



Amphibian Petroleum Technologies LLC
Products and Services for Land and Sea

Electric Motor Brochure



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Leadgo Brand Electric Motor

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Certificate and Introduction



Amphibian Petroleum Technology Electric Motors

APT concentrates on researching and developing, manufacturing and selling special electric motors, standard electric motors and motor-controlling systems, serves for middle and high level equipment manufacturing customers, offers special and high quality motor system products and services to customers with rapid and accurate manners to achieve growing together for enterprise value and customers value.

The main products include: Three main categories which are special electric motors, standard electric motors and motor-controlling systems. led by special electric motor systems, there are more than 20 sires, 4000 specifications of motor systems which are NEMA, YE3(CGX),YX3,(YE2,GX),YP2,YVP,VCT,YD,DYG,TYG,TYPL,SZBY,IY and other series. The annual capacity reaches over 3000 thousand KW.

APT will abide by the quality principle of “Superior quality, Sincere Service, Continuous Improvement, Pursing Excellence” and management philosophy of “Focus on innovation, Long in quality, Concentrate on marketing, Speeding and efficiency” to make a top-level enterprise.



Our Houston warehouse stocks sufficient inventory of most popular electric motors including IEC Standard Premium Efficiency Three Phase Induction Series, NEMA Standard Series which is applied In oilfield production, Definite Purpose Series for special conditions with features such as Explosion-prevention. We have over 20 series, 3000 specifications for our motor systems applied widely in petroleum, mining, forging machining, Packing, Metallurgy, Plastic/Rubber machining, food machining, air-compressors, injection molding, pumps, etc. Our electric motors carry most advanced technologies among many industries.



APT NEMA EPACT



APT NEMA EPACT are three phase induction motors which are single speed, totally enclosed, self-cooled, continuous duty, low voltage and cage type. The motors conform to NEMA MG1 standard and adopt casting iron frames. The efficiency meets America NEMA EPACT standard. Service factor is 1.15. The motors have passed America CC certificate and Canada CSA certificate.

Features:

Frame: 143T-587T

Rated power: 1-500HP, Service Factor: 1.5

Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz

Structure: TEFC (IP54,IP55)

Thermal Class: 155 (F)

APTNEMA Premium

APTNEMA Premium, single speed, totally enclosed, fan-cooled, continuous working duty, low voltage cage type three phase induction premium efficiency electric motors conform to NEMA MG1 standard and the whole series adopt casting iron frames. The efficiency meets America NEMA Premium standard. Service factor is 1.25, 1.15. The motors have passed America CC certificate and Canada CSA certificate.



Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz

Structure: TEFC (IP54,IP55)

Insulation Grade: F

Frequency Range: 143T-447T 10:1 CT, 20:1 VT

Frame: 143T-587T

Rated power: 1-200HP, 2,4,6 Pole

Service Factor: 1.25

CSA Certification: Class I, Div. 2, Groups A,B,C, & D-T3C(140-320Fr.)/T3A (360-44Fr.)



APTNEMA Oil Well Pump Motors

PTNEMA Oil Well Pump Motors are single speed, totally enclosed, fan-cooled, continuous working duty, low voltage cage type three phase induction motors which conform to NEMA MG1 design D standard and have high slip ratio which is $\geq 5\%$. Large Starting torque. The whole series motors adopt casting iron frames. Service factor is 1.15. The motors have passed Canada CSA Certificate.

Features:

Frame: 213T-449T

Rated power: 3~150HP

Service Factor: 1.15

Rated voltage: 230V/460V

Rated Frequency: 60 Hz

Structure: TEFC (IP54,IP55)

Insulation Grade: F

CSA Certificate: Class I, Div. 2, Group A,B,C&D-T3

APTNEMA JM/JP

APTNEMA JM/JP are single speed, totally enclosed, fan-cooled, continuous working duty, low voltage cage type three phase induction electric motors which conform to America NEMA MG1 standard and are designed for tight coupling pump. The motors have rigid installing frames and NEMA JM/JP pump shafts. All series motors adopt casting iron frames, locked-bearing structure at driving end to limit shaft extension axial float. The efficiency meets America NEMA EPACT, NEMA Premium standard, service factor is 1.25. The motor has passed America CC certification and Canada CSA certification.



Features:

Frame: 143 JM (JP) ~ 365 JM (JP)

Rated power: 1~75HP

Service Factor: 1.25

Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz

Structure: TEFC (IP54,IP55)

Insulation Grade: F

CSA Certificate: Class I, Div. 2, Group A,B,C&D-T3C (140-320Fr.)/-T3A(360Fr.)

APTYP2 Series Broadband Three Phase Induction Electric Motors



APTYP2 Series Broadband Three Phase Induction Electric Motors adopt high quality cold-rolled silicon steel and are optimized designed. These series motors which have insulation grade F, protection class IP54 or IP55, operating frequency range 30Hz-60Hz(30Hz-50Hz is variable torque range, 50Hz-60Hz is constant power range) can completely replace Y2 series three phase induction motors under basic frequency 50Hz. The motors apply to metal-cutting machine tool, pump, fan blower, transport machine, agricultural machine, food machine.

Features:

Center height of frame: H63-H355mm
Power Range: 0.12KW-315KW
Supply Voltage: 380V
Rated voltage: 230V/460V

Rated Frequency: 60 Hz

Structure: TEFC (IP54,IP55)

Insulation Grade: F

CSA Certificate: Class I, Div. 2, Group A,B,C&D-T3

APTYE3 (IE3.CGX) series motor

The efficiency for APTYE3 (IE3.CGX) series motor reaches grade 2 energy efficiency in GB18613-2012 (Energy Efficiency limit Value and Grade for Small and Medium Three Phase Induction Electric Motors) , meets IE3 in I EC6003-4 30, and have same efficiency level as America NEMA Premium efficiency motors. This series Energy - saving type motors are general usage low voltage cage type three phase induction motors with single speed, totally enclosure fan cooled, continuous working duty. The motors are suitable for situations without special requirement. can drive all kinds of general mechanical equipment, and widely used for machine tool, for compressor, transporter, conveyor, mixer, printing machine, agriculture machine and packing machine.



Features:

Center Height of Fram: H80~H355mm

Rated power: 0.75KW~315KW

Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz

Structure: (IP54,IP55)

Thermal Class: 155(F)
(B temperature rise)

Cooling: IC411



APTYX3 (YE2, IE2,GX) Series Motors



APTYX3 (YE2, IE2,GX) series motors are general usage low voltage cage type three phase induction electric motors with single speed, enclosure and fan-cooled, continuous working duty. This series products have advantages like high efficiency (averagely increase2% than Y2 series motors), distinct energy-saving effect. The motors meet grade 3 energy efficiency in G8186 13-2012 (Energy Efficiency Limit Value .and Grade for Small and Medium Three Phase Induction Electric Motors)

Features:

Center Height of Fram: H80~H355mm

Rated power: 0.75KW~315KW

Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz

Structure: (IP54,IP55)

Thermal Class: 155(F)(B temperature rise)

Cooling: IC411

APT Low Voltage High Power series electric motors

APT Low Voltage High Power series electric motors are cage type three phase induct ion electronic motors which are single speed, enclosure and self-cooled. continuous working duty for general purpose. made with advanced foreign technology and top domestic new material, new process. Mounting size and power grade conform to IEC standard. The motor has features of compact structure, small volume, light, reliable operating, strong structure and nice appearance. The motor can drive all kinds of general machinery, such as pump, fan blower, compressor, coal mill and transporter.

Features:

Center Height of Fram: H355~H450mm

Rated power: 180KW~900KW

Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz

Structure: (IP54,IP55)

Thermal Class: 155(F)(B temperature rise)

Cooling: IC411





APT YKK series motors

APT YKK series motors are three phase induction motors which are single speed, continuous working duty, high voltage and cage type. Frames H355-H400 are casting structure, frames H450-H630 are welded-steel plate structure. The motors adopt F insulation. B temperature rise to greatly increase the operational reliability and service life. The motors can drive various mechanical equipment, such as water pump, fan blower, and compressor, etc.

Features:

Center Height of Fram: H355~H630mm

Rated power: 180KW~2500KW

Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz

Protection Level: IP44, IP54, IP55

Thermal Class: 155(F)

Cooling: IC611

APTY series high voltage efficiency electric motors

APTY series high voltage efficiency electric motors are three phase induction motors which are single speed, continuous working duty, high voltage and cage type. Frames H355~H400 are casting structure, frames H450~H630 are welded steel plate structure. The motors adopt F insulation, B temperature rise to greatly increase the operational reliability and service life. Basic protection grade is IP23, and can also be derived to be IP44, IP54 to meet different environmental situation. The motors can drive various mechanical equipment, such as water pump, fan, and compressor, etc.



Features:

Center Height of Fram: H355~H630mm

Rated power: 180KW~2500KW

Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz

Protection Level: IP44, IP54, IP55

Thermal Class: 155(F)

Cooling: IC01



APT Y2 series high voltage high efficiency electric motors

APT Y2 series high voltage high efficiency electric motors are three phase induction motors which are single speed, continuous working duty. High voltage and cage type. The motors have advantages such as compact structure, small volume, good-looking appearance and high level protection and the motors can drive various mechanical equipment, such as water pump, fan and compressor, etc

Features:

Center Height of Fram: H355~H560mm
Rated power: 185KW~1600KW
Rated voltage: 230V/460V/575V

Rated Frequency: 60 Hz
Protection Level: IP44, IP54, IP55
Thermal Class: 155(F)
Cooling: IC411

APT YVP Series motors

APT YVP Series motors are AC variable frequency step less speed regulation motors which are specially designed and mating with asynchronous frequency inverter. The motors can run under variable frequency power source and have two types: with encoder and without encoder, speed range, constant torque running in 5-50Hz and constant power running in 50-100 Hz, stably and with small torque pulsation. According to usage requirement, it has two types: with encoder and without encoder. It can be equipped with independent fan cooling device to ensure better cooling effects under different speed. With encoder, the motor starts smoother and the control is more precious. This series motors apply to fan blower, water pump, hydraulic pressure station, plastic machinery, paper machinery, rubber machinery which need step less speed regulation. The motors with higher efficiency and accuracy can replace YCT electric motors.



Features:

Center Height of Fram: H80~H355mm
Rated power: 0.55KW~315KW
Rated voltage: 230V/460V/575V
Rated Frequency: 5-100Hz
Protection Level: IP54, IP55
Thermal Class: 155(F)
Cooling: IC416



APT TYPL series motor

Features:

Center Height of Fram:

H225~H315mm

Rated power: 5.5KW~55KW

Rated voltage:

230V/460V/575V

Rated Frequency: 5-100Hz

Protection Level: IP55

Thermal Class: 155(F)

APT TYPL series motor system is an integrated equipment consisting of permanent magnet variable frequency motor and intelligent variable frequency control cabinet with high efficiency, energy saving features designed by our company for oil fields. It is a new type integrating product developed on the basis of development of electronic elements, computer technology and rare earth permanent magnet material. The motor adopt vertical hollow shaft high efficiency permanent magnet variable frequency motor to directly drive screw pump rod without reduction gears which reduce energy consumption and maintenance cost. At the same time. Oil well sealer is moved to top end of the motor which makes the maintenance more convenient and easy. Controlled by intelligent variable frequency control cabinet, the system has features of simple structure, easy for parameter adjusting, high efficiency and has auto-heating device to protect freezing and auto-cooling device to protect over heating and also has protection function of over torque, over voltage and over current, etc. This system is mainly applied to screw pump unit with conditions of high viscosity, high sand content and water content.

APT TYJX Series motors

APT TYJX Series motors are self-starting permanent magnet synchronous motors which asynchronous start and synchronous operate. These series motors adopt rare earth permanent magnet material and have features such as high efficiency, high power factor, high starting torque, low noise and low temperature rise. The motors are sensitive to the power grid voltage and require the deviation within +/-5% between power grid voltage and the motor rated voltage. These series motors can be widely used in industries such as oil field beam-pumping unit and mining machinery. The motors have good usability and remarkable energy-saving effect.



Features:

Center Height of Fram: H132~H280mm

Rated power: 5.5KW~90KW

Rated voltage: 230V/460V/575V

Protection Level: IP54 IP55

Thermal Class: 155(F)

Cooling: IC411

APT DYG Series motor



APT DYG Series motor is pole-changing variable speed motor which winding is special designed to change the motor speed. It includes high starting torque multi-speed motor and control cabinet. The motors have features of high starting torque and energy-saving. The motor has two kinds of output speed and power, can achieve speed changing through switch in the control cabinet. The control system is simple and reliable. The cabinet adopts special structure design which has features of good short-circuit protection, overload protection, rain-leakage protection and theft-preventing. This series motors are suitable for oil field, mine which are situation of high starting torque, huge torque loading.

Features:

Center Height of Fram: H200~H315mm

Rated power: 10KW~75KW

Rated voltage: 230V/460V/575V

Protection Level: IP54 IP55

Thermal Class: 155(F)

Cooling: IC411

APT YEJ Series Electromagnetic Brake Motors

APT YEJ Series Electromagnetic Brake Motors have features such as small volume, simple structure and strong universality. The motors have low noise, reliable braking performance and apply to operation conditions such as rapid stop, accurate positioning, reciprocate operating and sliding preventing. This series motors are continuous duty 51, and can also drive S3, S4 as per customers' requirement. YEJ series motors can realize rapid braking when the motor lost power. The motors are widely used in machinery industries such as wind power generation yaw brake and machine tool, packing, woodworking, chemical industry, textile, construction.



Features:

Center Height of Fram: H80~H250mm

Rated power: 0.55KW~55KW

Rated voltage: 230V/460V/575V

Protection Level: IP54 IP55

Thermal Class: 155(F)

Cooling: IC411

APT YDGJ Series motors



APT YDGJ Series motors are three phase induction motors with single speed, two power output achieved by changing winding connection. These series motors can convert power according to load condition and have advantages of high starting torque and energy-saving. Our company provides dedicated control cabinet for this series motor which can be made according to customer's requirement. Electrical control system in the control cabinet has protection function such as power converting, short-circuit, over-load and lack phase. The cabinet adopts special design, and operate easily and safely, and has features of leakage-rain protection and theft protection.

Features:

Center Height of Frame: H160~H315mm

Rated power: 3KW~200KW

Cooling: IC411

Rated voltage: 230V/460V/575V

Protection Level: IP54 IP55

Thermal Class: 155(F)

APT TYPLM Series motor

APT TYPLM Series motor system is an integrated device composed of explosion-proof permanent magnet motor and intelligent frequency-changed cabinet. It is a high-efficiency and energy-saving product developed for coal-bed gas and oil field screw pump unit. This system adopts vertical hollow shaft high-efficiency permanent magnet frequency changed motor to directly drive crew pump to work, deleting reducer to reduce energy consumption and maintaining cost. It is easier and simple to be repaired. This system has features of simple structure, easy adjustment, high efficiency and flexible anti-reverse function when power cut, machine halt, failure warning to protect workers and equipment safety. It has protection functions such as low temperature heating condensation-proof and high temperature cooling automatically, over torque, over voltage, over current. It belongs to promote popularize products.



Features:

Center Height of Fram: H225~H315mm

Rated power: 5.5KW~55KW

Rated voltage: 230V/460V/575V

Protection Level: IP55

Thermal Class: 155(F)

Cooling: IC410



Features:

Center Height of Fram: H225~H315mm

Rated power: 5.5KW~90KW

Rated voltage: 230V/460V/575V

Protection Level: IP21

Thermal Class: 155(F)

Cooling: IC411

APT YCTM Series

APT YCTM Series Dedicated for Coal-bed Gas electromagnetic Variable Speed Motor device(hereinafter referred to as speed control device) is a simple and reliable speed control device which consists of a squirrel case induction motor, an electromagnetic slip coupling (hereinafter refer to as couple) and a speed control cabinet. It is suitable for constant-torque load variable speed control application, especially for fan blower and pump load. This speed regulation device can evenly and step less adjust speed continuously in regulated adjusted speed range and output rated torque. When the device is running, for the load changes, it can automatically adjust the coupling magnetizing current by means of speed negative feedback system in the speed control cabinet to make the speed of output shaft remain unchanged. Compared with other means, this method of speed adjusting is more simple. economical and reliable.

APT YDT Series motor

YDT Series motor is a pole-changing adjustable speed motor which changes the winding connection type to change its speed and power. It belongs to step speed regulation motor. This series motor adopts the method of pole changing in a single winding to achieve speed regulation, including two speeds and three speeds. It is designed according to power output in different poles and proportion between flow rate and speed. This series motor is suitable for fan blowers and pumps which flow altering periodically to achieve energy saving. This series motors are also widely used for mine, metallurgy, chemical industry, light industry and civil use facility which require adjusting air volume according to season and temperature.

Features:

Center Height of Fram:

H80~H315mm

Rated power: 0.17KW~160KW

Rated voltage: 230V/460V/575V

Protection Level: IP55

Thermal Class: 155(F)

Cooling: IC411





APT YO Series motor

APT YO Series motor is a pole-changing adjustable speed motor which changes the winding connection type to change its speed and power. It belongs to step speed regulation motor, this series motor adopts the method of pole changing in a single winding to achieve speed regulation, including two speeds and three speeds. It has features of wide range of use, good starting performance, reliable operation and easy maintenance. Etc. These series motors apply to all kinds of machinery which need step speed regulation (not suitable for fan blowers and pumps). It has features of simple structure, small volume, low noise and low price.

Features:

Center height of frame: H112-H355mm

Rated output power: 0.55KW-90kW

Supply voltage, frequency: 380V, 50Hz (can be customized)

Protection grade: IP44 IP54 IP55

Thermal Class: 155 (F)

Cooling: IC411

APT YCT Series motor

APT YCT Series motor is a simple and reliable constant torque step less variable speed motor. It consists of a squirrel cage induction motor, an electromagnetic coupling and a coupling. This series motor can step less adjust its speed within rated speed and output rated torque. Its output speed on drive shaft holds nearly constant by automatically adjusting the coupling exciting current by means of speed negative feedback system of the controller according to the load changes. This series motor is suitable for equipment which load torque increases with speed rising, such as fan blowers and pumps. It has features of simple structure, easy operating, environmental adaptability and low price.



Features:

Center height of frame: H12-H355mm

Rated output power: 0.55Kw~90KW

**Supply voltage, frequency: 380V, 50Hz
(can be customized)**

Protection grade: IP21

Thermal Class: 155 (F)

Cooling: IC411



APT TYP series motor

Features:

**Center height of frame: H80-
H285mm**

Rated output power: 0.55Kw~90KW

**Supply voltage, frequency: 380V,
50Hz (can be customized)**

Protection grade: IP54 IP55

Thermal Class: 155 (F)

Cooling: IC416

APT TYP series motor which is specialty designed is frequency conversion step less variable speed motor used with a synchronous frequency converter, It can be operated under variable frequency power source. With high strength magnet steel inserted in the rotor, it belongs to permanent synchronous motor. It has two kinds: with encoder and without encoder. Matched with intelligent control system, this series mote constitutes intelligent mechanical electrical integration equipment. The motor adopts rare earth permanent magnetic material, and it has features of strong magnet, large over-load torque of starting and running, low current, wide working frequency range. This series motor is used for step less speed and can replace YVP, YCT series motor. The motor runs well with low speed and is controlled accurately. We supply dedicated control cabinet for this series motor, and can also be customized. Matched with control system, the motor can achieve variable frequency soft staring which can prolong the service life of the mechanical equipment, decrease maintenance, increase reliability of the facility.

APT DYTS series motor

Installing connector size of this series motor is 340mm, locked torque is 160-1500N. APT DYTS series motor is a sero permanent magnet synchronous motor newly developed by our company to meet requirements of machine tool and packing machinery. Because of adopting low inertia and strong torque character design, matched with servo driver, the DYTS series motor can achieve excellent single shaft positioning, multi-point positioning, speed controlling, torque controlling, synchronous angle controlling function. It has functions as electronic reduction gearbox and index plate. It has strong points of fast dynamic response, high starting torque, high positioning accuracy, high efficiency, etc.



Features:

Center height of frame: 140-1400N.m

Rated output power: 3.7Kw~36.6KW

Protection grade: IP55

Thermal Class: 155 (F)

Cooling: IC410



APT KYGL Series Dedicated for Compressor High Efficiency

APT KYGL Series Dedicated for Compressor High Efficiency Three Phase Induction Motor is specialized developed and designed according to features of air compressor, can meet requirement of irregular shot-time over load for compressor and has complete enclosure structure, self-cooling and squirrel case. It has advantages of high efficiency. high torque, good starting performance, low noise, small vibration and safe operation. Its power - grade and mounting size conform to international IEC standard.

Features:

Service factor for frame H80-H180 1.2

Service factor for frame H200-H335 1.15

It can work normally under ambient temperature below 114.8 F

This series motors are permanent magnet motors which adopt rare earth material. The rotor of motor has rare earth permanent magnetization, no slip, no-fundamental wave iron. copper lost and little heat, reduce stator current and stator resistance lost. The motor can always keep high efficiency, especially in low speed.



Features:

Center height of frame: H160-H355

Rated Output Power: 15KW-250KW



This series motor is three phase induction motor with single speed, totally enclosed, self-cooling, continuous duty, low voltage and squirrel cage. The motor is dedicated to match injection molding machine. Its mounting size and power grade conform to IEC standard. It has features of good starting performance, strong overload ability, reliable operating, low noise, small vibration and strong structure.



Features:
Center Height of Frame: H132~H280mm
Rated power: 5.5KW~90KW
Rated voltage: 230V/460V/575V
Protection Level: IP44 IP54 IP55
Thermal Class: 155(F)
Cooling: IC411

This series motor is three phase induction motor with single speed, totally enclosed, self-cooling, continuous duty. Low voltage and squirrel cage. It is high efficiency, premium efficiency motor dedicated for vacuum pump. It has rigid mounting base and stainless steel pump shaft. The whole series motors adopt casting iron frame and locked bearing at the driving end to limit motor shaft axial float.



Features:
Center Height of Frame: H90~H180mm
Rated power: 1.5KW~22KW
Rated voltage: 230V/460V/575V
Protection Level: IP55
Thermal Class: 155(F)
Cooling: IC411