



Product Preview & Price List 2021

Price effective: January, 2021

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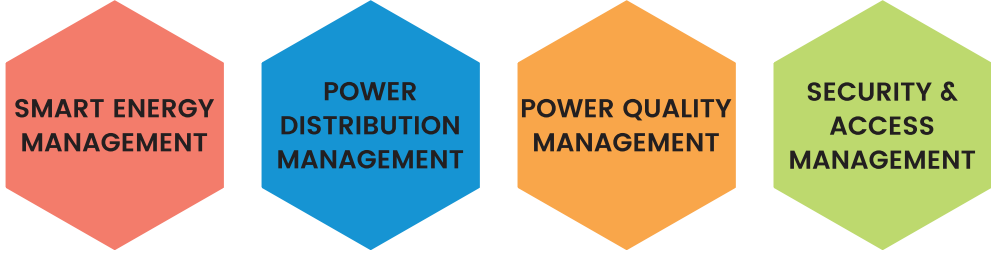


WHO WE ARE

Neptune – The name the nation Trusts and the World Acclaims ; A distinctive identity, that, has been committed to offer, total satisfaction, in work credibility, over the last 30 years and continues to progressively march ahead, to achieve and introduce world class technology, in the field of, “Innovative Energy Management, Solutions for Power Quality Improvement”, and “Intuitive Access Automation & Parking Management Solutions”. The Organization gained Remarkable Progressive Growth and Development, under the Visionary Aura and Inspiration of Neptune Group Founder & Chairman Deepak Kapoor. An ode to these remarkable achievements included the honoring of the Neptune Group, with the Prestigious PWC Brand and Leader Award. Today, Neptune stands out as

a Pioneering Leader and owes its excellence to a dedicated and committed team of expert professionals and passionate work force that is focused on our motto – “Always Together to Achieve the Best”.The committed dedication has credited the Neptune Group as on ISO certified company that has more than 300 Business Channel Partners across India and 21 Branch Offices for a Pan India Sales & Support Network. The Organization has collaboration with Global Conglomerates that includes – Bals Elektrotechnik GmbH and Ducati Energia SpA, Italy and more. Besides having installations more than 45000 Plus Energy Management and Power Solutions and successfully accomplished 6000 Plus Projects, in last 3 year.

Neptune-Domain of Excellence





Power & Distribution Management

INDUSTRIAL PLUGS & SOCKETS HSN-8536

SURFACE MOUNTING



Surface Mounting Socket



Surface Mounting Socket

| Ampere | 2P+⏏ 230V | | 3P+⏏ 415V | | 3P+N+⏏ 230/415V | |
|---------------------------|--------------|---------------|--------------|---------------|--------------------|---------------|
| | Part No. | L.P. ₹ | Part No. | L.P. ₹ | Part No. | L.P. ₹ |
| SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 111 | 830 | 11645 | 910 | 100 | 910 |
| 32 | 11651 | 1,030 | 11646 | 1,110 | 101 | 1,110 |
| 63 | 1104 | 4,040 | 1127 | 4,100 | 1124 | 4,100 |
| WATER TIGHT IP-67 | | | | | | |
| 16/20 | 1133 | 1,380 | 1137 | 1,780 | 1143 | 1,780 |
| 32 | 1145 | 1,740 | 1149 | 2,150 | 1155 | 2,150 |
| 63 | 1157 | 5,300 | 1161 | 5,180 | 1112 | 5,180 |
| 125 | 11427 | 16,800 | 11441 | 18,400 | 11447 | 18,400 |

PANEL MOUNTING



Panel Mounting Socket



Panel Mounting Socket



Panel Mounting Socket

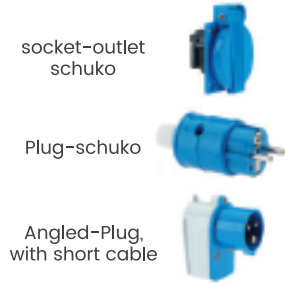





Panel Mounting Socket

| Ampere | 2P+⏏ 230V | | 3P+⏏ 415V | | 3P+N+⏏ 230/415V | |
|--|--------------|---------------|--------------|---------------|--------------------|---------------|
| | Part No. | L.P. ₹ | Part No. | L.P. ₹ | Part No. | L.P. ₹ |
| SOCKET-OUTLET ANGLED SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 1217 | 510 | 1221 | 830 | 12078 | 830 |
| 32 | 12310 | 860 | 1233 | 1,020 | 1215 | 1,020 |
| 63 | 12135 | 3,560 | - | 3,640 | 12380 | 3,640 |
| SOCKET-OUTLET STRAIGHT SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 131 | 510 | 1324 | 830 | 132001 | 830 |
| 32 | 13007 | 860 | 13011 | 1,020 | 1333 | 1,020 |
| 63 | 1307 | 3,560 | 134 | 3,640 | 136 | 3,640 |
| SOCKET-OUTLET ANGLED WATER TIGHT IP-67 | | | | | | |
| 16/20 | 1266 | 1,070 | 1270 | 1,170 | 1276 | 1,170 |
| 32 | 1278 | 1,340 | 1282 | 1,510 | 1288 | 1,510 |
| 63 | 12001 | 4,250 | 1200 | 3,990 | 129 | 3,990 |
| 125 | 12100 | 13,650 | 12104 | 13,700 | 12108 | 13,700 |
| SOCKET-OUTLET STRAIGHT WATER TIGHT IP-67 | | | | | | |
| 16/20 | 1372 | 1,070 | 1376 | 1,170 | 1382 | 1,170 |
| 32 | 13024 | 1,340 | 13028 | 1,510 | 1370 | 1,510 |
| 63 | 1396 | 4,250 | 13100 | 3,990 | 13104 | 3,990 |
| 125 | 13452 | 13,650 | 13447 | 13,700 | 13451 | 13,700 |

INDUSTRIAL PLUGS & SOCKETS HSN-8536




PANEL MOUNTING



| Ampere | 2P+⏏ 230V |  | 3P+⏏ 415V |  | 3P+N+⏏ 230/415V |  |
|---------------------------|--------------|---|--------------|---|--------------------|---|
| | Part No. | L.P. ₹ | Part No. | L.P. ₹ | Part No. | L.P. ₹ |
| SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 71094 | 510 | - | - | - | - |
| 16/20 | 7370 | 450 | - | - | - | - |
| 16/20 | 231 | 650 | - | - | - | - |

PLUG



| Ampere | 2P+⏏ 230V |  | 3P+⏏ 415V |  | 3P+N+⏏ 230/415V |  |
|---------------------------|--------------|---|--------------|---|--------------------|---|
| | Part No. | L.P. ₹ | Part No. | L.P. ₹ | Part No. | L.P. ₹ |
| SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 21001 | 430 | 21005 | 580 | 203 | 580 |
| 32 | 21013 | 710 | 21017 | 830 | 204 | 830 |
| 63 | 2104 | 3,670 | 2151 | 3,360 | 21590 | 3,360 |
| WATER TIGHT IP-67 | | | | | | |
| 16/20 | 210576 | 940 | 21349 | 1,280 | 21239 | 1,280 |
| 32 | 210594 | 1,450 | 21351 | 1,540 | 210607 | 1,540 |
| 63 | 2181 | 4,250 | 2185 | 3,920 | 2189 | 3,920 |
| 125 | 2191 | 12,500 | 2195 | 12,300 | 2199 | 12,300 |
| SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 31001 | 640 | 31005 | 760 | 303 | 760 |
| 32 | 31013 | 830 | 31017 | 1,040 | 304 | 1,040 |
| 63 | 3104 | 4,320 | 3151 | 4,390 | 3112 | 4,390 |
| WATER TIGHT IP-67 | | | | | | |
| 16/20 | 310333 | 1,370 | 31241 | 1,650 | 31243 | 1,650 |
| 32 | 31244 | 1,890 | 31245 | 2,100 | 310364 | 2,100 |
| 63 | 3181 | 4,680 | 3185 | 4,480 | 3124 | 4,480 |
| 125 | 3191 | 14,400 | 3195 | 14,640 | 3199 | 14,640 |

INDUSTRIAL PLUGS & SOCKETS HSN-8536

SURFACE MOUNTING



Socket-outlet with MCB Provision



Socket-outlet interlocked

| Ampere | 2P+⏚ 230V | | 3P+⏚ 415V | | 3P+N+⏚ 230/415V | |
|---------------------------|--------------|--------------|--------------|---------------|--------------------|---------------|
| | Part No. | L.P. ₹ | Part No. | L.P. ₹ | Part No. | L.P. ₹ |
| SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 15019 | 5,440 | - | 6,000 | 15059 | 6,000 |
| 32 | 15030 | 6,120 | - | 7,100 | 1585 | 7,100 |
| 63 | - | - | - | 14,600 | 15036 | 14,600 |
| WATER TIGHT IP-67 | | | | | | |
| 16/20 | 15024 | 5,540 | 15098 | 6,200 | 15028 | 6,200 |
| 32 | 15352 | 6,220 | 15111 | 7,370 | 15112 | 7,370 |
| 63 | - | - | 15000 | 14,820 | 15001 | 14,820 |
| 125 | - | - | 15158 | 44,960 | 15160 | 44,960 |
| SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 1619 | 7,150 | 1610 | 10,250 | 1611 | 10,250 |
| 32 | 16097 | 9,490 | 16596 | 11,490 | 16043 | 11,490 |
| 63 | - | - | 16605 | 21,800 | 16603 | 21,800 |
| WATER TIGHT IP-67 | | | | | | |
| 16/20 | 1600 | 7,150 | 1602 | 10,340 | 1604 | 10,340 |
| 32 | 16104 | 9,990 | 160178 | 12,430 | 160177 | 12,430 |
| 63 | - | - | 16604 | 23,210 | 16602 | 23,210 |
| 125 | - | - | 16621 | 76,000 | 16622 | 76,000 |

DOMESTIC AC/ INDUSTRIAL OUTLET

Plug/Socket combined in metal enclosure



Plug/Socket combined in Polycarbonate enclosure



Appliance Inlet



| Ampere | 2P+⏚ 230V | | 3P+⏚ 415V | | 3P+N+⏚ 230/415V | |
|--|--------------|--------------------|--------------|--------------|--------------------|--------------|
| | Part No. | L.P. ₹ | Part No. | L.P. ₹ | Part No. | L.P. ₹ |
| SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 1201 SP/DP | 1,510/1,520 | - | 2,160 | 3201 | 2,160 |
| 32 | 1202 SP/DP | 2,090 | - | 2,450 | 3202 | 2,720 |
| 63 | 1203 | 8,740 | - | 8,580 | 3203 | 8,580 |
| PLUG SOCKET COMBINED IN POLYCARBONATE | | | | | | |
| 16/20 | 901 | 1,780 | - | 2,530 | 903 | 2,530 |
| 32 | 911 | 2,420 | - | 2,990 | 913 | 2,990 |
| SPLASH PROOF IP-44 | | | | | | |
| 16/20 | 261 | 1,250 | - | 1,310 | 2612 | 1,310 |
| 32 | 2662 | 1,860 | - | 2,550 | 2600 | 2,550 |

VARIABOX The new generation of distributors HSN-8537

The new VARIABOX from Bals meets all requirements for a modern distributor housing and can be individually configured in 5 different sizes with versions S, M, L, & XXL as surface mounting or mobile combination. We have the right distributor for every user. Configuration according to individual specifications on the basis of pre-defined, encoded flanges, which offer a maximum level of safety during the initial installation & /or maintenance. With their robust design in a high grade & durable, quality plastic, their good seal, the modular expansion option & many Innovative extra features, the new VARIABOX proves itself even under the most adverse conditions.



Features

- > Ready wired for installation
- > Housing made of high-grade, impact-resistant plastic
- > Top and bottom can be sealed together
- > Permanently attached cover screws
- > All CEE socket outlets with screw less, maintenance-free QUICK-CONNECT connection technology
- > Colors, bottom-black. top-electro grey (Housing top optionally available in the colors yellow, red, blue or silver)
- > With high quality handle
- > Coded flange system for maximum safety during initial installation and maintenance
- > Fuse elements arranged below transparent, lockable operating window with user friendly OTC mechanics (one touch close)

| Item Code | Dimensions | L.P. ₹ |
|----------------------|--------------|-----------------|
| Variabox-Small | 130 x 230 mm | 8,550/- |
| Variabox-Medium | 260 x 230 mm | 10,350/- |
| Variabox-Large | 390 x 230 mm | 13,950/- |
| Variabox-Extra Large | 520 x 230 mm | 17,550/- |
| 10 Way Window | - | 1,620/- |
| 4 Way Window | - | 1,575/- |

ECO BOX ENCLOSURE & JUNCTION BOXES HSN-8538

Modular Distribution Board – IP 65



Modular Distribution Board



Modular Enclosure



Junction Boxes

| Dimensions LxWxH (mm) | Part No. | L.P. ₹ |
|------------------------------------|----------|----------------|
| MODULAR DISTRIBUTION BOARDS | | |
| 150 x 300 x 210 | 9150 | 2,550/- |
| 300 x 300 x 210 | 9300 | 3,250/- |
| 450 x 300 x 210 | 9450 | 4,890/- |
| 600 x 300 x 210 | 9600 | 6,230/- |
| MODULAR ENCLOSURE | | |
| 180 x 180 x 135 | 6180 | 1,380/- |
| 180 x 240 x 135 | 6260 | 1,620/- |
| 240 x 320 x 135 | 6320 | 2,940/- |
| 320 x 420 x 135 | 6420 | 4,050/- |
| 420 x 640 x 160 | 6520 | 8,910/- |
| JUNCTION BOXES | | |
| 90 x 90 x 50 | 1001 | 300/- |
| 100 x 100 x 60 | 1002 | 350/- |
| 110 x 140 x 70 | 1003 | 600/- |
| 130 x 130 x 100 | 1004 | 720/- |
| 130 x 170 x 80 | 1005 | 790/- |
| 170 x 210 x 100 | 1006 | 1550/- |

DESCRIPTION

Modular Enclosure

- > Impact resistant modular polycarbonate distribution boards
- > Chemical resistant
- > Solid and Stable
- > Self-extinguishing
- > Weather Resistant
- > Corrosion free screws

Eco Box Modular Distribution Boards

- > Impact resistant modular polycarbonate enclosures
- > Chemical resistant
- > Solid and stable
- > Self-extinguishing
- > Weather resistant
- > Corrosion free screws
- > Self internal fixing center / fixing center outside
- > Cable entry to client's specifications

Mobile Distribution Rubber Boards HSN-8537



Customized IP 65 L.V. Distribution Panels & Feeder Pillar HSN-8537



Enclosures HSN-8538 IP-65



| Part No. | Rating | LxWxH (mm) | L.P. ₹ |
|----------|--------|-----------------|---------|
| 3004 | 4 Way | 160 x 225 x 100 | 1,490/- |
| 3008 | 8 Way | 225 x 225 x 100 | 2,350/- |
| 3304 | 12 Way | 300 x 225 x 100 | 3,290/- |
| 3308 | 24 Way | 300 x 400 x 100 | 5,900/- |
| 3312 | 36 Way | 300 x 600x 100 | 8,700/- |

Rubber distribution & IP 65 L.V. Distribution Panel- Price as per specification on request

Windows HSN-8538



| No. of ways | Part No. | L.P. ₹ |
|-------------|----------|--------|
| 2 Way | 5882 | 570/- |
| 4 Way | 5891 | 590/- |
| 8 Way | 58010 | 760/- |
| 12 Way | 58019 | 910/- |

LV SWITCHBOARDS



LV SWITCHBOARDS HSN-8537

Modular Switchboards

1. Fully bolted Structure, CPRI Type Tested confirming to IS 8623/IEC 61439
2. Available up to 5000A current rating
3. Easily extensible on either side, makes the enclosure future proof
4. Single Front and space saving double front can be constructed
5. Type of construction up to form 4b
6. Standard sizes available off the shelf, thus cutting down lead time & inventory carrying cost
7. Appropriate level for degree of protection (special design available for higher level of protection)
8. Door can be hinged on either side offering greater flexibility to configure as per the site conditions
9. Spacious arrangement for cable termination & appropriate support for cable routing
10. Provision for BMS compatibility



NEPTUNE POWER D SWITCHBOARDS ARE INTELLIGENT - EVERY INCOMING / OUTGOING FEEDER CAN BE MONITORED & CONTROLLED REMOTELY WITH EMS. SINGLE POINT ACCESS OF COMPLETE DATA ON MODUS FOR FURTHER MONITORING ON EMS / BMS.

NEPTUNE Elsteel Techno Modular Switchboards (TTA)

Constructional Features

1. Enclosures are modular in construction and expandable in all three dimension in easily measurable multiples of 200 MM
2. Enclosures provide upto form 4b type separation to ensure absolute operational safety
3. Ingres protection level of the enclosures provided upto IP 54/55
4. Enclosures to provide drill less system for all connections of busbars to maintain high efficiency and minimal losses (Low heat dissipation)
5. All load bearing structures of the moduler enclosures made of electro galvanized steel and powder coated ensuring durability and resistance to corrosion.
6. Moduler structure, Draw out / Semi draw out construction.

Test certifications

1. Enclosures are constructed as fully type tested assemblies (TTA), confirming to IEC 61439-1/2 standards.
2. Type tested for special tests like Seismic Test as per IEC 68-3-3, Vibration test as per IEC 68-2-6 & IEC 68-2-36, Arc containment as per IEC 61641 standards etc.
3. ASB Type approval certificate for shipboard and associated marine and offshore installations.



Neptune-ABB ArTu Licensed Partner & Integrator

ABB ArTu Technical Highlights

1. Construction: ABB ArTu Panel is made of 275GSM (Galvanized Iron) sheet, which offers Non corrosive and long life to Panel structure.
2. Double door protection, having front door of 6mm Thick special Toughend Glass. Having Better Protection from moisture and dust to the Switchgears Parts.
3. Compliance with Standards IEC-61439 Part 1 & 2
4. Test of Vibration for Structure: According to IEC-60068-2-57 Standard
5. Test of Anti Seismic: According to IEE Std. 693 Standard
6. Tested for Internal Arc as per IEC 60641 for 65KA for 0.3 Seconds
7. Rated Impulse Withstand Voltage (Uimp)- 12kV
8. Rated Current In - Up to 6300A

Additional Features Provided by NEPTUNE

ABB ArTu Panels manufactured & integrated by Neptune are completely intelligent with every incoming & Out going Feeders can be monitored & controlled remotely with Neptune EMS

Specifications & Features of Energy Management System:

Neptune HMI installed in LV Panels for monitoring and control of the following :-

- a) Single Line Diagram, with Live Status of Each Feeder.
- b) Event history of the breakers.
- c) Feeder description of Each Feeder. (Address, Rating, Make-Model, Live Status)
- d) Real time Date of Power Analyzers/ Meters installed in incomers & out goings.
- e) Single Point access of complete Data on Modbus for further monitoring on Energy Management System / BMS. the data can also be available on Neptune Energia App.



METERING PRODUCTS RANGE



POWER ANALYSERS HSN-9028

M8 Power Analyzer

L.P. ₹ 6,000/-



- + 7 segment bright LED display, Three rows
- + Site Programmable CT and PT ratio
- + True RMS measurement
- + Password protection
- + Harmonic measurement (THD)
- + Parameters- Phase wise-VL-L, VL-N, Amp, Hz, PF, KW, KVA, KVAR, Total energy, THDV, THDI & run hours
- + M8 plus with above features, available with RS 485 (price on request)

M9 Power Analyzer

L.P. ₹ 9,900/-



- + 7 segment bright LED display, Four rows
- + Site Programmable CT and PT ratio
- + True RMS measurement
- + Password protection
- + Maximum demand with relay contact with RS 485
- + Harmonic measurement (Total & Individual)
- + Parameters- Phase wise-VL-L, VL-N, Amp, Hz, PF, KW, KVA, KVAR, KVAH, KVARH, KWH energy, dual energy, THDV, THDI & run hours, MD & upto 31st Harmonic through RS 485

M20 Power Analyzer

L.P. ₹ 11,400/-



- + LCD display with backlight
- + Site Programmable CT and PT ratio
- + True RMS measurement
- + Password protection
- + Bargraph for percentage current
- + 8 digit energy display
- + Maximum demand with relay contact RS485 computer interface
- + Harmonic measurement (Total & Individual)
- + Universal Auxiliary supply
- + Parameters- Phase wise-VL-L, VL-N, Amp, Hz, PF, KW, KVA, KVAR, KVAH, KVARH, KWH energy, dual energy, THDV, THDI & run hours, MD & upto 31st Harmonic through RS 485

M30 Power Analyzer

L.P. ₹ 34,400/-



- + Measurement up to 31 Harmonic for current & voltage separately
- + Total Harmonic Distortion for Voltage & Current (THD-V/ 1%)
- + RS-485 Communication and 2 nos of Relay contact output
- + Energy Pulse output or Digital input (optional)
- + 4-20mA angle O/P for PLC's/ other auxiliary tracking methods (optional)
- + Display demand value, max/min values & Neutral Current
- + Parameters and demand values are stores even if supply voltage is cut off
- + Data logging (1 Mb internal memory) with real time clock
- + Password protection for setup

DIGITAL METERING HSN-9028

1 Phase Meter (Ammeter/Voltmeter)

LP. ₹ 990/-



- + LED type, 7-segment, 4 Digit display
- + CT / PT ratio site selectable
- + True RMS measurement & Password protection
- + Auto ranging
- + Auxiliary supply 90-270 VAC/DC
- + Auto/manual page scrolling
- + Parameters – A / V, THDI/THDV & Hz

3 Phase Meter (Ammeter/Voltmeter)

LP. ₹ 1,500/-



- + LED type, 7-segment, 4 Digit display
- + CT / PT ratio site selectable
- + True RMS measurement & password protection
- + Auxiliary supply, self powered
- + Auto/Manual page scrolling
- + Auto ranging
- + Parameters- A / V, Amps Phase wise and Avg / VL-L, VL-N, THDI/THDV & Hz

Advance VIF Meter

LP. ₹ 2,250/-



- + LED type, 7-segment, 3 Digit display
- + CT / PT ratio site selectable
- + True RMS measurement & password protection
- + Auto ranging
- + Auxiliary supply, 40-270 V
- + Auto/Manual page scrolling
- + Parameter measured are V, I, Hz, P.F. KW, KV_a, RPM

Earth Leakage Relay HSN-8536 with CBCT HSN-8504



Panel Mounting



Din Mounting

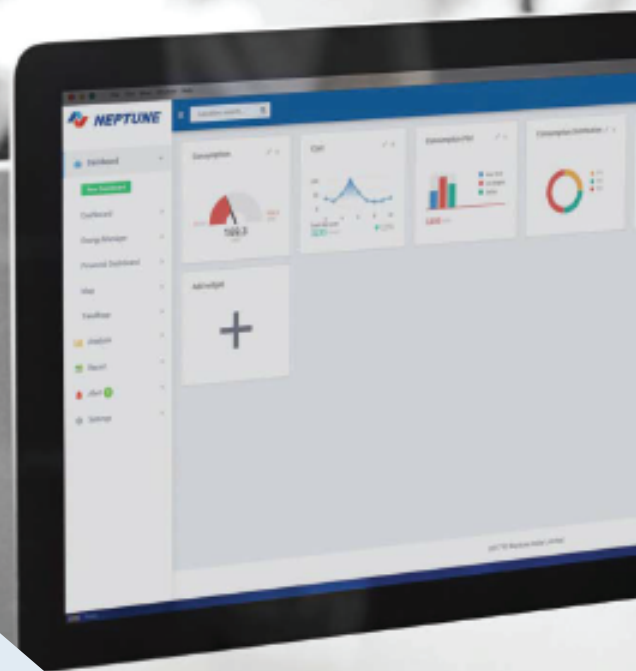
- + Latest micro controller based technology with true RMS sensing
- + Single model covers from 30 mA to 30 A-completely programmable in 10 steps
- + Monitors cable connection between ELR/CBCT
- + Bar graph to indicate % of leakage current in the system
- + Alarm available at 50% set of value & tripping at 80-90% of set value
- + Core balance CT (CBCT) available in 4 sizes: 35/70/120/210mm (dia)
- + Delay adjustable from 0-10 sect in 10 steps

| Item Code | L.P. ₹ |
|--------------------------------------|--------|
| Earth leakage Relay with 35 mm CBCT | 4150/- |
| Earth leakage Relay with 70 mm CBCT | 4540/- |
| Earth leakage Relay with 120 mm CBCT | 5000/- |
| Earth leakage Relay with 210 mm CBCT | 6900/- |

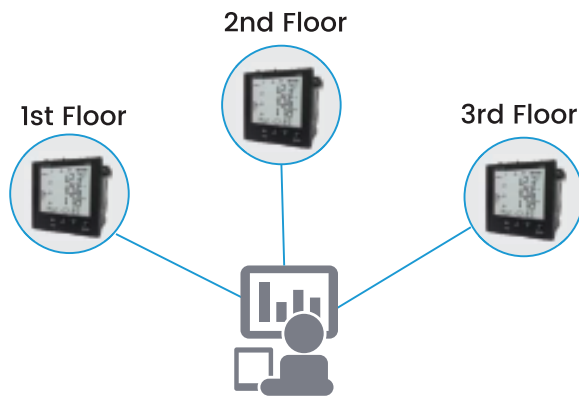
Special sizes of CBCT also available on request. Display available in Panel Mounting

ENERGY MANAGEMENT SYSTEM

When efficiency is
your target



Energy Management System



Salient features of Neptune EMS are:

- ▶ Historic trend charts
- ▶ On-line trend charts
- ▶ Performance reports
- ▶ Energy reports
- ▶ Cost reports
- ▶ Budget Reports
- ▶ Alarm Reports
- ▶ Specific energy consumption reports
- ▶ Run hour reports

MEASURE to Manage Energy

Neptune EMS uses advance range of fault, energy and power monitoring devices which can be used in network for Power Quality and Energy Management.

ANALYSE to Understand

Neptune EMS is your gateway to understanding by Analyzing specific energy consumption for different energy sources organized according to cost centers, products, services or equipments. Set targets to compare them with the results. Analyze the effect of external factors on how energy is used.

SAVE to Get more ... and REPORT it

Neptune EMS empowers you to act with targets on improvements derived from analysis. Continuous monitoring helps to keep control and to follow success immediately at any time, whether it is the result of investment in new equipment, repair, adjustment or maintenance.

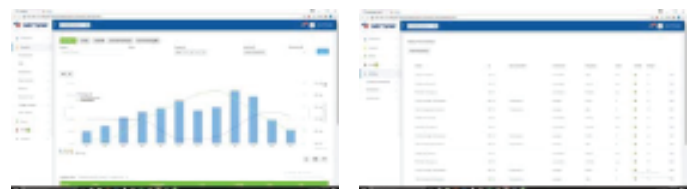
The access to archived and real time data on energy purchased lost or sold gives management analysis at the same time, it offers complete connectivity with production and quality management systems in any factory & building.

Unlike most of your overheads, energy is a controllable cost. Energy Management thus becomes an integral part of decision making in your quest for cost control. Energy Management is a process requiring long term management commitment, dedication and right tools. It involves all stake holders from users, technical staff and management.

Neptune EMS brings a wide range of experience in Energy Management to projects for your benefit. Our specialists in software and advance internet applications make sure that Neptune EMS works for you. Our hardware supports a smooth and accurate data transfer. We prefer to work in partnership to create win-win situations. Neptune EMS helps to improve energy and thereby overall company performance with less effort and greater precision. The energy savings will help reduce not only costs, but they add significantly to reducing your carbon footprint.

Benefits

- ▶ Maximising overall energy productivity
- ▶ Increased revenues
- ▶ Accurate picture of energy usage
- ▶ Transparency and track record on all conditions that affect power quality and energy consumption
- ▶ The ability to pay only for what you consume
- ▶ The ability to forecast energy consumption
- ▶ Basis to optimize resource usage
- ▶ Comprehensive insights into energy related performance & cost
- ▶ Relevant information for successful energy efficiency project design
- ▶ Calculation for an excellent rate of return
- ▶ Monitoring & Targeting



Dual Energy Metering Pre-paid & Post-paid with EMS Software & Networking Solution HSN-9028

M302, M306 & M308



- + Micro controller based design
- + CT/PT site selectable
- + Password protection
- + True RMS measurement
- + Auxiliary supply 90-270 VAC/DC
- + Auto ranging, Auto / Manual page scrolling
- + Parameters measured are V, I, Hz, P.F., Kw, Kwh, Kva, KVAR
- + THD-V, THD-I, load hrs.
- + Accuracy Class 1 / 0.5
- + Available with or without RS485
- + Also available in LCD display

Networking with Power Analyzer and Dual Metering for Pre-Paid and Post-paid Solutions



Dual Energy Metering with Automatic meter reading (Pre-paid, Post paid and Hybrid) has become the need of the day. Neptune AMR provide energy usage trends, which helps to control energy consumption and pre-paid and Post-paid billing system, ensuring better recovery on energy usage by calculating the purchased / produced energy, common energy, losses in the energy and total consumption concessionaire wise. It has option for load management, energy management and option to auto disconnect the system due to non payment of dues or over usage of the sectioned load. Comprehensive set of information and reporting system makes it an inevitable tool for sub single / dual source metering.

Power Net = Energy Management System

Power Scan = Energy billing and automated meter reading software

| Item Code | L.P. ₹ |
|---|------------|
| Kwh Meter M-302 | 3,500/- |
| Kwh Meter M-304 with RS-485 Port | On request |
| Dual Source Kwh Meter M-306 / 5 CTR with RS-485 Port | 6,600/- |
| Dual Source Kwh Meter Direct, up to 60 Amp. M-306D with RS-485 Port | 7,800/- |
| Dual Source Kwh Meter LCD M-308 | 12,500/- |
| Power Net Software- Power monitoring and control application | On request |

AUTOMATIC METER READING SYSTEM

Automatic Meter HSN-9028



Dual Source Energy Meter
(Single Phase and Three Phase)

Neptune provide host of solution in Dual/Multi source, Pre/Post paid automatic metering systems. Our solutions are designed to automatically collect consumption, Status, Diagnose and transfer the data from the meter to the central for billing, analysis, trouble shouting and historical purpose.

Solution Features

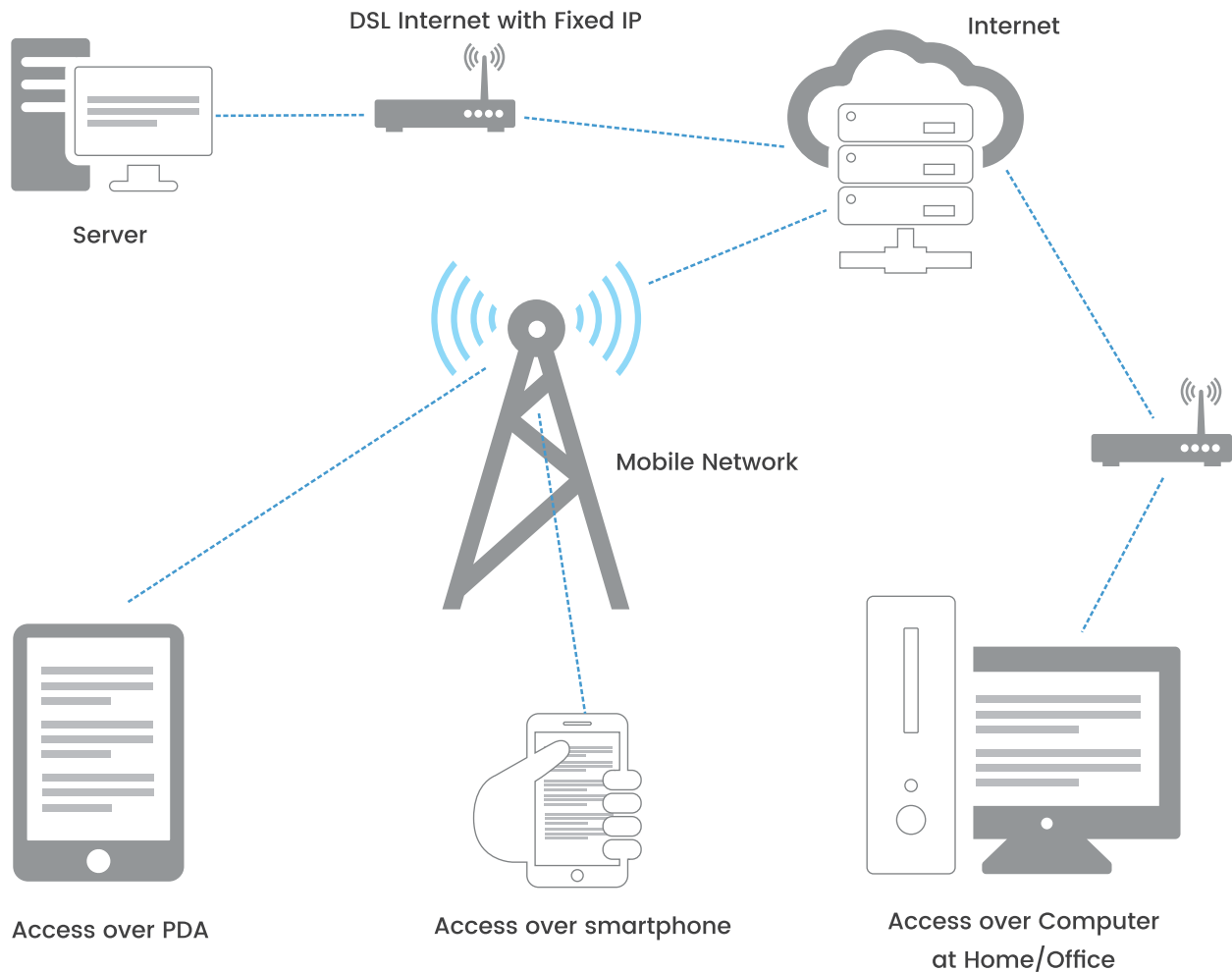
- ▶ Automatic collection of data on specific intervals
- ▶ Integration with web based self-services as users can view consumption, billing etc.
- ▶ Load control, tamper and outage detection.
- ▶ Monitoring of voltage, harmonics and other power quality characteristics.
- ▶ On demand electric meter reading and time of use based meter reading.
- ▶ Remote services for connection & disconnection on non-payment or over demand.
- ▶ Messaging to customers on real time any changes in prices.
- ▶ Automatic detection and reporting of power outages and restoration of services.
- ▶ Automatic messaging alert.
- ▶ Third party integration with SAP and other CRM, PMS software.
- ▶ Integration with window, iOS & Android mobiles.

Software Features

- ▶ Multi layer system which makes it scalable, robust and responsive enough to cater large customer base.
- ▶ Suitably armed software, which has options for Pre-Paid, and both with option of customer information tools like E-mail, SMS, IVR and access to customer on mobile/PDA/Computer.
- ▶ Software supported by well experienced team for support and customization to customer specific requirements.
- ▶ Centrally controlled system with independent local permission & engineering data make the system ideal for multi-site/multi location scenario. Its ready to plug ERP integration module works seamlessly with existing ERP systems.
- ▶ User programmable option to add new heads if any missed at the time of implementation like DG Rates, EB Rates, common Area consumption Rates, facility rates like gym, pool health club, energy tax etc. You think of and head definition is possible.
- ▶ Easy to use system any one can master with minimum training as it has no hassle of printing coupon and then feeding them in the meters, the movement customer pays amount (Cash, Cheque, Card, Net banking) meter is recharged immediately.
- ▶ Transaction based system, where every process is recorded in a very systematic way to enable auditing system.
- ▶ System has in-built basic accounting system to a level that is required at site.
- ▶ System gives option customer to directly view his consumption, load behavior & balance using his unique credential.
- ▶ Solid reporting system built to keep in mind different user like: End Customer, Site Engineers, Site Accounting person, Central Administration Team.

How does Energy Management System work?

System Architecture



Communication Option:

Neptune meters can communicate over various option Like:

1. Wired (Rs485), Ethernet
2. Wirelessly with Power2-Air system, GPRS / GSM bridge
3. Hybrid model of combination of above.

NSL 10 HD / Ultima / LL-M HSN-8532

NSL – 10 Heavy Duty Capacitors

World's Best Designed Capacitor



- + The dielectric consist of heavy film of polypropylene
- + The capacitors are designed with a very low loss dielectric & high quality film is used
- + Operational Life > 1,00,000 hours.
- + The safety and reliability of the traditional technology of impregnated used for medium voltage capacitors.
- + Double Protection Safety Device

Ultima – The Ultimate Capacitors

Ultimate Capacitor



- + Withstands high harmonics overload
- + Life expectancy of more than 2,00,000 hours
- + Low losses ≤ 0.2 W/Kvar
- + Each element is made by Metallized Polypropylene.
- + The Metallization has been made in a special "Profile" to allow: an higher voltage stress on the film.
- + Temp. Range $-25^{\circ}\text{C} + 70^{\circ}\text{C}$
- + Rating available in 525 v i.e 7.5, 15, 18.75, 22.5, 30, 37.5, 75 kvar

LL-M Capacitors - Long Life Mixed Dielectric Capacitors



- + Dielectric impregnated with biodegradable synthetic oil
- + R.M.S Current level in excess of 4 In
- + Withstand Harmonic Overloads
- + Long operational Life $\geq 2,00,000$ hours
- + Available in 450V - 550V
- + Temperature range -25°C to 70°C

| Item Code | Rating | Price Per KVAR | |
|---------------------|--------------|----------------|------------|
| | | L.P. ₹ 440v | 525v |
| NSL-10 HD Capacitor | 25 Kvar | 420/- | - |
| NSL-10 HD Capacitor | 5 - 20 Kvar | 435/- | - |
| Ultima Capacitor | 25 & 50 Kvar | 630/- | 720/- |
| Ultima Capacitor | 5-20 Kvar | 640/- | 730/- |
| LL-M Capacitor | 25 & 50 Kvar | 680/- | On request |
| LL-M Capacitor | 5-20 Kvar | 725/- | On request |

Power 9 / Duca Power XD Capacitors HSN-8532

Power 9 Heavy Duty Small Capacitors



- + New compact Heavy Duty Series
- + Cylindrical 3 phase Capacitors
- + Life expectancy >1,00,000 hrs.
- + Low losses ≤ 0.2 w/Kvar
- + Rating available in 1, 2, 3, & 4 Kvar

Power 9 Heavy Duty Capacitors



- + New compact Heavy Duty Series
- + Cylindrical 3 phase Capacitors
- + Life expectancy >1,00,000 hrs.
- + Low losses ≤ 0.2 w/Kvar
- + Rating available in 5, 10, 12.5, 15 & 25 Kvar

Duca Power XD Capacitors



- + Withstand Harmonic Overloads
- + Up to 4 In Max Current
- + Life expectancy >1,70,000 hrs.
- + Low losses ≤ 0.2 w/Kvar
- + Temperature Range - 25°C to 70°C
- + Rating available in 525 v i.e 7.1, 14.2, 17.8, 21.3, 35.6 kvar

| Item Code | Rating | Price Per KVAR | |
|-----------------------------------|-------------------|----------------|------------|
| | | L.P. ₹ 440v | 525v |
| Power 9 Capacitor | 1, 2, 3, & 4 Kvar | 350/- | - |
| Power 9 Capacitor | 25 Kvar | 325/- | - |
| Power 9 Capacitor | 5-20 Kvar | 345/- | - |
| Ducapower Capacitor XD (Super HD) | 25 Kvar | 430/- | 495/- |
| Ducapower Capacitor XD (Super HD) | 5-20 Kvar | 470/- | 525/- |
| APP Capacitor | 5-50 Kvar | On request | On request |

Automatic Power Factor Controller Single CT HSN-9032

Intelligent P. F. Controller – RM Series



- + LED Type 7 segment 4 Digit Display
- + 8 & 12 capacitors steps available in ON/Off modes
- + Measurement of A, V, PF, Cos phi, W, VAR, VA
- + Automatic calculation of C/k values
- + Program entry for targeted Cos phi value
- + Number of capacitors steps are user definable
- + Automatic / Manual mode selection with indicator light
- + Over voltage, insufficient compensation, overcompensation state alarm indicator lights with output contact

Automatic Power Factor Controller 3 CT HSN-9032

Intelligent P. F. Controller – NAAC 3P series



- + LED Type 7 segment 4 Digit Display
- + 8 & 12 capacitors steps available in ON/Off modes
- + Measurement of A, V, PF, Cos phi, W, VAR, VA
- + Automatic calculation of C/k values
- + Program entry for targeted Cos phi value
- + Number of capacitors steps are user definable
- + Automatic / Manual mode selection with indicator light
- + Overvoltage, insufficient compensation, overcompensation state alarm indicator lights with output contact
- + Compensation for all 3 phases

Advance P. F. Controller – G8/ G8 Plus

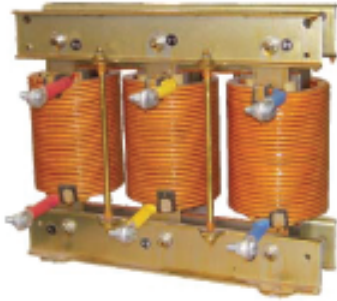


- + 7 segment LCD Display
- + Suitable for Power Factor Correction using Thyristor Modules for Real Time Compensation & Contractor Switching for normal compensation
- + Master slave function
- + GSM / GPRS Model (optional)
- + Current & Voltage Harmonic analysis
- + Independent compensation for all 3 phases
- + Capacitor over-current protection on all 3 phases

| Item Code | Item Code | L.P. ₹ |
|-------------------------|--------------|------------|
| RM Series | | |
| | RM 6 | 13,400/- |
| | RM 8 | 15,500/- |
| | RM 12 | 19,200/- |
| Neptune 3P Series | | |
| | NAAC 3P-8 | 20,800/- |
| | NAAC 3P-12 | 25,600/- |
| Intelligent P.F. Series | | |
| | G8 & G8 Plus | On request |

Harmonic Block Reactors for Detuned Systems / Thyristor Switching Module

Harmonic Block Reactor HSN-85045090



- + India first single layer design with inbuilt TOP device.
- + 3 Phase aluminium wound reactors with an iron core and air gap
- + Highest quality material and very stringent quality control
- + It has been designed with properties like low temperature rise and lower flux density so that it can operate in worst conditions of ambient and harmonic overloads.
- + Filtering factor of 5.6%, 7% and 14% (any other filtering factor on request)
- + High Linearity ($L > 0.95 \times L_n$): 200%
- + H-Class Insulation
- + Vacuum Impregnated

| Rating 440v, 50Hz | Harmonic Block Reactor (Al/Cu) | Harmonic Block Reactor | with Ultima Capacitor |
|----------------------|--------------------------------|---|-----------------------|
| | P = 7% L.P. ₹ | 7% with DUCA Power Capacitor (Separate Units) L.P. ₹ | L.P. ₹ |
| 5 KVAR | 8,240/- | 10,865/- | 11,890/- |
| 10 KVAR | 9,890/- | 15,140/- | 17,190/- |
| 25 KVAR | 14,520/- | 26,895/- | 32,520/- |
| 50 KVAR | 24,530/- | 49,280/- | 60,530/- |
| 100 KVAR | 46,770/- | 96,270/- | 1,18,750/- |

*Copper wound reactor also available on request * Any other Detuned Frequency & rating can be provided on request

NOTE: Prices for 14% & 5.6% Harmonic Block Reactor with and without Capacitor Bank are available on request.

Thyristor switching Module HSN-8541



Electronic switches:

- + Rated Voltage: 415V $\pm 10\%$
- + Temperature controlled, in built forced air cooling in all models

Enclosure: IP 40 Maximum ambient temp:40°C Alarms

- + Built-in Alarms for protection of switching module & capacitor Banks

| Item Code | Rating (KVAR) | L.P. ₹ |
|---|---------------|----------|
| Thyristor Switching Module for 415V / 450V application | PS 15 KVAR | 26,500/- |
| | PS 25 KVAR | 28,600/- |
| | PS 50 KVAR | 36,000/- |
| | PS 100 KVAR | 63,500/- |
| Thyristor Switching Module for 690V / 750V application | PS 50 H KVAR | 48,600/- |
| | PS 100 H KVAR | 85,000/- |
| Fast discharge Reactor for 415V / 440V | - | 1,400/- |
| Fast discharge Reactor for 690V / 750V | - | 2,250/- |

POWERNAC Series P.F. Compensator HSN-8537

Intelligent P.F. Compensator Series-I & II



- + Available from 25 KVAR to 600 KVAR in series-I and series-II
- + Heavy Duty 3 Phase Cylindrical Capacitor
- + Expandable Intelligent PF control for small to medium load network
- + Ultimate solution for compensation of unbalanced loads
- + Measure the reactive power of the system through 3CT's from all 3 Phase
- + Highly intelligent Micro processor based 3 phase P. F. Controller with optional
- + Dual P. F. Setting
- + LCD Controller with inbuilt Load Manager with front optical port
- + Optional Plugable Data logger, Ethernet, USB RS485,GSM modem and capacitor protection modules
- + Power Coated- Structure finish with attractive Deep Orange and Dark Blue finish
- + Incomer TP-MCCB
- + HRC/MCB's are used for backup protection.

P.F. Compensators are manufactured with standard banking and make P.F. components. Any change in specification will attract different quote.

| P.F. Compensator Rating 3Phase, 440v, 50Hz | | | | | | | | | | | Unit Price | |
|--|------------------------------|------|----|----|----|----|----|----|----|----|-----------------------|------------|
| Rating KVAR | Banking configuration (kvar) | | | | | | | | | | Wall Mounted | L.P. ₹ |
| 25 | 2 | 3 | 5 | 5 | 10 | | | | | | | 1,07,580/- |
| 30 | 2 | 3 | 5 | 10 | 10 | | | | | | | 1,08,900/- |
| 40 | 2 | 3 | 5 | 10 | 20 | | | | | | | 1,12,200/- |
| 50 | 2 | 3 | 5 | 10 | 10 | 20 | | | | | | 1,21,550/- |
| 60 | 2 | 3 | 5 | 10 | 20 | 20 | | | | | | 1,35,850/- |
| | | | | | | | | | | | Type-I Floor Mounted | |
| 75 | 5 | 5 | 15 | 25 | 25 | | | | | | | 1,52,900/- |
| 100 | 5 | 5 | 15 | 25 | 25 | 25 | | | | | | 1,67,200/- |
| 125 | 5 | 5 | 15 | 25 | 25 | 25 | 25 | | | | | 1,84,800/- |
| | | | | | | | | | | | Type-II Floor Mounted | |
| 150 | 5 | 5 | 15 | 25 | 25 | 25 | 50 | | | | | 3,06,900/- |
| 200 | 5 | 5 | 15 | 25 | 25 | 25 | 50 | 50 | | | | 3,49,800/- |
| 250 | 12.5 | 12.5 | 25 | 50 | 50 | 50 | 50 | | | | | 3,90,500/- |
| 300 | 12.5 | 12.5 | 25 | 50 | 50 | 50 | 50 | 50 | | | | 4,31,200/- |
| 325 | 12.5 | 12.5 | 25 | 50 | 50 | 50 | 50 | 75 | | | | 4,68,600/- |
| 350 | 12.5 | 12.5 | 25 | 50 | 50 | 50 | 75 | 75 | | | | 4,97,200/- |
| 400 | 12.5 | 12.5 | 25 | 50 | 75 | 75 | 75 | 75 | | | | 5,51,100/- |
| 450 | 25 | 50 | 75 | 75 | 75 | 75 | 75 | | | | | 6,27,000/- |
| 500 | 25 | 50 | 50 | 75 | 75 | 75 | 75 | 75 | | | | 6,82,000/- |
| 600 | 25 | 25 | 50 | 50 | 75 | 75 | 75 | 75 | 75 | 75 | | 8,06,300/- |

ACTIVCOMP Thyristor Switched / Contactor Switched / Detuned-Tuned Harmonic Filtration Systems HSN-8537

Activcomp System (Real Time thyristor Switched Dynamic Power Factor Correction & Harmonic Filtration System)



- + Fast Real Time Transient-Free switching of Capacitor Bank
- + Prevents damage to sensitive electronic equipment in network
- + Highly intelligent micro processor based 3 phase P.F. Controller with Dual P.F. Setting and Master Slave modes
- + LCD Controller has inbuilt with Load Manager with front optical port
- + Optional pluggable Data Logger, Ethernet, USB, RS485, GSM modem and capacitor protection modules
- + Saves Energy with P.F. Control and Harmonic Filtration
- + Extremely long life expectancy
- + Integral 3 phase Power Quality Analyze showing upto 31st Harmonics
- + Voltage & Current Waveforms
- + Unique Self Testing and Comprehensive reporting and event logging
- + The compensation is based on averaging the FFT analysis of each cycle, resulting in more accurate compensation, even in the presence of harmonics.
- + Available with Tuned, 7%, 5.6%, 14% or any other Tuning frequency as per customer request

Contactor Switching System (Contactor Switched P.F. & Detuned / Tuned Harmonic Filtration System)



- + System is available with Contactor switching for non-dynamic, normal loads-Rating and Dimensions are same as Activcomp System

Activcomp- Thyristor Switched / Contactor Switched Systems are manufactured with standard make of component. Any Change in specification will attract different quote

| Output KVAR | Banking Configuration KVAR | Switching Sequence | Dimensions W x D x H (mm) | Thyristor Switched Unit Price | Contactor Switched Unit Price |
|-------------|----------------------------|--------------------|---------------------------|-------------------------------|-------------------------------|
| 100 | 2x12.5, 3x25 | 1 : 2 : 2 | 800 x 850 x 2125 | On request | On request |
| 200 | 2x12.5, 1x25, 3x50 | 1 : 2 : 4 | 800 x 850 x 2125 | On request | On request |
| 300 | 2x12.5, 1x25, 1x50, 2x100 | 1 : 2 : 4 | 800 x 1150 x 2125 | On request | On request |
| 400 | 2x25, 1x50, 3x100 | 1 : 2 : 4 | 1600 x 1150 x 2125 | On request | On request |
| 500 | 2x25, 1x50, 4x100 | 1 : 2 : 4 | 2400 x 1150 x 2125 | On request | On request |
| 600 | 2x25, 1x50, 5x100 | 1 : 2 : 4 | 2400 x 1150 x 2125 | On request | On request |
| 700 | 2x25, 1x50, 6x100 | 1 : 2 : 4 | 2400 x 1150 x 2125 | On request | On request |
| 800 | 2x25, 1x50, 7x100 | 1 : 2 : 4 | 3200 x 1150 x 2125 | On request | On request |
| 900 | 2x25, 1x50, 8x100 | 1 : 2 : 4 | 3200 x 1150 x 2125 | On request | On request |
| 1000 | 2x25, 1x50, 9x100 | 1 : 2 : 4 | 3200 x 1150 x 2125 | On request | On request |

Active Harmonic Filter HSN-8504

Active Harmonic Filter



- + To reduce harmonics of networks with Non-linear loads like UPS, Rectifiers AC & DC drives / VFDs etc. in industrial and commercial installations.
- + Performance meets IEEE and compliance to other international standards.
- + Can be used as Hybrid filter combination of Activcomp with Active filter resulting in reduction of best cost and rating of active filter.
- + Applications- Industries with Harmonic generation loads, Hospitals, Data Centers and IT Facilities, Office Buildings, Airports, Shopping Plazas etc.
- + Improvement in reliability of electrical system leading to lower THD-I & V, reduction in operational problems/cable and transformer losses.
- + Better utilization of distribution Transformer & Generator
- + Increases efficiency, capacitor life, PF, uptime.
- + Easy to commission and use with advance control interface

Hybrid Power Conditioning System



- + Hybrid Power Conditioning System is a combination of Dynamic Activcomp Thyristor based Power factor Correction System and IGBT fired Active harmonic filtration. It offers most viable and economical solution for both Power Factor Compensation and Harmonic Mitigation.

| Rating (Amp) | 3P 3W Unit Price | 3P 4W Unit Price | 3P 3W Unit Price | 3P 4W Unit Price |
|-------------------------------|------------------|------------------|---|------------------|
| Active Harmonic Filter | | | Hybrid Power Conditioning System | |
| 30 A | On request | On request | 300 KVAR + 60 A | On request |
| 60 A | On request | On request | 400 KVAR + 100 A | On request |
| 100 A | On request | On request | 500 KVAR + 150 A | On request |
| 150 A | On request | On request | 600 KVAR + 200 A | On request |
| 200 A | On request | On request | 800 KVAR + 300 A | On request |
| 300 A | On request | On request | 1000 KVAR + 400 A | On request |
| 400 A | On request | On request | | |
| 500 A | On request | On request | | |
| 600 A | On request | On request | | |

Terms & Conditions

Price Basis:

The prices mentioned are Unit Price and Ex-Works basis.
Prices shall be applicable as per our Price List ruling at the time of despatch.

Place of despatch:

The materials shall be despatched from Noida / Delhi works.

GST :

Goods & Service Tax shall be charged extra as applicable at the time of despatch.

Insurance:

Insurance shall be organized, paid, dealt by the customer directly. Damages or any shortages, if found shall be dealt by the customer directly.

Forwarding & Freight Charges:

For all standard items, freight shall be charged extra @3%.
For all other items, e.g. Block Reactors & Panels, freight shall be charged extra at actual.

Terms of Payments:

For all authorized Business Partners, payment terms shall be applicable as per the Trade Policy except APFC Panels & other Panels.
In case of Panels, advance payment & balance along with 100% taxes & duties levies etc. shall be released against PI before despatch.

NOTE: This Price List supersedes all previous Price Lists.

Regional Contacts

Ahmedabad

ahmedabad@neptuneindia.com

Bengaluru

bangalore@neptuneindia.com

Bhopal

bhopal@neptuneindia.com

Chennai

chennai@neptuneindia.com

Chandigarh

Chandigarh@neptuneindia.com

Coimbatore

coimbatore@neptuneindia.com

Haryana

haryana@neptuneindia.com

Hyderabad

hyderabad@neptuneindia.com

Indore

indore@neptuneindia.com

Jaipur

jaipur@neptuneindia.com

Kanpur

kanpur@neptuneindia.com

Kolkata

kolkata@neptuneindia.com

Ludhiana

ludhiana@neptuneindia.com

Mumbai

mumbai@neptuneindia.com

Nagpur

nagpur@neptuneindia.com

Pune

pune@neptuneindia.com

Raipur

raipur@neptuneindia.com

Uttaranchal

uttaranchal@neptuneindia.com

Vadodara

baroda@neptuneindia.com



Neptune India Ltd.

A 11 - Sector 59, Noida - 201301, INDIA
Tel: 0120 420 5900, 429 7900
For Product enquiry: + 91 955 550 0300
Email: enquiry@neptuneindia.com
www.neptuneindia.com

