

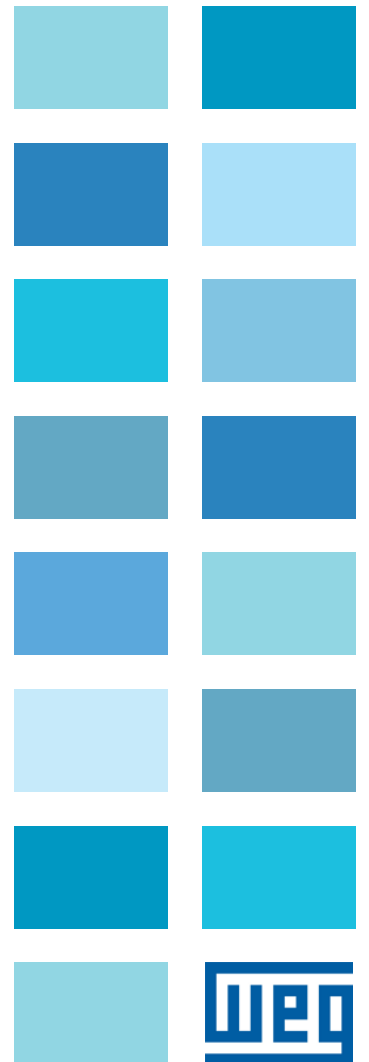
Motors and Soft Starters

Industrial Refrigeration

LATEST
TECHNOLOGY



WEG
REFRIGERATION
OPTIMAL MATCH



MOTORS

Optimized design utilizing latest technology and solid model design tools to maximize long reliable motor life.

Standard Features

- NEMA Premium Efficiency for maximum energy cost savings
- Low Noise Design for quiet operation
- Inverter Duty Insulation system per NEMA MG1, Part 31 – WEG Wise System
- Anti-Condensate Space Heaters
- Over-sized diagonal split terminal box (steel-fabricated box available)
- Premium WEG Chemical Paint system exceeds 200 Hour Salt Spray test

- High Grade FC200 Cast Iron frame for added strength and reduced vibration
- Precision balanced to ISO G1.0 standards to maximize bearing life

Optional Features for Operation with Variable Frequency Drive

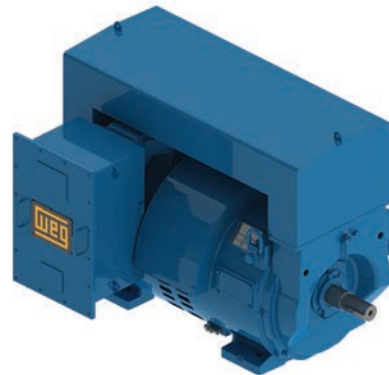
- Insulated Non-Drive end bearing
- Aegis® shaft grounding ring

ODP



ODP Construction: Simpler and more compact construction. More suited for protected environments.

WP-II



WP-II Construction: Suited for applications that require lower noise levels and also additional protection against particles ingress on the motor.

Low Voltage

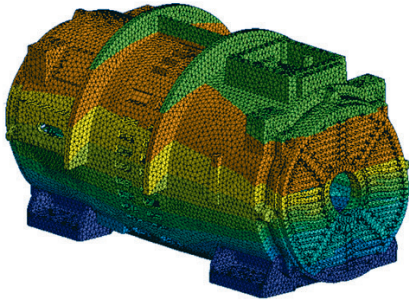
HP	Frame	RPM	100% FL Eff.
75	364/5TS	3600	94.1
100	364/5TS	3600	94.5
125	404/5TS	3600	94.5
150	404/5TS	3600	94.5
200	444/5TS	3600	95.0
250	444/5TS	3600	95.0
300	444/5TS	3600	95.4
350	447/9TS	3600	95.4
400	447/9TS	3600	95.8
450	447/9TS	3600	96.2
500	447/9TS	3600	96.2
600	447/9TS	3600	96.2
700	5010	3600	96.8
800	5010	3600	97.0

Medium Voltage

HP	Frame	RPM	100% FL EFF.
900	L5010/11	3575	95.8
1000	L5010/11	3570	95.8
1250	L5010/11	3570	96.2
1500	5810/11	3580	96.8
1750	5810/11	3580	96.8
1900	L6808/09	3575	96.5
2000	L6808/09	3580	96.8
2250	L6808/09	3575	96.8
2500	L6808/09*	3575	96.8

LATEST TECHNOLOGY

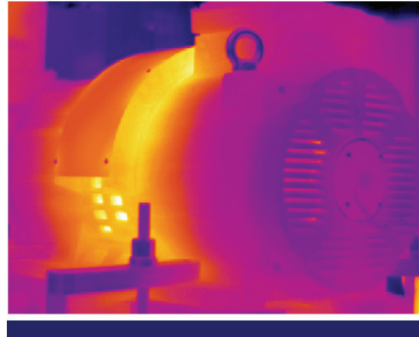
DESIGN



Great rated output levels for a compact design

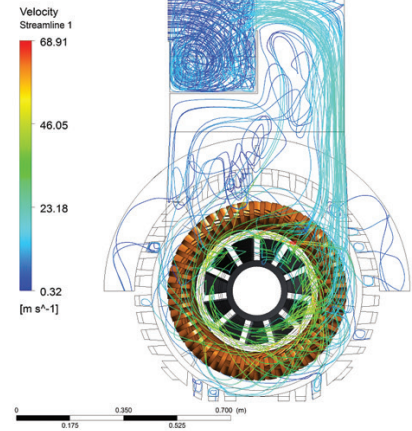
Rugged yet optimized frame design ensures maximum motor rigidity and resistance

PERFORMANCE



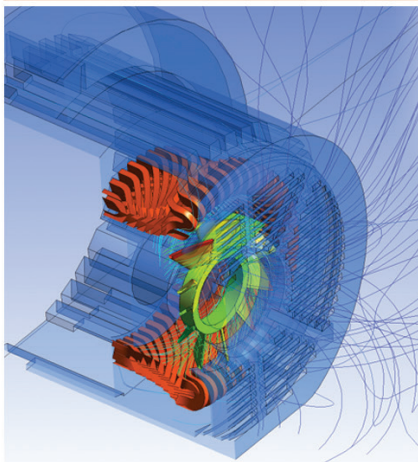
IMPROVED THERMAL PERFORMANCE

COOLING



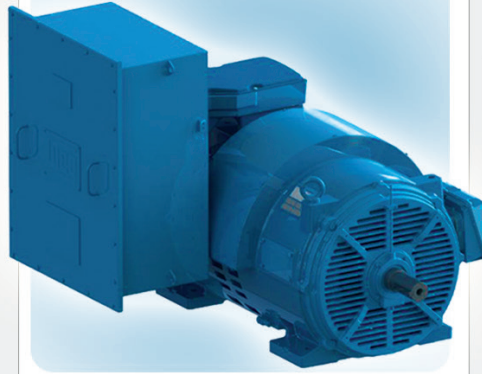
Low Bearing Operating Temperature

NOISE



Low Noise Levels

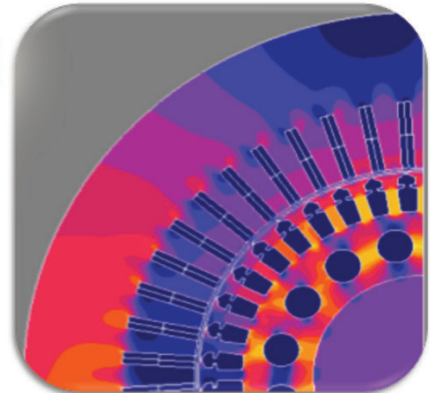
AVAILABLE OPTIONS



OVERSIZED TERMINAL BOX

- Oversized and specially designed terminal boxes are available

DESIGN



Optimized electrical design

- Maximum performance, minimum losses



AEGIS® RING

AVAILABLE OPTION



INSULATED BEARING

SUPERIOR INSULATION

Continuous Flow Resin Insulation System (CFRI)

Polyester resin - Class H insulation, NMN slot insulation material with Class H components

The WEG CFRI impregnation system eliminates air bubbles, avoiding electrical discharge (Corona effect). The corona effect destroys organic materials such as films, resin and varnish. This design is extremely important to variable frequency inverter operation. The combination of NMN insulation with impregnation resin increases the mechanical, electrical and thermal strength. The final system provides a strong corona free system with excellent thermal transfer, and moisture resistance for long life on sine wave and VFD service.



PANELS



- 65KA SCCR for entire Panel
- UL & CUL Approved
- 55°C ambient temperature rating
- SSW07/06 Soft Starter with Digital Signal Processor
- Soft starter with built in end of the ramp AC1 run rated bypass contactor & electronic thermal overload protection
- Soft starter with Conformal coated printed circuit boards
- Soft starter with Universal supply voltage (220-575VAC)
- Soft starter lug kit or Motor terminal blocks
- Control power transformer with primary & secondary protection
- Across the line starter for up to 10HP lube oil pump
- Auxiliary control terminal blocks
- Voltage ramp, Kick start, current limit Starting & Pump control starting modes
- Starting Cycle : 300% for 30seconds, 10 starts per hour (every 6 minutes)

Optional:

- RS-485 (Modbus RTU), DeviceNet, Profibus DP, Profibus DP-V1, DeviceNet, Ethernet/IP Communication modules
- Motor temperature monitoring by PTC & PT100 Sensor kits

SOFT STARTERS

SSW06

- 200 - 600V, 50/60Hz input power supply
- Built-in run rated (AC1) bypass contactor*
- Rated 450% current
- Conformal coated circuit board
- Voltage ramp or current limit start modes
- Detachable keypad with dual display (LCD & LED) and copy function
- 90 - 250 Vac auxiliary control voltage
- Single 32 bit RISC processor based control board
- IP00 protected chassis enclosure
- Six isolated 24Vdc programmable digital inputs
- Three programmable relay outputs (2 Amp - 250V)
- One 0 - 10Vdc programmable analog output
- One 4 - 20mA programmable analog output
- Motor PTC thermistor input
- RS-232 serial interface
- Adjustable acceleration and deceleration ramps (1 - 299 sec.)
- Diagnostic features: Motor overload, over current and phase loss, motor immediate over and under current, SCR over temperature and fault, line phase loss and phase sequence, line over and under voltage
- Display readings: Motor current, voltage, kW and power factor, line voltage and frequency, four last fault trips, run and power-up timers
- Ambient: 32°F (0°C) to 131°F (55°C), 3300 ft (1000m) altitude, 90% non-condensing humidity



SSW07

- Universal voltage (220 to 575 Vac)
- Built-in run rated (AC1) by-pass contactor
- Significant reduction of mechanical stresses through the coupling and transmission devices (gearboxes, pulleys, gears, conveyors, etc.) during the start
- Increases motor and machine mechanical equipment lifetime due to the elimination of mechanical shock
- Easy operation, setup, maintenance & installation
- Simple setpoint programming through trim pots
- Operates in environments up to 55°C without current reduction
- Integral, electronic motor protection
- Built-in electronic thermal relay
- Avoids "Water Hammer" in pumps
- Limitation of voltage drop during start
- Switched type power supply with EMC filter for the control electronics (110 to 240 Vac)
- Voltage monitoring of the electronics to back-up Ixt values (thermal image)
- SuperDrive G2 compatible
- Conformal coated circuit boards



*= SSW06 950A, 1100A, and 1400A units do not include integrated AC1 bypass

Medium Voltage Soft Starters & Drives



SSW7000

- Universal voltage (220 to 575 Vac)
- Built-in run rated (AC1) by-pass contactor
- Significant reduction of mechanical stresses through the coupling and transmission devices (gearboxes, pulleys, gears, conveyors, etc.) during the start
- Increases motor and machine mechanical equipment lifetime due to the elimination of mechanical shock
- Easy operation, setup, maintenance & installation
- Simple setpoint programming through trim pots
- Operates in environments up to 55°C without current reduction
- Integral, electronic motor protection
- Built-in electronic thermal relay
- Avoids "Water Hammer" in pumps
- Limitation of voltage drop during start
- Switched type power supply with EMC filter for the control electronics (110 to 240 Vac)
- Voltage monitoring of the electronics to back-up Ixt values (thermal image)
- SuperDrive G2 compatible
- Conformal coated circuit boards

MVW01

- Totally digital with high performance 32-bit processor (64-bits bus)
- Smart keypad with graphic display LCD
- Motor voltages: 2.3, 3.3 or 4.16kV, 6.9kV
- Power ratings up to 8000HP
- IP41/NEMA 1 Enclosure
- Air-cooled
- 12-pulse Input Rectifier (18 or 24-pulse as an option), 36 pulse on 6.6kV
- High power factor (> 0.95)
- Multilevel topology (NPC - Neutral Point Clamp - 3/5 levels)
- Fiber optic isolation between the control section and the high voltage power section
- Voltage Source Inverter (VSI)
- Latest generation technology of High Voltage IGBT's (6.5kV) results in a reduced number of components, improving the system efficiency and reliability
- Ultra-reliable dry-type plastic film power capacitors (no need to reformat for as long as 15 years)
- Withdrawable power arms (easy and fast maintenance)
- High efficiency 99%
- Low noise level (< 75dB)
- Low drive losses (low heat generation)
- Conformal coated circuit boards
- Option to mount transformer adjacent to drive cabinet or separately. 70% savings on heat loss
- SuperDrive G2 compatible



Low Voltage Variable Frequency Drives

CFW11

- Same programming as all other WEG VFD's
- Plug and play philosophy (connect and use) enables quick and easy installation of accessories and options
- USB for microcomputer connection for using SUPERDRIVE programming and monitoring software as well as updating inverter firmware
- Human-Machine Interface (HMI) with backlit graphic display and soft-keys, greatly facilitates inverter programming and operation
- DC link inductors (symetrically connected to positive and negative DC link terminals) enable compliance with IEC61000-3-12 standard requirements regarding harmonics, (no need for external line reactance)
- Intelligent thermal management enables full protection of IGBTs, monitoring of heatsink and internal air temperature
- Conformal coated circuit boards
- 50° C Ambient
- Automatic control of the heatsink fan with speed sensor (additional protection) and easily detachable from the unit for cleaning and maintenance
- Normal Duty and Heavy Duty ratings to adapt optimally to all kinds of loads
- Protection with failure and alarm warnings
- Motor overload protection in compliance with IEC 60947-4-2/UL 508 C
- Memory card built into the standard product allows user to create functions without the need to use an external PLC (soft-PLC via IEC61131-3 programming software)
- Guided start-up simplifies initial user programming
- Real time clock with time and date stamped fault log
- TRACE / SCOPE function to assist with the start-up and system diagnostics
- SuperDrive G2 compatible



Options

- Safety stop in compliance with EN 954 - 1 / category III**
 - External control feed with 24 Vdc
 - RFI filter in compliance with EN 61800 - 3 (internal)**
 - DB Resistors available upon request
- ** Factory ordered*





WEG Electric Corp. offers the following products, and more! With a full range of IEC/NEMA Global Certifications and a full line of products, WEG can supply the right solution for your needs anywhere in the world. To learn more about WEG's products and solutions or to locate a Distributor near you, please call **1-800-ASK-4WEG** or visit **www.weg.net/us**.

**Low Voltage Motors,
Single and 3-Phase, 1/8 – 700HP**

- General Purpose Motors
- Explosion Proof Motors
- Crusher Duty Motors
- IEC Tru-Metric Motors
- Pump Motors including JP/JM
- P-Base Pump Motors
- Oil Well Pumping Motors
- Pool & Spa Motors
- Brake Motors
- Compressor Duty Motors
- Farm Duty Motors
- Poultry Fan Motors
- Auger Drive Motors
- IEEE 841 Motors
- Stainless Steel Wash Down Motors
- Saw Arbor Motors
- Cooling Tower Motors
- Commercial HVAC Motors
- Pad Mounted Motors
- Vector Duty Motors

Large Electric Motors

- Low Voltage 3-phase motors up to 2,500HP
- Induction Motors up to 70,000HP and 13,200V
- Wound Rotor Systems (including starters) up to 70,000HP and 13,200V
- Synchronous Motors up to 200,000HP and 13,200V
- Explosion proof motors (Ex-d) up to 1,500kW and 11kV
- Ex-n, Ex-e, Ex-p motors

Variable Frequency Drives

- Low Voltage 1/4 to 2500HP, 230V – 480V
- Medium Voltage 500-10,000HP
- Multi-pump systems
- NEMA 4X
- Dynamic braking resistors
- Line and load reactors
- Plug and play technology
- Network communications: Profibus-DP, DeviceNet, Modbus-RTU
- PLC functions integrated
- Complete line of options and accessories

Soft Starters

- 3-1500HP
- Oriented start-up
- Built-in bypass contactor
- Universal source voltage (230-575V, 50/60Hz)
- Network communications: Profibus-DP, DeviceNet, Modbus-RTU
- Complete Line of options and accessories
- MV Soft-starter 3.3kV, 4.16kV: up to 3500HP, Withdrawable Power Stacks, & 8x PT100 Temperature monitoring

Controls

- Mini – Contactors
- IEC Contactors
- Thermal Overload Relays
- Manual Motor Protectors
- Molded Case Circuit Breakers
- Smart Relays
- Enclosed Starters: combination & non-combination,
- Pushbuttons & Pilot Lights
- Timing & Motor Protection Relays
- Terminal Blocks

Custom Panels

- Custom configured to your specification.
- NEMA 1, 12, 3R, 4 and 4X cabinets
- Quick delivery of preconfigured drives and soft starters
- UL 508 certified
- Low Voltage (230-460)
- Made in the U.S.A.

Generators

- Brushless Synchronous Generators for diesel gen-sets up to 4,200kVA
- Hydro-generators up to 25,000kVA
- Turbo-generators up to 175,000kVA

Power Transformers

- Built and engineered in North America
- Voltages < 345kV
- Ratings 5-250MVA
- Station class, oil filled, round core, copper windings
- Special configurations and designs available! Ask your WEG Sales Representative for details.
- Designed, built, and engineered to ANSI standards.

Custom Solution Package Sales

- WEG can package any of its products for ease of sale! Enjoy a single point of contact for the entire package of products and assistance from quote through after-sales support. Ask your WEG Sales representative for details.



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