

Automatic Transfer Switch
From 125 A TO 3200 A

Branch Offices:

AHMEDABAD
B-707, 7th Floor, Premium House,
B/H, Natraj Cinema, Ashram Road
Ahmedabad - 380009
Ph.: 079 - 30021901
Telefax: 079 - 30021025
E-mail: ahmedabad@hplindia.com

GUWAHATI
Baraco Commerical
Complex, G.S. Road,
Ulubari, Guwahati - 781 007
Ph.: 0361-2450889
E-mail: guwahati@hplindia.com

MUMBAI
2H, Rushabh Chambers 2nd Floor,
Off-Makwana Road, Marol, Andheri (E)
Mumbai - 400059
Ph.: 022-30965176, 28506246, 28507112
Telefax: 022-28528181
E-mail: mumbai@hplindia.com

BANGALORE
No.2D, II Floor, Farah Winsford
133, Infantry Road, Bangalore - 560 001
Ph.: 080-22863068
Telefax: 080-22863069
E-mail: bangalore@hplindia.com

HYDERABAD
No.7-1-58, flat No.403, 4th Floor,
Concourse Building, Green
Lands Road, Hyderabad - 500 016
Ph.: 040-66687878 / 66773117
Telefax: 040-23740567
E-mail: hyderabad@hplindia.com

NAGPUR
Fortune Business Center,
6, Vasant Vihar, W.H.C. Road,
Shankar Nagar, Nagpur - 440010
Ph.: 0712-2564880, 5611371
Fax : 0712-2550070
E-mail: nagpur@hplindia.com

BHUBANESWAR
N3-135, IRC Village, Nayapali,
Bhubaneswar-751012
Ph.: 0674-6538229
Telefax : 0674-2550826
E-mail: orissa@hplindia.com

INDORE
2, R.N.T Marg, 203,
Milinda Manor, Indore
Ph.: 0731-4225540
E-mail: Indore@hplindia.com

PUNE
1, Sai Complex, 3rd Floor, 917/22,
Fergusson, College Road,
Shivaji Nagar, Pune - 411 005
Telefax: 020 - 25672928
E-mail: pune@hplindia.com

CHANDIGARH
S.C.O. 54, 2nd Floor, Sector - 26,
Madhya Marg, Chandigarh - 160019
Telefax.: 0172-5077815, 5049425
E Mail : chandigarh@hplindia .com

JAIPUR
205, Adarsh Plaza, Khasa Kothi
Circle Bani Park, Jaipur - 302001
Ph.: 0141-5106268 / 4021035
E-Mail: jaipur@hplindia.com

RAIPUR
Near Chattisgarh College,
Civil lines, Raipur - 492006
Ph.: 0771-4032001/6541590
E-mail : raipur@hplindia.com

CHENNAI
"Amar Sindur" S-4, 2nd Floor,
No.-43, Pantheon Road, Egmore,
Chennai-600008
Ph.: 044-28551530
Fax : 044-28551537
E-mail: chennai@hplindia.com

KANPUR
17/14, 2nd Floor, The Mall,
Kanpur - 208 001 (U.P.)
Ph.: 0512-2316017
Telefax: 0512-2353743
E-mail: kanpur@hplindia.com

RANCHI
203, Mahalaxmi Complex,
Near Bargain Bazar, Line Tank Road,
Ranchi - 834001
Ph.: 0651-2206144
E-mail : ranchi@hplindia.com

COCHIN
1st Floor, A.K.S. Mahal, XL/7813J,
Achutha Warriar Lane, M.G.Road,
Ernakulam, Cochin - 682 035
Telefax : 0484-2354595
E-mail: cochin@hplindia.com

KOLKATA
69, Ganesh Chandra Avenue, India House
7th Floor, Block-C, Kolkata - 700013
Ph.: 033-65394379
Telefax: 033-22252716
E-Mail: calcutta@hplindia.com

VADODARA
409/410, Silver Oak Complex,
Near Shreenik, Park Char Rasta,
Productivity Road, Akota,
Vadodara - 390020 Gujarat
Ph.: 0265 - 2341747 Fax : 2352107
E-mail : baroda@hplindia.com

COIMBATORE
Designer Complex,
Door No. 130, C/2, 2nd Floor,
Dr. Nanjappa Road,
Coimbatore - 641018
Ph.: 0422-4393995
E-mail : coimbatore@hplindia.com

LUCKNOW
The Business Bridge, 1st Floor,
Saran Chamber IInd, 5 Park Road,
Lucknow - 226001
Ph.: 0522-4021687
E-Mail: lucknow@hplindia.com

VIJAYAWADA
D.No. 29-37-135, 2nd Floor,
G.R.Plaza, Beside Canara Bank,
Eluru Road, Vijayawada - 520 002
Ph.: 0866- 2442275, 6622291
E-mail : vijayawada@hplindia.com

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Bhubaneshwar						

Due to continuous development, specifications and features are subject to change without prior notice.



SWITCH TO INNOVATION

Socomec HPL :
leading the field in changeover
 switching

Disconnection, breaking, control... Since 1922 Socomec HPL has gained a wealth of experience in these fields. The excellent worldwide reputation of its products both in industrial and commercial LV electrical installations is due to their high quality and reliability. The back-to-back manual changeover switch, invented by Socomec HPL and now available in a compact motorised version, has become the world reference in power switching.

ATyS:
intelligent integration of control
 and electronic protection

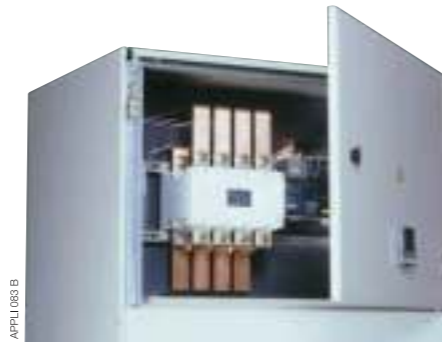
A leader in electrical control and protection, Socomec HPL is breaking new ground by combining its expertise in this field with its breaking systems. The result: an innovative technological concept for intelligent switching of energy supplies.

ATyS:
 a **practical response** to IEC and
 EN 60947-6-1 switching
 requirements

The new ATyS switching range has been designed, tested and proven according to the criteria in the international standard IEC 60947-6-1. Its compliance with this standard guarantees a quality product which meets all the requirements of automatic transfer.

Fits **where you want** it

> **Back plate mounting**



ATyS products can be mounted on the back plate of the cabinet with optional connection to remote interfaces with controlled access.

> **Flush mounting**



ATyS products can be mounted to enable direct external access to the command and display interface.



The "plug and play" changeover switch

The normal/backup function is operational as soon as the power cables are connected!

CHANGEOVER

Two mechanically-interlocked switches.

OPERATION

A motorised unit and manual backup switch.

MONITORING AND CONTROL

Integrated electronic relay.

CONFIGURATION AND DISPLAY

Ergonomic, upgradeable interface.

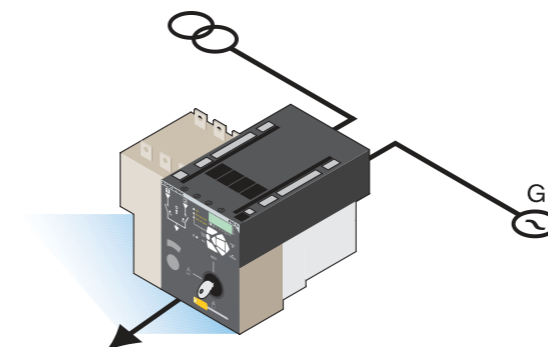
INSTALLATION

Compact integrated solutions facilitate installation and connections.

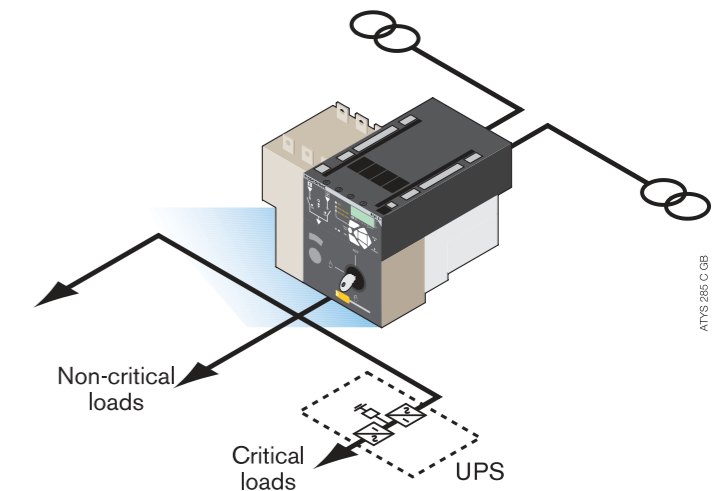


SECURE SWITCHING FOR ALL YOUR APPLICATIONS

> **Network/Generator set permutation**



> **Network/Network permutation**



A new intelligent, modular switching concept

A COMPACT SECURE TRANSFER SYSTEM

- > Two load break switches with high short circuit withstand
- > Safety disconnection between loads and upstream power sources
- > Back-to-back assembly from factory guarantees interlocking
- > Load bridging made easy by using the bridging bars available as accessories



ATyS 298 A

A SIMPLE, ADAPTABLE CONTROL MODULE

- > Easy selection of automatic or manual control
- > Handle for manual operation
- > Padlockable facility

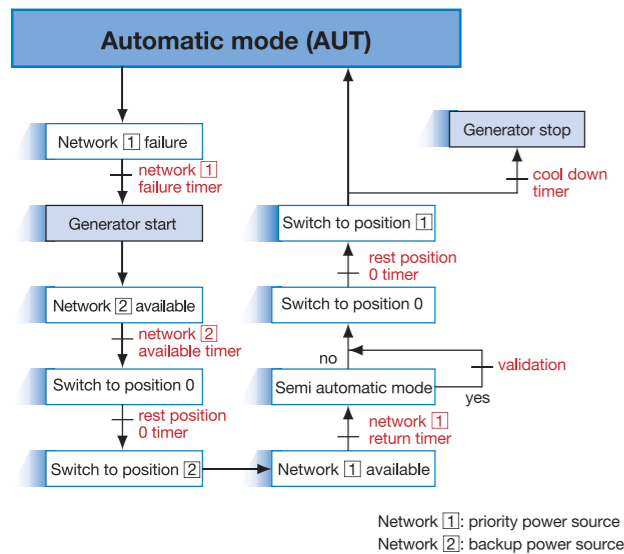


ATyS 013 C

ATyS 008 C

COMPLETE CONTROL FUNCTIONS

- > Voltage/frequency detection limits and verification of phase rotation
- > Switching cycles can be pre-programmed or customised



ATyS 008 B GB

DEDICATED CONTROL LOGIC

- > Genset start/stop control
- > Luminous mimic diagram showing status of power sources and position of the switch
- > Screen displays programmed and controlled values
- > Run "permutation cycle" tests either on or off load
- > Electrical position control (via keypad or remote)



ATyS 298 B

FLEXIBLE UPGRADEABILITY

> Plug-in optional modules

- RS 485 JBUS/Modbus communication module (programming software can be downloaded from the Socomec site: www.socomec.com)
- Module configurable with 2 Inputs/2 Outputs (network priority, load shedding, remote manual re-transfer etc.)



Programming software



Optional modules

> Dedicated accessories

- Voltage sensing and supply kit
- ATyS D10 and D20 remote interfaces



ATyS 011 A



ATyS D10/D20 remote interface with RJ45 connection

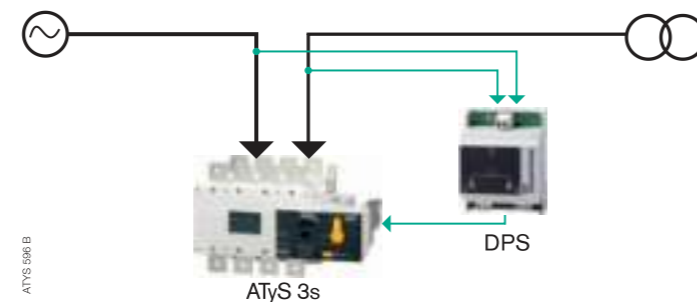


Rear view

- Bridging bars, terminal shrouds, terminal screens, optional padlocking in 3 positions, special locks, additional auxiliary contacts...

> A double power supply module

The DPS module allows the ATyS 3s to be powered from the available source (Normal/Emergency).



ATyS 506 B

EASY MAINTENANCE

- > The motorised module and the control module can be replaced separately without disconnecting the power connections



ATyS 015 C

A complete range for both industrial and commercial low voltage applications

> ATyS 3	> ATyS 6	> ATyS controller	
A motorised changeover switch for connection to a power supply	A changeover system with an autonomous power source (ATS)**	A universal relay for power source switching	
ATyS 3s*	ATyS 3e	ATyS 6e	ATyS 6m
		ATyS C30	ATyS C40

MOTORISED CHANGEOVER	ATyS 3s*	ATyS 3e	ATyS 6e	ATyS 6m	ATyS C30	ATyS C40
Manual backup switch - Can be padlocked in 3 positions	•	•	•	•		
Auto/Manual mode selector - Auxiliary contacts (status indicator)	•	•	•	•		
Two power sources - Uses the present source		•	•	•		
NORMAL/BACKUP CONTROL RELAY						
Single phase voltage measurement on network [1]						•
Three phases voltage measurement on network [1]			•	•	•	•
Single phase voltage measurement on network [2]					•	•
Three phase voltage measurement on network [2]			•	•		
Can be used to start/stop a generator set			•	•	•	
Can be used to start/stop two generator sets						•
Frequency sensing on network [1] and [2]			•	•	•	•
Loss of mains timer, return of mains timer, dead band stay in 0 position and generator set cooling down timers			•	•	•	•
Remote start/stop the automatique mode			•	•	•	•
Test sequences			•	•	•	•
Fault relay			•	•		
Electrical controls for position			•	•		
Measurement of I, P, Q, S, PF, neutral current calculation			•	•		
Large backlit display				•		
OPTIONS						
Optional communication module		•	•	•		
2 Inputs/2 Outputs optional module***		•	•	•		
ATyS D10 and ATyS D20 interfaces connection			•	•	•	
Double power supply	•					

* only < 2000 A.
** Automatic Transfer Switch.
*** 2 inputs/2 outputs as standard on ATyS C30.
**** ATyS C20 has no provision for D10 / D20 connection
Please contact us for full functional specification.

Supplied more than 5 million Pilfer Proof Meter Boxes to various utilities / Electricity Boards, such as MPSEB, CSEB, DHBVN, APSEB, MSEDCL, J&K, ASEB etc.



Meter Cupboard with Hinge type locking arrangement moulded in Opaque Engineering Plastic



Meter Cupboard with Hinge type locking arrangement moulded in Transparent Engineering Plastic



Meter Cupboard with Snap fit arrangement moulded in Poly Carbonate

Salient Features

- ✓ Made of UV stabilised transparent polycarbonate / Flame retardant high grade engineering plastic
- ✓ Available in Transparent and Non transparent models
- ✓ Unique arrangement for pilfer proof interlocking with push fit and hinge type boxes
- ✓ Suitable for indoor and outdoor applications
- ✓ Complying to IS:14772 and tested at CIPET
- ✓ Sealable optical port provision on the cover of the meter box
- ✓ Sealable push buttons provided on the box cover
- ✓ Latest state of the art in house tool room to design meter boxes for special application
- ✓ Large capacity in house moulding for quick and bulk supplies

HSPL / Meter_Cat_0213



Single Phase

Three Phase

Salient Features

- ✓ Instantaneous Start
- ✓ Low power consumption less than 1wt. saving of more than 30% over conventional meters
- ✓ Meter records correct energy with same accuracy under reverse current connection
- ✓ LCD / LED's indication for current reversal tampering and phase availability
- ✓ Optional: Optical port / RS 232 communication for LCD Meter
- ✓ An ISO-9001:2000 Company
- ✓ Suitable for AMR with meter with optical port.

MODEL SPEM 01 : Available in class 1 accuracy as per IS : 13779



2.5-10A, 5-20A, 5-30A,
10-40A, 10-60A, 20-80A
-/5A CT Operated

*Other rating on request

Design

- ▶ Asic based digital technology ensures superior & drift free long term performance and reliability.
- ▶ Tamper proof design
- ▶ No frequent adjustments required
- ▶ No mechanical wear & tear.
- ▶ Immune to effects of external magnetic field as per IS : 13779

Accuracy

- ▶ Accuracy irrespective of mounting position
- ▶ Accuracy maintained even under wide voltage fluctuation from -40% to +20% of Vref.
- ▶ Accurate reading even under rapid current fluctuation

Anti Tamper Features

- ▶ Meter Records correct energy with same accuracy under reverse current connection
- ▶ For Indication please refer the technical specification.
- ▶ Phase available indication provided
- ▶ Meter works accurately under earth load condition

Technical Specification - Single Phase

Reference voltage	240V
Reference Frequency	50Hz
Starting current	0.4% of basic current for direct connected meters and 0.2% of basic current for CT operated meters
Operating temp.	-10°C to 60°C
Overload Capacity	400% and 600% of basic current for direct reading
Power consumption	Less than 1.0 watt

Versions Available		
Display Type	Electromechanical counter	LCD display
Sheet steel enclosure / Rating	2.5/10A, 5/20A, 5/30A, 10/40A, -/5A(CT operated)	LCD display meters available only in polycarbonate
Polycarbonate enclosure / Rating	2.5/10A, 5/20A, 5/30A, 10/40A, 10/60A, -/5A (CT operated)	2.5/10A, 5/20A, 5/30A, 10/40A, 10/60A, CT operated meters available with -/5A and CT secondary in multiples of 5 upto 500/5A
Indications	LEDs provided on front window for following indications: <ul style="list-style-type: none"> • Meter calibration • Reverse indication • Phase available indication and • Earth tamper indication 	LEDs provided on front window for : <ul style="list-style-type: none"> • Meter calibration LCD icons indication for the following: <ul style="list-style-type: none"> • Reverse indication • Phase available indication and • Earth tamper indication



MODEL PPEM 01 : Available in class 1 accuracy as per IS : 13779



5-20A, 10-40A, 10-60A,
10-80A
-/5A CT Operated

*Other rating on request

Technical Specification - Three Phase

Reference voltage	3 x 240V
Reference Frequency	50Hz
Starting current	0.4% of basic current for direct connected meters and 0.2% of basic current for CT operated meters
Operating temp.	-10°C to 60°C
Enclosure	Poly carbonate
Overload Capacity	400% and 600% of basic current for direct reading
Power consumption	Less than 1.0 watt

Versions Available		
Display Type	Electromechanical counter	LCD display
Rating	<ul style="list-style-type: none"> • Direct connected:5/20A, 10/40A, 10/60A • CT operated:-/5A, 50/5A, 75/5A, 100/5A, 125/5A, 150/5A, 200/5A, 250/5A, 300/5A, 400/5A, 500/5A, 600/5A, 800/5A 	<ul style="list-style-type: none"> • Direct connected: 5/20A, 10/40A, 10/60A • CT operated meters available with -/5A and CT secondary in multiples of 5 upto 500/5A
Indications	LEDs provided on front window for following indications: <ul style="list-style-type: none"> • Meter calibration • Reverse indication and • Phase available indication 	LEDs provided on front window for: <ul style="list-style-type: none"> • Meter calibration LCD icons indication for the following: <ul style="list-style-type: none"> • Reverse indication • Phase available indication and



Design

- ▶ Asic based digital technology ensures superior & drift free long term performance and reliability.
- ▶ Tamper proof design
- ▶ No frequent adjustments required
- ▶ No mechanical wear & tear.
- ▶ Immune to effects of external magnetic fields as per 13779.

Accuracy

- ▶ Accuracy irrespective of mounting position.
- ▶ Accuracy maintained even under wide voltage fluctuation from -40% to +20% of Vref.
- ▶ Accurate reading even under rapid current fluctuation
- ▶ Accurate for balance as well as unbalance loads.

Anti Tamper Features

- ▶ Meter Records correct energy with same accuracy under reverse current connection.
- ▶ For Indication please refer the technical specification.
- ▶ Phase available indication provided

Electronic Energy Meters

An accurate & reliable instrument



Single Phase



Three Phase

SALIENT FEATURES

- Instantaneous Start
- Low power consumption less than 1watt.
Saving of more than 30% over conventional meters
- Meter records correct energy with same accuracy under reverse current connection
- LED indication for current reversal tampering and phase availability
- An ISO-9001:2000 Company

MODEL SPEM 01 : Available in class 1 accuracy as per IEC 61036 & IS : 13779

-15A
CT Operated

Range Available
2.5-10A, 5-20A, 5-30A,
10-40A, 10-60A



Other rating on request

Design

- ▶ ASIC based digital technology ensures superior & drift free long term performance and reliability.
- ▶ Tamper proof design
- ▶ No frequent adjustments required
- ▶ No mechanical wear & tear.
- ▶ No effects of external magnetic field.

Accuracy

- ▶ Accuracy irrespective of mounting position
- ▶ Accuracy maintained even under wide voltage fluctuation from 120V - 300V input supply
- ▶ Accurate reading even under rapid current fluctuation

Anti Tamper Features

- ▶ Meter Records correct energy with same accuracy under reverse current connection
- ▶ LED indication for current reversal tampering provided
- ▶ Phase available indication provided
- ▶ Meter works accurately under earth load condition

Technical Specification

Type	SPEM 01
Reference Voltage	240V
Reference Frequency	50 Hz
Starting current	0.4% of basic current.
Display	Electromechanical Counter with one decimal. The digit wheels are made of Delerine.
Operating temp.	-10°C to 60°C
Enclosure	Sheet Steel Body / Polycarbonate Body
Overload Capacity	400% & 600% of basic current
Power consumption	Less than 1.0 watt.
LEDs / LCD Icons	Four LEDs / LCD Icons provided on front Window for following indications: Meter Calibration, Reverse Indication, Phase Available Indication & Earth Tamper Indication



MODEL PPEM 01 : Available in class 1 and class 2 accuracy as per IEC 61036 & IS : 13779



-/5A
CT Operated
to be added

Other Available
5-20A, 10-40A,
10-60A

Other rating on request

Technical Specification

Type	PPEM 01
Reference Voltage	240V
Reference Frequency	50 Hz
Starting current	0.4% of basic current.
Display	Electromechanical Counter with one decimal. The digit wheels are made of Delerine.
Operating temp.	-10°C to 60°C
Enclosure	Sheet Steel Body / Polycarbonate Body
Overload Capacity	400% & 600% of basic current
Power consumption	Less than 1.0 watt. per Phase
LEDs / LCD icons	Five LEDs / LCD icons provided on front Window for following indications : Meter Calibration, Reverse Indication, Phase Available Indication of each phase

Design

- ▶ ASIC based digital technology ensures superior & drift free long term performance and reliability.
- ▶ Tamper proof design
- ▶ No frequent adjustments required
- ▶ No mechanical wear & tear.
- ▶ No effects of external magnetic field.

Accuracy

- ▶ Accuracy irrespective of mounting position.
- ▶ Accuracy maintained even under wide voltage fluctuation from 120V - 300V input supply at basic current.
- ▶ Accurate reading even under rapid current fluctuation
- ▶ Accurate for balance as well as unbalance loads.

Anti Tamper Features

- ▶ Meter Records correct energy with same accuracy under reverse current connection.
- ▶ LED indication for current reversal tampering provided.
- ▶ Phase available indication provided



HPL-SOCOMECC has supplied more than 2 million Nos. of Pilfer Proof Meter Boxes with snap fit locking arrangement to various Electricity Boards, such as MPSEB, CSEB, DHBVN, UHBVN, APSEB etc.



Meter Cupboard with Hinge & Ceiling arrangement moulded in Engineering Plastic



Meter Cupboard with Snap fit arrangement moulded in Poly Carbonate

Other Products



emfis



kWh Panel Mounted Meter Counter Display



kWh Panel Mounted Meter LCD Display



DIRIS A40



HPL SOCOMECC PVT. LTD.

an Indo-French joint venture

1/21, Asaf Ali Road, New Delhi - 110 002 Ph: 011-23234411, 23234811

Fax : 91-11-23232639 E-mail : hpl@hplindia.com

www.hplindia.com

• Ahmedabad	079-30021025	• Cochin	0484-2354595	• Jaipur	0141-5106268	• Mumbai	022-32965176	• Ranchi	9931762403
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• Bahadurgarh	• Coimbatore	• Hubli	• Kolhapur	• Malda	• Patna				

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