



Product Brochure

U.S. Standard LV Motors

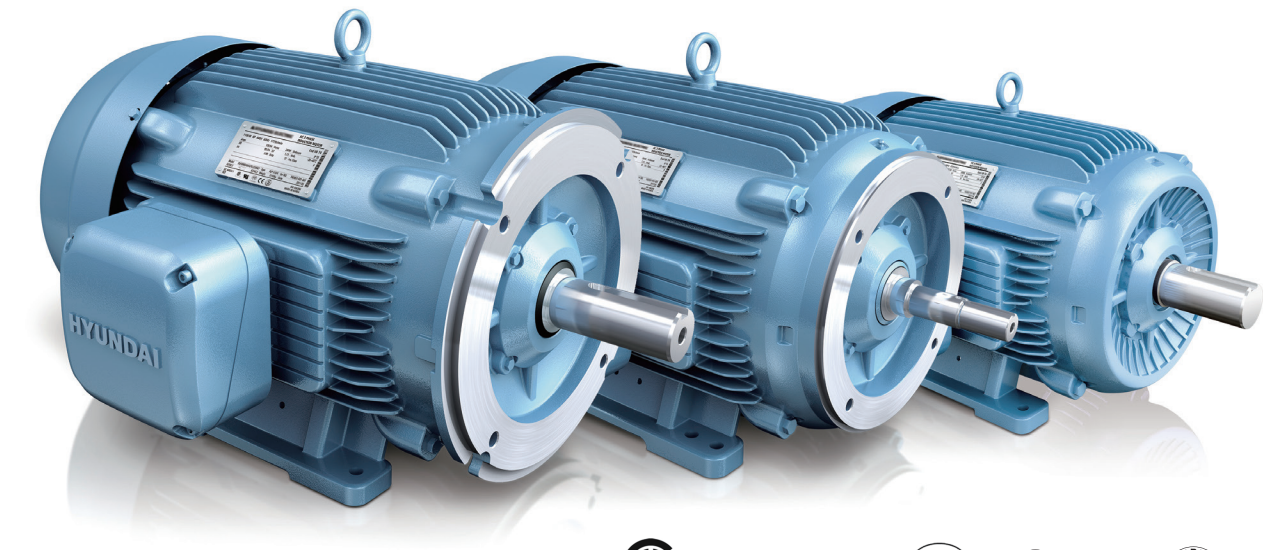
(Severe duty, IEEE841, Explosion proof, API661, JM/JP, IEC Metric)



HD HYUNDAI ELECTRIC

U.S STANDARD LV NEMA MOTOR

(Severe Duty, IEEE841, Explosion proof)



Product Features

- NEMA Premium Efficiency
- 40°C Ambient temperature
- Altitude 3,300 ft.
- Continuous duty (S1)
- Insulation Class F (Impregnation Resin & Magnet wire : Class H)
(Insulation systems meets NEMA MG-1 Part 31)
- Class B Temp. Rise (Class F at Inverter duty condition)
- Service Factor
 - 1.15 at Sine Wave Power
 - 1.0 at VFD Power
 - 1.25 up to 100HP when Temp. Rise F & Non-Hazardous
- Suitable for Inverter use
 - V.T 6~60Hz I 3~60Hz (at 50% load, Fr. 143-5012)
 - C.T 6~60Hz I 30~60Hz (Fr. 5811/12 only)
 - Constant HP 60~90Hz (Except Fr. 5811/12)
- Totally Enclosed Fan Cooled
- NEMA Design B Torque
- IP55 Protection
- Lifting device : Eye bolt(s)
- Ground
 - Terminal box inside : Applied
 - Outside on the frame (Option)

Product Line-up

Model Number Selection

Each model number contains HP rating, RPM, and NEMA frame size

Product Family	HP	RPM	Frame	Suffix
ex) HSDE	800	36	5812S	IBBRSRSHSP
HES	1HP	12(6P)	143T	IB
HHI	1.5HP	18(4P)	145T	BR
HSDE	2HP	36(2P)	182T	SR
IEEE	⋮	⋮	⋮	SH
IXHHI	900HP		5812S	SP
API				

- HES : Severe duty motor (Fr. 143-326),
CCP JM/JP motor(Fr. 143-326)
- HHI : Severe duty motor (Fr. 364-449)
- HSDE : Severe duty Large motor (Fr. L449-5812)
- IEEE : IEEE841 motor (Fr. 143-5812)
- IXHHI : Explosion proof motor (Fr. 143-449)
- API : API661 motor(Fr. 184-365)
- IEC : IEC Metric motor(Fr. 80M-315L)

Applications

- Pumps
- Fans
- Conveyors
- Refineries
- Compressors
- Mixers
- General Applications
- Petrochemical Plants

U.S Standard
Low Voltage NEMA Motor

SEVERE DUTY
PREMIUM EFFICIENCY



Product Features

Frame	143 - 5812
HP	1 HP - 900 HP
RPM (Poles)	3600(2P), 1800(4P), 1200(6P)
Hz & Voltage (Dual Frequency Design)	60Hz : 230/460V (~125HP), 460V (150HP~) or 575V 50Hz : 380V, 400V, 415V
Mounting	Foot mount (B3)
	Flange with Foot (B35)
	Flange without Foot (B5, V1)
Material	Foot drilled hole(s) to accommodate mounting flexibility
	C-Face and D-Flange
	C-Face and D-Flange (Fr. L449-5812 : V1 only)
	Cast iron
	Aluminum die casting or Centrifugal cast aluminum
Rotation	End-shield
	Cast iron
	Fan
	Non-sparking conductive plastic fan
Bearing	Fan cover
	Steel
	Bi-directional
Shaft	Uni-directional
	Fr. 143-449 Fr. L449-5812 4P/6P
	Fr. L449-5812 2P
	Drive end
	Anti-friction bearing (Ball or Roller) / Regreaseable type (Fr. 254 & Up)
Terminal box	Non-Drive end
	Anti-friction bearing (Ball or Insulation) / Regreaseable type (Fr. 254 & Up)
	Protection
	V-seal Labyrinth seal (Fr. L449-5812 2P)
	Inner Bearing Cap
Lead cable	Lubrication
	Applied for Fr. 364-5812
	Polyurea (Polyrex EM grease)
	Material
	AISI 1045 (Fr. 143-L449 2P) AISI 4140 (Fr. L449 4P-5812)
Accessories	DE threaded hole
	Applied
	DE Keyway
	Opened keyway
	Shaft locking device
Drain Plug	To prevent Bearing brinelling (Frames with Roller bearing)
	Material
	Cast Iron (Fr. 143-5011) Fabricated Steel (Fr. 5012 - 5812)
	Mounting
	F1 to F2 conversion available (Up to Fr. 449)
Tap provision	Plug
	Plastic
	Number of lead wires
	9 leads Fr. 143 - 215
	Number of lead wires
Certification	12 leads Fr. 254 - 445(~125HP)
	Number of lead wires
	6 leads Fr. 445 - 5812(150HP~)
	W.T.D
	PT 100 ohm (2EA/ph.) Fr. L449-5812
Name plate	B.T.D
	PT 100 ohm (2EA/Motor) Fr. L449-5812
	Space Heater
	1EA/Motor Fr. L449-5812
	Auxiliary Terminal box
Painting	2EA/Motor Fr. L449-5812
	Frame
	All
	Box
	None
Warranty	Grease outlet
	Fr. 254-5812
	For Vib. Sensor
	Fr. 364-5812
	For B.T.D
	Fr. 364-5812
Warranty	Class I, Division 2, Groups A, B, C & D
	Class II, Division 2, Groups E (Fr. 143-326), F & G - (143-5012)
	Premium Efficiency (CSA C-390)
	Recognized Motor Components (E211828, Fr. 143-449)
	Department of Energy Efficiency Certification #CC038A
Warranty	CE Declaration of Conformity (EN 60034-1)
	IEEE45
	Marine Duty IEEE45 (ABS Product Type Approval) / Up to 600HP (Fr. 143-5011)
	Markings
	RU, CSA ,CC(DOE), CE, IEEE45
Warranty	Material
	Stainless Steel AISI304
	Painting
	Polyurethane top coat (Munsell 4.OPB5.4/5.5)
	Warranty
	3 Years Warranty from Date of shipment

EMPORIUM ENERGY

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NEMA Premium industrial motors with local Miami warehouse stock and fast nationwide shipping. Backed by a 47+ year Korean manufacturer serving 50+ countries.



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IEEE841
PREMIUM EFFICIENCY



Product Features

Frame		143 - 5812
HP		1 HP - 900 HP
RPM (Poles)		3600(2P), 1800(4P), 1200(6P)
Hz & Voltage (Dual Frequency Design)		60Hz : 460V or 575V 50Hz : 380V, 400V, 415V
Mounting	Foot mount (B3)	Foot drilled hole(s) to accommodate mounting flexibility
	Flange with Foot (B35)	C-Face and D-Flange
	Flange without Foot (B5, V1)	C-Face and D-Flange (Fr. L449-5812 : V1 only)
Material	Frame	Cast iron
	Rotor	Aluminum die casting or Centrifugal cast aluminum
	End-shield	Cast iron
	Fan	Non-sparking conductive plastic fan
	Fan cover	Cast iron (Fr. 143 - 449) Fabricated steel (Fr. L449 - 5812)
Rotation	Bi-directional	Fr. 143-449 Fr. L449-5812 4P/6P
	Uni-directional	Fr. L449-5812 2P
Bearing	Drive end	Anti-friction bearing (Ball or Roller) / Regreaseable type
	Non-Drive end	Anti-friction bearing (Ball or Insulation) / Regreaseable type
	Protection	ProTech Seal Labyrinth seal (Fr. L449-5812 2P)
	Inner Bearing Cap	Applied
	Lubrication	Polyurea (Polyrex EM grease)
Shaft	Material	AISI 1045 (Fr. 143-L449 2P) AISI 4140 (Fr. L449 4P-5812)
	DE threaded hole	Applied
	DE Keyway	Opened keyway
	Shaft locking device	To prevent Bearing brinelling (Frames with Roller bearing)
Terminal box	Material	Cast Iron (Fr. 143-5011) Fabricated Steel (Fr. 5012 - 5812)
	Mounting	F1 to F2 conversion available (Up to Fr. 449)
	Plug	Plastic
Lead cable	Number of lead wires	3 leads Fr. 143 - 326
	Number of lead wires	6 leads Fr. 364 - 5812
Accessories	W.T.D	PT 100 ohm (2EA/ph.) Fr. L449-5812
	B.T.D	PT 100 ohm(2EA/Motor) Fr. L449-5812
	Space Heater	1EA/Motor Fr. L449-5812
	Auxiliary Terminal box	2EA/Motor Fr. L449-5812
Drain Plug	Frame	All
	Box	None
	Grease outlet	All
Tap provision	For Vib. Sensor	Fr. 364-5812
	For B.T.D	Fr. 364-5812
Certification		Class I, Division 2, Groups A, B, C & D
	CSA	Class II, Division 2, Groups E (Fr. 143-326), F & G - (143-5012) Premium Efficiency (CSA C-390)
	UL	Recognized Motor Components (E211828, Fr. 143-449)
	DOE	Department of Energy Efficiency Certification #CC038A
	CE	CE Declaration of Conformity (EN 60034-1)
Nameplate	IEEE45	Marine Duty IEEE45 (ABS Product Type Approval) / Up to 600HP (Fr. 143-5011)
	Markings	RU, CSA ,CC(DOE), CE, IEEE45, IEEE841
	Material	Stainless Steel AISI 304
Painting		Epoxy Zinc with Polyurethane top coat (Munsell 7.5BG6/1.5)
Warranty		5 Years Warranty from Date of shipment

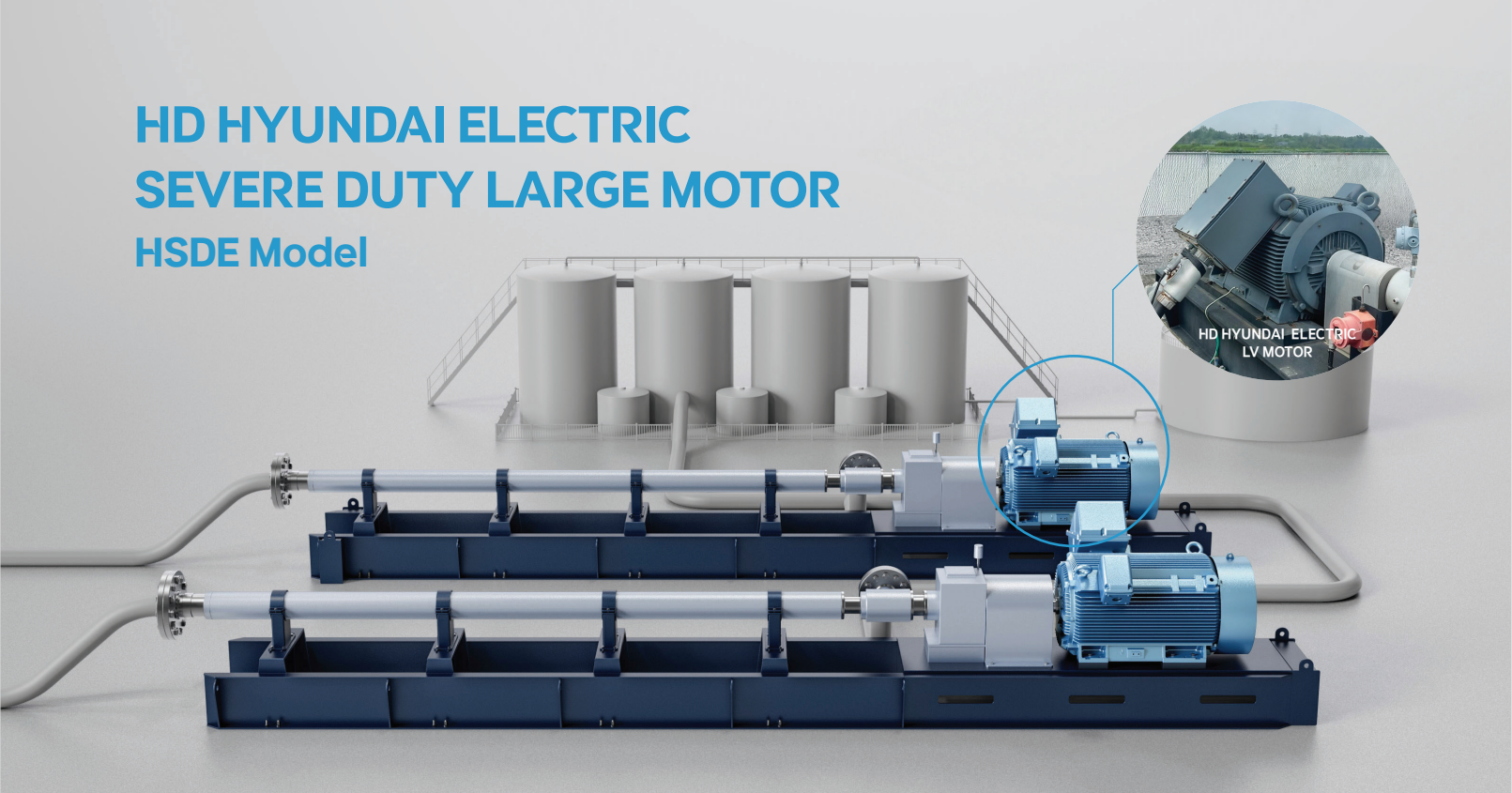
Explosion proof
PREMIUM EFFICIENCY



Product Features

Frame		143 - 449
HP		1 HP - 250 HP
RPM (Poles)		3600(2P), 1800(4P), 1200(6P)
Hz & Voltage (Dual Frequency Design)		60Hz : 230/460V (~125HP), 460V (150HP~) or 575V 50Hz : 380V, 400V, 415V
Mounting	Foot mount (B3)	Foot drilled hole(s) to accommodate mounting flexibility
	Flange with Foot (B35)	C-Face Fr. 143-326, C-face without Foot (B5, V1) Fr. 143-326
Material	Frame	Cast iron
	Rotor	Aluminum die casting
	End-shield	Cast iron
	Fan	Non-sparking conductive plastic fan
	Fan cover	Steel
Rotation	Bi-directional	Applied
Bearing	Drive end	Anti-friction bearing (Ball or Roller) / Regreaseable type (Fr. 254 & Up)
	Non-Drive end	Anti-friction bearing (Ball) / Regreaseable type (Fr. 254 & Up)
	Protection	V-seal Labyrinth seal (Fr. 364-449 & All frame in Class II Div. 1)
	Inner Bearing Cap	Applied
	Lubrication	Polyurea (Polyrex EM grease)
Shaft	Material	AISI 1045
	DE threaded hole	Applied
	DE Keyway	Opened keyway
	Shaft locking device	To prevent Bearing brinelling (Frames with Roller bearing)
Terminal box	Material	Cast Iron
	Mounting	F1 to F2 conversion available
	Plug	Plastic
Lead cable	Number of lead wires	9 leads Fr. 143 - 215
	Number of lead wires	12 leads Fr. 254 - 445(~125HP)
	Number of lead wires	6 leads Fr. 445 - 449(150HP~)
Accessories	W.T.D	Thermostats (1EA/Ph., 145deg.C) as standard
Ground	Terminal box inside	Applied
	Outside on the frame	None (Option)
Drain Plug	Frame	All
	Box	None
	Grease outlet	Fr. 254-449
Tap provision	For Vib. Sensor	Fr. 364-449
	For B.T.D	Fr. 364-449
Ce rtification		Class I, Division 1, Groups C&D, UL Listed E216236
	UL	Class II, Division 1, Groups F&G (Fr. 143-326), UL Listed E216236
	CSA	Premium Efficiency (CSA C-390)
	DOE	Department of Energy Efficiency Certification #CC038A
Name plate	Markings	UL, CSA ,CC(DOE)
	Material	Stainless Steel AISI 304
Painting		Polyurethane top coat (Munsell 4.0PB5.4/5.5)
Warranty		3 Years Warranty from Date of shipment

HD HYUNDAI ELECTRIC
SEVERE DUTY LARGE MOTOR
HSDE Model



H Pump (Horizontal Surface Pump) is a cutting-edge surface pumping system designed to provide efficient fluid transfer in upstream, midstream, and industrial applications. Its advanced design ensures superior performance, cost-effectiveness, and adaptability, making it a standout choice among modern pumping solutions. This system focuses on reducing operational costs, minimizing environmental risks, and maximizing system uptime. H Pump offers flexibility and stability to adapt to various flow rates and pressure conditions, achieved through modular design, advanced sealing technology, and precise vibration and temperature monitoring systems.

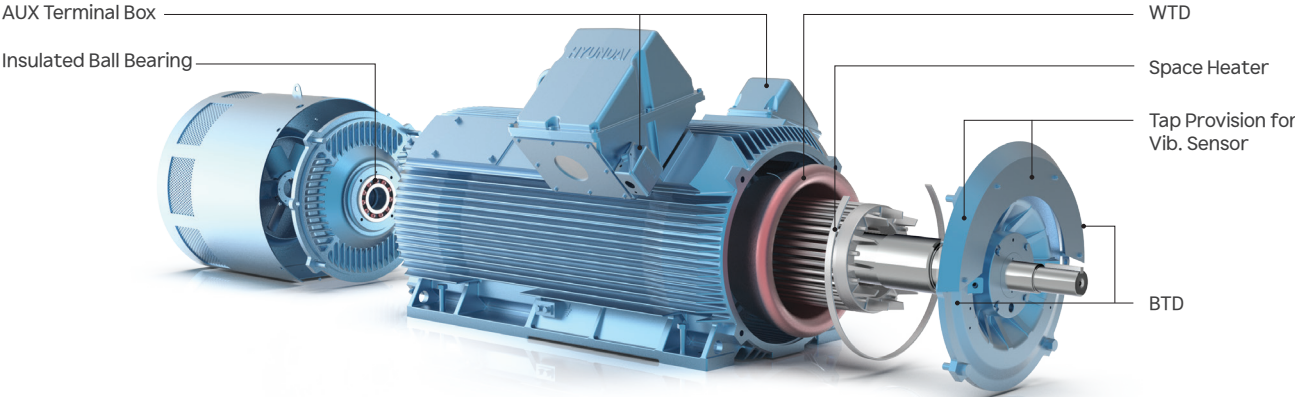
Key Features of the H Pump

1. Cost Efficiency:
2. Operational Stability:
3. Environmental Friendliness:
4. Customizability

Why HD Hyundai's HSDE Model?

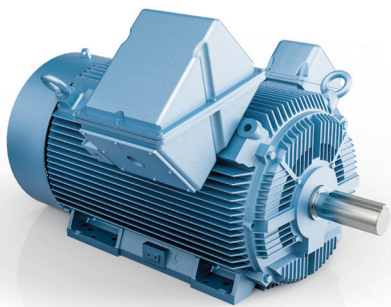
HD Hyundai's HSDE Model is specifically designed to meet the key features of the H Pump. This low-voltage large motor supports the stable and efficient operation of H Pump systems and is equipped with the following features:

1. Insulation Class F, Temp. Rise B at 40°C Ambient Temp.	Ensures stability and durability, providing reliable performance even in high-temperature environments
2. Insulated Bearing on NDE Side	Protects bearings from electrical stress, ensuring long-term stability
3. WTD PT 100 Ohm: 2 EA/Phase	Provides precise winding temperature monitoring for thermal management and fault prevention
4. BTD PT 100 Ohm: 1 EA/Bearing	Monitors bearing temperature to prevent overheating and extend lifespan
5. Space Heater: 1 EA/Motor	Prevents condensation during downtime, protecting the motor interior and enhancing reliability
6. Auxiliary Terminal Box: 2 EA/Motor	Facilitates easy connection of auxiliary devices, offering flexibility and ease of maintenance
7. Tap Adaptor for Vibration Sensor	Allows easy installation of vibration sensors to ensure structural stability and prevent potential issues



U.S Standard Low Voltage NEMA Motor

Severe Duty Large HP Motor
HSDE Model Product Features



Frame	L449 - 5812
HP	250 HP - 900 HP
Speed (RPM)	3600, 1800, 1200
Hz & Voltage (Dual Frequency Design)	60 Hz : 460 V or 575 V 50 Hz : 380 V, 400 V, 415 V at HP derating
Design	NEMA Premium Efficiency & NEMA Design B Torque
Insulation Class	F
Temp. rise	Sine Wave Power VFD Power B at S.F 1.15 (** F-rise at 900 HP 3600 RPM) F at S.F 1.0
Mounting	Foot mount (B3) Flange with Foot (B35) Foot drilled hole(s) to accommodate mounting flexibility C-Face and D-Flange
Material	Frame Rotor End-shield Fan Fan cover Cast iron frame with corrosion resistanced Aluminum die casting or Centrifugal cast aluminum Cast iron with corrosion resistanced Non-sparking conductive plastic fan Steel, Grease outlet through the Fan cover
Rotation	Bi-directional Uni-directional Fr. L449-5812 at 1800 RPM & 1200 RPM Fr. L449-5812 at 3600 RPM
Bearing	Drive end Non-Drive end Protection Inner Bearing Cap Lubrication Anti-friction bearing (Ball or Roller) Insulated ball bearing V-seal Labyrinth (Fr. L449-5812 at 3600 RPM) Applied
Shaft	Material DE threaded hole DE Keyway Shaft locking device AISI1045 (L449 at 3600RPM) AISI4140 (Fr. L449 4P-5812) Applied Opened keyway Frames with Roller bearing (To prevent Bearing brinelling)
Terminal box	Material Cable hole plug Cast Iron (Fr. L449-5012) Fabricated Steel (Fr. 5812) Plastic
Lead cable	Number of lead wire(s) 6 Lead(s)
Accessories	W.T.D B.T.D Space Heater Auxiliary Terminal box PT 100 ohm (2 EA/ph.) PT 100 ohm (2 EA/Motor) 1 EA/Motor 2 EA/Motor
Tap provision	For Vib. Sensor For B.T.D Applied Applied
Certification	CSA DOE CE IEEE45 Class I, Division 2, Groups A, B, C & D Class II, Division 2, Groups F & G - (Fr. L449-5012) Premium Efficiency (CSA C-390) Department of Energy Efficiency Certification #CC038A CE Declaration of Conformity (EN 60034-1) Marine Duty (ABS Product Type Approval up to 600 HP at Fr. L449-5012)
Name plate	Markings Material CSA ,CC(DOE), CE, IEEE45(ABS) Stainless Steel AISI304
Painting	Munsell 4.0PB5.4/5.5
Warranty	3 Years Warranty from Date of shipment

※ Note: Features marked with a star (★) are standard options included in the HSDE model.

API 661 Severe Duty

PREMIUM EFFICIENCY



Why HD Hyundai's API Model ?

HD Hyundai's API Model is specifically designed to meet the key requirements of API 661. Additionally, its performance is compliant with the IEEE 841-2021 specification.

Experience a durable API Model with excellent performance, built on HD Hyundai's 40 years of engineering & manufacturing expertise, now available at a **reasonable price**.

Technical Data

The API661 motors are built in compliance with API Standard 661, incorporating regreasable roller bearings and ProTech™ Bearing Isolator Seal at both ends of the 184-365 frame.



Horse Power	Frame Size	Bearing	Protection
5~75HP	184T~365T	Min. 40,000hr L10 life	IP56
warranty	Quality	Inverter Use	Compliance to
5 Years	IEEE841 Test Report	As per NEMA MG-1 Part 31	API661

Main Industries for Heat Exchanger Applications



- Refineries
- Petrochemical Plants
- Natural Gas Processing Plants
- Power Plants
- Industrial Cooling Systems



Key Features of API 661 Motors in Heat Exchanger Applications

- API661 Motors are built to meet and exceed global standards including API661 and IEEE841, ensuring superior performance, durability, and reliability.
- ProTech™ Bearing Isolator Seal rated IP56 on both bearings + DE umbrella Slinger
- Roller bearing on DE for min 40,000 L-10 bearing life on belted loads (184T and larger)
- Stainless Steel long grease nipple and T-drain
- Hazardous locations, Certified to be used in Class I, Division 2
- Shaft End Tapped for vertical lifting
- CAST IRON construction(Frame, End shield Conduit box and fan cover)
- Gasketed conduit box and cover

API 661 Severe Duty

PREMIUM EFFICIENCY

Product Features (Basic)

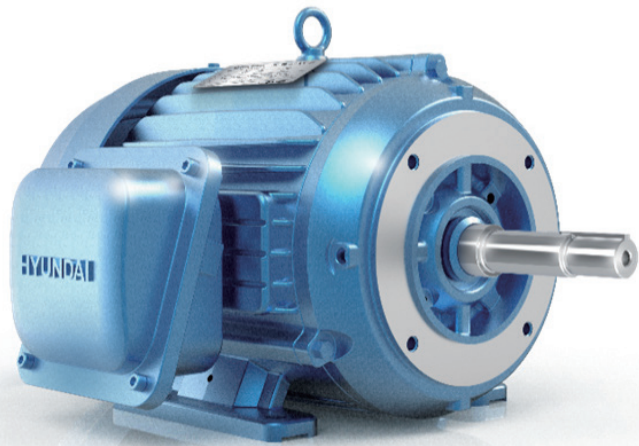
Frame	184 - 365
HP	5 HP - 75 HP
Speed (RPM)	1800, 1200
Hz & Voltage (Dual Frequency Design)	60Hz : 460V ★ 50Hz : 380V, 400V & 415V
Mounting	★ Vertical Shaft up with Foot & umbrella Slinger
Enclosure / Protection	★ TEFC / IP56
Rotation	Bi-directional
Painting	Epoxy Zinc with Polyurethane top coat (Munsell 7.5BG6/1.5)
Warranty	★ 5 Years Warranty from Date of shipment
Ambient temperature	40°C
Insulation Class	F

Product Features (Details)

Starting Method	Sine Wave Power	1.15 Service Factor & B Temp. rise
	Inverter Duty 10:1 VT	1.0 Service Factor & F Temp. rise
	Inverter Duty 20:1 VT (at 50% load)	1.0 Service Factor & F Temp. rise
	Inverter Duty 10:1 CT	1.0 Service Factor & F Temp. rise
	Inverter Duty 10:1 CT (1 Hour duty)	1.0 Service Factor & F Temp. rise Fr. 254-365
	Inverter Duty 4:1 CT	1.0 Service Factor & F Temp. rise Fr. 254-365
Material	Constant HP	CHP up to 1.5 times base speed
	Frame	Cast iron
	Rotor	Aluminum die casting
	End-shield	Cast iron
	Fan	Non-sparking conductive plastic fan
	Fan cover	Cast iron
Bearing	Drive end	Ball Bearing NU Bearing (Fr. 184~)
	Non-Drive end	Anti-friction bearing (Ball)
	Protection	ProTech™ Bearing Isolator Seal on DE & NDE
Shaft	Inner Bearing Cap	Applied(Cast iron)
	Lubrication	Polyrex EM Grease
	Material	AISI1045
Terminal box	DE threaded hole	Applied
	DE Keyway	Opened keyway
	Material	Cast Iron
Lead cable	Cable hole plug	Plastic
	Number of lead wire(s)	★ 3 Lead(s) Fr. 184-326
	Number of lead wire(s)	★ 6 Lead(s) Fr. 364~365
Drain Plug	Frame	Both sides of frame bottom
	Box	None
	Grease outlet	Applied
Certification	CSA	Class I, Division 2, Groups A, B, C & D Class II, Division 2, Groups E, F & G Group E : Up to Fr. 326 Premium Efficiency (CSA C-390)
	DOE	Department of Energy Efficiency Certification #CC038A
	UL	Recognized Motor Components (E211828) Recognized Insulation Materials (E210479)
	CE	CE Declaration of Conformity (EN 60034-1)
	IEEE45	Marine Duty (ABS Product Type Approval)
Name plate	Markings	★ CSA, CC(DOE), UL Recognized, CE, IEEE 45(ABS), IEEE 841, API 661
	Material	Stainless Steel AISI304

※ Note : Features marked with a star (★) are Key Features for API Motor.

Close-coupled Pump JM/JP Severe Duty
PREMIUM EFFICIENCY



HD Hyundai Close-coupled Pump Motors offer reliable performance in harsh environments. These motors are designed and built specifically for commercial and industrial pump applications.



HD Hyundai Close-coupled motors are built in compliance with NEMA MG1-2024 Standards.

Key Features

Horse Power	Frame Sizes	Voltage	Enclosure
1~50HP	143~326	60Hz : 230/460V, 575V 50Hz : 380V, 400V, 415V	TEFC
Mounting	Insulation	Inverter Use	Certifications
Dual Hole Multi-mounting	Class F (Class H: Impregnation Resin & Magnet wire)	As per NEMA MG-1 Part 31	CSA, DOE, UL, CE, IEEE45

Applications

- Commercial and industrial pumps
- For pumps installed in harsh and dirty environment
- Variable speed drive applications
- Pump Impeller mounted directly onto motor shaft.

Standard Features

- Service Factor : 1.15 & B Temp. Rise for DOL, 1.0 & F Temp. Rise for Inverter
- Material : Cast Iron frame, end shield, and conduit box / Steel Fan Cover / Aluminum Die-cast rotor / AISI 1045 Shaft
- F1 gasketed box and cover (F2 Convertible)
- Regreasable ball bearing for frames 254 and up.
- Bearing Protection : V-Seals
- Hazardous : Class I, Div. 2, Groups A, B, C, D & Class II, Div.2, Groups E, F, G
- Bi-Directional Rotation
- Drain Plugs on both sides of Frame Bottom

Close-coupled Pump JM/JP Severe Duty
PREMIUM EFFICIENCY

Product Features (Basic)

Frame	143 - 326
HP	1 HP - 50 HP
Speed (RPM)	3600, 1800, 1200
Hz & Voltage (Dual Frequency Design)	60Hz : 230/460V, 575V ★ 50Hz : 380V, 400V & 415V
Mounting	★ C-face with foot(B35), Dual-drilled holes for multi-mounting capability
Enclosure / Protection	TEFC / IP55
Rotation	Bi-directional
Painting	Polyurethane top coat (Munsell 4.0PB5.4/5.5)
Ambient temperature	40°C
Insulation Class	★ F(Impregnation Resin & Magnet wire : Class H)

Product Features (Details)

Starting Method	Sine Wave Power	1.15 Service Factor & B Temp. rise
	Inverter Duty 10:1 VT	1.0 Service Factor & F Temp. rise
	Inverter Duty 20:1 VT (at 50% load)	1.0 Service Factor & F Temp. rise
	Inverter Duty 10:1 CT	1.0 Service Factor & F Temp. rise
	Inverter Duty 10:1 CT (1 Hour duty)	1.0 Service Factor & F Temp. rise Fr. 254-326
	Inverter Duty 4:1 CT	1.0 Service Factor & F Temp. rise Fr. 254-326
Material	Constant HP	CHP up to 1.5 times base speed
	Frame	Cast iron
	Rotor	Aluminum die casting
	End-shield	Cast iron
	Fan	Non-sparking conductive plastic fan
	Fan cover	Steel
Bearing	Drive end	Ball Bearing Regreasable (254-326)
	Non-Drive end	Ball Bearing Regreasable (254-326)
	Protection	V-seal
	Lubrication	Polyrex EM Grease
Shaft	Material	AISI1045
	DE threaded hole	Applied
	DE Keyway	Opened keyway
Terminal box	Material	Cast Iron
	Cable hole plug	Plastic
Lead cable	Number of lead wire(s)	★ 9 Leads Fr. 143-215
	Number of lead wire(s)	★ 12 Leads Fr. 254-326
Drain Plug	Frame	Both sides of frame bottom
	Box	None
	Grease outlet	Applied (Fr. 254-326)
Certification	CSA	Class I, Division 2, Groups A, B, C & D Class II, Division 2, Groups E, F & G Premium Efficiency (CSA C-390)
	DOE	Department of Energy Efficiency Certification #CC038A
	UL	Recognized Motor Components (E211828)
	UL	Recognized Insulation Materials (E210479)
	CE	CE Declaration of Conformity (EN 60034-1)
	IEEE45	Marine Duty
Name plate	Markings	★ CSA ,CC(DOE), UL Recognized, CE, IEEE 45
	Material	Stainless Steel AISI304

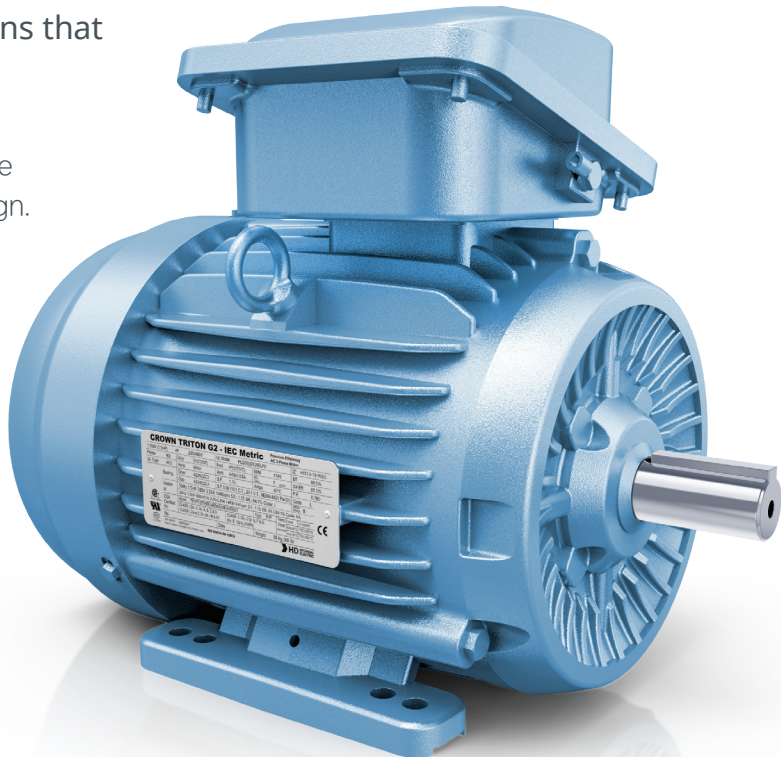
※ Note : Features marked with a star (★) are Key Features for JM/JP Motors.

Crown Triton - IEC Metric

Premium Efficiency Severe Duty Motor

CROWN TRITON-IEC METRIC motor line is engineered for severe duty applications that requires IEC mounting dimension.

It features the highest efficiency through FEM, CFD and HARMONIC analysis, and low noise and low vibration by optimized structural design.



Standard Features

- NEMA Premium Efficiency@60Hz, IEC IE3 Efficiency @50Hz
- Class B Temperature Rise
- Magnet wire and insulation systems meets NEMA MG-1 Part 31
- Suitable for Inverter use, 10:1CT, 20:1VT, meets NEMA MG-1 Part31
- Totally Enclosed Fan Cooled
- NEMA Design B Torque@60Hz (LRC in accordance with IEC Design N)
- IEC Design N@50Hz
- Service Factor
 - 1.15@60Hz,Sine Wave Power; 1.0@VFD Power
 - 1.0@50Hz
- Top mounting(F3) conduit box
- FF-Flange and FT-Flange kits available for B35 and B34
- IP55 Protection
- Cast Iron Frame, End Brackets, Main Conduit Box (except 80M frame)
- Steel Fan Cover
- CSA Certificate for Class I, Div. 2, Groups A,B,C&D, T3
- 3 Year Warranty

Product Range

- **HP** : 1 to 250HP
- **Frame** : 80 ~ 315
- **RPM** : 1200/1800/3600
- **Voltage** :
 - Fr.80 – 132 (9 Leads with Terminal block except 80fr.) : 230/460@60Hz, 190/380~415V@50Hz
 - Fr.160 and above (6 Leads with Terminal block) : 460@60Hz, 190/380~415V@50Hz

Applications

- Pumps
- Fans
- Conveyors
- Compressors
- Mixers
- Any application that requires IEC Mounting

Product Features (Basic)

Frame	80~315
HP	1 HP~250 HP
Speed (RPM)	3600, 1800, 1200
Hz & Voltage (Dual Frequency Design)	60Hz : 230/460V(FR.80~132), 460V(FR.160~315) ★ 50Hz : 190/380V~415V
Mounting	Foot Mount (B3) ★ Foot drilled hole(s) to accommodate mounting flexibility, Dual-drilled holes for multi-mounting capability
	Flange with Foot (B35 & B34) ★ FF-Flange and FT-Flange(FR.80~132) with foot, Dual-drilled holes for multi-mounting capability
	Flange without Foot (B5) FF-Flange without foot(FR.80~280)
Enclosure / Protection	TEFC / IP55
Rotation	Bi-directional Fr.80~250 Fr.280~315 4P/6P Uni-directional Fr.280~315 2P
Painting	Polyurethane top coat (PANTONE 279C)
Ambient Temperature	40°C
Insulation Class	★ F(Impregnation Resin & Magnet wire : Class H)

Product Features (Details)

Starting Method	Sine Wave Power	I	1.15 Service Factor & B Temp. rise
	Inverter Duty 10:1 VT	I	1.0 Service Factor & F Temp. rise
	Inverter Duty 20:1 VT (at 50% load)	I	1.0 Service Factor & F Temp. rise
	Inverter Duty 10:1 CT	I	1.0 Service Factor & F Temp. rise
	Inverter Duty 10:1 CT (1 Hour duty)	I	1.0 Service Factor & F Temp. rise Fr. 160~315
	Inverter Duty 4:1 CT	I	1.0 Service Factor & F Temp. rise Fr. 160~315
	Constant HP	I	CHP up to 1.5 times base speed
Material	Frame	Cast iron	
	Rotor	Aluminum die casting	
	End-shield	Cast iron	
	Fan	Non-sparking conductive plastic fan	
	Fan cover	Steel	
Bearing	Drive end	Ball Bearing	Regreasable (160~315)
	Non-Drive end	Ball Bearing	Regreasable (160~315)
	Protection	V-seal	
	Lubrication	Polyrex EM Grease	
Shaft	Material	AISI1045	
	DE threaded hole	Applied	
	DE Keyway	Opened keyway	
Terminal Box	Material	Cast Iron	
	Cable hole plug	Plastic	
Lead Cable	Number of lead wire(s)	★ 9 Leads	Fr. 80~132
	Number of lead wire(s)	★ 6 Leads	Fr. 160~315
Drain Plug	Frame	Both sides of frame bottom	
	Box	None	
	Grease outlet	Applied (Fr. 160~315)	
Certification	CSA	Class I, Division 2, Groups A, B, C & D Class II, Division 2, Groups E, F & G Premium Efficiency (CSA C-390)	
	DOE	Department of Energy Efficiency Certification #CC038A	
	UL	Recognized Motor Components (E211828)(Fr.80~280) Recognized Insulation Materials (E210479)(Fr.80~280)	
	CE	CE Declaration of Conformity (EN 60034-1)	
	Markings	★ CSA, CC(DOE), UL Recognized, CE	
Name Plate	Material	Stainless Steel AISI304	

※ Note : Features marked with a star (★) are Key Features for IEC Metric Motors.

Products in stock & Warranty

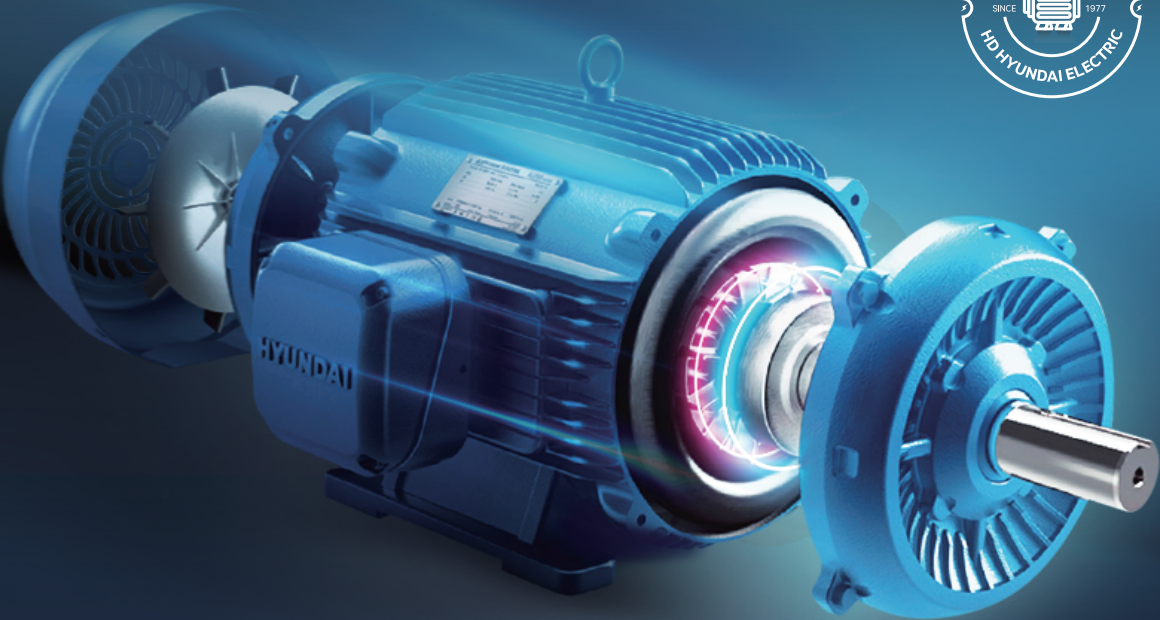
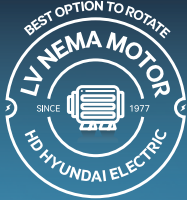
Product Line-up

Type	Product Family	HP	RPM	Frame	Suffix
Severe Duty	HES	1-50	12/18/36	143-326	IB : Insulated Bearing on N-DE BR : Bearing RTDs(1EA/Bearing) with Auxiliary Terminal Box SR : Stator RTDs(2EA/Ph.) with Auxiliary Terminal Box SH : Space Heater (1Set/Motor) with Auxiliary Terminal Box SP : Spare part (Fan) JM : CCP JM Motor JP : CCP JP Motor
	HHI	60-250	12/18/36	364-449	
	HSDE	300-900	12/18/36	L449-5812	
	JM/JP	1-50	12/18/36	143-326	
IEEE841	IEEE	1-50	12/18/36	143-326	
	IEEE	60-250	12/18/36	364-449	
	IEEE	300-900	12/18/36	L449-5812	
Explosion proof	IXHHI	1-50	12/18/36	143-326	
	IXHHI	60-250	12/18/36	364-449	
API661	API	5-75	12/18	184-365	
IEC Metric	HES	1-50	12/18/36	80M-200L	
	HHI	60-100	12/18/36	225S-280M	
	HSDE	125-250	12/18/36	315S/M/L	

Warranty

We guarantee the warranty period
of all products based on world-class quality,
performance, and reliability.

Products family	Warranty period
Severe duty series	36 Months
Explosion proof series	36 Months
IEEE841 series	60 Months
API661 series	60 Months



Severe Duty Motors



- Premium Efficiency
- 1hp - 900 hp
- 1200, 1800, 3600 rpm
- 230, 460V / 60Hz
- Inverter Duty
- TEFC / IP55
- Foot/Footless/V1/C-face/D-flange

IEEE841 Motors



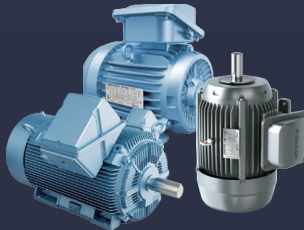
- Premium Efficiency
- 1hp - 900hp
- 1200, 1800, 3600 rpm
- 460, 575V / 60Hz
- Inverter Duty
- TEFC / IP55
- Foot/Footless/V1/C-face/D-flange
- 5 year warranty

Explosion Proof Motors



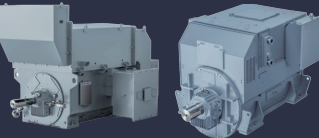
- UL Certified Class I Division1, ClassII Division1
- Premium Efficiency
- 1hp - 250hp
- 1200, 1800, 3600 rpm
- 230, 460V / 60Hz
- Inverter Duty
- TEFC / IP55
- Foot/C-Face

Other Low Voltage Motors



- IEC Metric Motors
- Close Coupled JM/JP Motors
- API661 Motors
- H-Pump Motors

Medium Voltage Motors and Generators



- Induction Motors : up to 35MW, 14kV
- Synchronous Motors : up to 40MW, 14kV
- Synchronous Generators : up to 50MW, 14kV
- Marine Type Shaft Generators : up to 5.5MW

EMPORIUM ENERGY

Official HD Hyundai Electric Distributors for the United States

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