# Transforming Efficiency Together

**@SE Catalogue** 







## **Our Vision**



We see a world where innovative individuals use collaborative solutions to make the most of their energy, while using less of our common planet

We enable people to experience and transform efficiency where they live and where they work, from home to enterprise to grid

Moving towards an active energy management architecture from Plant to Plug through EcoStruxure, because integration is the key to efficiency



#### > Schneider Electric in India



17000 + employees



**31** Global Manufacturing Plants



10+
Distribution Centres



+ 008

Authorised Partners Distributors System Integrators, Panel Builders



1000+

R&D engineers in Bangalore



Regional Project & Engineering Centre





## **Automation Solutions**







Control & Monitoring Systems



24/7 Support



Complete Energy **Automation Offer** 

#### > Key Offerings Portfolio/Service Portfolio

#### > Protection IEDs

> Protection relays to fit every application in industrial and distribution utilities: Series10/20/40/ 80/380,000+ devices delivered since 2000



SEPAM

#### > Protection IEDs

- > Proven and recognized MV & HV suite: Px10, Px20, Px30 & Px40 Platforms. 600,000+ devices delivered since 1997. World leading Arc Protection Specialists
- > IEC 61850 Platform: 50 and 200 Series





VAME

#### > Feeder Automation

#### > FLITE & FLAIR

Fault detectors for overhead and underground networks

#### > SMART RTU

Control units for MV substations and overhead switches with a high level of integrated functions

#### > Large RTU/Bay Control

> Modular Substation Computer for flexible operation (RTU, Bay Controller etc.)

#### > Substation Control System

#### > Pacis 5

Scaleable IEC 61850 based Substation Control Systems 600+ in service since 2002

#### > Our Brands

#### > MiCOM

- > A proven and recognized suite of Extremely High, High and medium voltage IEDs with communication capabilities (Measurement, Protection, Bay controller etc..)

#### > SEPAM

#### > MiCOM S1 Studio

Mimics the real world of electrical systems with its intuitive and versatile user interface and integrated file management facilities

- Comprehensive range of Digital Control System for Electrical EHV, HV and MV applications More than 1000 PACiS in service since 2002

### T Energy



## Medium Voltage offerings







#### > PIX-MV, PIX-C & PIX-36

- > Offerings covering the entire Medium Voltage range upto 33 kV
- Indoor switchgear applications in segments including Industries, Utilities, Power plants
- > Compact width of cubicles starting from 600 mm for 11 kV and 1000 mm for 11 kV
- > Tested and designed as per latest IEC 62271-100 & 62271-200
- Metal-enclosed switchgear, loss of continuity category LSC 2B-PM, tested for Internal Arc faults, qualification IAC AFLR



#### >FBX

- > Up to 24 kV, 630 A, 21 kA/3s for 11 kV and 20 kA/3s for 11 kV Also, available as 11 kV for 1sec for 11 kV RMU
- > Up to IAC 21 kA, 0.1s AFL for Indoor, 0.2s AFLR for Outdoor
- Available in various versions: Compact (FBX-C), Extensible (FBX-E), Indoor & Outdoor (IP54 protection)
- > Manual or Motorized Operation.
- > Switching and insulation in sealed-for-life SF6gas tank
- > Continuity of service LSC2A
- > Compliance to IEC 622271-200 & local standards
- > Versatile to fit most applications and also available with FRTU & SCADA connectivity options





#### > Gas-insulated switchgear GHA/WS

- > Modular design, suitable for Single & Double Bus Bar System
- > Touch proof ,rapid and safe on-site assembly
- > User-friendly operator interface with great variety of cable connection options
- > GIS (GHA) with no gas handling required at site makes it environment friendly
- > Hermetically sealed, gas insulated switchgear with all live parts in protective gas area (WS)
- > Rated voltage upto 40.5 kV current upto 4000A (2BB), STC upto 40 kA for 3 sec



#### > Ringmaster

- > Touch proof/completely shielded SF6 tank
- > Cable testing facility without disconnecting the
- cables from cable chamber (on customer request)
  Internal arc AFLR of 21 kA 1sec since the pressure relief device is at the top of the tank
- > Motorization within a minute and ccomplete isolation from the remote.
- Lesser gas leakage points due to moulded construction





#### >BIOSCO IN 10 & BIOSCO IN 16

- > Tested as per IEC 62271-202
- > Internal Arc tested solutions ensures public and operator safety
- > Range IN10 upto 22 kV 1000 kVA, IN 16-upto 33 kV 1600 kVA
- > HV side with RMU, LV side with ACB & MCCBs
- > Oil type & Dry type Transformer with optional HT metering & LV APFC panel
- > Manufactured, assembled and tested in the factory & delivered ready to be connected





#### > E House

- Complete switchrooms comprising both MV & LV Switchgear plus other equipment like UPS, SCADA, VSD etc
- > Fully factory equipped and tested, shipped to site in transportable sections
- Economical & FAST Site Installation, simplified commissioning
- > Increased RELIABILITY, due to assembly/testing/ quality control in factory
- > Reduced exposure to fatal RISKS in unsafe areas
- > Less Reduced ENGINEERING costs, civil costs easy repeatability
- > Design engineered by the PRODUCT Specialists





## **Transformers**



#### >MPT: Minera Power Transformers (from MVA till 100 MVA)

Minera MP oil-immersed medium voltage power transformer is dedicated to all applications up to 100 MVA and is designed to meet your needs. Our broad range for Minera MP transformers includes:

- > Three phase units (single phase available on request)
- > Ratings up to 100 MVA, 50 or 60 Hz
- > Voltage insulation level up to 170 kV
- > Breathing or sealed type
- > A wide range of accessories
- > High capacity cooling options such as ONAN, ONAF, OFAF, OFWF or others upon request
- > Standard or low noise levels
- > Off-circuit tap changer (OCTC) or on load tap changer (OLTC)

#### Minera Oil - Immersed Distribution Transformers

Our standard range of Minera transformers is available as:

- > Three phase units (single phase available on request)
- > With ratings up to 4 000 kVA, 36 kV, 50/60 Hz
- > With conservator or hermetically sealed type
- > Ground, pad Mounted
- > Naturally cooled (ONAN), air forced (ONAF) or other type of cooling upon request
- > With normal or low noise or loss levels

#### > Trihal - Dry Type Cast Resin Transformer

#### > C3

Lowest ambient temperatures :

- > Operation 50°C
- > Storage/Transport 50°C (\*C2 Thermal shock test carried out at 50°C)

#### > E3

- > Nearly Total condensation or heavy pollution or combination of both
- > Abnormal level of humidity up to 95%
- > According to new IEC 60076 16 Standard

#### > F1

Transformers subject to a fire hazard:

- > Self extinguishing transformer fire
- > Restricted flammability required
- > Limited formation of fumes
- > Limited contribution with calorific energy to the source of fire

#### > ≤ 5 pC

- Maximum level of partial discharges measured during special test according to IEC 60076 - 11 standard
- > Resistant, Safe, Versatile Economic & Compact

#### > Special Transformers in Range

- > Furnace Transformers
- > Aluminum Wound transformers
- > Earthing Transformers
- > Converter Duty/Rectifier Duty/Inverter Transformers
- > With Solar Transformers
- > Vegeta Oil Transformers





## **Low Voltage Products**

#### > Masterpact NT/NW ACBs and Compact NSX MCCBs

Direct access to energy efficiency!



#### > Designed to give You that Xtra bit to make your installations Smarter

- > Communication ready range to digitize your system
- > Unique plug and play communication architecture accompanied by smart panel display (FDM)
- > Patented ASIC based microprocessor trip units with built in metering functions and advanced protection
- > Patented dual protection settings via rotary dial & keypad
- > Standard web browser & pre-configured software's for detailed analysis
- > Covering all your applications: Distribution, Motor protection, DC circuits, PV, Solar & wind applications.

#### > EasyPact MVS ACBs and EasyPact CVS MCCBs

Easy choice for reliable performance!





#### > Contemporary design with emphasis on safety and reliability

- > ACBs with fault diagnostics last 10 trip history
- > MCCBs with thermal magnetic protection release throughout the range (16A-800A)
- > Common accessories with Masterpact and Compact series of circuit breakers

#### > Prisma iPM Switchboards

Developing installation dependability!

#### > IEC 61439-1 & 2 compliant switchboards designed for your safety

- > Designed for basic electrical distribution requirements for applications upto 4000A.
- > Based on kit based functional architecture complemented with brilliant aesthetics.
- > Revolutionary and patented design in Busbars for optimum performance: Linergy busbars.







## **Power Control & Protection**



### > EasyPact TVS

- Global offer, Conformity to IEC 60947-4-1 & CE marking
- > High operational ambient temperature: upto 60°C
- > Reliability with tested Fuse less / Fuse Type 2 co-ordination
- > High electrical and mechanical life
- > Wide variety of accessories for simple adaptation
- > Wide Band coil upto 38Amp
- > Class H insulation for coils
- > New AC-3, 6Amp Rating



> EasyPact TVS Contactor 6A - 630A



> EasyPact TVS Overload Relay 0.1A - 630A\*



> EasyPact TVS Contro Relay 4 NO/NC Contacts



> EasyPact TVS MPCB 0.1 - 32A

#### > TeSys Control and Protection Components

#### > Innovative

- > Conventional motor starter communicating with PLC
- > Innovative busbar system, Everlink connections save time & space

#### > Reliable

- > Total, type 1, type 2, coordination available
- > High electrical life, higher breaking capacities in starter modules

#### > Simple

- > Ready made connections kits, make wiring simple and easy
- > simple panel design as maximum product have standard dimensions

#### > Jeevan and TE-Start Moter Starters

- > Dust and Vermin Resistant Enclosures
- > Suitable for Humid, high Temperature and Tropical environment
- > Ability to with stand wide voltage fluctuations
- > Latest Powder coating technology







## Low Voltage Equipment

# Blokset, high safety and availability switchboard up to 6300 A

#### > A wide range of solutions:

- > Electrical distribution / PCC
  - $\bullet\,$  For high power incomers or feeders up to 6300 A,
  - Withdrawable solution for high availability and safety applications
  - Fixed solutions for economical applications
  - Power factor correction

#### > Motor Control Center / MCC

- Fixed-typed motor control center for economical solution
- Withdrawable motor control center for high availability and safety applications
- Solution with motor controller, soft starters and drives
- Protection levels: IP20, IP31, IP42, IP54







## **Power Quality Solutions**

#### > LV Components



- > LV Capacitors
  - > Higher thermal efficiency & enhanced life expectancy
  - Available in standard duty, heavy duty, APP, Gas Impregnated and Energy (MDXL) - Can & Box designs
  - > Inbuilt PSD for safe operation
- > APFC Relays
  - Comprehensive range with 6/8/12 stages
  - > Dual PF setting
- > Detuned Reactor
  - > Compact footprint
  - > Low loss design

#### > Systems & Equipments



- > LV APFC Panel
- > Contactor / Thyristor switching
- > Detuned filter panel for harmonic rich environment
- > Standard & Customised designs
- > MV APFC Panel
- > PF improvement for HT loads
- > Long life vacuum contactors
- > MV Capacitors
  - > MV fixed capacitor units
  - > Delta / Single Star / Double Star configuration available

#### > Advanced Systems

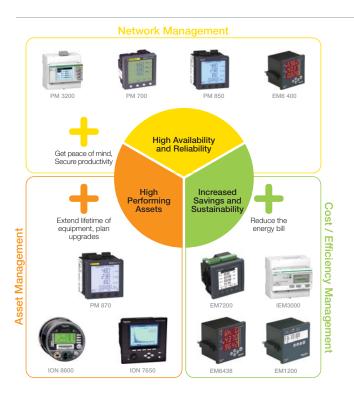


- > Active Harmonic Filters
- > Performance better than IEEE 519-1992
- > Available in 3ph 3wire & 3ph 4 wire
- > Dual mode operation with PF improvement & harmonic reduction
- > Hybrid Var Compensators
- Combination of active and passive system for localised correction at optimum price



## **Metering Products**

### A complete offering for energy management







## **Busway Solutions**

#### Wide Range of innovative solutions

#### > I LINE II - High Power Sandwich Busway



- > I LINE II Copper Busway > Rating: 800A to 6000A
- > Tap-Off interval: 610mm/1220mm
- > I LINE II Copper Contact Busway > Rating: 800A to 5000A Tap-Off interval: 610mm /1220mm

#### > Canalis - Low and Medium Power Busway



- > KNA 40A to 160A (Aluminum)
- > Tap-off intervals : 500 1000 3000mm
- > KSA (AI) 100A 1000A
- > KSC (Cu) 100A 800A
  - > IP 55
  - > Tap-off intervals 1000mm on each face

#### > Canalis - Lighting Busway



- > KDP 20A
  - > IP 55
- > Flexible Busway
- > KBA 25A / 40A (Single Circuit)
- > KBB 25A / 40A (Double circuit)
  - > IP 55
  - > Tap off intervals : 500 1000 1500mm

#### **Unique Features**

- > I LINE II Busway: Superior Dual Housing and 50% Rated Integral Earth -
- > Certified Zone 4 seismic compliance.
- > ASTA Diamond / KEMA KEUR certified
- > Silver plated Bimetal Cladding (Copper contact ) on Aluminum Conductor.
- > Excellent anti corrosion performance passed 1000 hours of salt test
- > Dupont Mylar insulation Excellent di-electric performance
- > Canalis range: Automatic shutter for air Insulated range
- > Canalis range: Sliding contact Solution
- > No Toxic emissions in case of fire
- > Energy efficient and ROHS compliant

#### 70000km busway installation across the globe





## **Final Distribution**

Unique offers from the Global leader in MCBs, RCDs & Accessories

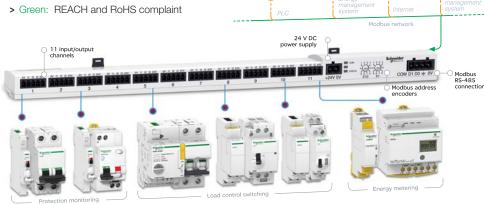
### Acti 9 Communication System

#### > Industry 1st communicable MCBs & RCDs

> Innovative: Centralized control, local and remote monitoring

> Efficient: Space, time, and cost efficient

> Reliable: Assured protection in adverse environments



MCBs: 0.5 to 125 A in B,C & D curves with breaking capacity from 10 kA to 50 kA

RCDs: RCCBs, RCBOs, Vigi Add on blocks up to

125 A in AC and Si class

SPDs: Type 1 and Type 2

Auxiliaries: Communication capable indication and protection auxiliaries

Control & Indication devices: Isolators, Change over switches, Time switches, LED indicators, Meters

### **NeoBreak Distribution System**

## > Round the clock protection from the global leader

MCBs: 0.5 to 63 A in B & C curves with 10 kA

breaking capacity

RCCBs: Up to 63 A in AC class

Isolators: Up to 80 A



## Features of our protection devices

- > Enhanced installation life: Energy limitation class 3
- > Total safety: Isolation function
- > Life long reliability
- > Solution for every application: widest range

#### **Distribution Boards**

- > Wide range of metal & thermoplastic DBs
- > Available with IP 30, IP 42, IP 43 IP 54 and IP 65 degree of protection
- > SPN, TPN, VTPN, PPI, Phase segregated configurations

#### **Connection Devices**

- > Electra metal plug & sockets
- > PK industrial plastic plug & sockets
- > Unika interlock sockets







## LifeSpace



### LifeSpace Business presents a new perspective to look at your home - Eye Your HOME ANEW.

Time changes. Technology advances. Lifestyle evolves. So does your idea of perfection. That's why you have to eye your HOME ANEW, from high ground build by Schneider Electric.

Carefree Home. Beautiful Home

#### > Carefree Home

To enjoy your home you must feel carefree - with minimum chance of electrical hazards, communication disconnection, criminal intrusion or home accidents.

Schneider Electric's Argus Ceiling mounted Occupancy Sensors, ZENcelo & NEO wall - mount Occupancy Sensors, Video Door Phone & Kavacha membrane switch & socket cover.







> Wall mount Sensor

#### > Beautiful Home

Schneider Electric helps you to enhance your interior design by ---

#### > Wall Switches as Design Element

A full spectrum of attractive colours, patterns, materials and finishes that will fit in various design concepts, match different decoration context, and actually



> Opale





> ZENcelo





> Ulti

#### > Fine Lighting for Mood and Ambience Lighting Control & Action The art of creating inspiration with light that's matched to the occasion. This is implemented by interplaying designer lighting fixtures with light intensities from various artificial and natural light sources. There are 3 general approaches to dimming and scene control - Standalone dimming, Collective dimming to creative multitude of lighting effects, To set the scene to pre-set brightness &



> Commercial Buildings - Lighting Control & Automation





> Saturn I/p Device



control different light sources simultaneously.

> Neo I/p Device



C-Bus

> Merten I/p Device



> Colored Touch



**DALI** 



> Thermostat



> Hand held





## **Network Connectivity**



**Digilink** structured cabling solution brings reliability and usability for everyone. Digilink products are UL and ETL verified for safety, performance and QA approved. The solutions are Copper UTP/STP (Cat 6A, 6, 5e+), Fiber Media, Voice Products, Data Center and IPLMS. They bring the advantages of FIRM, LIGHT, SLIM and FAST for SMBs and SMEs.





> Cat6 ID-Tracer Patch Panel and Lan Controller Actassi is the end-to-end structured cabling solution where

#### connectivity x superior usability = user delights.

Actassi solutions bring a wide range of benefits to data centers as well as commercial and hotel applications. They are enhanced with 10G and copper/fiber to support higher volume and speed and have tough cabling that last longer. With smart patching solution you get improved first pass yield and more efficient network management. Ergo-aesthetic terminals lets you connect in style.

> F<sup>2</sup> Category 6 UTP Cables



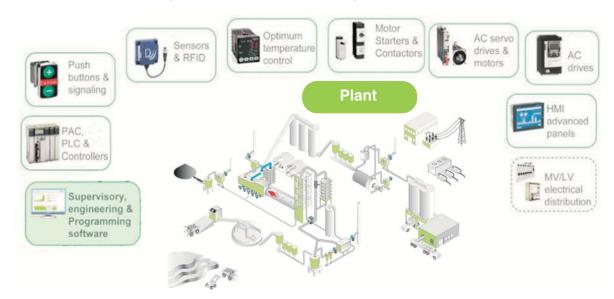
> ID-3 F-2 Patch Cords





## Overview

### A complete offer for industrial plants and end users



#### > Machine automation

- > Tested, Documented, Validated Architectures
- Application Libraries
- > Machine safety

#### > Plant automation

- > Collaborative control system
- Dedicated object librariesLocal network management
- Local network management
   Redundant architectures
- > Advance process control

#### > Production management

- > Monitoring and data log
- > Traceability
- > Asset management

#### > Services

- > Installed base services
- > Energy Management services: Energy Audits, Energy Management systems

## Machine **Etruxure**

#### Machine Control

 Flexible & Scalable Machine Control



 Adapted Machine Control

## Tested, Validated, Documented Architectures & Function Blocks

 Automation architectures



 Automation Functions Blocks

## Application



 Application Functions Blocks

Specialized architectures



Specialized Functions
 Plants

#### End-to-end Services & Support



- Experts
- International Standards
- International Support (CIS)

#### Energy Efficiency - EE

#### **Safety Solutions**

## Industry



## **Innovation**



#### > Control & Signaling

Control: Schneider Electric Control has a reputation for performance and quality, and is the global market leader for push buttons, switches and pilot lights, an offer now reinforced with truly innovative biometric switches and battery-less and wireless

**Relays:** Relays refer to a wide offer range for switching control circuit, from simple switching up to processing control on the base of electromechanical and electronic technologies

Signaling: Signaling Products allow you to know the status of the machine at any moment in a large distance with a 360° visibility. As the specialist in operator interface, Schneider Electric offers you diversified visual and audible signaling solutions



#### > HMI

HMI Schneider is a comprehensive, rugged, Open Ended interface and Industrial PC offer to meet your requirement in a wide variety of applications with its extensive capabilities which manages all vital features as Visualization, Control, Supervision, Diagnostic, Monitoring and Data Logging with Easy Preventive and Best fit for Industrial Automation



#### > Telemetry and Remote SCADA

Accutech - Rapid-deploy, self contained, battery-powered Wireless Instruments SCADAPACK - Scalable, Smart RTU, Modbus-centric and DNP3/IEC60870centric

TRIO - Licensed/license-free radios for serial and Ethernet communication ClearSCADA - Object oriented, wide area SCADA for critical, Infrastructures in WWW, O&G and Electrical Energy, integrated SCADA and ready to use Telemetry features, Wide range of open protocols and interfaces: DNP3, IEC60870-5, WITS, Modbus, OPC, SQL



#### > Drives for Machines

- > Altivar Machine Range from 0.18 KW to 15 KW
- $\boldsymbol{>}$  For superior performance, safety, compactness & application oriented features.
- > Designed for ambient temperature of 50°
- > Programmable via Bluetooth avoiding cables
- > Simple Loader & Multi Loader for easy parameter upload without powering on
- > So Move Mobile parameterization software for cell phones



> ATV212



> ATV71

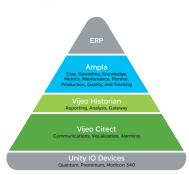
### > Drives for Utility, Buildings & Process

- > ATV212 0.77 KW to 75 KW, ATV61 0.37 KW to 630 KW & ATV71 0.37 KW to
- > Designed for ambient temperature of 50 Degrees.
- > Dedicated for HVAC\* & Pumping\*
- > Dual Port 1 for Graphic Display & 1 for BMS Integration\*
- > Closed Loop Motor Control\*\*
- > Syncronusy & Acsyncronus Motor control\*\*\*
- > Multi Motor Control\*\*\*
- > Application Specific functions

\*Only ATV212 \*\*Only ATV212 & ATV61 \*\*\*ATV71 only













#### > Engineered Drive Systems

- > Drive system offer up to 2400 kW
- > Solution for robust environmental condition with Liquid cooled drive
- > Ready to Use Compact engineered panels with Innovative 'Separate Air Flow Duct' for panel cooling
- > Compact size with swivelling door arrangement
- > Easy Maintenance with drawout type Drive Mounting
- > Reduction in CAPEX and OPEX with Intelligent Cooling Technology

#### > Medium Voltage Drive Range

- > MV drive range up to 16200 kVA
- > Multi-level technology for perfect sine wave
- > Compact design with integrated input transformer
- > Built -in 30 mins UPS backup (control system)
- > Cooling for supply derived from main incoming transformer
- > Comfort: Large touchscreen HMI, simple software
- > Low dv/dt, up to 2000m motor cable length
- > Robust 2mm enclosure, certified IP 31, IP 41, IP 42

#### > SCADA MES

**MES -** Ampla helps monitor and improve operational effectiveness (OEE, KPI) via modules –Downtime, Production, Metrics, Inventory with Genealogy and Tracking, Energy, Quality, Planner & Recipe, Maintenance, Knowledge and Cost

**HISTORAIN** - Vijeo Historian integrates plant with business applications and Microsoft Office. It is 100% pure Microsoft® SQL Server® historian containing Powerful, easy-to-use reporting tools and Intuitive visualization and analysis tool, (Process Analyst). Offers out-of-the-box sample reports, such as energy reports & alarm management reports based on EEMUA 191 guidelines

**SCADA -** Vijeo Citect is an object based SCADA that offers Scalable, Flexible and Reliable Standalone/ Client Server architecture with Redundancy. It provides seamless dataflow with Communication Driver Support for more than 100 hardware manufacturers and Support for Industry Standard Protocols Ascii, BacNet, DNP 3.0, EIB, IEC870-5, Modbus, OPC, Profibus, SNMP

#### > Automation Control System

Schneider Modicon controllers are synonymous with innovation in Automation world with major milestones as 1st Programmable Logic Controller 084 (PLC), 1st PLC with PID loop, Innovator of Modbus (Modicon Bus) communication Protocol, 1st Hotstanby Control System (584PLC), 1st Micro Controller, 1st Controller with ethernet link, 1st controller with High speed deterministic networking (Modbus Plus), Web enabled Controllers. With the innovative legacy Schneider now offers solution as per international standards for continuous or Batch Process through Plant Expert System (PES) and for traditional PLC system through Control platform of Quantum, Premium, M340, Adantys I/O. In order to keep People, environment and equipment in safe condition Schneider Electric has come up with safety control system in accordance to Sil 0 to Sil 4 standards of TUV/IEC. We today provide fully tested architected solution suitable to your needs

#### > Solutions for Packaging Machines

#### Range

Pac  $\bar{\rm Drive}$  M offer includes C200/C400/C800 Motion controllers including drive & motor

#### USP

- > Specialist in Packaging solutions & world leader to deliver solutions
- > Integrated Motion & logic control Foundation for uniform solutions
- > Fully integrated software tool having modular type with integrated templates
- > Programming simulation without real axis
- > PacML Compliance to adhere Packaging standard under OMAC



## Schneider Electric IT Business

Schneider Electric IT Business India, a global leader in critical power and cooling services, provides industry leading hardware, software, and services designed to ensure availability and higher energy efficiency across the residential, business network, data center, and manufacturing environments. Backed by the strength, experience, and wide network of Schneider Electric's Critical Power & Cooling Services, Schneider Electric IT Business India delivers well planned, flawlessly installed and maintained solutions throughout their lifecycle. Through its unparalleled commitment to innovation, the company delivers energy efficient solutions for critical technology and industrial applications.

#### > Adaptable & Flexible Power Protection

#### Discover our best-in-class UPS solutions:

- > Back UPS (0.6 kVA to 1.5 kVA)
- > Smart UPS (3 kVA to 20 kVA) Online & Line Interactive
- > Three-phase UPS Symmetra, MGE Galaxy
- > Distribution Modular, Configurable, Cabinet

#### Single Phase







3-Phase



Modular

> Back UPS Pro

> Smart UPS

> Rack Enclosures for Mission Critical Equipment

Rack technology that maintains airflow, delivers effective cooling and can ensure longevity of the equipment is here to help manage data centers in the best manner possible.

#### Racks and Accessories

- > NetShelter SX
- > NetShelter CX
- > Wall Mount cabinet Flexibox
- > Open Networking Racks
- > Rack Mount Transfer Switches (Automatic transfer Switch)
- > KVM Switch
- > Rack LCD Consoles
- > Netbotz Access control for Rack enclosures
- > PDUs Basic, Switched, Metered

#### Racks







#### **PDUs**



> Meteretd PDU

> Switched Rack PDU

#### Management



> NetBotz > KVM Switch

#### > Best-of-Breed Cooling Solutions for Rack-Row-Room-Buildings

With the size and number of data centers on the rise worldwide, there is an increasing need for intelligent cooling solutions to optimize power consumption. Schneider Electric brings you high-performance cooling solutions for applications across IT, Industrial and Facility Applications.

- > Rack Air Distribution
- InRow SC

- > InRow Chilled Water InRow Direct
- Expansion InRow Pumped Refrigerant
- Thermal Containment

#### Room

- > Amico
- > Leonardo
- > UniSplit
- > Active Floor
- > Automatic Floor > Pressurisation System

#### **Buildings**

- > Access Flooring
- Technical Chillers > Heat Rejections







> Chill Rack

> In Row RD



> Leonardo



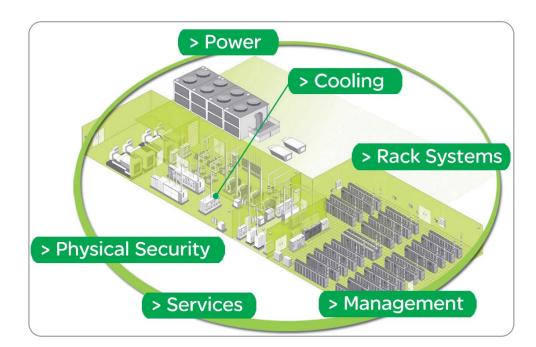
> Chillers Uniflair





## **Datacenter Solutions**

#### Choose Schneider Electric Data Center InfraStruxure™ Solution



#### We know data centres-

from rack to row to room to building!

Only Schneider Electric has proven expertise in every domain that supports the IT equipment: power, cooling, rack systems, security, and management.

Schneider Electric can design and build data centres from rack to row to room to building. What this means is that we uniquely understand that data centres comprise interconnected environments across the Data Centre Physical Infrastructure (DCPI). It integrates power, cooling, physical security, and rack systems and is monitored and managed via software solutions and professional services.

- > Physical Security Schneider Electric's single-seat view Includes access control and surveillance across one or multiple facilities
- > Services Schneider Electric's professional services provide one point of 'contact for data centre planning, building, and operation
- Management The ultimate connection, Schneider Electric's exclusive 4 Integrated software architecture removes management "silos" for greater energy awareness and efficiency and higher availability across the DCPI
- > Power The Schneider Electric power domain connects It all from generators, transformers, and switchgear to UPSs, breakers, and PDUs - to deliver cross-vendor interoperability
- > Cooling Our Integrated solutions combine chillers, perimeter cooling, hot aisle containment, and row-based options to maximize efficiency and guarantee availability
- Rack Systems Interconnected, any-IT vendor-compatible rack enclosures, accessories, and air containment solutions easily support all your HD processing needs





## StruxureWare for Datacenters



End-to-end data center infrastructure management (DCIM) software for monitoring, control of power, cooling, security and energy usage from the building through IT systems.

- > Real-time data embedded in intelligent Data Center model
- > Leading DCIM platform recognised by the analyst community
- > Patented 3D cooling technology for locating hot spots and identifying excessive cooling
- > Uniquely integrated with virtualisation management ensuring high availability
- > Certified field service

#### > Data Center Energy Management Services

Our comprehensive data center service portfolio

Schneider Electric has perfected the data centre design and build process through science and real-world applications of our thought leadership Now you can benefit from our proven methodology, which is founded on years of experience and industry insights. Our design and build process costs less, takes much less time to execute, and requires fewer resources to manage. We integrate design and construction services for streamlined schedules, better cost control and reduction of unforeseen problems. In addition, you can count on our integrated verification testing, which checks the system as a whole, before your data centre goes online.



DC Energy Management Services

- Architecture/Engineering
  Project Management
  Equipment Sourcing & Scheduling
  Construction
  Installation
  Assembly & Start-up
  Commissioning
  Integration

- Integrated Monitoring
   Building automation
   IT Floor
   Power quality
   Security





# Complete offer for integrated building management system



#### > Building Management Systems

> Andover Continuum
Single source solution for HVAC
and electronic access control



Maximum system reliability and security optimized for YOUR building management

#### > TAC Vista

Integration, intelligence and TCP/IP deliver a smarter Building Energy Management System



#### > Smart Struxure Solution

A SmartStruxure™ solution enables you to monitor, measure, and eliminate waste throughout your building's lifespan, saving you money.





A Smart Struxure Lite solution for Small Buildings



#### > Video Solutions



#### > BU4, BU5 & BU6 Series Bullet Caneras

Indoor and Outdoor Analog Bullet Cameras with IR



#### > C20 Series

High Resolution Color, Day/Night with WDR Camera



#### > Camclosure IS50/IS51 Series

Outdoor Fixed Mini Domes



#### > Esprit SE

Integrated PTZ and Pressurized Camera Systems



#### > Exsite Series

Explosion Proof PTZ and Fixed Analog Cameras



#### > FD1, FD2 and FD5 Fixed Dome Series

Entry Level and General Purpose Indoor & Outdoor Fixed Dome Cameras



## > Sarix IE Series Environmental

0.5-3.1MP High-Performance Low-Light Domes with H.264 and Auto Back Focus



#### Sarix IM Series Environmental Mini Domes

0.5-1.3MP Value-Driven, Compact Low-Light IP66 Rated Domes with H.264 and Auto Focus



> Sarix IL 10 Series Box Camera 1 MPX, 720P, H.264, color, indoor IP Cameras with fixed focus



> Sarix IM Series Vandal Resistant Mini Domes

0.5-1.3MP Value-Driven, Low-Light Rugged Domes with H.264 and Auto Focus



> Sarix IL 10 Series Mini Dome Camera

1 MPX, 720P, H.264, color, indoor IP cameras with fixed focus



> ExSite IP Series

Focus

Focus

Explosion Proof PTZ and Fixed IP Cameras



> Sarix ID Series Indoor Domes 0.5-3.1MP High-Performance Low-Light Domes with H.264 and Auto Back Focus



> Sarix IM Series Mini Domes 0.5-1.3MP Value-Driven, Compact Low-Light Domes with H.264 and Auto Focus



> Sarix IM-E Series Environmental Mini Domes with SureVision 0.5-1.2MP IP66-Rated Domes with WDR, Low-Light Performance, H.264 and Auto Focus



> Sarix IM-V Series Vandal-Resistant Mini Domes with SureVision 0.5-1.2MP Rugges Domes with WDR, Low-Light Performance, H.264 and Auto



> Sarix TI Series IP Thermal Camera Thermal Imaging Pan/Tilt & Fixed, Analog & IP Cameras featuring Sarix Technology



> Spectra IV IP H.264
High Speed IP Dome Positioning
Systems with H.264 and Digital PTZ



> Spectra IV SE Horizon Look-Up, High Speed Dome Positioning Systems



> Sarix IX Series IP Cameras 0.5-3.1MP Low-Light Box Camera with H.264 and Auto Back Focus



> Spectra HD
High Definition IP Dome Positioning
System



> Spectra IV SE & SL High Speed Dome Positioning Systems



> Spectra IV SE Pressurized Pressurized, High Speed Dome Positioning Systems



> Sarix IX Series IP Cameras with SureVision 0.5-1.2MP Box Cameras with WDR, Low-Light Performance, H.264 and Auto Back



> Spectra IV IP
High Speed IP Dome Positioning System



> Spectra IV SE Heavy Duty Heavy Duty, High Speed Dome Positioning Systems



> Spectra IV SE Stainless Steel Stainless Steel, High Speed Dome Positioning Systems

#### > HVAC Control Devices



> American Access Control
Providing the most reliable first line of
defense in the safety of your building



> American HVAC Damper Actuators Superior air control features that helps ensure environmental safety and energy efficiency



> American HVAC Valve Actuators
Delivering the most precise control and
field flexibility in both retrofit and new
construction



> American HVAC Valves Contributing to energy efficiency and comfort in industrial and commercial buildings across the United States



> European HVAC Damper Actuators Reliability is the hallmark of this industry leading range of air control devices



> European HVAC Sensors Contemporary design meets high performance across a wide range of sensing applications



> European HVAC Valves
Dependable, high performance heating and cooling solutions to fit a wide range of European building applications



> HVAC Thermostats & Controllers New global offer of SE7000 Room Controllers headline the industry's broadest offer in this



> American HVAC Sensors
Broad off including Temperature, Humidity,
Air Quality, and Light Sensors that help
optimze building comfort and safety



European Access Control Specifically designed to meet the safety needs of a broad range of building applications



> European HVAC Valve Actuators
Easy installation and high performance
team up to deliver the most efficient and
precise control





# Solar Solutions for Utility Scale & Large Commercial



#### > PV Box power conversion system

PV Box is a containerized plug and play power conversion system adapted to customer requirements and local standards. In PV plant installation, it operates between DC field and AC MV grid connection point. The PV Box performs the DC power concentration, the DC/AC conversion and the AC voltage elevation to the grid voltage level. It ensures the protection of maintenance people and the installation against electrical faults such as short-circuit and lightning. The optimized versions of PV Box offer overall BOS cost reduction, enhanced reliability and improvement in deployment speed.



#### **Product Applications:**

> Large commercial

> Centrlised PV Plants

#### > Conext Core XC series central inverters

The Conext Core XC is designed for high efficiency and flexibility for any PV panel type and installation. The Conext Core XC Series has peak efficiencies of 98.9% and its flexibility allows the inverter to be configured with voltage and power outputs up to 680 kW. The Conext Core XC is designed to allow for DC inputs up to 1000 Vdc for longer string lengths. It contains the latest grid management features to meet global utility requirements.

#### Product Applications:

> Large commercial

> Centrlised PV Plants



Available in 540, 630 and 680 kW

#### > Conext Control

Conext Control is the global and standardized evolutive monitoring solution for large photovoltaic installations. It is designed to operate any site efficiently, provide, the service teams, the means to make prompt decisions and react accordingly.

#### **Product Applications:**

> Large commercial

> Centrlised PV Plants







# Solar solutions for residential & small commercial

#### > Conext RL single-phase grid-tie inverter

The Conext RL Inverters are specially designed to maximize yields for a wide range of rooftops of detached houses and multiple dwellings. The rich MPPT features, high energy efficiency, partial shading algorithm and a wide temperature and voltage operating range enables you to maximize your ROI.

#### **Product Applications:**

- > Flat roofs
- > Multiple pitched roofs
- > Odd number of modules
- > Different orientations roofs (East-Wes)



Available 3 4 and 5 kW

#### > Conext TL three-phase grid-tie inverters

The Conext TL 8, 10, 15 kW and 20 kW grid-tie solar inverters are suited for outdoor use and are the ideal solution for commercial buildings, carports and decentralised PV plants up to the MW range. The inverters provide dual MPP (Maximum Power Point) trackers with a wide voltage range, peak efficiency of greater than 98% for fast ROI.



Available in 8, 10, 15 and 20 kW

#### **Product Applications:**

- > Commercial Buildings
- > Decentrised PV Plants
- > Carports

# $\rightarrow$

# Off-grid solar & battery backup solutions

#### > Conext SW inverter/charger

Conext™ SW delivers new value and a new price point to the marketplace. Conext SW is a pure sine wave, inverter/charger system with switchable 50/60 Hz functionality available for both 120/240 VAC or 230 VAC models. Stacking Conext SW units will double the power and available solar charge controllers allow for the integration of solar capacity as required.

#### **Product Applications:**

- > Off-grid solar
- > Community electrification
- > Residential backup power



Available in 2.5 kW, 3.5 kW, scalable up to 8 kW

#### > Conext XW inverter/charger (230 V / 50 Hz)

Conext™ XW is an adaptable pure sine wave, single-phase, split-phase or three-phase inverter/charger system with global grid-tie functionality and dual AC power inputs. From single Conext XW units to multiple clusters of units, up to 36 kW each, the Conext XW is a scalable system that allows for the integration of solar capacity as required.

#### **Product Applications:**

- > Off-grid solar
- > Community electrification
- > Residential, backup power & grid-tie
- > Small commercial, backup power & grid-tie



available in 4, 4.5 and 6 kW, scalable up to 36 kW





## Solar charge controllers

#### > MPPT 80 600 solar charge controller

The MPPT 80 600 Solar Charge Controller offers an industry-first set of integration features and top performance that allows for large PV array systems to be easily installed and connected to the battery bank at the lowest overall cost. Advanced Fast Sweep™ MPPT charging technology helps harvest the most energy available from the PV array, even in partial shade conditions.

#### **Product Applications:**

- > Off-grid solar
- > Residential, backup power & grid-tie
- > Community electrification
- > Small commercial, backup power & grid-tie



The MPPT 60 150 is a photovoltaic (PV) charge controller that tracks the maximum power point of a PV array to deliver the maximum available current for charging batteries. When charging, the MPPT 60 150 regulates battery voltage and output current based on the amount of energy available from the PV array and state-of-charge of the battery.

#### **Product Applications:**

> Community electrification

- > Off-grid solar
- > Residential backup power

> C12 PWM charge controller
The C12 charge, controller features three-stage charging, user definable voltage
parameters, and automatic equalization. Standard in the C12's load control circuitry
are field adjustable low voltage disconnect and reconnect points, along with a five
minute low battery disconnect warning. Lighting run time is adjustable from two to
eight hours or can be set from dusk to dawn operation.

#### Product Applications:

- > Off-grid solar
- > Community electrification
- > Residential backup power and grid-tie

#### > C Series PWM charge controller

The C35 and C60 are field configurable for 12 V and 24 V operation. The C40 may be configured for 12 V, 24 V, or 48 V operation. All can be used as a charge, diversion, or load controller and come with a standard multi-color charge status LED face plate.

#### **Product Applications:**

- > Off-grid solar
- > Community electrification
- > Residential backup power and grid-tie

## Accessories for the Conext SW and Conext inverter/chargers



> System control panel (SCP)



> Automatic generator start (AGS)



> Conext ComBox communication device





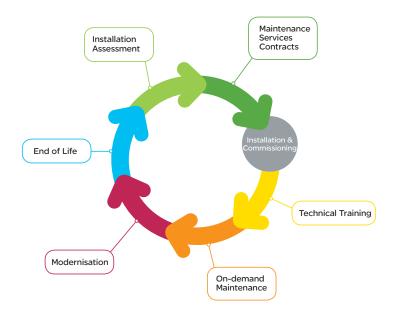








## **Field Services**



## > When it comes to your electrical distribution installation, we can help you: > Increase productivity, reliability, and safety

- > Mitigate risk and limit downtime
- > Keep equipment up to date and extend its lifespan
- > Cut costs and increase savings
- > Improve your return on investment



Comprehensive Installed Base Services from Schneider Electric



Your electrical distribution equipment









## **Professional Services**

Your trusted energy partner to manage your entire energy lifecycle



Be it an

- > Industry
- > Building
- > Data center
- > Electrical network

According to a 2012 grading done by BEE through an accreditation process carried out by CRISIL Schneider Electric India is rated with "Very high ability to carry out energy audits and undertake energy efficiency projects."

Schneider Electric India has executed over 800 energy efficiency and power quality assessments

- > Grade-1 Energy Service Company (ESCO) with Bureau of Energy Efficiency Panelist for National Thermal Power Corporation (NTPC)
- > Chair positions in Efficiency Valuation Organisation and Green Grid
- > 40+ energy professionals with industrial process and technology expertise
- > 20+ BEE certified Energy Auditors and Certified M&V professionals
- > ISO 50001 and LEED APs to partner with you on latest energy standards

#### **Advisory services**

- > Energy management strategy
- > ISO 50001 compliance
- > Sustainability reporting
- > Perform, Achieve, Trade (PAT)

#### **Demand services**

- > Energy assessment
- > Energy monitoring and analysis
- > Risk assessment and reliability
- > Design and engineering
- > Energy saving retrofit projects
- > Performance contracting

#### **Supply services**

- > Energy sourcing
- > Rate / Tariff optimisation
- > Demand response services







## Schneider Electric India Foundation

Schneider Electric is committed to supporting communities wherever the company operates around the world. Schneider Electric Foundation, under the aegis of the Foundation de France, undertakes concrete, long-term projects that promote:

- > The training and integration of young people at the bottom of the pyramid primarily in electrical trades
- > The support to emergency initiatives after natural disasters
- > The awareness-raising to sustainable development through innovative projects.

#### What we do:

Mission: "Help people to change their lives through access to Energy"

#### Helping Planet and Society through



#### **Education**

- > Electrician training for unemployed youth
- > Scholarship to poor students to pursue engineering degree
- > Educate school children about energy conservation (Conserve My Planet)



#### **Employment**

> Electrician training for unemployed youth



#### Entrepreneurship

> Facilitate trained electricians with a "start up kit" and an entrepreneur training to run their own business



#### **Rural Electrification**

> Facilitate access to electricity at very remote areas without grid supply



#### **Emergency during Natural disasters**

#### **Our Achievements:**

- Education
  - > 89 Electrician Training Centre's across 24 states in India
  - > 1 exclusive women electrician training centre in Chennai
  - > 7731 unemployed youth trained
  - > 32 scholarships to 13 engineering colleges across India
- Employment
  - > 4500+ trained electricians employed
- Entrepreneurship
  - > 126 trained entrepreneurs supported to start their own business in their villages
- Rural Electrification
  - > 1107 solar Home lighting systems installed
  - > 1031 households in 11 remote un-electrified villages were illuminated with In-Diya solar lighting system
  - > 1 Public library illuminated at Village named 'Doora' in Mysore
  - > 74 In-Diya solar home lighting systems were installed in a residential Adivashi school on the outskirts of Nasik
  - > 1 Creche in Nasik was illuminated with In-Diya
- Awards & Recognition
- > Schneider Electric India Wins Golden Peacock Award for Corporate Social Responsibility on April 28, 2012

## make the most of your energysm

#### Chandigarh

Schneider Electric India (P) Ltd. SCO. 13-14-15, 4th Floor, Sector-34-A Chandigarh - 160022 Tel: 0172-5076781/82/83/84 Fax: 0172-2669043

#### Jaipur

Schneider Electric India (P) Ltd. Jaipur Business Centre 309, 3rd Floor Sangam Tower 190, Church Road, Jaipur - 302001 Tel: 0141-5118249/5102561 Fax: 0141-5113303

#### Jamshedpur

Schneider Electric India (P) Ltd. The Business Centre Moti Bhavan Road No. 1 Contractor's Area, Bistupur Jamshedpur - 8311001 Tel: 0657-2224426/2226560 Fax: 0657-2222757

#### Lucknow

Schneider Electric India (P) Ltd. 1st Floor, Asha Bhawan 27/II-A Gokhle Marg, Lucknow - 226001 Tel: 0522-4006010 Fax: 0522-4006011

#### Ludhiana

Schneider Electric India (P) Ltd.
Office No. 3, 5th Floor, Novelty Plaza
Bhai Walla Chowk, Ludhiana - 140001
Tel: 0161-4656672-75
Fax: 0161-4656671

#### Mumbai

Schneider Electric India (P) Ltd. Unit No. 1141, 1142 Building No. 11, 4th Floor, Solitaire Corporate Park Andheri Kurla Road, Chakala Andheri (E), Mumbai - 400059 Tel: 022-39404000/40170000 Fax: 022-40170092

#### Mumba

Schneider Electric India (P) Ltd., 2nd Floor, Marwah House, Kishanlal Marwah Marg, Off Saki Vihar Road, Marol, Andheri(E), Mumbai - 400072, Maharashtra. Tel: 022-30263300. Fax: 022-30263333

#### Pune

Schneider Electric India (P) Ltd. 2nd Floor, R.B. Business Centre Above Dasa Electronics Sangvi Nagar, Aundh, Pune - 411007 Tel: 020-39404000/66421900 Fax: 020-66421999

#### Ahmedabad

Schneider Electric India (P) Ltd. 41 B, 42 A, 4th Floor, Space House Opp. Sri Krishna Centre, Mithakall Six Roads, Ahmedabad - 380009 Tel: 079-26440368/26426944 Fax: 079-26426948

#### Secunderabad

Schneider Electric India (P) Ltd. D. No. 1-8-271, # 102, Ashoka Bhoopal Chambers, SF. Road, Secunderabad - 500003 Tel: 040-39404000/66330000 Fax: 040-66330000

#### Vadodara

Schneider Electric India (P) Ltd. 305, "Concorde" RC Dutt Road, Alkapuri, Vadodara - 390007 Tel: 0265-2359117/118 Fax: 0265-2353406

#### Bangalore

Schneider Electric India (P) Ltd. 4th Floor, Electra, Wing 'A' Exora Business Parks, Marathahalli, Sarjapur Outer Ring Road, Bangalore - 560 103. Tel: 080-4333 3333, Fax: 080-4333 2323

#### Chenna

Schneider Electric India (P) Ltd. III Floor, DBS Westminister, No 108/5 Dr. Radhakrishan Salal, Mylapore Chennai - 600004 Tel: 44-39143200

#### Cochin

Schneider Electric India (P) Ltd. 41/408, D1, BeeJay Towers, Above Qatar Airways, Rajaji Road Cochin - 682035 Tel: 0484-3048401/2/3 Fax: 0484-3048405

#### Coimbatore

Schneider Electric India (P) Ltd. No. 104, 3rd Floor, Classic Tower, Trichy Road, Coimbatore - 641013 Tel: 0422-4392729/4392927 Fax: 0422-4392972

#### Nagpur

Schneider Electric India (P) Ltd. Fortune Business Centre 6, Bashant Vihar, WS.C. Road, Shankar Nagar, Nagpur - 440010 Tel: 0712-2558581 Fax: 0712-2550070

#### Kolkata

Schneider Electric India (P) Ltd 3rd Floor, Technopolis Building BP-4, Sector - V Salt Lake city Kolkatta - 700091 Tel: +91-33-39404000 Fax: +91-33-30248686

#### Vishakhapatnam

Schneider Electric India (P) Ltd. Ratnam's Executive Centre D. No. 10-1-43, 1st Floor Siripuram Fort, CBM Compound Vishakapatnam - 530016 Tel: 0891-2508990 Fax: 0891-2508990

#### Schneider Electric India Pvt. Ltd.

#### Corporate Office

Sth Floor. DLF Building No.10, Tower C, DLF Cyber City, Phase II, Gurgaon - 122002, Harryana Tel: 0124 3940400, Fax: 0124 4222036 www.schneider-electric.co.in

#### Customer Care Centre

Toll-free numbers: 1800 180 1707, 1800 103 0011 General number: 0124 4222040 Email: customercare.in@schneider-electric.com

