



TECHNOLOGICALLY  
ADVANCED ENERGY PRODUCTS

## Product Preview & Price List 2018

Price effective: November, 2018





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SMART ENERGY  
MANAGEMENT

POWER QUALITY  
MANAGEMENT

POWER DISTRIBUTION  
MANAGEMENT

SECURITY & ACCESS  
MANAGEMENT

# Company



**Energy efficiency is one of the rising needs in the urbanized world and many products are introduced to fulfill this demand.**

One of the crucial advantages that energy efficiency products bring is the reduction of cost. For implementing cost saving measures, industries are looking forward to products that will also help them in maintaining their position in the growing market.

A leader in the Energy Saving and Power Quality Management sector of India, Neptune India set its foot in the market with a dedicated approach and a strong vision to become a specialist in the field of energy saving. Today, the company strives forth with its love for energy and has taken huge steps to implement best solutions in all aspects of energy.

Established in the year 1989, Neptune India; with over 30,000 plus installations across the country and having a pan-India sales & support network. Neptune is a known brand in the Power Factor Correction, Energy Management, Harmonic Filtration & Power Distribution Products.

## INDUSTRIAL PLUG & SOCKETS HSN-8536

### SURFACE MOUNTING



Surface Mounting Socket



Surface Mounting Socket

Ampere	2P+ $\frac{1}{2}$ 230V		3P+ $\frac{1}{2}$ 415V		3P+N+ $\frac{1}{2}$ 230/415V	
	Part No.	L.P. ₹	Part No.	L.P. ₹	Part No.	L.P. ₹
<b>SPLASH PROOF IP-44</b>						
16/20	111	<b>720</b>	11645	<b>810</b>	100	<b>810</b>
32	11651	<b>900</b>	11646	<b>980</b>	101	<b>980</b>
63	1104	<b>3,595</b>	1127	<b>3,490</b>	1124	<b>3,490</b>
<b>WATER TIGHT IP-67</b>						
16/20	1133	<b>1,190</b>	1137	<b>1,540</b>	1143	<b>1,540</b>
32	1145	<b>1,490</b>	1149	<b>1,860</b>	1155	<b>1,860</b>
63	1157	<b>4,590</b>	1161	<b>4,490</b>	1112	<b>4,490</b>
125	11427	<b>15,000</b>	11441	<b>15,820</b>	11447	<b>15,820</b>

### PANEL MOUNTING



Panel Mounting Socket



Panel Mounting Socket



Panel Mounting Socket






Panel Mounting Socket

Ampere	2P+ $\frac{1}{2}$ 230V		3P+ $\frac{1}{2}$ 415V		3P+N+ $\frac{1}{2}$ 230/415V	
	Part No.	L.P. ₹	Part No.	L.P. ₹	Part No.	L.P. ₹
<b>SOCKET-OUTLET ANGLED SPLASH PROOF IP-44</b>						
16/20	1217	<b>440</b>	1221	<b>720</b>	12078	<b>720</b>
32	12310	<b>740</b>	1233	<b>890</b>	1215	<b>890</b>
63	12135	<b>3,095</b>	-	<b>3,170</b>	12380	<b>3,160</b>
<b>SOCKET-OUTLET STRAIGHT</b>						
16/20	131	<b>440</b>	1324	<b>710</b>	132001	<b>710</b>
32	13007	<b>740</b>	13011	<b>900</b>	1333	<b>900</b>
63	1307	<b>3,095</b>	134	<b>3,160</b>	136	<b>3,160</b>
<b>SOCKET-OUTLET ANGLED WATER TIGHT IP-67</b>						
16/20	1266	<b>930</b>	1270	<b>1,020</b>	1276	<b>1,020</b>
32	1278	<b>1,160</b>	1282	<b>1,310</b>	1288	<b>1,310</b>
63	12001	<b>3,690</b>	1200	<b>3,470</b>	129	<b>3,470</b>
125	12100	<b>12,100</b>	12104	<b>12,400</b>	12108	<b>12,400</b>
<b>SOCKET-OUTLET STRAIGHT</b>						
16/20	1372	<b>930</b>	1376	<b>1,020</b>	1382	<b>1,020</b>
32	13024	<b>1,160</b>	13028	<b>1,310</b>	1370	<b>1,310</b>
63	1396	<b>3,690</b>	13100	<b>3,470</b>	13104	<b>3,470</b>
125	13452	<b>12,100</b>	13447	<b>12,400</b>	13451	<b>12,400</b>

## INDUSTRIAL PLUG & 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. ₹
<b>SPLASH PROOF IP-44</b>						
16/20	71094	<b>440</b>	-	-	-	-
16/20	7370	<b>390</b>	-	-	-	-
16/20	231	<b>560</b>	-	-	-	-

### PLUG



Ampere	2P+ 230V		3P+ 415V		3P+N+ 230/415V	
	Part No.	L.P. ₹	Part No.	L.P. ₹	Part No.	L.P. ₹
<b>SPLASH PROOF IP-44</b>						
16/20	21001	<b>370</b>	21005	<b>520</b>	203	<b>520</b>
32	21013	<b>620</b>	21017	<b>730</b>	204	<b>730</b>
63	2104	<b>3,190</b>	2151	<b>2,890</b>	21590	<b>2,890</b>
<b>WATER TIGHT IP-67</b>						
16/20	210576	<b>840</b>	21349	<b>1,110</b>	21239	<b>1,110</b>
32	210594	<b>1,260</b>	21351	<b>1,340</b>	210607	<b>1,340</b>
63	2181	<b>3,690</b>	2185	<b>3,360</b>	2189	<b>3,360</b>
125	2191	<b>10,870</b>	2195	<b>10,700</b>	2199	<b>10,700</b>
<b>SPLASH PROOF IP-44</b>						
16/20	31001	<b>560</b>	31005	<b>680</b>	303	<b>680</b>
32	31013	<b>730</b>	31017	<b>930</b>	304	<b>930</b>
63	3104	<b>3,750</b>	3151	<b>3,790</b>	3112	<b>3,790</b>
<b>WATER TIGHT IP-67</b>						
16/20	310333	<b>1,220</b>	31241	<b>1,490</b>	31243	<b>1,490</b>
32	31244	<b>1,720</b>	31245	<b>1,890</b>	310364	<b>1,890</b>
63	3181	<b>4,050</b>	3185	<b>3,850</b>	3124	<b>3,850</b>
125	3191	<b>12,500</b>	3195	<b>12,740</b>	3199	<b>12,740</b>

## INDUSTRIAL PLUG & 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. ₹
<b>SPLASH PROOF IP-44</b>						
16/20	15019	<b>4,690</b>	-	<b>5,200</b>	15059	<b>5,200</b>
32	15030	<b>5,310</b>	-	<b>6,130</b>	1585	<b>6,130</b>
63	-	-	-	<b>12,700</b>	15036	<b>12,700</b>
<b>WATER TIGHT IP-67</b>						
16/20	15024	<b>4,790</b>	15098	<b>5,400</b>	15028	<b>5,400</b>
32	15352	<b>5,410</b>	15111	<b>6,400</b>	15112	<b>6,400</b>
63	-	-	15000	<b>12,920</b>	15001	<b>12,920</b>
125	-	-	15158	<b>38,700</b>	15160	<b>38,700</b>
<b>SPLASH PROOF IP-44</b>						
16/20	1619	<b>6,200</b>	1610	<b>8,900</b>	1611	<b>8,900</b>
32	16097	<b>8,200</b>	16596	<b>9,990</b>	16043	<b>9,990</b>
63	-	-	16605	<b>18,990</b>	16603	<b>18,990</b>
<b>WATER TIGHT IP-67</b>						
16/20	1600	<b>6,200</b>	1602	<b>8,990</b>	1604	<b>8,990</b>
32	16104	<b>8,770</b>	160178	<b>10,930</b>	160177	<b>10,930</b>
63	-	-	16604	<b>20,400</b>	16602	<b>20,400</b>
125	-	-	16621	<b>66,100</b>	16622	<b>66,100</b>

### 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. ₹
<b>SPLASH PROOF IP-44</b>						
16/20	1201 SP/DP	<b>1,360/1,370</b>	-	<b>1,940</b>	3201	<b>1,940</b>
32	1202 SP/DP	<b>1,890</b>	-	<b>2,450</b>	3202	<b>2,450</b>
63	1203	<b>7,870</b>	-	<b>7,730</b>	3203	<b>7,730</b>
<b>PLUG SOCKET COMBINED IN POLYCARBONATE</b>						
16/20	901	<b>1,610</b>	-	<b>2,280</b>	903	<b>2,280</b>
32	911	<b>2,180</b>	-	<b>2,700</b>	913	<b>2,700</b>
<b>SPLASH PROOF IP-44</b>						
16/20	261	<b>1,080</b>	-	<b>1,140</b>	2612	<b>1,140</b>
32	2662	<b>1,610</b>	-	<b>2,270</b>	2600	<b>2,270</b>

## 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	<b>8,550/-</b>
Variabox-Medium	260 x 230 mm	<b>10,350/-</b>
Variabox-Large	390 x 230 mm	<b>13,950/-</b>
Variabox-Extra Large	520 x 230 mm	<b>17,550/-</b>
10 Way Window	-	<b>1,620/-</b>
4 Way Window	-	<b>1,575/-</b>



## 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. ₹
<b>MODULAR DISTRIBUTION BOARDS</b>		
150 x 300 x 215	9150	<b>2,390/-</b>
300 x 300 x 215	9300	<b>3,100/-</b>
450 x 300 x 215	9450	<b>4,690/-</b>
600 x 300 x 215	9600	<b>5,870/-</b>
<b>MODULAR ENCLOSURE</b>		
180 x 180 x 135	6180	<b>1,380/-</b>
180 x 240 x 135	6260	<b>1,620/-</b>
240 x 320 x 135	6320	<b>2,940/-</b>
320 x 420 x 135	6420	<b>4,050/-</b>
420 x 640 x 160	6520	<b>8,910/-</b>
<b>JUNCTION BOXES</b>		
90 x 90 x 50	1001	<b>280/-</b>
100 x 100 x 60	1002	<b>340/-</b>
110 x 140 x 70	1003	<b>590/-</b>
130 x 130 x 100	1004	<b>670/-</b>
130 x 170 x 80	1005	<b>750/-</b>
170 x 210 x 100	1006	<b>1,490/-</b>

## 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	1,400/-
3008	8 Way	225 x 225 x 100	2,280/-
3304	12 Way	300 x 225 x 100	3,290/-
3308	24 Way	300 x 400 x 100	5,700/-
3312	36 Way	300 x 600x 100	8,400/-

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	450/-
4 Way	5891	495/-
8 Way	58010	630/-
12 Way	58019	790/-

# LV SWITCHBOARDS



## LV SWITCHBOARDS HSN-8537

### NEPTUNE Power – D 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 ENERGY MANAGEMENT SYSTEM.

## 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.



# METERING PRODUCTS RANGE



## POWER ANALYSERS HSN-9028

### M8 Power Analyzer

L.P. ₹ 5,400/-



- + 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. ₹ 8,600/-



- + 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. ₹ 9,900/-



- + 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. ₹ 32,400/-



- + 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. ₹ 880/-



- + 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. ₹ 1,395/-



- + 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. ₹ 2,100/-



- + 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<sub>a</sub>, RPM

### Earth Leakage Relay HSN-8536 with CBCT HSN-8504



- + 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
- + Also available with LCD Display and Flush Mounting

Item Code	L.P. ₹
Earth leakage Relay with 35 mm CBCT	3,960/-
Earth leakage Relay with 70 mm CBCT	4,320/-
Earth leakage Relay with 120 mm CBCT	4,770/-
Earth leakage Relay with 210 mm CBCT	6,570/-

Special sizes of CBCT also available on request. Display optional available only for Flush Mounting

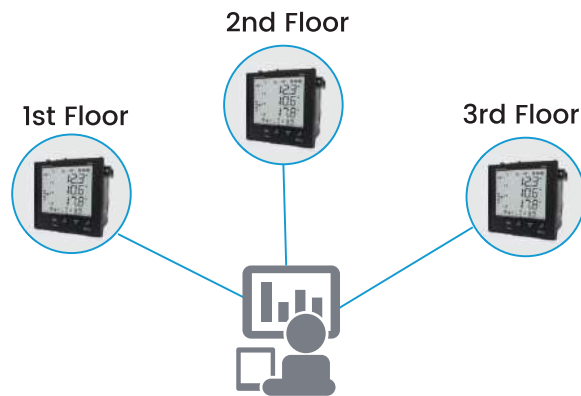


# ENERGY MANAGEMENT SYSTEM

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.

## ANALYS 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, HVAR
- + 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	3,200/-
Kwh Meter M-304 with RS-485 Port	On request
Dual Source Kwh Meter M-306 / 5 CTR with RS-485 Port	6,000/-
Dual Source Kwh Meter Direct, up to 60 Amp. M-306D with RS-485 Port	6,800/-
Dual Source Kwh Meter LCD M-308	12,000/-
Power Scan Software- Scanning energy and billing	On request
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 shooting and historical purpose.

### Solution Features

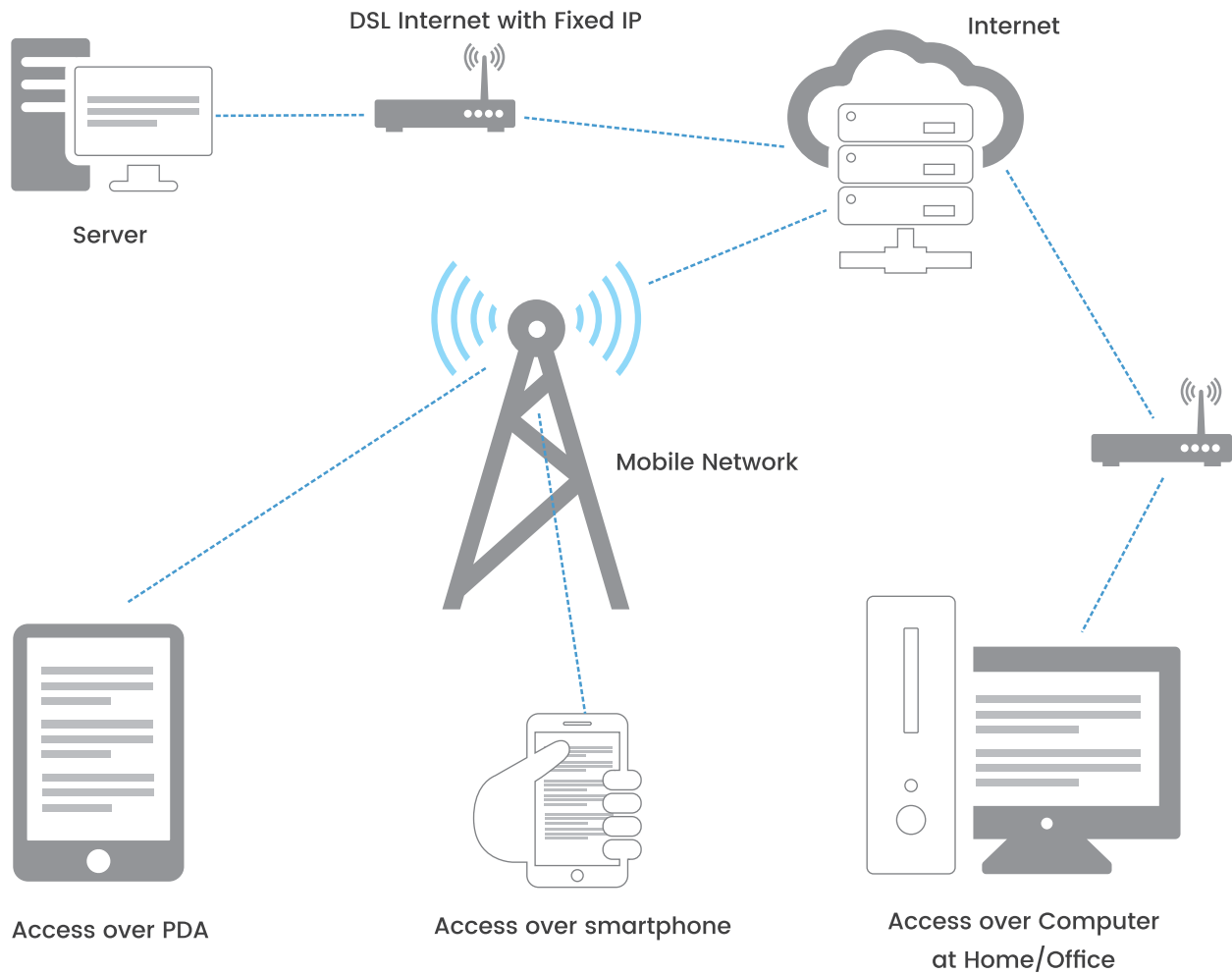
- ▶ Automatic collection of data on specific intervals
- ▶ Integration with web based self-services as users can view consumption, billing etc.
- ▶ Load control, tamper and outage detection.
- ▶ Monitoring of voltage, harmonics and other power quality characteristics.
- ▶ On demand electric meter reading 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  $\leq 0.2$  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  $-25^{\circ}\text{C}$  to  $70^{\circ}\text{C}$

Item Code	Rating	Price Per KVAR	
		L.P. ₹   440v	525v
NSL-10 HD Capacitor	25 Kvar	395/-	-
NSL-10 HD Capacitor	5 - 20 Kvar	410/-	-
Ultima Capacitor	25 & 50 Kvar	580/-	680/-
Ultima Capacitor	5-20 Kvar	600/-	690/-
LL-M Capacitor	25 & 50 Kvar	630/-	On request
LL-M Capacitor	5-20 Kvar	670/-	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  $\leq 0.2$  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  $\leq 0.2$  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  $\leq 0.2$  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	330/-	-
Power 9 Capacitor	25 Kvar	305/-	-
Power 9 Capacitor	5-20 Kvar	325/-	-
Ducapower Capacitor XD (Super HD)	25 Kvar	410/-	470/-
Ducapower Capacitor XD (Super HD)	5-20 Kvar	450/-	505/-
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

### Advance P. F. Controller – Rego



- + The series Rego controller relays are fully static units controlled by an eight bit micro processor with HC mouse technology.
- + Self programming function for power stage and operating logic i.e. no need to set CK setting.
- + Can check health and efficiency of each and individual capacitor bank connected.
- + Measurement of network harmonics, with steps disconnected switch-off when limit value are exceeded.
- + Comprehensive displays with large, three- digit LED display. 3 Logics (1:1:1), (1:2:2), (1:2:4) to connect/disconnect banks, with automatic recognition or with standards programs.
- + RS-485 Communication

Item Code	Item Code	L.P. ₹
RM Series		
	RM 6	12,600/-
	RM 8	14,500/-
	RM 12	18,000/-
REGO Series		
	REGO-12	19,000/-



## Automatic Power Factor Controller 3 CT HSN-9032

### Reactive energy Management 3P – REM series



- + 7 segment LCD display with 2 colors backlite
- + Available in 8 & 12 steps with Rs485 communication port
- + Works on average current
- + Target P.F. 0.8 lag - 0.8 lead, Control sensitivity 55-100%
- + Display THD - I% & THD-V% along with power
- + Measure & Display Voltage & Current
- + Intelligent switching between various capacitor banks
- + Alarm indication by LED & Dual password protection
- + User can configure alarm settings accordingly
- + Fan control can be programmable

### 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

Series	Item Code	L.P. ₹
REM Series		
	REM 3P-8	14,900/-
	REM 3P-12	16,500/-
Neptune 3P Series		
	NAAC 3P-8	19,500/-
	NAAC 3P-12	24,000/-
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) P = 7%	Harmonic Block Reactor 7% with DUCA Power Capacitor (Separate Units)	with Ultima Capacitor
	L.P. ₹	L.P. ₹	L.P. ₹
5 KVAR	7,490/-	10,015/-	10,940/-
10 KVAR	8,990/-	14,040/-	15,890/-
25 KVAR	13,200/-	24,950/-	30,200/-
50 KVAR	22,300/-	45,800/-	56,300/-
100 KVAR	42,500/-	89,500/-	1,10,500/-

\*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							97,800/-
30	2	3	5	10	10							99,000/-
40	2	3	5	10	20							1,02,000/-
50	2	3	5	10	10	20						1,10,500/-
60	2	3	5	10	20	20						1,23,000/-
											Type-I Floor Mounted	
75	5	5	15	25	25							1,39,000/-
100	5	5	15	25	25	25						1,52,000/-
125	5	5	15	25	25	25	25					1,68,000/-
											Type-II Floor Mounted	
150	5	5	15	25	25	25	50					2,79,000/-
200	5	5	15	25	25	25	50	50				3,18,000/-
250	12.5	12.5	25	50	50	50	50					3,55,000/-
300	12.5	12.5	25	50	50	50	50	50				3,92,000/-
325	12.5	12.5	25	50	50	50	50	75				4,26,000/-
350	12.5	12.5	25	50	50	50	75	75				4,52,000/-
400	12.5	12.5	25	50	75	75	75	75				5,01,000/-
450	25	50	75	75	75	75	75					5,70,000/-
500	25	50	50	75	75	75	75	75				6,20,000/-
600	25	25	50	50	75	75	75	75	75	75		7,33,000/-

# 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
<b>Active Harmonic Filter</b>			<b>Hybrid Power Conditioning System</b>	
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		

## | Energy Audits and Power Quality Studies



Our Group company NECPL is working in the area of Energy Conservation with a vision of becoming a leader in providing services & solutions in energy saving technologies in order to secure energy for future generations.

NECPL is certified ESCO Company by Bureau of Energy Efficiency (BEE) & have been rated & certified by CARE

### Service offered by NECPL

- ▶ Comprehensive energy audit of networks
- ▶ power factor, Harmonics & Power Quality studies
- ▶ Transient Study- Voltage Dip / Sag / Spike / Fluctuation & ther Transient Events for 24 hours or upto 1month.
- ▶ Root cause analysis of operational problems due to power Quality issue in network.
- ▶ Thermography / Thermal imaging / Earthing checkup f installation
- ▶ Generator efficiency test / Energy Meter accuracy check / Calibration used for sub metering.
- ▶ Health checkup of existing power factor system for design & up gradation to improve power factor.
- ▶ Designing & installation of advanced EMS & feasibility of existing EMS integration with new software & analyzers / Energy meters.
- ▶ Indoor air quality checkups for PPM, CO, etc.
- ▶ Checking efficiency of existing lighting.
- ▶ Noise level checkup, Electrical safety audit & Water audit.

# 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

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### Bengaluru

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### Vadodara

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## **Corporate & Mktg. Office**

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