

Schneider Electric India

Help people make the most of their energy



Schneider
Electric

our Vision



A world where we can all **achieve more while using less** of our common planet **by putting in place comprehensive efficiency management expertise that make energy:**

- **Safe**, with power and control
- **Reliable**, with critical power and cooling services
- **Efficient**, with energy efficiency
- **Productive**, with industrial, building and home automation
- **Green**, connecting renewable energy source with ease, reliability and cost-effectiveness

Moving towards an Active Energy Management architecture form Plant to Plug through EcoStruxure

Because integration is the key to efficiency



Schneider Electric in India*



11000+ employees



1000 +
Authorised Partners Distributors
System Integrators, Panel Builders



23
Global Manufacturing Plants



900 +
R&D engineers in Bangalore



10
Distribution Centres



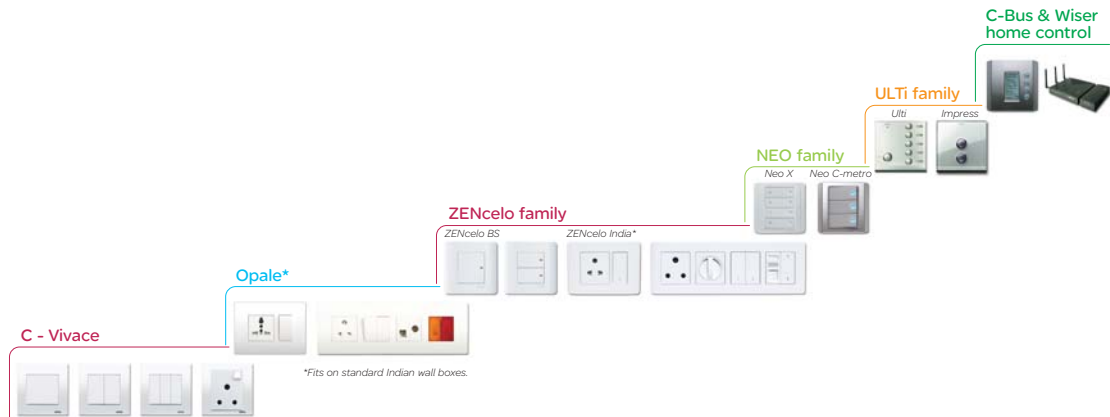
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Regional Project &
Engineering Centre

*Figures as on March 1st, 2011



Life Space Products & Solutions

This vast range includes switches, socket outlets, a large range of allied products and data and communication products for commercial, hotel and industrial applications.



opale - A work of art



Features

- New design with more space for wiring
- Better switch feel and sound
- New shutter design in sockets prevents single pin insertion
- Sockets have 2 wire hole per terminal
- Satin finish
- Captive screws
- Ease of installation
- IP 20 degree of protection
- Child proof sockets
- Smooth operation

The range includes:

- Switches
- Socket Outlet
- Bell Press Switches
- Double Pole Switches
- TV/Telephone/Data Outlet
- Dimmers and Fan Regulators
- Hospitality Range
 - Key Card Switch
 - Shaver Socket
 - Do not Disturb Switch
 - Please Clean Up Switch

The complete range is available in White and Coke Grey



ZENcelo be in-standing



Features

- Made of corrosion resistant, heat resistant and impact resistant polycarbonate
- Data socket with patented integrated shutter
- Electrical socket with reinforced-nylon protective shutter
- Switches are electric arc encapsulated
- Philips head screw to fit both flat and cross head screwdrivers
- Switches tested to 80,000 times. Sockets tested to 15,000 cycles. Durable to last more than a decade
- IEC, BS, SS, MS, GB, CCC and/or IS compliant
- All RoHS compliant

The full-flat form factor has redefined many facets in life. With ZENcelo, luxury is no longer defined by price. But by wisdom and style.

Technology - Turning Imaginations into reality

- Switches
- Socket Outlet
- Bell Press Switches
- Double Pole Switches
- TV/Telephone/Data Outlet
- Dimmers and Fan Regulators
- Hospitality Range
 - Electronic Key Card Switch
 - Shaver Socket
 - Do not Disturb Switch
 - Please Clean Up Switch

The modules are available in White and Dark Grey colour. The surrounds are available in 4 colours – White, Dark Grey, Silver Satin, Solver Bronze.



neo C-METRO



Features of the range

- Design ideas originated from award winning NEO series
- White / Blue fluorescent light or LED indicator
- Modern and sleek
- A perfect example of "Form and Function"
- Horizontal alignment available for first time in India

Application of the LED technology

- Longer life than neon
- More stable light
- Pleasing colour and light intensity

Range includes

- Switches with LED
- Switched Socket Outlet
- Bell Press Switches
- Double Pole Switches
- TV/Telephone/Data Outlet
- Hospitality Range
 - Electronic Key Card Switch
 - Shaver Socket
 - Do not Disturb Switch
 - Please Clean Up Switch



> Final Distribution Products

MCBs - C60, C120

Miniature Circuit breaker gives reliable protection against Overload & short circuit in AC circuits & also can be used for limited DC applications.



»C60H



»C120

Parameter	C60H	C120N	C120H
Comply with	IEC 60898 IS/IEC 60898 & IEC 60947-II	IEC 60947	IEC 60947
Current rating	1 to 63 A	80,100,125A	80,100,125A
Poles	1,2,3,4	1,2,3,4	1,2,3,4
Voltage rating	230-440V	230-440V	230-440V
Insulation voltage U _i	500V	500V	500V
Impulse withstand voltage U _{imp}	6kV	6kV	6kV
Breaking capacity	H 10kA (as per IEC 60898) 15kA (as per IEC 60947-II)	N 10kA (as per IEC 60947-II) H 15kA (as per IEC 60947-II)	15kA
No. of operating cycles	20000	20000	20000
Tropicalization	Treatment 2	Treatment 2	Treatment 2
Connections	25 sq.mm < 25A 35 sq.mm > 25A	Up to 50 sq.mm	Up to 50 sq.mm

Multi 9 Range

> Protection Device

- MCBs - AC / DC
- RCDs - RCCBs, RCBO, Vigi Addon, AC, Si, SIE
- SPDs - Type 1 + 2, Type 2
- Aux - ON / Off, TripAlarm, Shunt, Under Voltage, Over Voltage, Remote Control

> Control & Indication

- Isolator - up to 125A
- C/O S/W - SP & DP
- Time S/W - Mech, Digital, Astro
- Contractors - up to 100A
- LED Indicators - Red, Orange, Blue, Green
- Meters - V, A, Energy, Frequency

> Distribution Boards

- Complete Range of Metal & Plastic DBs from IP 30 to IP 65

> Connection Devices

- Metal Clad Plug and Socket
- Plastic PK Plug and Socket
- Interlock type Sockets



NeoBreak Distribution System

> NeoBreak MCBs & RCCBs

MCB Features

- Conforms to IS/IEC 60898
- ISI Marking
- 6kA Breaking capacity : C tripping characteristics
- 6 to 63A with configuration 1P, 1P+N, 2P, 3P, 3P+N, 2P, 3P, 4P
- 10kA Breaking capacity: B & C tripping characteristics, 0.5 to 63A with configuration 1P, 1P+N, 2P, 3P, 4P

RCCB Features

- Conforms to IS 12640
- ISI Marking
- Quick reponse time (30mSec much faster than the value specified in standards)

> NeoBreak Isolators & DBs

Isolator Features

- Conforms to IS 13947-3
- Suitable for AC22 duty
- Terminal size suitable for 35sq mm cable
- Positive contact indication

DB Features

- Zero error installation
- Independent intermittent shield
- IP 43 for DD, IP30 for SD



> Power Control & Protection

TeSys E

- 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



> TeSys E Contactor
6A - 300A



> TeSys E Overload Relay
0.1A - 333A



> TeSys E Control Relay
4 NO/NC Contacts

TeSys control and Protection components

Installation

- Innovative Bus Bar System
- Direct Mounting Relay
- Up to 150

Design

- 45 & 55mm width up to 65A
- Common Accessories

Productivity

- High Electrical Life
- Type 1, Type 2 & Total Coordinated



> Contactor Range
TeSys Model K / D / F
6A - 800A - Ca3



> Overload Relay
Range
TeSys Model K / D / F
0.1 - 630A



> MPCB Range
TeSys Model GV2, GV3,
GV7 0.1 - 220A

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



> Jeevan Range

- MF2A - 1Ø up to 4Hp & 3Ø up to 10Hp
- 3CDL - 1Ø up to 3Hp
- 7MDL - 1Ø up to 3Hp & 3Ø up to 7.5Hp
- MWA - up to 20Hp

> TE-Start Range

- TDL - 1Ø up to 3Hp & 3Ø up to 125Hp
- TRS - up to 20Hp
- TSD-A - up to 400Hp

> Low Voltage Products

Compact CVS



> Compact CVS 100-800A

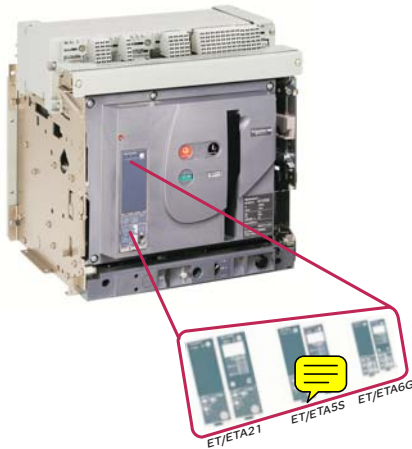
16 to 630A in 3/4 pole versions

- Conforms to IS/IEC 60947-1 & 2
- Breaking Capacities 25KA (16-250A), 36KA (16A-630A), 50KA (400 & 630A)
- Two frame sizes for complete range
- Thermal magnetic trip units (up to 250A) & electronic trip units (400&630A)
- Fault current limitation technology increases the life of cables and installation
- Front accessible common snap fit auxiliaries simplifies the installation procedures & reduces inventory costs
- Suitability for Isolation ensures that the circuit is isolated from the remainder of the system thus the personnel carry out work with complete safety
- Class 2 front face reinforces safety with unique modular construction where the auxiliaries are isolated from the main current path
- Pad lock & key lock option ensuring safety and better control on installation
- Unique electronic ground fault protection device with individual LEDs for system healthiness & fault trip indications
- Systems can be upgraded with easily retrofit table with Compact CVS or Compact NSX without any modifications in the panel design

Compact CVS also available in 800A frame size in 3/4 Pole versions

- Breaking Capacities: 35KA & 50KA with Ics=100% Icu
- Compact CVS range is complete with 800A offering:
- Line-load reversibility
- High endurance assures continuous performance
- Available in thermal magnetic version with both adjustable over-load & short circuit settings
- Wide range of accessories & auxiliaries
- Sufficient pole pitch helps to terminate copper and aluminium bus bars or cables

Masterpact MVS



> Masterpact MVS ETA

- Conforms to IS/IEC 60947-2/3 tested at CPRI/ERDA
- 800A-3200A in 3/4 Pole Versions in Manual & Electrical operated versions
- No deration up to 50°C
- Single frame size for the complete range of circuit breakers & switch disconnectors resulting in size optimisation and connection simplicity
- <40ms fault clearing time
- Microprocessor bases ET/ETA trip systems with true RMS sensing & in-built thermal memory & current measurement ensures reliability and accurate protections
- Overload run alarm & individual LED indications enable fault identification & analysis
- Immune to electromagnetic interference
- 100% neutral with adjustable protections at OFF-50%-100%
- High electrical & mechanical endurance without maintenance assures long service life with Zero downtime.
- Wide range of Simple & easy front fittable accessories & auxiliaries common to NT/NW reduces inventory & saving on maintenance costs
- Promise to provide complete safety with Safety shutter locking, ON/OFF PB locking, door, interlock, Ready to close contact, Key locks, positive locking in with drawable positions, etc.,
- Offers complete flexibility in terminating Copper/Aluminium busbars with single pole pitch of 115mm
- Terminal orientation can be changed at site depending upon the termination requirements
- Single bolt fixing motor mechanism helps to convert Manual operated breaker into Electrical one with practically lesser down time.
- Masterpact MVS respects the environment throughout their life cycle & conforms to ROHS/WEEE norms



Variable Speed Drives

Soft Starters

Variable Speed Drives

Simple Machines

Advanced Machines

HVAC



	Altistart 01	Altistart 22	Altistart 48	Altivar 12	Altivar 312	Altivar 32	Altivar 212
Application	Compressors, centrifugal pumps, fans, conveyors, automatic doors, washing gantries	Motor Starter solutions requiring a compact footprint (Integral bypass), Compressors, centrifugal pumps, automatic doors, washing gantries, fans and high inertia machines, conveyors, line current limiting	Compressors, all pump types, fans and high inertia machines, conveyors, line current limiting	Simple machines for industry (small handling applications, packing, pumps, fans etc...) Simple consumer machines (access barriers, medical beds, treadmills, dough mixers etc...)	All pump types, fans, conveyors, material handling machines, packaging, automatic parking barriers, textile machines, etc...	Printing, Material handling, conveying, transfer machine, packaging, textiles etc...	Range specifically for HVAC applications: heating, ventilation, air conditioning, in buildings
Supply voltage	Single phase 110 ... 230V Three-phase 200 ... 480V	Three-phase 208 ... 600V Three-phase 230 ... 440V	Three-phase 208 ... 690V	Single-phase 100 ... 240V Three-phase 200 ... 240V	Single-phase 200 ... 240V Three-phase 200 ... 600V	Single-phase 200 ... 240V Three-phase 380 ... 500V	Three-phase 200 ... 480V
Motor power range	0,37 ... 15 kW	4 ... 400 kW	4 ... 1200 kW	0,18 ... 4 kW	0,18 ... 15 kW	0,18 ... 15 kW	0,75 ... 75 kW
Output motor frequency	-	-	-	0,5 ... 400 Hz	0,5 ... 500 Hz	0,5 ... 500 Hz	0,5 ... 200 Hz
Motor Type Asynchronous Synchronous	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
Transient over torque	30 ... 80% of DOL motor starting torque	-	TCS Torque Control System	150 ... 170 % Tn	170 ... 200 % Tn	170 ... 200 % Tn	110 % Tn
Built-in functions	1	30	36	40	50	150	45
Number of preset speeds	-	-	-	8	16	16	7
Number of I/O	- 3 - 1 - 1	1 x PTC probe 3 - - 2	1 x PTC probe 4 1 2 3	1 4 1 1 1	3 6 1 - 2	3 6 1 1 2	2 3 1 - 2
Communication Integrated Options	- Combined with TeSys U	Modbus DeviceNet, Modbus TCP, PROFIBUS DP etc via gateway	Modbus DeviceNet, Ethernet TCP/IP, Pro, PROFIBUS DP	Modbus	Modbus & CANopen CANopen Daisy chain Modbus TCP, EtherNet/IP DeviceNet, PROFIBUS DP	Modbus & CANopen CANopen Daisy chain Modbus TCP, EtherNet/IP DeviceNet, PROFIBUS DP	Modbus, BACnet, METASYS N2, APOGEE FLN LonWorks
Standards and certifications	IEC/EN 6094764/2 C-TICK N998, GOST, CSA, UL, CE, CCC	IEC/EN 6094764/2 C-TICK N998, GOST, CSA, UL, CE, CCC Class A EMC	IEC/EN 6094764/2 C-TICK N998, DNV GOST, NOM, SEPRO and TCF, CSA, UL, CE, CCC Class A & B EMC	IEC/EN 61800-5-1, IEC/EN 61800-5-2, IEC/EN 61800-3, NOM, CSA, UL, C-TICK, CE, GOST	IEC/EN 61800-5-1, IEC/EN 61800-5-2, IEC/EN 61800-3, NOM, CSA, UL, C-TICK, CE, GOST	IEC/EN 61800-3 EN 55011, EN 55022, CSA, UL, C-TICK, CE, NOM	IEC/EN 61800-3 EN 55011, EN 55022, CSA, UL, C-TICK, CE, NOM

> Control & Signaling Products



> Pushbuttons, switches and pilot lights
Indispensable for the most common applications and likewise for the most severe, Harmony pushbuttons, selector switches and pilot lights maintain luminosity and safety.



> Cam Switches
3 ranges from 10 to 150A that combine installation simplicity and flexibility, for control and monitoring of your motors.



> Biometric Switches
Available as Ø22mm - 2 Positions, stay put or momentary operator, pre-wired cable or remote connector connections terminals



> Zelio Time, Control, Count
Zelio Time is available in configurable range-modular, industrial, panel-mounted. Designed for all hard-wired logic automatic systems complementing PLCs Counters are available in two technologies for hour counting, totalizers, threshold preselectors. Control covers all monitoring and control requirements. assures control of frequency, temperature, level and speed faults.



> Control Stations
Robust, compact, ergonomic and with maximum installation simplicity, Harmony control stations provide the ideal solution for your varying applications.



> Joystick Controllers
Designed to control hoisting and materials handling equipments. Provides robust and customized control. Available in 3 ranges to operate a machine in four directions (up/down/right/left)



> Beacons and indicator banks
Featuring the best technical performance, they enable you to be kept informed on the status of all your processes, at distances between 5 and 100m and throughout 360°.



Metering Products

An extensive range of Meters to cover the entire network from the main incomers up to the final loads

Power Metering



- > DM 1000/3000 Series
1 phase & 3 Phase Digital Panel Meters
 - 5 flexible models to check the basic electrical parameters for many applications.



- > DM 52 Series
3 Phase Energy Meter
 - Standalone energy meters with pulse output



- > ELF 3200 Series
V,A,F, Power & Energy Monitor
 - Tiny, true RMS, User programmable with % Unbal, % Load, RPM & other features



- > EM 6400 Series
Multi-function Meter
 - Communicable Loadmanagers with Digital display and Analog load bar indicators



- > EM 6438
Dual Source Energy Meter
 - Meter with 2 energy registers to separately record the consumption from two different sources



- > PM 800
 - Modular & up gradable LCD display meter with internal memory, remote display options, Power Quality analysis, control capability and dual port



- > PM 9
Din Rail Mounting Multifunction Meter
 - Compact modular meter only 72mm wide for optimized installation.
 - Monitors all multifunction parameters & has RS485 communication port or pulse output options.

> Reactive Energy Management



> Varplus Can

Types

- Standard Duty
- Heavy Duty
- Heavy Duty - Gas
- Energy (MD-XL)

Available with

- KVar Range 5 to 25 kVar
- KVar Range 5 to 15 kVar Energy
- Voltage range 415/440/480/525V (other voltage on request)



> Special Heavy Duty Range 50 kVar unit

- 415/440V (other voltage on request)



> Detuned Reactor

- Detuning factor (P)
5.67%, 7%, 14%
- Copper wound
- Voltage 415/440V



> APFC Relay

Available with

- 6 & 12 stages
- Voltage 110/230/ 415/440V
- 4 Quadrant operation
- Dual Target power factor
- LV/HV network application



> Varplus Box

Types

- Standard Duty
- Heavy Duty
- Energy (MD-XL)
- APP - Super Heavy Duty

Available with

- Range 5 to 100 kVar
- Voltage range 415/440/480/525V (other voltage on request)



> APFC Relay - Classic

Available with

- 6, 8 & 12 stages
- Voltage 415/440V
- 4 Quadrant operation
- LV network application



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