Brake stops and holds the load, even with loss of power. Rigid top and swivel load hooks provide positive load engagement. Include overtravel prevention system. Overload limiting clutch prevents hoist damage from heavy loads. 15-ft. power cord. Dual-voltage hoists reconnect for use at 230VAC.

Note: Replacement parts available on Grainger.com

Load Capacity	Lift Speed	Motor HP	Voltage	Phase	Min. Between Hooks	Amps @ Low Volts	10 ft Lift 5-ft. Control Cord Item No.	15 ft Lift 11-ft. Control Cord Item No.	20 ft Lift 15-ft. Control Cord Item No.
500 lb	20 fpm	0.32 hp	115/230	1	17 5/16 in	7.6 A	452R33	452R53	452R54
	32 fpm	0.65 hp	115/230	1	17 5/16 in	10.5 A	452R55	452R56	452R57
1000 lb	20 fpm	0.65 hp	115/230	1	17 29/32 in	10.5 A	452R39	452R45	452R46
	32 fpm	1.3 hp	115/230	1	21 17/64 in	14.5 A	452R51	—	—
	32 fpm	1.3 hp	230/460	3	17 47/64 in	3.5 A	452R34	452R35	452R36
2000 lb	20 fpm	1.3 hp	115/230	1	21 17/64 in	14.5 A	452R40	452R52	452R44
	20 fpm	1.8 hp	230/460	3	21 17/64 in	6 A	452R41	452R47	452R37
4000 lb	10 fpm	1.3 hp	115/230	1	26 1/16 in	14.5 A	452R42	452R48	452R49
	10 fpm	1.8 hp	230/460	3	26 1/16 in	6 A	452R43	452R50	452R38

2GXH6

Dayton

H3-Rated Single-Speed Electric Chain Hoists

- Gears are enclosed in grease case
- Electric disc motor brakes
- Thermal overload protection
- Chain container included
- Hardened alloy steel chain
- Meet ANSI/ASME B30.16 UL 1340

Latch-type hook provides positive load engagement. Brake stops and holds the load, even with a loss of power. Offer up to 18-min. "On" time per hr. with full thermal protection. Upper and lower limit switches prevent chain overtravel.

Load Capacity	Lift Speed	Motor HP	Voltage	Phase	Min. Between Hooks	Amps @ Low Volts	10 ft Lift 6 ft Control Cord Item No.	15 ft Lift 11 ft Control Cord Item No.	20 ft Lift 16 ft Control Cord Item No.
1,000 lb	16 fpm	0.67 hp	115	1	19 3/32 in	10 A	2GXG9	2GXH1	2GXH2
2,000 lb	16 fpm	1 hp	115	1	22 3/64 in	15 A	2GXH3	2GXH4	2GXH5
4,000 lb	8 fpm	1 hp	115	1	26 49/64 in	15 A	2GXH6	2GXH7	2GXH8