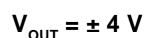


Current Transducer HAT 500..1500 - S

For the electronic measurement of currents: DC, AC, pulsed, mixed, with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).





Preliminary

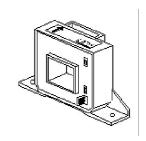
Electrical data							
Primary nomina r.m.s. current I_{PN} (A)	Primary current measuring range	Туре					
500 800 1000 1200 1500	± 1500 ± 2400 ± 3000 ± 3000 ± 3000	HAT 500-S HAT 800-S HAT 1000-S HAT 1200-S HAT 1500-S					
$egin{array}{c} egin{array}{c} egin{array}$	Supply voltage (± 5 %) Current consumption R.m.s. voltage for AC isolation test, 50/60Hz, 1mn R.m.s. rated voltage, safe separation Isolation resistance @ 500 VDC Output voltage @ ± \mathbf{I}_{PN} , \mathbf{R}_{L} = 10 k Ω , \mathbf{T}_{A} = 25°C Output internal resistance Load resistance	± 15 ± 15 3 500 ¹⁾ > 1000 ± 4V± 40 100 > 1	$\begin{array}{c} V \\ mA \\ kV \\ V \\ M\Omega \\ mV \\ \Omega \\ k\Omega \end{array}$				

	Accuracy-Dynamic performance data					
X	Accuracy @ I_{PN} , $T_A = 25^{\circ}C$ (without offset)	< ± 1	% of I _{PN}			
e	Linearity ²⁾ $(0 \pm I_{PN})$	< ± 1	% of I _{PN}			
V	Electrical offset voltage, $T_A = 25^{\circ}C$	< ± 20	mV			
V	Hysteresis offset voltage @ I _p = 0;					
٥.	after an excursion of 1 x I _{PN}	< ± 10	mV			
V _{OT}	Thermal drift of V _{OF}	< ± 1	mV/K			
TC	Thermal drift of the gain (% of reading)	< ± 0.1	%/K			
t,	Response time @ 90% of I	< 5	μs			
f	Frequency bandwidth (- 3 dB) 3)	DC 50) kHz			

	General data			
T _A T _S m	Ambient operating temperature Ambient storage temperature Mass	app.	- 10 + 80 - 15 + 85 300	°C °C g
	Standards 4)		EN 50178	

Notes:

- 1) Pollution class 2, overvoltage category III.
- ²⁾ Linearity data exclude the electrical offset.
- ³⁾ Please refer to derating curves in the technical file to avoid excessive core heating at high frequency.
- ⁴⁾ Please consult characterisation report for more technical details and application advice.



 $I_{PN} = 500 ... 1500 A$

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 3000 V
- Low power consumption
- Extended measuring range(3 x I_{DN})
- Insulated plastic case recognized according to UL 94-V0

Advantages

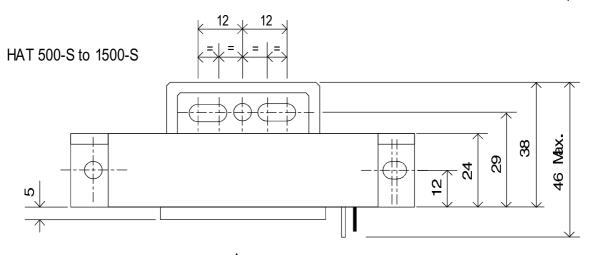
- · Easy mounting
- · Small size and space saving
- Only one design for wide current ratings range
- High immunity to external interference.

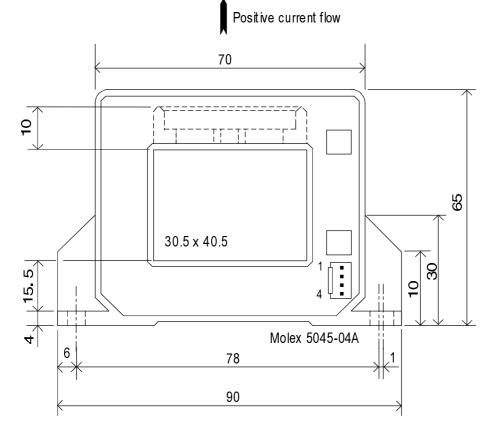
Applications

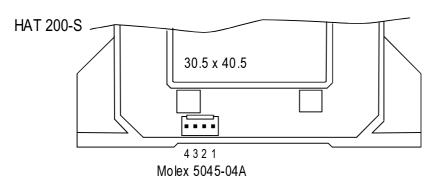
- DC motor drives
- Switched Mode Power Supplies (SMPS)
- AC variable speed drives
- Uninterruptible Power Supplies (UPS)
- · Battery supplied applications
- Power supplies for welding applications

991201/4

HAT-S SERIES (unit = mm)







All holes Ø 4.5mm

Fixation by base-plate or on bus bar with M4 screws

Pins arrangement:
1 2 3 4
(+) (-) Output 0V