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## GEARLESS MACHINES

**Gearless AC Machines**

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  - 500 Series: 522, 525, 527  
- 500 Series: 570-OB  
- 700 Series: 705-OB  
- 800 Series: 808-OB  
- 900 Series: 908-OB  

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## GEARED MACHINES

**Geared Traction Machine**

- TM Series: Models TM21, TM26 and TM35

## MACHINE COMPONENTS AND ACCESSORIES

... (not fully visible, likely continues on another page)

## DIMENSIONAL DIAGRAMS

... (not fully visible, likely continues on another page)

## WARRANTY POLICY

... (not fully visible, likely continues on another page)

## IMPERIAL ELECTRIC ELEVATOR

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Unlike traditional induction motors that lose efficiency at lower speeds, Imperial Electric gearless AC machines provide unusually capable low speed, high torque operation — and consume up to 40% less power than traditional asynchronous motors. Imperial Electric gearless AC machines are also noticeably quieter than the competition and are nearly maintenance-free.

Imperial Electric machines are known for durability and reliability. Imperial Electric gearless AC machines use rugged cast iron frames protecting a totally enclosed, self-cooling motor. Machine brake and sheave assemblies are removable and replaceable — features that will provide cost savings over long years of service.

Imperial Electric provides gearless AC machines in seven frame sizes — serving car capacity ranges from 1,250 to 8,000 lbs. at speeds from 100 to 2,000 fpm (fpm). The 470 series has the capacity to lift 1,375 to 4,000 lbs. at speeds up to 500 fpm with 2:1 roping. The 500 series has the capacity to lift 2,000 to 4,500 lbs. up to 700 fpm with 1:1 roping or 2,000 to 8,000 lbs. up to 700 fpm with 2:1 roping. The 700/800 series has the capacity to lift 2,000 to 5,350 lbs. up to 1,600 fpm with 1:1 roping or 3,000 to 10,000 lbs. up to 800 fpm with 2:1 roping. The 900 series has speeds up to 2000 foot per minute (10 m/s) for up to 8,000 lbs. car capacity for 1:1 roped applications and 1000 foot per minute (5 m/s) for up to 16,000 lbs. car capacity for 2:1 roped applications.

With the introduction of gearless AC machines to complement industry-leading, gearless DC machines, Imperial Electric boasts the most comprehensive gearless machine line in the elevator industry.
GEARLESS AC MACHINES

FRAME 450 Series: “Barrel” Style Machine

Single Wrap

Small diameter, lighter weight, very powerful. Can be 1:1 or 2:1 roped.

SPECIFICATIONS

- 2,000 to 5,000 lbs. capacity, 2:1 roped
- 3,500 lbs. 1:1 roped
- 2,500 lbs. capacity 1:1 roped, with 20 inch sheave for 1/2 ropes
- V-groove, 17 inch or 20 inch sheave diameter
- Up to 8 – 10 mm ropes or 6 – 1/2 inch ropes
- Sheave Shaft Load 20,000 lbs.
- Manual brake release available
- 451, 453 8-10 mm
- 455 10-10 mm

FEATURES

- Precise acceleration, deceleration, and contract speed control
- Low noise, highly efficient
- Compact and Green - no oil lubricants
- Low speed direct drive (no gears)
- Cooler operation
- Independent brake system holds 125% rated capacity
- Weighs just under 2200 lbs.
- UL/CSA CUS Certified

APPLICATIONS

- New Construction, machine room less (MRL), or modernization geared machine replacement
- 1:1 or 2:1 roped

Frame 450 Series 1:1 Roping

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Model 451 Model 453 Model 455 50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data.
### FEATURES
- Thin Style 12 inch long or deep, x 38 inch wide x 36 inch tall
- Precise acceleration, deceleration, and contract speed control
- Low noise, highly efficient
- Compact and Green - no oil lubricants
- Low speed direct drive (no gears)
- Cooler operation
- Independent brake system holds 125% rated capacity
- Weighs just under 1,200 lbs.
- UL/CSA CUS Certified

### APPLICATIONS
- New Construction, machine room less (MRL), or modernization
- 2:1 roping only

### FRAME 460 Series 2:1 duty table

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Model 469  
Model 503  
50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data.
GEARLESS AC MACHINES

FRAME 470 Series: 472, 475, 478

Single Wrap

Frame 470 has the capacity to lift 1,375 to 4,000 lbs. at 100 to 500 fpm with 2:1 roping.

MODEL 472
- Machine weight: 900 lbs.
- 6,600 lbs. maximum sheave shaft load
- 15.75 inch drive sheave
- 5-10mm undercut U-grooves for single wrap
- 682 ft.-lbs. brake torque per shoe

MODEL 475
- Machine weight: 1,050 lbs.
- 11,000 lbs. maximum sheave shaft load
- 15.75 inch drive sheave
- 6-10mm undercut U-grooves single wrap
- 734 ft.-lbs. brake torque per shoe

MODEL 478
- Machine weight: 1,350 lbs.
- 11,000 lbs. maximum sheave shaft load
- 15.75 inch drive sheave
- 8-10mm undercut U-grooves single wrap
- 1,400 ft.-lbs. brake torque per shoe

MODEL 478 WITH 20 INCH SHEAVE
- Machine weight: 1,400 lbs.
- 12,000 lbs. maximum sheave shaft load
- 5-1/2 inch V-grooves single wrap
- 1,150 ft.-lbs. brake torque per shoe

BENEFITS
- High efficiency
- Reduced power consumption
- Quieter operation
- Smoother start up
- Compact design
- Improved electrical precision at very low speed
- Nearly maintenance-free

FEATURES
- AC synchronous permanent magnet design
- Machine, traction sheave, brake and encoder provided
- Totally enclosed, self-cooling motor — no fan needed
- Electronically activated double-action brake solenoid
- Heavy duty components and construction
- Sub base with secondary sheave options
- UL/CSA CUS Certified
- Re-greasable bearings

Frame 470 Series DIMENSIONAL DIAGRAM: Page 18-20
MODEL 522
- Machine weight: 2,600 lbs.
- 17,600 lbs. maximum sheave shaft load
- 20 inch drive sheave
- 7-1/2 inch V-grooves single wrap
- 1,868 ft-lbs. brake torque per shoe
- UL/CSA CUS Certified
- Capacity up to 2200 lbs. 1:1, 4000 lbs. 2:1

MODEL 525
- Machine weight: 3,350 lbs.
- 22,000 lbs. maximum sheave shaft load
- 25 inch drive sheave
- 7-1/2 inch or 6-5/8 inch V-grooves single wrap
- 3,190 ft-lbs. brake torque per shoe
- UL/CSA CUS Certified
- Capacity up to 3500 lbs. 1:1, 6500 lbs. 2:1

MODEL 527
- Machine weight: 3,500 lbs.
- 22,000 lbs. maximum sheave shaft load
- 25 inch drive sheave
- 7-1/2 inch or 6-5/8 inch V-grooves single wrap
- 3,190 ft-lbs. brake torque per shoe
- UL/CSA CUS Certified
- Capacity up to 4500 lbs. 1:1, 8500 lbs. 2:1

Frame 500 has the capacity to lift 2,000 to 4,500 lbs. at speeds to 700 fpm with 1:1 roping or 2,200 to 8,000 lbs. at speeds to 700 fpm with 2:1 roping.

Frame 500 Series 1:1 duty table

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Model 522 | Model 525 | Model 527
50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data.

Frame 500 Series 2:1 duty table

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Model 522 | Model 525 | Model 527
50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data. Consult Imperial for higher ratings.
FRAME Low Speed (LS) Series: 478-LS, 522-LS, 525-LS, 527-LS

Single Wrap

Frame LS Series has the capacity to lift 1,000 to 4,500 lbs. at traditional geared speeds from 100 to 450 fpm with 1:1 roping.

MODEL 478-LS
- 1,750 lbs. package weight
- 12,000 lbs. maximum sheave shaft load
- 20 inch drive sheave
- 5-1/2 inch V-grooves single wrap
- 1,111 ft.-lbs. brake torque per shoe
- UL/CSA CUS Certified

MODEL 522-LS
- 2,875 lbs. package weight
- 17,600 lbs. maximum sheave shaft load
- 20 inch drive sheave
- 7-1/2 inch V-grooves single wrap
- 1,868 ft lbs. brake torque per shoe
- UL/CSA CUS Certified

MODEL 525-LS/527-LS
- 3,830 lbs. (525-LS)/3,980 lbs. (527-LS) package weight
- 22,000 lbs. maximum sheave shaft load
- 25 inch drive sheave
- 527-LS requires rope brake over 4,000 lbs. capacity
- 7-1/2 inch or 6-5/8 inch V-grooves single wrap
- 3,190 ft.-lbs. brake torque per shoe
- UL/CSA CUS Certified

LS PACKAGE INCLUDES:
- Motor
- Dual Coil Brake - Independent brake system holds 125% rated capacity
- Drive Sheave
- Endat Encoder
- Single Tier Base
- Blocking beams
- Dynamic Isolation
- Hardware for bolting the machine to the blocking
- Sheave guard
- Rope retainer

FRAME LS Series 1:1 duty table

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50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data.
**Frame 570 Series**

**SPECIFICATIONS**
- Capacity: 2,750 lbs. (1:1) or 5,000 lbs. (2:1)
- Speeds ranging from 100 to 800 fpm
  - 1:1 roping
- Speeds ranging from 100 to 700 fpm
  - 2:1 roping
- U-groove, 20 inch drive sheave
- 12, 1/2 inch grooves for up to 6, 1/2 inch ropes, double wrap

**FEATURES**
- Precise acceleration, deceleration, and contract speed control
- Low noise, highly efficient
- Compact and Green - no oil lubricants
- Direct drive (no gears)
- Totally enclosed, self-cooling, no fan required
- Independent brake system holds 125% rated capacity
- Complete hardware package eliminates on-site engineering calculation and fabrication of heavy base and beam structures
- Sub-base with secondary sheave options
- Machine weight: 3,000 lbs.
- Heidenhain ECN1313, 2048 ppr encoder provided
- UL/CSA CUS Certified

**APPLICATIONS**
- Modernization and new construction
- 1:1 and 2:1 roped installations, double wrap
- Sheave shaft load in 40,000 lbs
- Suspended load is 20,000 lbs - double wrap

Imperial Electric Frame 570 machines feature an extended chassis and a heavy duty outboard bearing support to easily accommodate the special load characteristics required for double-wrap roping configurations. With a maximum sheave shaft load of up to 40,000 lbs., power ratings to 55HP, and dual-coil, independent brakes applying Ft-lbs brake torque per side, these machines offer 2,750 lbs. capacity roped 1:1 or 5,000 lbs. capacity roped 2:1 with maximum speeds of 800 and 700 fpm respectively.

**FRAME 500 Series: 570-OB**

**Double Wrap**

**FRAME 570-OB Series 1:1 duty table**

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Model 570-OB

50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data.

**FRAME 570-OB Series 2:1 duty table**

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Model 570-OB

50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data.
GEARLESS AC MACHINES

FRAME 700 Series: 705-OB

Double Wrap

Imperial Electric Frame 700 machines feature an extended chassis and a heavy duty outboard bearing support to easily accommodate the special load characteristics required for double-wrap roping configurations. With a maximum sheave shaft load of up to 45,000 lbs., power ratings to 115HP, and dual-coil, independent brakes applying 6000 N-m torque per side, these machines offer up to 5,000 lbs. capacity roped 1:1 or 9,000 lbs. capacity roped 2:1 with maximum speeds of 1400 and 700 fpm respectively.

SPECIFICATIONS

- Capacity: 5,000 lbs., 1:1 or 9,000 lbs. 2:1
- Speeds ranging from 100 to 1400 FPM
- U-groove, 25 inch drive sheave
- 12-5/8 inch grooves for up to 6-5/8 inch ropes, double wrap

FEATURES

- Precise acceleration, deceleration, and contract speed control
- Low noise, highly efficient
- Compact and Green - no oil lubricants
- Direct drive (no gears)
- Totally enclosed, self-cooling, no fan required
- Independent brake system holds 125% rated capacity
- Complete hardware package eliminates on-site engineering calculation and fabrication of heavy base and beam structures
- Sub-base with secondary sheave options
- Machine weight: 5,780 lbs.
- Heidenhain ECN1313, 2048 ppr encoder provided
- UL/CSA CUS Certified

APPLICATIONS

- Modernization and new construction
- 1:1 and 2:1 roped installations, double-wrap
- High rise or heavy load
- Disassembly options available
- Overhead basement and sidepull applications

Frame 700 Series DIMENSIONAL DIAGRAM: Page 29-30

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### FRAME 705-OB Series 1:1 duty table

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<th>800</th>
<th>900</th>
<th>1000</th>
<th>1200</th>
<th>1400</th>
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<td>HP</td>
<td>RPM</td>
<td>AMPS</td>
<td>HP</td>
<td>RPM</td>
<td>AMPS</td>
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<td>3500</td>
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<td>4000</td>
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<tr>
<td>5000</td>
<td>58.9</td>
<td>107.0</td>
<td>83.0</td>
<td>67.3</td>
<td>122.2</td>
<td>118.0</td>
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Model 705-OB 50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data.

### FRAME 705-OB Series 2:1 duty table

<table>
<thead>
<tr>
<th>FPM</th>
<th>400</th>
<th>500</th>
<th>600</th>
<th>700</th>
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</thead>
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<td>RPM</td>
<td>AMPS</td>
<td>HP</td>
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<td>122.2</td>
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<td>39.2</td>
<td>122.2</td>
<td>69.0</td>
<td>49.0</td>
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<tr>
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<td>122.2</td>
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<td>8000</td>
<td>57.0</td>
<td>122.2</td>
<td>100.0</td>
<td>71.3</td>
</tr>
</tbody>
</table>

Model 705-OB 50% counterweight. Consult Imperial Electric for 40% and 45% counterweighting data.
**SPECIFICATIONS**

- 66,000 lbs. sheave shaft load
- 1:1 or 2:1 roping
- U-groove for double wrap traction
- Up to 5/8 or 1/2 inch rope diameter
- 1,600 fpm (8 m/s) for up to 5,350 lbs. (2,430 kg) car capacity for 1:1 roped applications
- 800 foot per minute (4 m/s) for up to 10,000 lbs. (4,550 kg) car capacity for 2:1 roped applications
- 26.5 inch drive sheave
- Machine weight: 6,800 lbs.

**FEATURES**

- Precise acceleration, deceleration, and contract speed control
- Low noise
- Highly efficient
- Green - no oil lubricants
- Direct drive DC gearless replacement
- Cooler operation
- Dual, independent brakes eliminate external rope brake (each brake set will hold 125% of rated capacity)
- UL/CSA CUS Certified
- Heidenhain ECN 1313 encoder

**APPLICATIONS**

- Modernization and new construction
- 1:1 or 2:1 roped installations
- High rise or heavy load
- Disassembly options available
- Overhead basement and sidepull applications

---

**FRAME 800 Series: 808-OB**

**Double Wrap**

Frame 800 has the capacity to lift 2,000 to 5,350 lbs. at speeds to 1,600 fpm with 1:1 roping or 3,000 to 10,000 lbs. at speeds to 800 fpm with 2:1 roping.

---

**FRAME 800 Series 1:1 duty table**

<table>
<thead>
<tr>
<th>FPM</th>
<th>CAPACITY</th>
<th>700</th>
<th>800</th>
<th>900</th>
<th>1000</th>
<th>1200</th>
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</table>

Model 808-OB

65% Counterweight. Consult Imperial Electric for lower capacity ratings.

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**FRAME 800 Series 2:1 duty table**

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<th>FPM</th>
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<th>700</th>
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<td>107</td>
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<td>115</td>
<td>66.8</td>
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<td>173</td>
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<td>8000</td>
<td>57</td>
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<td>122</td>
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<td>144.1</td>
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<td>153</td>
<td>89.1</td>
<td>144.1</td>
<td>173</td>
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</table>

Model 808-OB

65% Counterweight. Consult Imperial Electric for lower capacity ratings.
Frame 900 ACPM Gearless Machines - model 908. Speeds up to 2000 foot per minute (10 m/s) for up to 8,000 lbs. car capacity for 1:1 roped applications and 1000 foot per minute (5 m/s) for up to 16,000 lbs. car capacity for 2:1 roped applications.

**SPECIFICATIONS**
- 120,000 lbs. sheave shaft load, 60,000 lbs. suspended load
- 1:1 or 2:1 roping
- U-groove for double wrap traction
- Up to 3/4 inch rope diameter
- 2000 fpm (10 m/s) for up to 8,000 lbs. (3,636 kg) car capacity for 1:1 roped applications
- 1000 fpm (5 m/s) for up to 16,000 lbs. (7,272 kg) car capacity for 2:1 roped applications
- 30 inch drive sheave
- Machine weight: 14,200 lbs.

**FEATURES**
- Precise acceleration, deceleration, and contract speed control
- Low noise
- Highly efficient
- Green - no oil lubricants
- Direct drive DC gearless replacement
- Cooler operation
- Dual, independent brakes eliminate external rope brake (each brake set will hold 125% of rated capacity), 2 caliper set for primary brake and 2 caliper set for emergency brake, 4 calipers total
- UL/CSA CUS Certified

**APPLICATIONS**
- Modernization and new construction
- 1:1 or 2:1 roped installations
- High rise or heavy load
- Overhead, Basement and Sidepull Applications

* Consult Imperial Electric for duty ratings
GEARLESS DC MACHINES

Frame 590 Series Basic Ratings

<table>
<thead>
<tr>
<th>IMPERIAL FRAME SIZE</th>
<th>RATED TORQUE (FT-LB)</th>
<th>WK² SHEAVE &amp; 26 IN SHEAVE (LB-FT²)</th>
<th>ARMATURE VOLTS PER RPM (V/RPM)</th>
<th>ARMATURE AMPS (A)</th>
<th>ARMATURE RESISTANCE HOT (Ω)</th>
<th>ARMATURE CIRCUIT INDUCTION (Ω^2)</th>
<th>FIELD VOLTAGE (V)</th>
<th>FIELD AMPS (A)</th>
<th>FIELD RESISTANCE (Ω)</th>
<th>L/R FIELD TIME CONSTANT (S)</th>
<th>TOTAL WEIGHT (LBS.)</th>
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<tr>
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<td>1,149</td>
<td>1.346</td>
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<td>13.20</td>
<td>15.02</td>
<td>1.29</td>
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</table>
MODELS TM21, TM26 AND TM35

Single Wrap

The streamlined design of the TM Series allows significant weight reduction without sacrificing durability or frame rigidity. The TM Series slow shaft uses tapered roller bearings that require no periodic grease lubrication, assuring reliable performance over time without the risk of efficiency loss or failure that can occur on other machines when bearing lubrication is overlooked. The TM Series worm shaft, using the recommended geared machine oil, employs a unique design that protects the shaft. The TM Series traction sheave is fitted with shrink-fit sheaves.

APPLICATIONS

- Modernization and new construction
- Overhead machine room
- 2000 lbs. (900kg) to 6000 lbs. (2700kg) capacity at speeds from 100 to 400 fpm (0.5 to 2.0 m/s)
- TM35 can handle higher load in some cases, contact our office

BENEFITS

- Three machine family for optimum match to speed and capacity
- Compact design and reduced weight make handling and installation easier
- Machine sleeve bushings and tapered roller bearings require no periodic lubrication
- Flexible style coupling minimizes vibration and enables fast motor alignment
- Designed for maintainability
- Rope guard included with every machine

FEATURES

- ASME A17.1/CSA-B44, EN81-1
- Oil bath worm gear unit, high strength cast iron case
- Alloy steel worm, case hardened, stress relieved, with anti-wear bronze bushings
- Tough nickel based, bronze worm wheel for extended durability
- Alloy steel worm wheel shaft, case hardened, tempered
- High-strength grade, ductile iron sheave
- Electrically released, independently acting brakes
- Motor is UL/CSA CUS Certified

Geared Traction Machines Performance Comparisons

<table>
<thead>
<tr>
<th></th>
<th>TM21</th>
<th>TM26</th>
<th>TM35</th>
</tr>
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<tbody>
<tr>
<td>CAPACITY (LBS)</td>
<td>2500</td>
<td>4500</td>
<td>6000</td>
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<tr>
<td>SPEED (FPM)</td>
<td>400</td>
<td>400</td>
<td>350</td>
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<tr>
<td>WIDTH (IN.)</td>
<td>30</td>
<td>31 3/4</td>
<td>36</td>
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<tr>
<td>WEIGHT (LBS.) W/O MOTOR</td>
<td>1550</td>
<td>2380</td>
<td>3000</td>
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</tbody>
</table>
Machine Components and Accessories

**Gearless**

- Sub-Base/Sub-Structure/Up-Stand
- Deflector/Secondary Sheave
- Sheave Guard
- Absolute taper shaft encoder for frame 400 and 500 series gearless AC machines
- Dead-End Hitch Plate
- Rope Guard/Rope Retainer
- Isolation Pads
- Threaded Mounting Plate
Gearless AC Machines
Frame 450 series dimensional diagrams

Model 450 - Barrel Style

Model 455

NOTE:

FRAME: 455
DRIVE SHEAVE: Ø17.32"
WITH (8)-10mm GROOVES
MOTOR WEIGHT: 2100 LBS

Note: Contact Imperial Electric for actual dimensions.
Model 469 - Pancake Thin

NOTE:
FRAME: 469
DRIVE SHEAVE: 15.75" WITH
(6)-10mm GROOVES
MOTOR WEIGHT: 1010 LBS

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 460 series dimensional diagrams

Model 503 - Pancake Thin

Model 503

NOTE:
FRAME: 503
DRIVE SHEAVE: 17.72" WITH
(7)-10mm GROOVES
MOTOR WEIGHT: 1090 LBS

Note: Contact Imperial Electric for actual dimensions.
Model 472

**NOTE:**

FRAME: 472
DRIVE SHEAVE: 15.75" WITH 
(5)-10mm GROOVES
MOTOR WEIGHT: 904 LBS
Gearless AC Machines
Frame 470 series dimensional diagrams

Model 475

NOTE:
FRAME: 475
DRIVE SHEAVE: 15.75" WITH
(6)-10mm GROOVES
MOTOR WEIGHT: 948 LBS

Note: Contact Imperial Electric for actual dimensions.
**Model 478**

**NOTE:**

FRAME: 478  
DRIVE SHEAVE: 15.75" WITH (8)- 10mm " GROOVES  
MOTOR WEIGHT: 1367 LBS

Note: Contact Imperial Electric for actual dimensions.
Model 478-LS

Model 478LS

NOTE:

FRAME: 478LS
DRIVE SHEAVE: 20" WITH
(5)-1/2" GROOVES
MOTOR WEIGHT: 1367 LBS

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame LS series dimensional diagrams

Model 478-LS with base

Note: Contact Imperial Electric for actual dimensions.
Model 522

NOTE:
FRAME: 522/522LS
DRIVE SHEAVE: 20" WITH
(7) - \(\frac{1}{2}\)" V GROOVES
MOTOR WEIGHT: 2469 LBS

Model 522/522LS

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 500 series dimensional diagrams

Model 522 with base

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 500 series dimensional diagrams

Model 525/527

525/527 MACHINE

NOTE:
FRAME: 525/527
DRIVE SHEAVE: 25" WITH (7)-1/2" or (6)-5/8" V GROOVES
MOTOR WEIGHT 525 : 3350 LBS
MOTOR WEIGHT 527 : 3500 LBS

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 500 series dimensional diagrams

Model 525/527 with base

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 500 series dimensional diagrams

Model 570-OB

570-OB MACHINE

NOTE:
FRAME: 570
DRIVE SHEAVE: 20.47” WITH (12)-1/2” U GROOVES
MOTOR WEIGHT: 3000 LBS

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 500 series dimensional diagrams

Model 570-OB with base

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 700 series dimensional diagrams

Model 705-OB

705-OB MACHINE

NOTE:
FRAME: 705 OB
DRIVE SHEAVE: 25.20" WITH
(14)-1/2" or (12)-5/8" U GROOVES
MOTOR WEIGHT: 5780 LBS

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 700 series dimensional diagrams

Model 705-OB with base

Note: Contact Imperial Electric for actual dimensions.
Model 808-OB

808 OB MACHINE

NOTE:
FRAME: 808 OB
DRIVE SHEAVE: Ø 26.54" WITH
(16)-1/2" or (14)-5/8" U GROOVES
MOTOR WEIGHT: 6750 LBS

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 800 series dimensional diagrams

Model 808-OB with base

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 900 series dimensional diagrams

Model 908-OB

908 OB MACHINE

NOTE:
FRAME: 908 OB
DRIVE SHEAVE: Ø30.0" WITH
(14)-3/4" or (18)-5/8" U GROOVES
MOTOR WEIGHT: 14,200 LBS

Note: Contact Imperial Electric for actual dimensions.
Gearless AC Machines
Frame 900 series dimensional diagrams

Model 908-OB with base

Note: Contact Imperial Electric for actual dimensions.
Geared Machines
TM series dimensional diagrams

TM21

Note: Contact Imperial Electric for actual dimensions.
Geared Machines
TM series dimensional diagrams

TM26

Note: Contact Imperial Electric for actual dimensions.
Gearless Machines Applications
Dimensional diagrams

Note: Contact Imperial Electric for actual dimensions.
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The Company warrants that the products manufactured by the Company will be free from defects in material and workmanship for a period of twelve (12) months from the date of manufacture of the affected product. THE FOREGOING ARE THE SOLE AND EXCLUSIVE WARRANTIES GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCTS AND ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHETHER OR NOT THE PURPOSE OR USE HAS BEEN DISCLOSED TO THE COMPANY, AND WHETHER OR NOT THE PRODUCTS ARE SPECIFICALLY DESIGNED AND/OR MANUFACTURED BY THE COMPANY FOR BUYER'S USE OR PURPOSE.

The foregoing warranties do not extend to any losses or damages due to misuse, accident, abuse, neglect, normal wear and tear, negligence (other than the Company’s), unauthorized modification or alteration, improper installation, repair, handling, maintenance or application or any other cause not the fault of the Company.

Warranties are contingent upon inspection proving the claims and the Buyer providing to the Company immediate written notice of such defects. The Company shall, at its option and as Buyer’s exclusive remedy, repair, correct or replace the products found by the Company to be defective. The correction of such defects by repair or replacement shall constitute the complete fulfillment of all Company obligations to the Buyer under the warranties provided above.

Buyer assumes all other responsibility and liability for any loss, damage, or injury to persons or property arising out of, connected with, or resulting from the use of the products, either alone or in combination with other products/components. The Company neither assumes nor authorizes any person to assume for it any other liability in connection with the sale or use of the products sold hereunder, and there are no oral agreements or warranties collateral to or affecting this agreement.

THE COMPANY SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE. IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL THE COMPANY’S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY BUYER FOR THE SPECIFIC PRODUCTS PROVIDED BY THE COMPANY GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. BUYER AGREES THAT IN NO EVENT SHALL THE COMPANY’S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES. The term “consequential damages” shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use, revenue, reputation and data, costs incurred, including without limitation, for capital, fuel, power and loss or damage to property or equipment.

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IMPERIAL ELECTRIC ELEVATOR

With over 100 years of experience, Imperial Electric Elevator continues to provide the best quality of services to keep our customers satisfied. With this, we offer a broad collection of elevator motor and machine supplies with full line of Gearless and Geared Traction Machines, AC and DC Elevator Motors, Hydraulic Submersible and Dry (under the tank) Motors, Motor Generator Sets, Door Operator Motors, Custom and Universal Machine Bases, car slings and platforms.

In addition to our services, we persevere to exceed expectations, with recently completing a multi-million dollar modernization and accumulation of automated equipment for winding, machining, and plant streamlining. At the same time, our motor and machine stock is maintained for fast and timely delivery to meet customer needs.

NIDEC ELEVATOR

Nidec Elevator provides flexible quality products and services, outstanding engineering capabilities, and a definite assurance to security and wellbeing of customers. Considered as a highly-qualified elevator manufacturer in the industry, Nidec Elevator continues to deliver top-notch products, most of which are currently installed in different iconic structures in the world such as airports, public buildings, residential, industrial and many more.

Nidec Elevator is a part of Nidec America, Appliance, Commercial and Industrial Motor (ACIM Group). Major company partners include:

- Motion Control Engineering (MCE), manufacturer of Controllers
- Kinetek De Sheng (KDS), manufacturer of ACPM Gearless Machines and AC Motors
- Canton Elevator, manufacturer of Hydraulic Packages and Power Units

As part of Nidec Corporation, Imperial Electric Elevator is based in the heart of America with our offices and modernized factory centrally located in Ohio—in Akron and Middleport respectively.
Nidec Corporation was originally founded in 1973 by CEO Shigenobu Nagamori, with its headquarters currently located in Kyoto, Japan. As an international corporate manufacturer centering around an expansive product line of motors, Nidec specializes on motor application products and services based on “everything that spins and moves”. These include development, manufacturing and sales of Small Precision motors, IT/Consumer electronics, Automotive motors, Home Appliance motors, Commercial and Industrial motors, motors for Machinery, Electronic and Optical components, and other related products. Because of its continuous growth and success, Nidec has been publicly traded at the Tokyo Stock Exchange since 1988.

With 240 companies in 45 countries worldwide, Nidec also offers a culture of excellence and definite international career opportunities to over 120,000 employees, with the goal of helping our counterparts in achieving exceptional business’ strategic initiatives.
Comparing apples to apples in this industry is very effective for long lasting elevator installations and modifications. Imperial Electric understands the benefits of keeping installations just like they were apples to apples.

Imperial Electric also understands there is time for change by replacing apples with oranges. Suitable long lasting equipment for the application with new innovated concepts. Whichever direction you decide to go, Imperial Electric has the right product for you – today, tomorrow and beyond.

- Geared to Gearless
- 2:1 to 1:1
- Single Wrap to Double Wrap
- Machine Field Assembly
- Custom bases
- Overhead, Basement, Side Mount Machines
- Secondary and Deflector Sheaves