EAPL

Products Catalogue 2012-13

Electronic Timers │ Tachometer │ Digital Counters │ Digital Temperature Controllers │ Time Switches │ Monitoring Devices
Power Supply Modules │ Programmable Fault Annunciators │ Energy Management System │ Hour Meter

www.eaplindia.com

कर्मण्ये व ही संसिद्धिः

25 years of making innovation an experience.

Daring to think different and making it happen - only a few companies do both. We proudly present ourselves among an array of those few players who thought that a soaring profit graph is never the bottom-line, but just a point where you start!

Over the years we have made 'change' a milestone to be achieved in every aspect of our automated world. In a world where automation and innovation go hand in hand, we make sure that we periodically improvise our products so that our clients receive the best.

Our journey to success has come with feathers on our cap…
ISO 9001standards, UL (US) certification & National award for the outstanding manufacturer has been achieved after covering the whole country and our presence was felt in the global market..

EAPL sets its standards much higher than merely targeting at its sales figures. We strive to deliver quality products on time and give life long services. This not only builds the rapport with our customers, but also gives a human face to our company through its dealer network.

Our company utilizes an array of tool centers for quality control such as Government approved design house and software centers. Automated testing rules out the possibilities of man made errors in calibration and measurement.

EAPL Products for the Elite Clients

Some of the latest in SMD technology are Timers, Tachometers, Counters, Temperature controllers, Time switches, Phase monitoring device, Power supply modules, Annunciators and A RANGE OF ENERGY METERS WITH SOFTWARE are amongst the 100 products adoring the EAPL tag.

We are proud to showcase our clients, who are top consultants and firms including M/S EIL Delhi, M/s BHEL and DGQA for defense applications.

"Offering the best
Quality products & Faster
delivery to Customers
is our motto"

A 5255   (UL) REGISTERED FIRM   ISO 9001-2008

Approved by

पावरग्रिड

DGQA

NUCLEAR POWER CORPORATION OF INDIA LIMITED

सेल SAIL

ABB

ENGINEERS INDIA LIMITED
(A Govt. Of India Undertaking)

NLC

BHEL

Award for Business Excellence

ELCINA
- DUN & BRADSTREET

D&B
Decide with Confidence

Features

- Din sized enclosure for Track / Screw mounting
- Front terminal protective cover for safety
- LED indication for timing in progress
- Time delay selectable in 4 ranges except A1D1(SR), A1D1(WB), A1DH-1 & A1DN-X (CSA)- Single range

Special Features

- A1DS   - Transfer time delay of 40 mSecs / 100 mSecs (User Selectable)
              - 1c/o (C-NO) for star, 1c/o (C-NO) for Delta
- A1DN-X (CSA) - 20 mSecs (Factory set)
- A1DA   - External (Zero volt/potential free) command contact for timing initiation

- **Dimensions: 22.5 x 75 x 102mm (W x H x D)**

Ordering Information

Model	Function	Source Voltage	Time Range	Output	CSA Approved	CE Approved
A1D1(CSA)	On-Delay	240V AC	0.3 Secs to 30 Mins	2 c/o Relay	✓	✓
A1D1-X (CSA)	On-Delay	X-Version	0.3 Secs to 30 Mins	2 c/o Relay	✓	✓
A1D1-X (60M)	On-Delay	X-Version	0.6 Secs to 60 Mins	2 c/o Relay	✓	✓
A1DE-X	Interval	X-Version	0.3 Secs to 30 Mins	2 c/o Relay	✓	✓
A1DN-X (CSA)	Auxiliary Relay Timer	X-Version	20m Secs	2 c/o Relay	✓	✓
A1DCS-X	Equal On-Off Cyclic	X-Version	0.6 Secs to 60 Mins	2 c/o Relay	✓	−
A1D1	On-Delay	8 V to 30 V DC	0.3 Secs to 30 Mins	2 c/o Relay	−	−
A1DA	Signal Off-Delay	240V AC / 110V AC	0.3 Secs to 30 Mins	1 c/o Relay	−	−
A1DS	Star-Delta Timer	240V AC / 110V AC	0.6 Secs to 60 Secs	1 c/o Star, 1 c/o Delta	−	−
A1D1 (SR)	On-Delay (Single Range)	12V DC	18 Secs to 180 Secs	2 c/o Relay	−	−
A1D1 (WB)	On-Delay (Wide Band)	266-456V AC	3 Secs to 30 Secs	1 c/o Relay	−	−
A1DH-1	Power Off-Delay	240V AC*	18 Secs to 180 Secs	2 c/o Relay	−	−

X -Version: 24V AC to 240V AC & 24V DC to 220V DC   * Min 2sec of aux. supply required for each cycle, else timer may malfunction

Features

- Din sized enclosure for Track (Din rail) / Screw mounting

Special Features

- B1DCA-T   - Independently selectable ON and OFF time
              - HOLD / RESTART facility during power fail condition
              - Program – enable / disable facility for tamper proof operation
- B1DS   - Transfer time delay of 40 mSecs / 100 mSecs (User Selectable)
              - 1c/o (C-NO) for star, 1c/o (C-NO) for Delta

- **Dimensions: 45 x 75 x 116 mm (W x H x D).**

Ordering Information

Model	Function	Source Voltage	Time Range	Output
B1DCA-X	Cyclic Adjustable On-Off timer	X-Version	0.6 Secs to 60 Mins	2 c/o Relay
B1DCA-T	Cyclic Adjustable On-Off timer	240 VAC / 110 VAC	0.1 Secs to 10 Hrs	2 c/o Relay
B1DF	On-Delay with Instant Contact	240V AC / 110V AC	0.3 Secs to 30 Mins	1 c/o Relay 1 c/o Instant
B1DH-Q	Power-Off Delay	110V AC / DC to 240V AC / 220V DC*	6 Secs to 60 Secs	2 c/o Relay
B1DS	Star-Delta Timer	440V AC	0.6 Secs to 60 Secs	1 c/o Star, 1 c/o Delta

X-Version: 24V AC to 240V AC or 24V DC to 220V DC   * Min. 1sec of aux. supply required for each cycle, else timer may malfunction

■ Features

- Din sized enclosure for Panel (Flush) mounting
- Timer and base available for Din Rail / Screw mounting.(except Model H3D1)
- Front terminal protective cover for safety
- Knob-lock to protect from unintentional change of time setting
- Large transparent knob for precise time setting

▪ Special Features

- **H1D1-X, H3D1** - Multifunction timer with ON delay / Interval / Equal cyclic ON /Equal cyclic OFF
- **H1DA-X** - Accepts any voltage from 12V AC/DC to 240V AC / 220V DC as signal between command contacts for timing initiation.
- **Dimensions: 48 x 48 x 94.5mm (W x H x D) (Screw Type)**
  48 x 48 x 94mm (W x H x D) (Plug-in Type)

Ordering Information

Model	Function	Source Voltage	Time Range	Output	CSA Approved
H1D1-X(CSA)	Multi-function timer (11 Pin) plug in type	X Version	0.3 Secs to 60 Mins	2 c/o Relay	✓
H3D1	Multi function timer (8 terminals) Screw type	X Version	0.3 Secs to 60 Mins	2 c/o Relay	−
H1DA-X	Signal Off Delay timer (11 pin) plug in type	X Version	0.6 Secs to 60 Mins	2 c/o Relay	−
H1DT-10(CSA)	On Delay (11 Pin) plug in type	X Version	1 Sec to 10 Secs	2 c/o Relay	✓
H1DT-30(CSA)	On Delay (11 Pin) plug in type	X Version	3 Secs to 30 Secs	2 c/o Relay	✓
H1DT-60(CSA)	On Delay (11 Pin) plug in type	X Version	6 Secs to 60 Secs	2 c/o Relay	✓
H4DT-10	On Delay (8 pin) plug in type	X Version	1 Sec to 10 Secs	2 c/o Relay	−
H4DT-30	On Delay (8 pin) plug in type	X Version	3 Secs to 30 Secs	2 c/o Relay	−
H4DT-60	On Delay (8 pin) plug in type	X Version	6 Secs to 60 Secs	2 c/o Relay	−

X Version: 24V AC to 240V AC & 24V DC to 220V DC

Multifunction Digital Timers

■ Features

- Din sized enclosure for panel mounting
- Digital dual display for set value and process value
- Program - enable & disable facility for function, relay configuration, type of start signal and time range
- HOLD / RESTART facility during power failure conditions
- Front and back RESET CUM START SIGNAL facility
- FUNCTION : ON DELAY / INTERVAL / CYCLIC ADJUSTABLE
- TYPE OF START SIGNAL (programable) : NO START / PULSE / CONTINUOUS
- Output relay configuration selectable
- Over Voltage protection

- **Dimensions: 48 x 48 x 115 mm (W x H x D) H3PT-MU**
  72 x 72 x 128.5 mm (W x H x D) C3PT-MU
  96 x 96 x 117 mm (W x H x D)   E3PT-MU

Ordering Information

Model	Function	Source Voltage	Time Range	Output
H3PT-MU	Digital Multifunction Timer (Up Counting)	85V to 270V AC / DC	0.1 Sec to 99 Hrs 59 Mins	1 Instant & 1 Delayed or 2 Delayed
C3PT-MU	Digital Multifunction Timer (Up Counting)	85V to 270V AC / DC	0.1 Sec to 99 Hrs 59 Mins	1 Instant & 1 Delayed or 2 Delayed
E3PT-MU	Digital Multifunction Timer (Up Counting)	85V to 270V AC / DC	0.1 Sec to 99 Hrs 59 Mins	1 Instant & 2 Delayed or 3 Delayed

■ Features

- State of art micro controller design
- User friendly programming for ON / OFF time selection independently
- External contacts for timing initiation
- Hold / Restart facility during power failure
- Over Voltage Protection

■ Special Features

- **ST-10M1/**   - Enclosure suitable for screw mounting
  ST10-M2/ST6-M1 - 7 segment display indication for channel & Timing operation
  - Multiple sequential timers can be cascaded to obtain more channels
  - Unit can be programmed for single cycle or cyclic operations
  - Pause facility provided
  - Facility for copying first channel program to all channel
- **ST15-M2**   - Enclosure suitable for screw mounting
  - 7 segment display indication for channel & Timing operation
  - Facility available to recieve potential free (Zero Volts) continuous signals from PLC and Differential Pressure Switch to operate timer in healthy conditions
  - Facility for copying first channel program to all channel

Note: All the above models are available with IP enclosures
Dimensions: 200 x 130 x 45 mm(W x H x D)

- **MODEL ST4-M1** - Enclosure suitable for din rail
  - Analog Sequential Timer
  - ON time / OFF time is common for all channels
  - Only cyclic operation
  - External contacts for timing initiation

Dimensions: 110 x 86 x 68 mm (W x H x D)

- **MODEL S1DC8-M3** - COMBINATION TIMER (8 relays x 8 combinations = 64 programs)
  - Enclosure suitable for screw mounting
  - 7 segment display indication for channel, combination & Timing operation
  - Independently selectable Delay and ON time for each combination of any particular relay WRT Start Signal
  - Erasing of program by reset terminals
  - Pause facility provided

Dimensions: 200 x 130 x 45mm (W x H x D)

Ordering Information

Model	Function	Source Voltage	Time Range	Output
ST10-M1	Sequential switching 10 channels	85V to 270V AC / DC *	0.1 Sec to 99Hrs 59 Mins	1 c/o NO Relay for each channel
ST10-M2	Sequential switching 10 channels	85V to 270V AC / DC	0.01 Sec to 99Hrs 59Mins	Triac o/p for each channel #
ST6-M1	Sequential switching 6 channels	85V to 270V AC / DC *	0.1 Sec to 99Hrs 59Mins	1 c/o NO Relay for each channel
ST15-M2	Sequential switching 15channels	85V to 270V AC / DC	0.01 Sec to 99 Hrs 59 Mins	Triac o/p for each channel #
ST4-M1	Sequential switching 4 channels	240V AC	0.1 Sec to 1 Hr	1 c/o NO Relay for each channel
ST10-M1 (IP)	Sequential switching 10 channels	85V to 270V AC / DC *	0.1 Sec to 99Hrs 59 Mins	1 c/o NO Relay for each channel
ST10-M2 (IP)	Sequential switching 10 channels	85V to 270V AC / DC	0.01 Sec to 99Hrs 59Mins	Triac o/p for each channel #
ST6-M1(IP)	Sequential switching 6 channels	85V to 270V AC / DC *	0.1 Sec to 99Hrs 59Mins	1 c/o NO Relay for each channel
ST15-M2(IP)	Sequential switching 15 channels	85V to 270V AC / DC	0.01 Sec to 99Hrs 59Mins	Triac o/p for each channel #
S1DC8-M3	Combination switching 8 channels	85V to 270V AC / DC	1 Sec to 99Hrs 59Mins	1 c/o NO Relay for each channel

*ST-10M1/ST6-M1 suitable for 24V DC is available on request only for bulk requirement.
Suitable for AC loads only

Hour Meter

■ Features

- 5 Digit LCD Display
- Start signal – continuous, 12V AC/DC to 240V AC/ 220V DC
- Battery operated
- Reset terminals available at rear for resetting
- Resolution – 1Hr (1sec if Min:Sec button on front panel is pressed)
- **Dimensions: 72 x 72 x 84 mm (W x H x D)**

Ordering Information

Model	Function	Source Voltage	Time Range
HM-600	Digital Hour Meter	3V DC (2x1.5V) 'AA' Battery operated	0Hr to 99,999 Hrs

TS-Series   Digital Time Switch

■ Features

- Din sized enclosure for panel mounting (TS-203) / Din rail mounting (TS-203B)
- Time switch with 4 switching per day
- Battery operated (2nos x 1.5V DC, AA Size) real time clock in 24 Hour format
- LCD display for real time clock
- User friendly programming
- Program Enable and Disable facility (For TS-203B only)
- Manual over ride facility
- RTC Programming enable & disable facility
- **Dimensions: 72 x 72 x 84 mm (W x H x D) TS-203**
  130 x 86 x 65 mm (W x H x D) TS-203B

Ordering Information

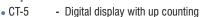| Model	Function	Source Voltage	Output
TS-203	4 Switching, Digital Daily Time Switch	240V AC	1 c/o 16A Relay
TS-203B	4 Switching, Digital Daily Time Switch	240V AC	1 c/o 16A Relay

*Time switch with voltage 12V /24V DC/110V AC are available on request for bulk requirements

Pre-Set Counters

■ Features

- Din sized enclosure for panel mounting
- Wide voltage range
- Front / Rear reset facility provided
- Hold / restart options (selectable) during power failure.
- Input signal from proximity switch (NPN / PNP type) or Potential Free (Zero Volts) signals from limit switch etc
- Over Voltage protection

■ Special Features

- CT-5   - Digital display with up counting
            - Counts selectable with thumb wheel switch
- H3CT-5U - Digital display with Up counting for both process value and set value
            - Input Sensitivity- programable (1-100Hz.)
- **Dimensions: 48 x 48 x 115mm (W x H x D) H3CT-5U**
  72 x 72 x 128.5mm (W x H x D) CT-5

Ordering Information

Model	Description	Source Voltage	Range	Output
H3CT-5U	Preset Counter (LED display), 5 digit	85V to 270V AC / DC	1 to 99,999 Counts	1 c/o, 5A Relay
CT-5	Preset Counter (LED display), 5 digit	85V to 270V AC / DC	1 to 99,999 Counts	1 c/o, 5A Relay

Features

- Wide Voltage Range (85V to 270V AC / DC)
- Universal Input (J / K / PT-100)
- LED Indications for Sensor , Relay and Functions
- User Friendly Programming
- Over Voltage protection
- Sensor and function lock

Special Features

- **H3TX-Ua / TX7-Ua/** - Dual function (On / Off or Self Tuned)
  EX9-Ua   - Single Set Point with Relay output
  - Single display for both process and set value
  - Temperature off set calibration feature available

- **H3TX-2U / TX7-2U /** - Dual function (On / Off or Self Tuned)
  EX9-2U   - Single Set Point with Relay output
  - Dual Display for process and set value

- **H3TX-2H-U / TX7-2H-U /** - Single function (On / Off)
  EX9-2H-U   - Dual Set Point with Relay output
  - Dual Display for process and set value

  - Both relays changes over to NO at room temperature, and each relay reverts back to NC at respective Set Points. It once again changes over to NO after temperature fall below respective Hysteresis set .

- **H3TX-2A-U / TX7-2A-U /** - Single function (On / Off)
  EX9-2A-U   - Dual Set Point with Relay output
  - Dual Display for process and set value

  - 1st relays changes over to NO at room temperature, and reverts back to NC at Set Point. It once again changes over to NO after temperature falls below 1st Hysteresis set. 2nd relay changes over to NO at 2nd set point and reverts back to NC when temperature falls below 2nd hysteresis set.

- **Dimensions: 48 x 48 x 115 mm (W x H x D) for H3TX Models**
  72 x 72 x 128.5 mm (W x H x D) for TX7 Models
  96 x 96 x 117 mm (W x H x D) for EX9 models

Ordering Information

Model	Description	Source Voltage	Sensor	Range
H3TX-Ua				
TX7-Ua	Single set point with single display (Relay Output)			
EX9-Ua				
H3TX-2U				
TX7-2U	Single set point with Dual Display (Relay Output)	85V to 270V	J	0^0 C to 600^0 C
EX9-2U		AC / DC	K	0^0 C to 1200^0 C
H3TX-2H-U*		Universal	PT-100 (Self tuned)	0^0 C to 300^0 C
TX7-2H-U*	2 set point with Dual Display - Heater Type (Relay Output) (ON / OFF Type)	Voltage	PT-100 (ON-OFF)	-100^0 C to 300^0 C
EX9-2H-U*				
H3TX-2A-U*				
TX7-2A-U*	2 set point with Dual Display - Alarm Type (Relay Output) (ON / OFF Type)			
EX9-2A-U*				

* 0 C to 300 C for PT100 Sensor

Digital Non Contact Tachometer

▪ Features

- Hand Held Non contact tachometer
- Microcontroller based design with world class Indian software
- Non-Contact sensing through reflected light beam on reflective sticker
- LCD Display
- Input sensing indication through LED
- Memory facility to retain measured value
- Portable, Lightweight, Strong and Elegant ABS Enclosure
- Accuracy: $\pm$1RPM for < 5,000 RPM and $\pm$0.05% of the reading for > 5,000 RPM
- Resolution: 0.1RPM up to 5,999 RPM and 1RPM at and above 6,000 RPM
- **Calibration Certificate Provided Along With Tachometer - Traceable To National & International Standard**

Ordering Information

Model	Function	Source Voltage	Range
DT2001B	Digital Hand Held Non Contact Tachometer	6V DC (1.5V x 4AA Size Batteries)	1 to 99,999 RPM (with one reflecting mark)

Phase / Voltage Monitoring Device

▪ Features

- Din sized enclosure
- Auto / Manual operation
- Front Button and External potential free (zero volt/no voltage) contacts for resetting in manual mode

▪ Special Features

- PMD-01
  - Monitors phase sequence, phase failure, phase unbalance & undervoltage in a 3phase 3 wire system & trips under such condition
  - LED indication for power, relay status and fault condition
  - All parameters factory set

- PVMD / PVIMD
  - Panel / Flush mounting
  - Digital display for Setting the parameters
  - Program enable/disable facility available
  - Terminals provided for external CT connection, with programmable CT ratio
  - Nominal voltage and current settable
  - Inrush time settable.(N.A For PVMD)
  - Trip Delay time can be selected individually for each parameter
  - Parameters can be bypassed
  - Relay logic programmable for NO or NC

- PVMD-G / PVIMD-G
  - Din Rail mounting
  - (All other features remain same as PVMD / PVIMD)
  - PVMD / PVMD-G - Monitors phase sequence, phase failure, phase unbalance, over voltage & Under Voltage in a 3 phase 4 wire system & trips during unhealthy condition
    PVIMD / PVIMD-G - Monitors phase sequence, phase failure, phase unbalance, over voltage, under voltage, over current & under current in a 3 phase 4 wire system & trips during unhealthy condition

Dimension: 45 x 75 x 116mm (W x H x D) PMD-01
96 x 96 x 117 mm (W x H x D) PVMD/PVIMD
76 x 78 x 115 mm (W x H x D) PVMD-G/PVIMD-G

Ordering Information

Model	Function	Source Voltage	Output
PMD 01	Phase Monitoring Device	440V AC, 3 Phase	1 c/o relay
PVMD	Digital Phase & Voltage Monitoring Device	3 Phase, 4 wire Self powered	1 c/o relay
PVMD-G (NEW)	Digital Phase & Voltage Monitoring Device	3 Phase, 4 wire Self powered	1 c/o relay
PVIMD	Digital Phase, Voltage & Current Monitoring Device	3 Phase, 4 wire Self powered	1 c/o relay
PVIMD-G (NEW)	Digital Phase, Voltage & Current Monitoring Device	3 Phase, 4 wire Self powered	1 c/o relay

*PMD-01 with 2c/o Relay on request for bulk quantity

A. Basic Models

■ Features

- Sleek ABS enclosure
- Super bright Red color SMD LED for fault indications
- Test / Mute / Ack / Reset (Buttons in front and terminals at rear) facility available, and can be cascaded
- Each window programmable at site for either Alarm or trip
- On site programmable input signal potential free (Zero Volts) as NO/NC for each window
- Program enabling/ disabling facility available at rear
- Over Voltage protection

■ Window Size

- M2-2   - Window size: 66 x 58mm (W x H)
- M2-4   - Window size: 66 x 27.5 mm (W x H)
- M2-6   - Window size: Top 2 windows - 66 x 27.5 mm (W x H)
                          Bottom 4 windows - 31.5 x 27.5 mm (W x H)
- M2-8   - Window size: 31.5 x 27.5 mm (W x H)
- **Dimensions: 73.5 x 142.5 x 78 mm (W x H x D)   M2-2 / M2-4 / M2-6 / M2-8**

B. Advanced Models

■ Features

- Sleek ABS enclosure 24 / 16 / 12 window annunciator
- Super bright Red color SMD LED for fault indications
- Test / Mute / Ack / Reset (Buttons in front and terminals at rear) facility available, and can be cascaded
- Each window programmable at site for either Alarm or Trip On site potential free (Zero Volts) input signal can be programmed
- Over Voltage protection

■ Window Size

- M2-12/M2-16/M2-24   - Window size: 28 x 28mm (W x H)

■ Special Features

- Sequence of Operation user selectable (Manual Reset, Auto Reset, Manual Reset + Ring back, FIFO)
- Terminals for standby source of 12VDC available during AC fail
- AC Fail / Hooter relays available which gets energized whenever aux. supply fails
- **Dimensions: 291 x 186.5 x 69 mm (W x H x D) Models M2-12 / M2-16 / M2-24**

Ordering Information

Model	Description	Source Voltage	Output
M2-8, 8 window	Fault Annunciator	85V - 270V AC / DC or 18 - 90V AC / DC	2 Relay 1c/o (C-NO) (Trip / Alarm)
M2-6, 6 window	Fault Annunciator	85V - 270V AC / DC or 18 - 90V AC / DC	2 Relay 1c/o (C-NO) (Trip / Alarm)
M2-4, 4 window	Fault Annunciator	85V - 270V AC / DC or 18 - 90V AC / DC	2 Relay 1c/o (C-NO) (Trip / Alarm)
M2-2, 2 window	Fault Annunciator	85V - 270V AC / DC or 18 - 90V AC / DC	2 Relay 1c/o (C-NO) (Trip / Alarm)
M2-12, 12 window	Fault Annunciator	85V - 270V AC / DC	2 Relay (Trip / Alarm) (NC-C-N0) AC Fail Relay & Hooter Relay (C-No)
M2-16, 16 window	Fault Annunciator	85V - 270V AC / DC	2 Relay (Trip / Alarm) (NC-C-N0) AC Fail Relay & Hooter Relay (C-No)
M2-24, 24 window	Fault Annunciator	85V - 270V AC / DC	2 Relay (Trip / Alarm) (NC-C-N0) AC Fail Relay & Hooter Relay (C-No)

*Model M2-24 R / M2-16 R / M2-12 R with Repeat Relay Card / RS-485 Modbus Protocol is available on request.

A. Multi Function Meters

■ **Features**

- Measurement of Basic, Power & Energy Parameters
- On site programmable PT(Pri. & Sec.)/CT (Pri. & Sec) ratio
- Accuracy Class 0.5/1.0
- RS-485-RS232 / SCADA / PLC Communication Compatibility (Mod-bus RTU Protocol)
- Protection from Dust & water as per IP.51
- High brightness LED Display (Alpha Numeric (Green) for parameter, Numeric (Red) for value)
- Program setting protected by 4 digit Password
- Over Voltage Protection
- **Dimensions: 96 x 96 x 117 mm (W x H x D)**

B. Maximum Demand Indicator / Controller (NEW)

■ **Features**

- User selectable- Fixed window / sliding window technique
- Max. Demand Controller= Max. demand Indicator + 4relay module (RR-4)
- LED output available for no. of impulses/KWh or KVArh (programmable)
- **Dimensions: EMS-15: 96 x 96 x 117 mm (W x H x D)**
  RR-4: 195 x 90 x 58.5mm (W x H x D)

C. Convertor (RS-485 to RS 232)

■ **Features**

- Aux. supply - wide voltage and frequency range
- Compactable Baud rate: 2400, 4800, 9600, 19200
- Max. no of nodes: 32
- Max. Cable length (RS232 side) : 15mtrs typical
- Max. Cable length (RS485 side) : 500mtrs typical
- Mounting: Din rail.
- **Dimensions: 117 x 88 x 61 mm (W x H x D)**

Ordering Information

Model		Source Voltage	Parameter	
EMS-01	Multi Function Meter	85-270 V AC/DC	Page 1(Basic)	V_{L-L}, V_{L-N}, A_{L-N}, HZ, PF_{L-N}, PF_T, Phase angle$_{L-N}$, RPM, W_{L-N}, W_T, VAr_{L-N}, VAr_T, VA_{L-N}, VA_T
			Page 2(Total)	KWh, MWh, VArh-C, VArh-I, VAh_T.LH
			Page 3(Import)	KWh, MWh, VArh-C, VArh-I, VAh_T.LH.
			Page 4(Export)	KWh, MWh, VArh-C, VArh-I, VAh_T.LH.
			Page 5(Old)	KWh, MWh, VArh-C, VArh-I, VAh_T.LH.
			Page 6(Old Import)	KWh, MWh, VArh-C, VArh-I, VAh_T.LH.
			Page 7(Old Export)	KWh, MWh, VArh-C, VArh-I, VAh_T.LH.
EMS-02	VAF/PF Meter	85-270V AC/DC	V_{L-L}, V_{L-N}, A_{L-N}, Hz, PF_T	
EMS-03	KWH Meter	85-270V AC/DC	W_T, PF_T, KWh, MWh	
EMS-09	Basic/Energy Meter	85-270V AC/DC	V_{L-L}, V_{L-N}, A_{L-N}, Hz, PF_T, W, KWh, MWh, LH	
EMS-17	Dual Source Energy Meter	85-270V AC/DC	V_{L-L}, V_{L-N}, A_{L-N}, Hz, PF_T, RPM, Phase angle $_{L-N}$, W, KWh, MWh, LH	
			All parameters in both registers-Main(M) and generator(G)	
EMS-18	VAF Meter	85-270V AC/DC	V_{L-L}, V_{L-N}, A_{L-N}, Hz	
EA232/485	Convertor	85-270V AC/DC	Convertor RS485-RS232	
EMS -15 (NEW)	Maximum Demand Indicator	85-270V AC/DC	Page 1 (Basic)	V_{L-L}, V_{L-N}, A_{L-N}, Hz, RTC Time
			Page 2 (Power)	PF_{L-N}, PF_T, W_{L-N}, W_T, VAr_{L-N}, VAr_T, VA_{L-N}, VAT
			Page 3 (Integral)	KWh, MWh, VArh-C, VArh-I, VAh_T .LH
			Page 4 (Demand)	Md (Fixed/sliding), Wd (Fixed/Sliding), Rd (Fixed), Elapsed Time (Fixed/Sliding)
EMS-15C (NEW)	Maximum Demand Controller	85-270V AC/DC	All parameter same as EMS-15 + controlling with RR4 (4 relay module - 3 relays for alarm and 1 Relay for trip)	
N Commune	EAPL Standard Software	N.A	P.C based monitoring	

Features

- Compatible to MS Windows XP and higher versions
- User friendly programming - easy to install and operate
- Option to scan devices connected in the network

- **Screens**
  - Basic and Power parameter
  - V & I distortion
  - Harmonic Power
  - Energy parameters

- **Reports**
  - Single Device energy report
  - Single Device summary report

- **Graph**
  - Single device graph (Bar / Line)

Enhanced Energy Management Software

'N Commune is an indigenous EAPL's Energy Management Software for EMS series of Energy Instruments. Designed for Windows based platform, this software does online data acquisition and monitoring – N-Commune displays all Basic, Power, Energy, Power Factor, I/E of Energy, V&I distortions & Harmonic Power. It is ideal and effective software for data analysis of an electrical system both at supply and load ends. It helps to minimize the wastage and losses of energy at various points of the system, there by conserves energy, saves cost, enhances the efficiency of the system by avoiding failures and also achieves optimum output.

Features

- SMPS Design
- Compact and light weight
- Versatile and Easy Snap-On mounting on Din rail
- Very low Ripple and Noise
- Regulated and Adjustable output
- Over voltage / Short circuit / Over Load Protection
- **Dimensions:** 45.5 x 75.4 x 116 mm (W x H x D) MS-01
  - 110 x 88 x 61 mm (W x H x D) MS-02
  - 155 x 88 x 79 mm (W x H x D) MS-03
  - 22.5 x 75 x 102 mm (W x H x D) MS-05

Ordering Information

Model	Function	Source Voltage	Output
MS-01	Power Supply Modules	192-264V AC	24V DC, 1A / 15 V DC,1A
MS-02	Power Supply Modules	170-300V AC	24V DC, 2.1A / 15V DC, 2.1A / 12V DC, 4.2A / 5V DC, 6.0A
MS-03	Power Supply Modules	170-300V AC	24V DC, 5A
MS-05	Power Supply Modules	170-300V AC	5V DC, 1A

www.huework.com   EAPL PC 04/12

A 5255 (UL) ISO 9001-2008

ELECTRONIC AUTOMATION (P) LTD

20, K.H.B Industrial Area, Yelahanka, Bangalore-560 064
Tel.: +91- 80 - 4280 2345 / 2856 7561 / 2856 7562
Fax: 080 - 4280 2346. E-mail: info@eaplindiamail.com

कर्मण्ये व ही संसिद्धिः

www.eaplindia.com