

ENGINEERED SYSTEMS





Amtech's Unique Solutions

Amtech is a pioneer in the field of motion control. We have served a prestigious clientele from diverse sectors for more than 3 decades. We, with our engineered systems, offer our clients a full range of services tailored to their specific needs. Right from replacing a system component, to dedicating a complete team of Amtech professionals to implement projects of varying scales, we do it all.

Our vertically integrated engineered systems assure total solutions customized to the client's needs. After recognizing the present requirements and future goals of our customers, we integrate all the essential peripherals into one system. Each of these engineered systems is as unique as our customers. With every new requirement we design a unique customized system adhering to highest quality standards in order to provide exemplary solutions.

Our Strengths

- Core competence in AC drives and customized solutions
- Manufacturing excellence
- Quality systems as per global standards
- Wide installation base with major industry coverage
- Highly qualified and experienced professionals

Engineered Systems

Our Engineered System packages comprise VFD modules with customer specific switchgear & protection, enclosure requirements and cooling arrangements. The seamless integration guarantees that performance specifications are adhered to as per the ratings, enclosure types, environmental issues and power supply conditions.

We offer a wide range of variable frequency drives, including the Apxert-Eazy+ Series VFD in 400, 500 & 690 Voltage, Apxert-VT240S Series in 200 & 400 Voltage, Apxert-Hivert Series Medium Voltage Drives in 3.3, 4.16, 6.6 and 11 kV range.

When our industrial customers are confronted with system challenges, our team stands ready with technical support and creates cost effective solutions that make a win-win situation. That is why it does not come as a surprise that our Engineered Systems are a preferred choice of many prominent customers using applications requiring smooth starting of motors.

Our soft starter solutions are available in a wide voltage range from 200 to 690 Voltage both continuous duty as well as bypass duty.



Various Options for Engineered Systems

Amtech's Engineered System Solutions seamlessly integrate VFD and soft starters with various components as per the application, industry and user needs.

Input protective device like MCCB or SFU to protect and isolate the source in case of the fault.

EMI/RFI filter option to reduce EMI/RFI disturbances and to run control equipments without any disturbances.

Line reactor (ACL) at the input or DC reactor (DCL) reduces input current harmonics to the level of 35 to 45%. Also reduces input current, cable losses and increases VFD capacitors' life.

See our low harmonic solutions to further reduce the harmonic level.

DBU (Dynamic Braking Unit) and DBR (Dynamic Braking Resistor) with various options to suit your applications like 100% or 150% braking torque for 10%, 15% or 30% duty cycle.

Door mounted display with keypad as standard offering for easy monitoring and control of various VFD parameters. Protective cover option to secure keypad.

More than one VFD and accessories in a single enclosure with individual protection and control.

Many accessories and options for user convenience and flexible control of process.

Various options for the environment protection as per NEMA as well as IEC standard.

Load reactor option for long cable length between the Engineered System and the motor. We also offer sine filter option.

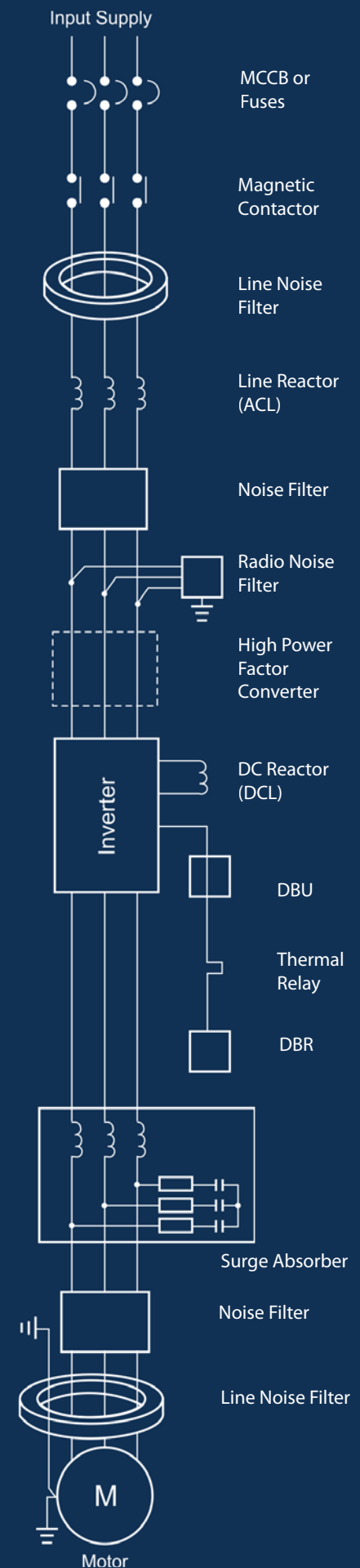
Common mode filter and dv/dt filter to reduce the dv/dt at motor terminal and reduce the bearing leakage current.

Suitable motor terminals for motor cables, all internal control power supplies are derived from control transformer with adequate protection.

Common rectifier for multiple VFDs in a panel for applications in industries like paper, textile, plastic, water & waste water.

Accessories

- Push-buttons
- Selector switches
- Potentiometers & leg stand kit
- Analog Ammeter, Voltmeter
- Digital and Analog RPM, Voltage, Ampere, Power meter
- Space heater with / without Thermostat
- Signal converter
- Time Totalizer
- PID controllers
- Fault Annunciator / Hooter / Buzzer
- Glass Window Lockable for Keypad
- Panel light / Utility Board
- Remote Box
- Encoder



Varied offerings for Diverse Needs



MCC Panel



PCC Panel



MCC Panel



Line up VFD Panels



Customized Engineered System



Control Desk

Range of Engineered System



High power Aexpert-Eazy Series VFD with modular construction



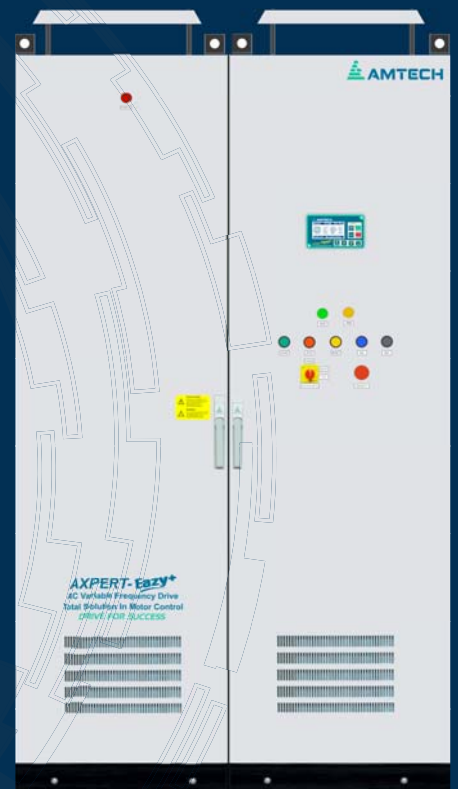
Engineered Systems with complex logic requirements



Engineered System with Complex Logic



Customized Engineered System



Customized Applications

Bypass Solutions for Critical Applications

We understand the criticality of your application and your quest for an uninterrupted process. The most reliable products can also fail at times, but Amtech will never let you down. Amtech solution lets the system run on the bypass system till the process gets completed while repair of module can be carried out at a convenient time later.

Our series of Bypass Solutions from 2/3/5 contactor bypass, soft starter bypass or hot standby (redundant system) lets your system continue to work without any production loss.

Redundant System

At times, your process needs bumpless transfer in no time without any major change in speed. We have the solutions for every challenge.

Our system solutions equipped with state-of-the-art technology, monitors the health of the VFD all the time and in an abnormal situation, transfers the control to the hot standby VFD in no time. The transfer will be so smooth at times, that even your control room will not be able to diagnose the transfer.

Successfully implemented many such solutions on critical applications in various power plants.

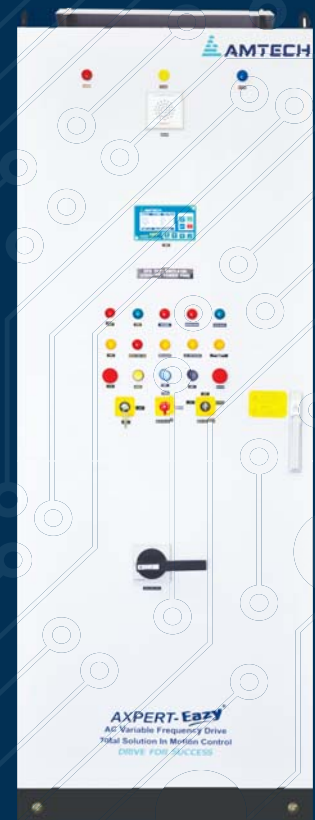
Low Harmonic Solutions

With the increased usage of power electronics' products and Variable Frequency Drives (VFDs), there is concern for a potential increase in the level of harmonic distortion conducted back into the utility power lines. The new harmonic guidelines of IEEE will force the user to restrict the harmonic level.

Our VFDs come with Low Harmonic Solutions customized to your need. They come either with ACL (line reactor) or DCL (DC reactor), which reduces the harmonic level to 35...45%.

Our multi-pulse converter system offers huge reduction in harmonic current and voltage distortion for various systems and locations to 8...12% and meet the reasonable limits of IEEE 519.

More so, for the stringent requirements demanding harmonic current distortion less 5%, Amtech offers Active Front-end Converters (AFC) or Wideband Harmonic Filter (WHF). Both Axpert-i-Sine Series AFC and WHF are capable of reducing the harmonic content to below 5% at rated load. Apart from that AFC can also be used to feed the regenerative energy back into the grid.



Battery Backup System for VFD

Poor power supply conditions or voltage fluctuations may result in major breakdowns of textile machines. Single power fluctuation of a few milliseconds to a few minutes may cost heavy production loss and degraded quality output. At Amtech we provide reliable Battery Backup System (Uninterruptible Motive Power Supply) that enables continuous power supply resulting in uninterrupted functioning of motors and production optimization. You get the power when needed and it ensures smooth transfer of the machine on battery bank.

With Amtech, power supply disturbances are no more a bottleneck for their production targets.

Key Advantages & Offerings

Advantages

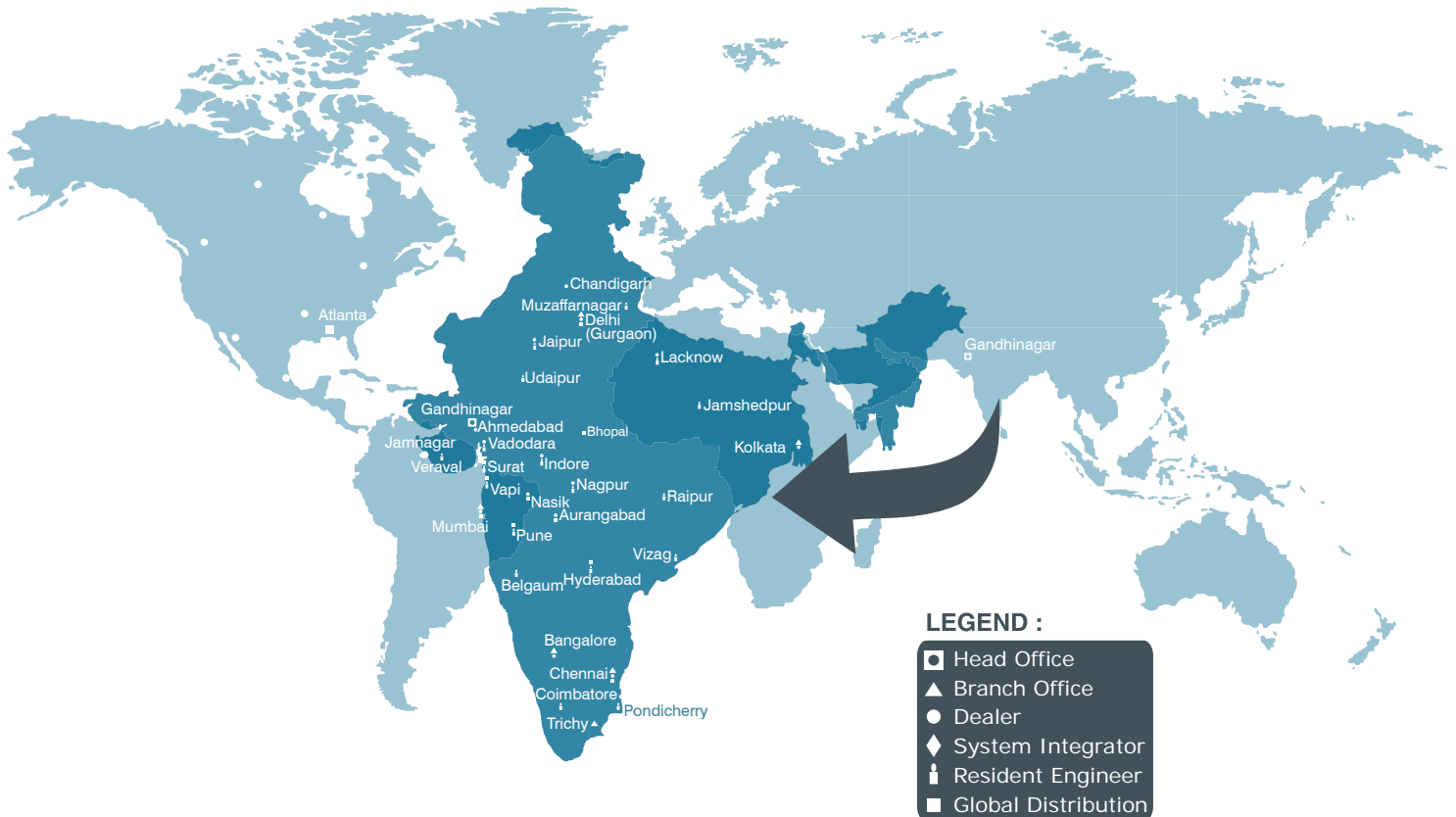
- Global compliances UL, cUL, CSA and CE
- Normal duty & heavy duty ratings
- UL panel shop
- Energy efficient systems
- Can be built to your specifications

Offering

- NEMA 1, 12, 3R, 4 and 4X to IP 20, 21, 31, 41, 42, 54, 55 and IP 56 enclosure forced air cooled
- Circuit breaker (MCCB), non-fused disconnect or fusible disconnect protection, SFU (Switch Fuse Unit)
- Rotary handle mechanism for circuit breaker
- 2- Contactor bypass, 3-Contactor bypass, 5-Contactor bypass or Soft starter bypass
- Line reactor (ACL), DC link reactor (DCL), Load reactor, dV/dT filter & Sine filter
- EMI/RFI filter
- Regenerative type braking
- External DB resistor and DB unit
- Control power transformer
- Door mounted keypad optionally with protective cover
- Panel heater, air conditioner and other pilot accessories
- Input bridges with 6-pulse, 12-pulse, 18-pulse, Active Front-end Converter (AFC) or Wideband harmonic filters (WHF)
- Motor protection options
- Individual single VFDs or common DC bus systems with multiple VFDs
- Custom enclosures and custom paint colours
- Modbus as standard communication protocol, optional Profibus / DeviceNet / ControlNet / Ethernet
- Flame proof Remote Box
- VFD System with panel AC



Our Network:



INNOVATIVE

Products
People
Solutions
Services

For the Industry

With over 35 years of field experience, our team of technical experts can help design custom solutions that will make your equipment more efficient, reliable and cost effective. And that's the bottom-line!



AMTECH ELECTRONICS (INDIA) LTD.

DRIVE FOR SUCCESS

E-6, GIDC Electronics Zone, Gandhinagar - 382028, Gujarat, India.
Phone: +91-79-23289101, 23289102, 23289103 | Fax: +91-79-23289111
Email: info@amtechelectronics.com | Website: www.amtechelectronics.com
Specifications in this catalog are subject to change without notice