

Electronic Timers

EAPL offers a gamut of models to satisfy diverse user requirements. Quite friendly to the user in terms of setting and operations, these models are classified in series based on size starting from ultra-slim ETR series to well-known compact A series and B series. H series refers to Timers with base.



A-Series (22.5mm)

Features

- Suitable for Din Rail / Screw Mounting.
- LED indication for timing in progress.
- Terminal Block safety Protective cover.

Applications

- AMF Panels, Automation Panels, HT / LT Panels, MCC Panels, C & R Panels, RTCC Panels, Transformer Panels and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	CSA	CE	UL	Dimensions
A1D1(CSA)	On Delay	240V AC	0.3Secs to 30Mins	2 C/o Relay	✓	✓	✓	Over-All 22.5 mm W 75mm H 102mm D
A1D1-X(CSA)	On Delay	X-Version *	0.3Secs to 30Mins	2 C/o Relay	✓	✓	✓	
A1D1-X(60M)	On Delay	X-Version *	0.6Secs to 60Mins	2 C/o Relay	✓	✓	✓	
A1DE-X(CSA)	Interval	X-Version *	0.3Secs to 30Mins	2 C/o Relay	✓	✓	✓	
A1DCS-X(CSA)	Cyclic Equal Off- On	X-Version *	0.6Secs to 60Mins	2 C/o Relay	✓	✓	✓	
A1DN-X(CSA)	Auxiliary Relay	X-Version *	20m Sec	2 C/o Relay	✓	✓	✓	
A1D1(8-30V DC)	On Delay	8V to 30V DC	0.3Secs to 30Mins	2 C/o Relay	-	-	-	
A1DA ¹	Signal-Off Delay	110V AC / 240V AC	0.3Secs to 30Mins	1 C/o Relay	-	-	-	
A1D-S	Star Delta	110V AC / 240V AC / 415V AC	0.6Secs to 60Secs ##TD 40ms / 100ms	1 C/o (C-NO)Star 1 C/o (C-NO)Delta	-	-	-	
A1D1(WB)	On Delay (Wide band)	266V AC to 456V AC	3Secs to 30Secs	1 C/o Relay	-	-	-	
A1DH-1	Power-Off Delay	240V AC**	18Secs to 180Secs	2 C/o Relay ***	-	-	-	
A1DM-X ²	Multi Function Timer	X-Version*	0.1 mins to 10 hrs	2 C/o Relay	-	-	-	
A1DCA-X	Adjustable cyclic Timer	X-Version*	6 secs to 60 mins	2 C/o Relay	-	-	-	

*X-Version - 24V AC to 240V AC, 24V DC to 220V DC | **:Minimum 2secs of aux. supply has to be applied for each cycle, else timer may malfunction |

***:Contact Rating: 0.5 A @ 250 V AC / 28V DC Resistive | ##: TD – Transfer Delay time is the time between closure of star function and start of delta. |

1: Energizes the timer relay with a free from potential signal Command and on removal starts the timing.

2: Function: (a: ON Delay, b: Interval C: ON Delay Cyclic D. Interval Cyclic

Electronic Timers

ETR-Series (17.5mm)

Features

- Slim and Compact design.
- Finger guard protection.
- LED indication for timing in progress

Applications

- Automation Panels, HT / LT Panels, MCC Panels, C & R Panels, RTCC Panels, Transformer Panels and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Dimensions
ETR1-X	On Delay	X-Version*	0.3Sec to 30Min	1 C/o Relay	Over-All 17.5 x 89 x 62 mm (W X H X D)
ETRCs-X	Cyclic Equal Off-On		0.6Sec to 60Min		
ETRE-X	Interval		0.3Sec to 30Min		
ETRN-X	Auxiliary		20m Sec		
ETR-S	Star Delta	240V AC	6Sec to 60Sec ##TD 100ms	1 C/o (C-NO)Star 1 C/o (C-NO)Delta	
ETR-Sa			12Sec to 120Sec ##TD 100ms		

*: X-Version - 24V AC to 240V AC, 24V DC to 220V DC | ##: TD - Transfer Delay time is the time between closure of star function and start of delta. |

B-Series (45mm)

Features

- Din sized enclosure.

Applications

- Lubricating systems, Hot air tumblers, Washing Machines, DG Sets, MCC panels, Pump panels and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Dimensions
B1DCA-X	Cyclic Adjustable On-Off	X-Version*	0.6Secs to 60Mins	2 C/o Relay	45 x 75 x 116 mm (W X H X D)
B1DCA-T ¹	Cyclic Adjustable On-Off	110V AC / 240V AC	0.1Secs to 10Hrs	2 C/o Relay	
B1DS	Star Delta	440V AC	0.6Secs to 60Secs ##TD 40ms / 100ms	1 C/o (C-NO)Star 1 C/o (C-NO)Delta	
B1DH-Q	Power-Off Delay	110V AC to 240V AC 110V DC to 220V DC**	6Secs to 60Secs	2 C/o Relay	
B1DF	On Delay with instant contact	110V AC / 240V AC	0.3Secs to 30Mins	1 C/o On Delay 1 C/o Instant	
B1DF-R	Forward/Reverse with Pause Time	240V AC	Forward & Reverse - 0.6Min to 6Mins Pause- 0.1Min to 1Min	1C/o relay forward and 1c/o reverse	

*: X-Version - 24V AC to 240V AC, 24V DC to 220V DC | **: Minimum 1Sec of auxiliary supply has to be applied for each cycle, else timer may malfunction

##: TD - Transfer Delay time is the time between closure of star function and start of delta.

1: Hold/Restart – User Selectable, Enabling/disabling of select button for time range selection-field selectable.

2: Pause time between Forward and Reverse functions and vice versa is programmable.

Electronic Timers

H Series (48mm)



Features

- Timer with base(Refer Note 3)
- Large transparent knob.
- Knob lock ring is provided

Applications

- Textile Machine, Vending machine and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	CSA Approved	Over-All Dimensions	Cut-Out Dimensions
H3D1 ^{1,3}	Multifunction (8 terminals) screw type	X-Version*	0.3Secs to 60Mins	2 C/o Relay	—	48 x 48 x 94mm (W x H x D)	46 x 46 mm (W x H)
H1D1-X ¹ (CSA)	Multifunction (11 Pin) plug-in type		0.3Secs to 60Mins		✓		
H1DA-X ²	Signal Off-Delay (11 Pin) plug-in type		0.6Secs to 60Mins		—		
H1DT-10(CSA)	On-Delay (11 Pin) plug in type.		1Secs to 10Secs		✓		
H1DT-30(CSA)			3Secs to 30Secs		✓		
H1DT-60(CSA)			6Secs to 60Secs		✓		
H4DT-10	On-Delay (8 Pin) plug-in type.		1Secs to 10Secs		—		
H4DT-30			3Secs to 30Secs		—		
H4DT-60			6Secs to 60Secs		—		

*X-Version - 24V AC to 240V AC, 24V DC to 220V DC | 1: Multifunction - On-Delay / Interval / Equal Cyclic On / Equal Cyclic Off - programmable | 2: Energizes the timer relay with potential Signal Command(12V to 240V AC, 12V to 220V DC) and on removal starts the timings | 3: Timer without base.

Auxiliary Relays

Features

- Suitable for Din Rail / Screw Mounting.
- Universal voltage range.
- Terminal Block safety Protective cover.

Applications

- Relay panels, circuit breakers, Contact multiplying relay circuits, interlocking circuits and many more.



Ordering Information

Model	Function	Source Voltage	Time Range	Output	Dimensions
APD-100	Antipumping relays	X-Version*	80m Sec	1 C/o Relay	22.5 x 75 x 102mm (W X H X D)
APD-300			80m Sec	2 C/o Relay	
APD-500			20m Sec	4 Relays: 3 (C-NO), 1(C-NC)	45 x 73 x 88 mm (W X H X D)

*: X-Version - 24V AC to 240V AC, 24V DC to 220V DC

Digital Timers

EAPL's programmable Digital Timers feature digital displays in a sturdy plastic enclosure for precise settings and higher accuracies. These timers are panel / flush mounted. These multi-function devices afford a wide user selection of features.

Features

- Function (programmable): ON DELAY / INTERVAL / CYCLIC.
- Type of start signal (programmable): No START SIGNAL / PULSE² / CONTINUOUS.
- Program lock facility, Hold/Restart - User Selectable.



Applications

- Injection molding machine Granite processing machines, Packaging / Printing machines Hot stamping machines and many more.

Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Over-All Dimensions	Cut-Out Dimensions
H3PT-MU ¹	Multifunction Up-counting	85V to 270V AC / DC	0.1Secs to 99Hrs 59Mins	1C/o Instant ³ , 1 C/o Delayed or 2C/o Delayed	48 x 48 x 95.5mm (W X H X D)	46 x 46mm (W X H)
C3PT-MU					72 x 72 x 128.5mm (W X H X D)	69 x 69mm (W X H)
E3PT-MU				1 C/o Instant ³ , 2 C/o Delayed or 3 C/o Delayed	96 x 96 x 117mm (W X H X D)	92 x 92mm (W X H)

1: Now available in reduced depth with redesigned cabinet for better aesthetics and eliminating protective cover yet retaining the IP class.

2: When pulse signal is initiated the timer resets and immediately the new cycle begins. | 3: Instant feature is not available when cyclic function is programmed.

Digital Time Switches

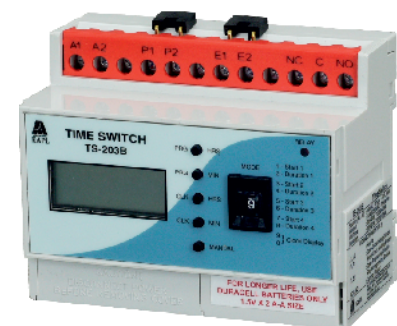
Time switches are control devices that switch ON loads with reference to real-time and then operate for a predefined duration irrespective of power failure operation.

Features

- Switches ON-OFF 4 times in a day with respect to real time
- Manual over riding possible.

Applications

- Street lighting, Advertising boards, DG sets, Pumps, Compressors, Exhaust fans, ATM air conditioners and many more.



Ordering Information

Model	Function	Source Voltage	Output	Over-All Dimensions	Cut-Out Dimensions
TS-203 ¹	Digital Daily Time Switch with 4 Program	240V AC	1 C/o, 16A resistive	72 X 72 X 84mm (W X H X D)	69 X 69mm (W X H)
TS-203R ²				110 X 86 X 68mm (W X H X D)	NA
TS-203B ^{1,3}					

\$: Availability will be for bulk quantity 1: Real time clock operates on external batteries | 2: Inbuilt rechargeable battery |

3: Allows user to activate program buttons during programming | 4: Provision to connect 2 loads separately.

Note: Multi Chanel configurable Time Switch with multiple switching.

Sequential Timers

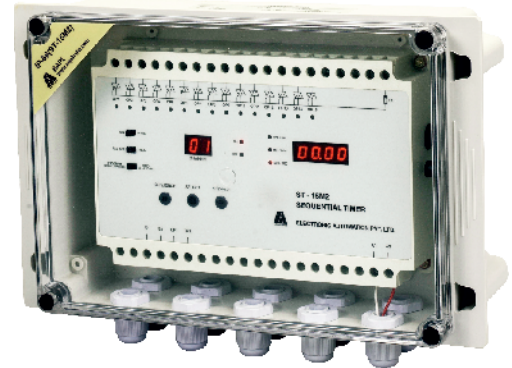
EAPL Sequential Timers are multi-channel control devices which capacitate predefined loads in a sequence without overlapping for a stipulated time between two scheduled time gaps. Sequential Timers are available in sturdy and compact UL graded flame retardant plastic enclosures.

Features

- Hold /Restart - User Selectable.
- Program of the first relay can be copied to all remaining relays or individually programmed for each relay.
- Non potential pulse start signal for initiation. (Refer Note 3)
- single/repeat cycle (Refer Note 1), Time inhibit / Pause & Cascading of units are available (Refer Note 5).

Applications

- Bag Filter systems, Dust pollution systems, Air handling systems, MCC panels, Pneumatic Conveyors, Process Industries and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Dimensions
ST4-M1 ^{1,2,3,5}	Sequential Switching 4 channels	240V AC	0.1S/M/H to 1S/M/H	1 C/o NO Relay for each channel	110 x 86 x 68mm (W X H X D)
ST6-M1	Sequential Switching 6 channels	85V to 270V AC / DC	0.1Secs to 99Hrs 59Mins	1 C/o NO Relay for each channel	200 x 130 x 45mm (W X H X D)
ST10-M1	Sequential Switching 10 channels		0.01Secs to 99Hrs 59Mins	Triac O/p for each channel**	
ST10-M2			0.1Secs to 99Hrs 59Mins	1 C/o NO Relay for each channel	291 x 214 x 68mm (W X H X D)
ST6-M1(IP)	Sequential Switching 6 channels with IP Enclosure		0.01Secs to 99Hrs 59Mins	Triac O/p for each channel**	
ST10-M1(IP)	Sequential Switching 10 channels with IP Enclosure	85V to 270V AC	0.1Secs to 99Hrs 59Mins	1 C/o NO Relay for each channel	291 x 214 x 68mm (W X H X D)
ST10-M2(IP)			0.01Secs to 99Hrs 59Mins	Triac O/p for each channel**	
ST15-M2 ^{1,3,4,5}	Sequential Switching 15 channels	85V to 270V AC	0.01Secs to 99Hrs 59Mins	Triac O/p for each channel**	200 x 130 x 45mm (W X H X D)
ST15-M2(IP) ^{1,3,4,5}	Sequential Switching 15 channels with IP Enclosure				291 x 214 x 68mm (W X H X D)

** : Suitable for 240V AC / 110V AC loads only.

1: Repeat Cycles only | 2: On/Off Time selection is common for all relays | 3: Healthy continuous non potential start signal for operation

4: Healthy Continuous non potential differential pressure signal to operate timer | 5: Time inhibit, cascading of units not applicable.

Note: Purging Relay feedback option available for remote monitoring.

Combination Timers

Microcontroller designed Combination Timers operate multiple loads in a predefined program sequentially or non-sequentially with or without overlapping. Comprising of multifarious features, they enable a varied range of applications.

Features

- Independently programmable - 8 Relays, 8 ON-OFF Timings Programmable for each relays (Overall 64 combination)
- Hold /Restart, single/repeat cycle, Time inhibit / Pause –User Selectable.
- Non potential pulse start signal for timer initiation.

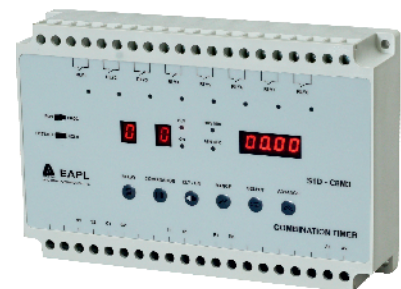
Applications

- Air dryers, Nitrogen and other gas plants, Process industries and many more.

Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Dimensions
S1DC8-M3 ¹	Combination Switching 8 channels, 8 Combinations	85V to 270V AC / DC	0.1Secs to 99Hrs 59Mins	1C/o NO Relay for each Channel	200 x 130 x 45mm (W X H X D)

1: Erasing of entire programs to default values is possible by shorting reset terminals.



Preset Counters

Preset counters are used for counting components produced or counting the number of strokes in a given process.

Features

- Counts the digital pulses, input sensing-proximity sensor, Photo sensor, Limit Switch and potential free signals.
- Hold / Restart user selectable.
- Configurable preset count for batch counting

Applications

- Injection molding machine Granite processing machines, Packaging / Printing machines Hot stamping machines and many more.



Ordering Information

Model	Function	Source Voltage	Range	Output	Over-All Dimensions	Cut-Out Dimensions
CT-5	Preset counter (LED Display), 5 digits	85V AC to 270V AC / DC	1 to 99,999 counts	1 C/o, 5A resistive	72 x 72 x 128mm (W X H X D)	69 x 69mm (W X H)
H3CT-5U ¹					48 x 48 x 95.5mm (W X H X D)	46 x 46mm (W X H)
H3CT-6U	Preset counter (LED Display), 6 digits		1 to 9,99,999 counts		98 x 50 x 79mm (W X H X D)	92 x 46mm (W X H)

1. Frequency of counts programmable

Digital Non-Contact Tachometer

Digital Tachometers also known as RPM meters, are designed to measure revolutions per minute (RPM) of any rotating surface. EAPL offers digital hand-held non-contact type tachometers that are manufactured using world-class technology. The input sensing is through reflective beam falling on reflective sticker.

Features

- Portable, Light weight, strong and elegant ABS enclosure
- Last reading memory retention
- High Accuracy and resolution

Applications

- Motors, Pumps, Generators, Engine and many more



Ordering Information

Model	Function	Source Voltage	Range	Over-All Dimensions
DT-2001B	Digital Hand Held Non Contact Tachometer	6V DC (4 x 1.5V, AA size battery)	1 to 99,999RPM (with one reflecting mark)	72 x 170 x 38mm (W X H X D)

Note: Calibration certificate with NABL standard traceability.

Programmable Alarm Annunciators

EAPL annunciators comes in UL rated ABS sleek, compact and light enclosures. The windows glow slides/caps can be replaceable at site based on colour requirement. For programming fault input & relay output configuration, front buttons are provided in addition to terminals at the rear.

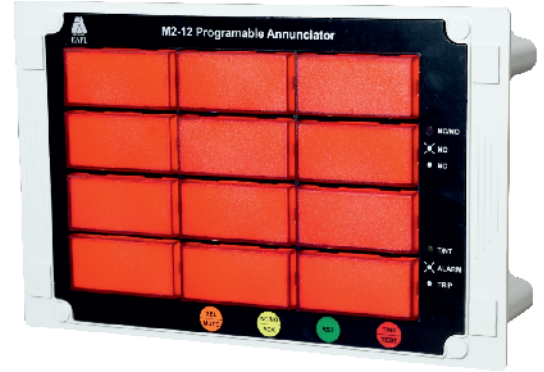
M2 Series

Features

- Micro processor based design with super bright SMD LEDs
- Sequence of operation - Manual /Auto Reset / Manual Reset with ring back/FIFO - User Selectable (Refer Note 2).
- RS-485 Mod-bus communication available in select models. (Refer Note 1).

Applications

- C&R panels, Transformer panels, DG set panels, Fire annunciation panels, Instrumentation panels and many more



Ordering Information

Model	No of Windows	Source voltage	Stand By Voltage	Output	Window Sizes (W x H) in mm	Over-All Dimensions	Cut-Out Dimensions
M2-4 ²	4	85V to 270V AC/DC (or) 18V to 90V AC/DC	N A	Trip Relay - (C-NO), Alarm Relay - (C-NO),	Bigger windows 66 X 27.5	73.5 x 142.5 x 78 mm (W x H x D)	69 x 141 mm (W x H)
M2-6 ²	6				Top 2 Windows: 66 X 27.5 Bottom 4 windows: 31.5 X 27.5		
M2-8 ²	8				Smaller windows 31.5 X 27.5		
M2-12/ M2-12R ¹	12	85V to 270V AC/DC	12V DC	Trip Relay - (NC-C-NO), Alarm Relay - (NC-C-NO), Hooter Relay - (C-NO), AC fail Relay - (C-NO)	Big window 63 X 28	291 x 187 x 79mm (W x H x D)	285 x 181mm (W x H)
M2-16/16a, M2-16R ¹	16				Bigger windows 63.0 x 28.0 Smaller windows 28.0 x 28.0		
M2-20/ M2-20R ¹	20						
M2-24/ M2-24R ¹	24				Small window: 28 x 28		

1 : Annunciators with RS485 mod-bus RTU protocol to communicate healthiness/Unhealthiness of each specified parameters and Availability will be for bulk quantity |
2 : Only Manual / Auto reset available in basic Models

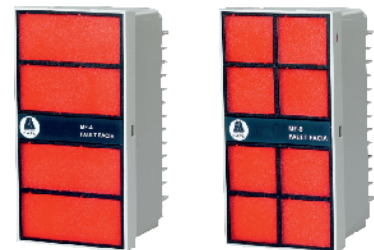
Alarm Indicator

Features

- Available in 4 and 8 windows respectively.
- Sleek, light weight, ABS enclosure.

Applications

- C&R panels, Transformer panels, DG set panels, Instrumentation panels and many more.



Ordering Information

Model	No. of Windows	Input	Output	Window Sizes (W x H) in mm	Over-All Dimensions (W x H x D) in mm	Cut-Out Dimensions (W x H) in mm
AI-4	4	24V DC ±10%	Window Facia LEDs on front	4 Bigger windows 66 x 27.5	74 X 143 X 78	63 X 138
AI-8	8			8 smaller windows 31.5 x 27.5		

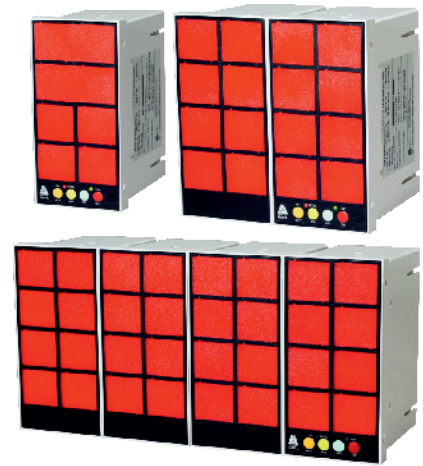
M3 Series

Features

- Micro processor based design with super bright SMD LEDs
- Master and slave units are available in 4,6 & 8 windows.
- Incorporates a built-in buzzer in addition to fault alarm relay output.
- User-selectable sequence of operations-Manual/Auto reset/ Manual reset with ring back / FIFO.
- RS485 communication output with field selectable device Ids.

Applications

- C&R panels, Transformer panels, DG set panels, Fire annunciation panels, Instrumentation panels and many more



Ordering Information

Model	No of Windows	Product size	Source voltage & Standby voltage	Output	Window Sizes (W x H) in mm	Over-All Dimensions	Cut-Out Dimensions
M3-4/M3-4R	4	1D	85-270V AC/DC & 12V DC	Trip Relay - (C-NC-NO), Alarm Relay - (C-NC-NO), AC Fail - (C, NO), DC Fail - (C, NO).	4 Bigger windows 68.0 x 31.0	72 x 144 x 121 mm (W x H x D)	66 x 139 mm (W x H x D)
M3-6/M3-6R	6				2 Bigger windows 68.0 x 31.0 4 Smaller windows 34.0 x 31.0		
M3-8/M3-8R	8				8 Smaller windows 34.0 x 31.0		
M3-8/M3-8R	8	2D	85-270V AC/DC & 85-270V AC/DC	Trip Relay - (C-NC-NO), Alarm Relay - (C-NC-NO), AC Fail - (C, NO), DC Fail - (C, NO).	8 Bigger windows 68.0 x 31.0	144 x 144 x 121 mm (W x H x D)	139 x 139 mm (W x H x D)
M3-12/M3-12R	12				4 Bigger windows 68.0 x 31.0 8 Smaller windows 34.0 x 31.0		
M3-16/M3-16R	16				16 Smaller windows 34.0 x 31.0		
M3-12/M3-12R	12	3D	24-48V AC/DC & 12V DC	Trip Relay - (C-NC-NO), Alarm Relay - (C-NC-NO), AC Fail - (C, NO), DC Fail - (C, NO).	12 Bigger windows 68.0 x 31.0	216 x 144 x 121 mm (W x H x D)	212 x 139 mm (W x H x D)
M3-20/M3-20R	20				4 Bigger windows 68.0 x 31.0 16 Smaller windows 34.0 x 31.0		
M3-24/M3-24R	24				24 Smaller windows 34.0 x 31.0		
M3-32/M3-32R	32	4D	24-48V AC/DC & 85-270V AC/DC	Trip Relay - (C-NC-NO), Alarm Relay - (C-NC-NO), AC Fail - (C, NO), DC Fail - (C, NO).	32 Smaller windows 34.0 x 31.0	288 x 144 x 121 mm (W x H x D)	283 x 139mm (W x H x D)
M3-40/M3-40R	40	5D			40 Smaller windows 34.0 x 31.0	360 x 144 x 121 mm (W x H x D)	355 x 139mm (W x H x D)

Note: Repeat delay card option available

Models no. with suffix R has RS485 communication port. Multicolor (Red / White / Amber / Green) windows are available on request.

Electronic Solid state Buzzer

Features

- Low Power Consumption.
- Two user selectable ring tones.
- Generates no radio frequency signal.

Applications

- Electrical Control Panels, Automation Panels, Safety devices, Annunciators, Audio-visual warnings, Emergency Warning, Banks & commercial premises, Warning systems



Ordering Information

Model	Function	Source Voltage	Audio Output range	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
ESB-01	Audio Alarm	110V AC / 240V AC	90db to 110db	96 x 96 x 88.5 mm	92 x 92 mm

Protection Relays

Also known as single phase preventers, they help the user to monitor the functionality of given power parameters and control the same by taking appropriate action through relay output. Both analog and digital versions are available. While analog versions come with few parameters and factory set values, digital versions are more versatile helping the user to select the parameters and limits. These units display functional faults and help user to monitor the instant values while functioning faultlessly.

Single phase preventers

Features

- Resetting possible in manual mode from front button / rear terminals.

Applications

- Motors, pumps, generators and Compressor panels and many more.



Ordering Information

Model	Function	Input Voltage	Output	Over-All Dimensions (W X H X D)
PMD-01a	Phase Unbalance, Phase Failure, Phase Sequence, Under Voltage, Monitor & Control	440V AC 3phase, 3 wire, Self powered	2 c/o, 5A resistive	45 x 75 x 116mm
PMD-01	Phase Unbalance, Phase Failure, Phase Sequence, Under Voltage, Monitor & Control	440V AC 3phase, 3 wire, Self powered	1 c/o, 5A resistive	45 x 75 x 116mm
PMD-02	Phase Sequence, Phase Failure, under voltage Monitor and Control	415V AC 3phase, 3 wire, Self powered		22.5 x 75 x 96mm
PMD-03				17.5 x 89 x 62mm
SPP-T ¹	Phase Unbalance, Phase Failure, Phase Sequence, Monitor & Control	415V AC 3phase, 3 wire, Self powered		45 x 75 x 116mm

1: Auto/Manual switch provided

Reverse Power Relay

Features

- Displays instant values of specified parameters during healthiness and type of fault during fault conditions
- Monitors and trips the circuit after the set trip delay time whenever any power unhealthiness (under voltage, over voltage & reverse power) occurs.

Applications

- Solar Panel applications, Generator Panel and etc.



Ordering Information

Model	Function	Input Voltage	Output	Over-All Dimensions
RPR-01	Reverse Power Device	85V - 270V AC, self powered	1 c/o 5A	76 x 78 x 115mm

Protection Relays

Digital Version

Features

- Displays instant values of specified parameters during healthy condition and type of fault during fault conditions
- Programmable trip delay time and limits for each parameter
- Relays NO/NC status during healthy condition – User Selectable.
- bypass option for undesired protection feature

Applications

- Any 3 phase 4wire systems like motors, pumps, generators / distribution / MCC panels, air conditioners, elevators, cranes, escalators and many more.



Ordering Information

Model	Function	Input Voltage	Output	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
PVMD ^{1,4a,5a}	Phase Voltage Monitoring Device	415V AC 3 phase, 4 wire, Self powered	1 c/o, 10A resistive	96 x 96 x 95.5mm	92 x 92mm
PVMD-A ^{1,4a,5a}		415V AC 3 phase, 4 wire & auxiliary supply 100-270 V AC			
PVMD-G ^{2,4a,5a}		415V AC 3 phase, 4 wire, Self powered			
PVIMD ^{1,3,4b,5b}	Phase Voltage Current Monitoring Device	415V AC 3 phase, 4 wire, Self powered		96 x 96 x 95.5mm	92 x 92mm
PVIMD-A ^{1,3,4b,5b}		415V AC 3 phase, 4 wire & auxiliary supply 100-270 V AC			
PVIMD-G ^{2,3,4b,5b}		415V AC 3 phase, 4 wire, Self powered			
PVIMD-R ^{1,3,4c,5b}	Phase Voltage Current & Energy Monitoring Device 415V AC 3 phase, 4 wire with RS485	415V AC 3 phase, 4 wire & auxiliary supply 85-270 V AC/DC	2 c/o, 5A resistive	96 x 96 x 117mm	92 x 92mm
PMR-01 ^{1,3,4d,5c}	Power Monitoring Relay	415V AC 3 phase, 4 wire, Self powered	1 c/o 10A resistive	96 x 96 x 95.5mm	
PMR-01A ^{1,3,4d,5c}		415V AC 3 phase, 4 wire & auxiliary supply 100-270 V AC			

1: Panel Mounting | 2: Din rail mounting | 3: Nominal current and inrush time user programmable. CT primary user selectable secondary default is 5 |

4: Displays the following parameters during healthiness by the following models:

a) PVMD/PVMD-G: 3-phase voltage L-L, L-N

b) PVIMD/PVIMD-G: 3-phase voltage L-L, L-N, Current L-N

c) PVIMD-R: 3-phase voltage L-L, L-N, Current L-N, frequency, PF, active power, active energy

d) PMR-01: 3-phase voltage L-L, L-N, Current L-N, frequency |

5: Monitors and displays the following parameters during unhealthiness by the following models.

a) PVMD, PVMD-G : Monitors and trips the circuit after the set trip delay time when ever power unhealthiness (phase failure, phase sequence, phase unbalance under voltage or over voltage) occurs.

b) PVIMD, PVIMD-G, PVIMD-R: Monitors and controls any 3 phase 4 wire circuit after the set trip delay time when ever power unhealthiness (phase failure, phase sequence, phase unbalance under voltage, over voltage, under current or over current) occurs.

c) PMR-01: Monitors and trips the circuit after the set trip delay time when ever power unhealthiness (phase failure, phase sequence, phase unbalance under voltage, over voltage, under frequency, over frequency or earth leakage current, under current, over current) occurs.

Multifunction Meters

Presenting an extensive array of Multifunction Meters- ranging from Energy Meters to simple volt/amperes/frequency meters suitable for Submetering/analysing the consumption pattern. Meters are available with RS485 communication port & WiFi connectivity. All our Meters are conforming to the latest IEC standards and accuracy class 1,0.5, 0.2s.

Features

- High brightness alpha numeric LED display for parameters and numeric for corresponding values.
- user programmable CT/PT primary and secondary.
- Program is password protected.
- Accuracy Class: 1.0 / 0.5/ 0.2s.

Applications

- Sub metering panels, Distribution panels, HT / LT panels and DG panels and many more.



Ordering Information

Model	Function	Source Voltage	Display Parameters		Over-All Dimensions	Cut-Out Dimensions
EMS-01	3 Phase Multi Function Meter with RS 485	85V to 270 V AC/DC	Basic	V(R,Y,B), V(RY,YB,BR), A(R,Y,B), Hz, PF(R,Y, B,T), Phase Angle(R,Y, B), RPM, W(R, Y, B,T), VAR(R,Y, B,T), VA(R,Y, B, T), Device ID (Communication Status)	96 x 96 x 95.5mm (W x H x D)	92 x 92 mm (W x H)
			Total	KWhT, KVarhCT, KVarhIT, KVAhT, LT (Load Hours Total)		
EMS-01x ²	3 Phase Multi Function Meter with wifi	240 V AC/DC	Import	KWhI, KVarhCI, KVarhII, KVAhI, LI (Load Hours Import)		
			Export	KWhE, KVarhCE, KVarhIE, KVAhE, LE (Load Hours Export)		
			Old-Total	KWhT, KVarhCT, KVarhIT, KVAhT, LT (Load Hours Total)		
			Old-Import	KWhI, KVarhCI, KVarhII, KVAhI, LI (Load Hours Import)		
EMS-01T ³	3 Phase Multi Function Meter with THD	85V to 270 V AC/DC	THD (available in EMS-01T)	Voltage (%) (R, Y, B), Ampere (%) (R, Y, B)		
EMS-03	KWH Meter		W(T), PF(T), KWh, MWh, Device ID (Communication Status)			
EMS-09	Basic / Energy Meter		V(R,Y,B), V(RY,YB,BR), A(R,Y,B), Hz, PF(R,Y,B,T), W(R,Y, B,T), KWh, MWh, LH, KWh(Old) MWh(Old), LH(Old), Device ID (Communication Status)			
EMS-09m	Basic /Energy Meter with 2 Event Counter		V(R,Y,B), V(RY,YB,BR), A(R,Y,B), Hz, PF (R,Y, B,T), W(R,Y,B,T), Job count 1, Job count 2, VA, (R,Y,B,T) KVAh, KWh, MWh, LH, Device ID (Communication Status)			
EMS-17 ¹	Dual Source Energy Meter		V(R, Y, B), V(RY,YB, BR), A(R,Y,B), Hz, PF(R,Y, B,T), RPM*, Phase angle(R, Y, B), W(R,Y, B,T), KWh(M), MWh(M), KVAh(M), LH(M), KWh(G), MWh(G), LH(G) All energy parameters are available in-Mains(M) and generator mode(G), KVA, KVAh(G&M)	96 x 96 x 115.0mm (W x H x D)		

1: Separate Mains and Generator registers are available for energy load on hour's parameters. | 2: RS 485 communication is not available, instead it will be through Wi-Fi, device id display also will not be available | 3: THD available only for EMS-01T.

Maximum Demand Meters

Features

- Programmable demand techniques block / sliding window
- Programmable demand parameters Apparent / Active power
- Programmable Alarm / hysteresis settings
- 4 control outputs (C-NO) for alarm and trip
- Class of Accuracy – Cl. 1.0 for KWh Cl. 2.0 for KVARh



Applications

- Industries & Commercial buildings

Ordering Information

Model	Function	Source Voltage	Display Parameters		Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
EMS-15	Maximum Demand Indicator	240V AC/DC	Basic	V(R, Y, B), V(RY, YB, BR), A(R,Y, B), Hz, RTC Time	96 x 96 x 117mm	92 x 92 mm
EMS-15C	Maximum Demand Controller		Power	PF(R, Y, B, T), W(R, Y, B, T), VAr(R, Y, B,T), VA(R, Y, B, T)		
			Integral	KWh, KVARh-C, KVARh-I, KVAh, LH		
			Demand	Md (Fixed / Sliding), Md Time (Fixed / Sliding), Wd (Fixed / Sliding), Rd (Fixed), Elapsed Time (Fixed / Sliding)		

DC Multifunction Meters

Features

- DC Multifunction Meter with RS485 communication port. (Refer Note 1).
- Wide Measuring Voltage range.
- Programmable Shunt ratios.

Applications

- Solar projects, Battery monitoring systems, DC rectifier systems, EV charging stations.



Ordering Information

Model	Function	Source Voltage	Display Parameters		Input Voltage	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
SNM-03 ¹	DC Multi Function meter	85V-270V AC / DC		V, A, KW, KWh, MWh, LH, OLd KWh, OLd MWh, OL, DEV Id	5V DC to 1000V DC	96 x 96 x 95.5mm	92 x 92 mm
DCM-01 ¹	Bi-Directional Solar Energy Meter		Main	V, ±A, ±KW, F-KWh, F-MWh, F-Load on Hours, RA, R-KW, R-KWh, R-MWh, R-Load on Hours, Device ID & Communication Status	5V DC to 1000V DC		
			Old Energy	F-KWh, F-MWh, F-Load on Hours, R-KWh, R-MWh, R-Load on Hours			

1: Only Single Channel Available

Basic Meters

Features

- User programmable CT/PT primary and secondary.
- Built in selector switch.
- Model available with standard 96x96mm size and compact size of 98x50 mm

Applications

- Distribution panels, HT / LT panels, DG panels and many more.



Ordering Information

3-Phase Basic meters

Model	Function	Source Voltage	Display Parameters	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
EMS-11 ^{1,3}	Ammeter	240V AC / 110V AC	A(R, Y, B)	96 x 96 x 95.5mm	92 x 92 mm
EMS-12 ^{2,3}	Voltmeter		V(R, Y, B), V(RY, YB, BR)		
EMS-13 ⁴	Frequency Meter		Hz. (Avg)		
EMS-18 ^{1,2,4}	VAF Meter	85V - 270V AC / DC	V ϕ , Y, B), V(RY, YB, BR), A(R, Y, B), Hz		
EMS-11a ^{1,3}	Ammeter	240V AC	A(R, Y, B)	98 x 50 x 79mm	92 x 46 mm
EMS-12a ^{2,3}	Voltmeter		V(R, Y, B), V(RY, YB, BR)		
EMS-13a ⁴	Frequency Meter		Hz. (Avg)		

1: CT primary & secondary programmable | 2: PT primary & secondary programmable | 3: Accuracy class - 1.0, 0.5 | 4: Accuracy class -1.0

1-Phase Basic meters

Model	Function	Source Voltage	Display Parameters	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
EMS-11s ^{1,3}	Ammeter	240V AC	A	96 x 96 x 95.5mm	92 x 92 mm
EMS-12s ^{2,3}	Voltmeter		V		
DPM-01 ¹	Volt - Amps		A, V		

1: CT primary & secondary programmable | 2: PT primary & secondary programmable | 3: Accuracy class - 1.0, 0.5

Universal Temperature Controller

Temperature controllers measure the temperature of a given object / system by means of thermocouple / sensor and controls the same within specified limits through in-built relays switching ON and OFF the heating / cooling devices. EAPL's range of temperature controllers are characterized by accuracy. They come with attractive UL graded flame retardant sturdy plastic enclosure of different sizes to monitor the process value against the set value. A new range with sleek designs has already been rolled out.

Features

- Program lock is available to lock all programs except temperature setting.
- Temperature offset is available in most of the models (Refer Note 1).
- Dual set point models available in heater/alarm type.
- Multifunction temperature controller models have all features rolled into one

Applications

- Furnace, Heat Treatment Equipment Oven, Boilers, Plastic and Rubber Machinery and many more.



Ordering Information

Model	Function	Source Voltage	Sensor	Range	Output	Over-All Dimensions (W x H x D)	Cut-Out Dimen.(WxH)		
H3TX-Ua ^{3,4}	On-Off / Self-Tune Function (Single Set Point)	85V to 270V AC / DC	J K PT-100 (Self-Tune)* PT-100 (On-Off)	0°C - 600°C 0°C -1200°C 0°C -400°C -100°C -400°C	1 relay 1c/o, 5A resistive	48 x 48 x 95.5mm	46 x 46mm		
TX7-Ua ^{3,4}						72 x 72 x 128mm	69 X 69mm		
EX9-Ua ^{3,4,5}						96 x 96 x 95.5mm	92 x 92mm		
H3TX-2U ³						48 x 48 x 95.5mm	46 x 46mm		
TX7-2U						72 x 72 x 128mm	69 X 69mm		
EX9-2U ^{3,5}						96 x 96 x 95.5mm	92 x 92mm		
H3TX-2H-U ¹	On-Off - Heater type Function (Dual Set Point)		85V to 270V AC / DC	J K PT-100 (On-Off)	0°C - 600°C 0°C -1200°C 0°C - 300°C	2 relay 1c/o, 5A resistive	48 x 48 x 95.5mm	46 x 46mm	
TX7-2H-U ¹							72 x 72 x 128mm	69 X 69mm	
EX9-2H-U ¹							96 x 96 x 95.5mm	92 x 92mm	
H3TX-2A-U ¹	On-Off - Alarm type Function (Dual Set Point)			85V to 270V AC / DC	J K PT-100 (On-Off)	0°C - 600°C 0°C -1200°C 0°C - 300°C	2 relay 1c/o, 5A resistive	48 x 48 x 95.5mm	46 x 46mm
TX7-2A-U ¹								72 x 72 x 128mm	69 X 69mm
EX9-2A-U ¹								96 x 96 x 95.5mm	92 x 92mm
H3TX-MU ^{3,5}	Multi function Temperature Controller On-Off- Forward and Reverse Type (Dual Set Point)	85V to 270V AC / DC	J K PT-100		0°C - 600°C 0°C -1200°C 0°C - 400°C	relay 1 - 1c/o, 5A relay 2 - 1c/o, 3A	48 x 48 x 95.5mm	46 x 46mm	
H3TX-MU-RS ^{2,3,5}	Multi function Temperature Controller On-Off - Forward and Reverse Type (Single/ Dual Set Point) with SSR and Relay output		J K PT-100		0°C to 600°C 0°C to 1200°C 0.0°C to 400°C	2 relay 1C/o, 5A resistive 12V DC to drive SSR	48 x 48 x 95.5mm	46 x 46mm	
H3TX-U-RS ^{2,3,5}	On-Off / Self-Tune Function (Single Set Point) with SSR and Relay output		J TYPE K TYPE PT100(ON/OFF) PT100(SELF TUNE)*		0°C to 600°C 0°C to 1200°C -100°C to 400°C 0°C to 400°C	1 relay 1c/o, 5A resistive, 12V DC to drive SSR	48 x 48 x 95.5mm	46 x 46mm	
H3TX-2U-RS ^{2,3}			J K PT-100	0°C to 600°C 0°C to 1200°C 0.0°C to 400°C	1 relay 1c/o, 5A resistive, 12V DC to drive SSR	48 x 48 x 95.5mm	46 x 46mm		

* : Hysteresis not applicable | 1: Temperature offset is not available | 2: Both relay and SSR drive outputs available | 3: Now available in reduced depth with redesigned cabinet for better aesthetics and eliminating protective cover yet retaining the IP Class | 4: Single display window height has been increased for longer visibility | 5: Minimum and Maximum temperature user settable for ease of setting set values.

Heater / Reverse: Both relays change over to NO at room temperature. Relay1 reverts back to NC at 1st set point. It once again changes over to NO when temperature falls by 1st Set point minus hysteresis1. Relay2 reverts back to NC at 2nd set point. It once again changes over to NO when temperature falls by 2nd Set point minus hysteresis2.

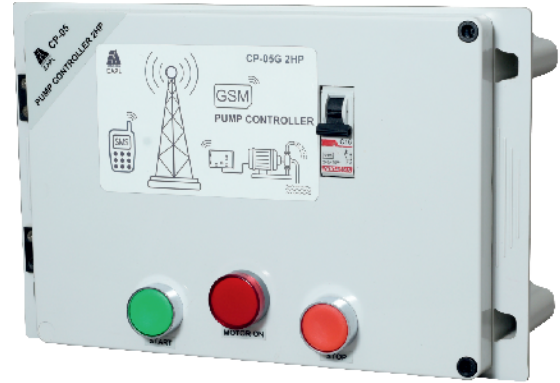
Alarm / Forward: First relay changes over to NO at room temperature and reverts back to NC at 1st set point. It once again changes over to NO when temperature falls by the respective Set point minus hysteresis1. The 2nd relay switches ON at 2nd set point and will switch OFF when temperature falls below the 2nd set point - hysteresis2.

GSM Pump Controller

EAPL manufactures indigenously designed quality Pump controllers suitable for household and irrigation requirements. Enclosed in aesthetic, sturdy ABS plastic, they come in different variants to cater to 3 wired single-phase pumps of different HP loads. They also feature a built-in GSM-based remote ON/OFF control system via SMS.

Features

- Built in GSM based remote ON/OFF control via SMS.
- 240V AC, 2pole 20A, contactor
- Independent Switches and an indicating lamp for ON and OFF functions



Ordering Information

Model	HP	MCB rating @ 240V AC	Start Capacitor (μ F)	Run Capacitor (μ F)
CP-05a	1	10A	120	50
CP-05b	1.5	16A	120	60
CP-05c	1.5	16A	150 - 200	60
CP-05d	1	10A	120 - 150	36
CP-05e	2	20A	200 - 250	72
CP-05	2	16A	150	72
CP-05g	2	20A	200 - 250	72

SPPT - Autoswitch

Features

- Color coded wires for easy wiring with DOL starters.
- Factory set On-delay time 35s-45s in Auto mode & 3-5Sec in Manual mode.
- Mode of operation: Normal reset & Delayed reset.

Applications

- Irrigation pumps



Ordering Information

Model	Function	Source voltage	Input Voltage	Output	Over-All Dimensions
SPPT-Autoswitch ¹	Phase Failure, Reverse phasing, Phase Unbalance with Autoreset facility	240V AC/110V AC	415V AC 3phase, 3 wire, Self powered	1 c/o, 5A resistive	34 x 101 x 82mm (W x H x D)

1: Auto/Manual switch provided