



## CLOSED LOOP HALL EFFECT CURRENT SENSOR

### JPC-300X

For the electronic measurement of currents :  
AC/DC current sensor, JPC series has good stability in high currents and a highly insulated primary and secondary.



#### ADVANTAGES

- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.
- Excellent accuracy
- Very good linearity

#### APPLICATIONS

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

#### FEATURES

- Closed loop (compensated) current transducer using the Hall effect
- Insulated plastic case recognized according to UL 94-V0
- Panel mounting

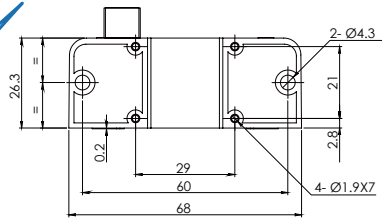
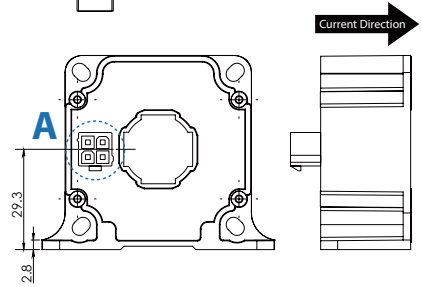
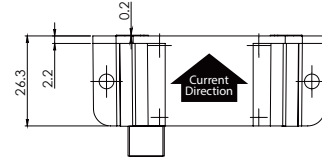
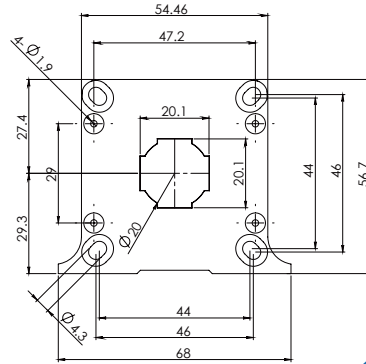
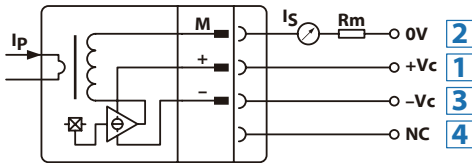
#### SPECIFICATION

Model		JPC-300F	JPC-300T		
Connector	-	39-28-8040[5566-04A-210] Molex	38-00-6293[6410-03C(102)] Molex		
Primary nominal current rms	<b>A</b>	300			
Primary current, measuring range	<b>A</b>	0 .. ± 500			
Measuring resistance	<b>Ω</b>	± 12V	@ ± 300A	Ta=70°C : 0 ~ 37	Ta=85°C : 0 ~ 35
			@ ± 500A	Ta=70°C : 0 ~ 10	Ta=85°C : 0 ~ 8
	± 15V	@ ± 300A	Ta=70°C : 0 ~ 56	Ta=85°C : 0 ~ 54	
		@ ± 500A	Ta=70°C : 0 ~ 21	Ta=85°C : 0 ~ 19	
	± 20V	@ ± 300A	Ta=70°C : 0 ~ 88	Ta=85°C : 0 ~ 86	
		@ ± 500A	Ta=70°C : 0 ~ 40	Ta=85°C : 0 ~ 38	
Secondary nominal current rms	<b>mA</b>	150			
Conversion ratio	-	1 : 2000			
Supply voltage (+ 5 %)	<b>V</b>	± 12 .. 20			
Current consumption @ ± 15 V	<b>mA</b>	26(@ ±20V) + I <sub>s</sub>			
Overall accuracy	%	± 0.5			
Linearity error	%	< 0.1			
Offset current	<b>mA</b>	Max. ± 0.2			
Magnetic offset current	<b>mA</b>	Max. ± 0.2(@ I <sub>P</sub> = 0 and specified R <sub>M</sub> , after an overload of 3 x I <sub>PN</sub> )			
Insulation voltage	<b>VD</b>	AC 3800V / 1min.			
Temperature variation	<b>mA</b>	Typ. ± 0.2, Max. ± 0.7 (- 40°C .. + 85°C) / Typ. ± 0.1 , Max. ± 0.3 (- 10°C .. + 70°C)			
Reaction time to 10 % of IPN step	<b>ns</b>	< 500			
Reaction time to 90 % of IPN step	<b>μs</b>	< 1 (With a di/dt of 100 A/μs.)			
di/dt accurately followed	<b>A/μs</b>	> 100			
Frequency bandwidth (- 3 dB)	<b>kHz</b>	DC .. 100			
Ambient Operating temperature	<b>°C</b>	- 40 .. + 85			
Ambient storage temperature	<b>°C</b>	- 40 .. + 85			
Secondary coil resistance	<b>Ω</b>	33(@Ta=70°C) / 35(@Ta=85°C)			
Mass	<b>G</b>	95			
Standards	-	EN 50178: 1997 / IEC 61010-1			



**DIMENSIONS(MM)**

**JPC-300F**



**Detail A**

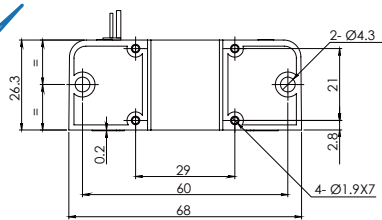
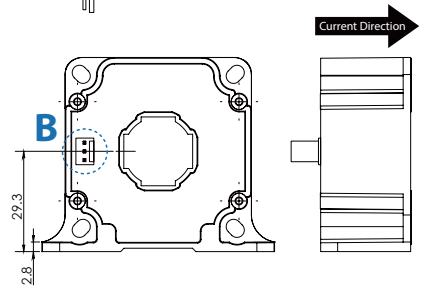
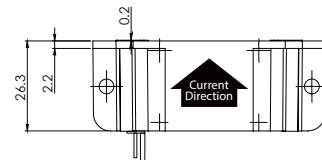
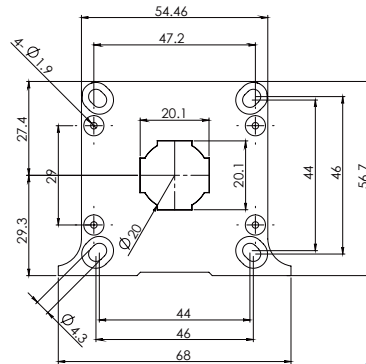
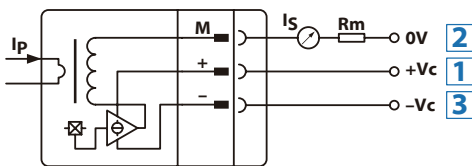
Connector

**Connector**

Manufacturer	Part Number	Old Part Number
Molex	39-28-8040	5566-04A-210

- Primary through-hole  $\varnothing$  20.1 mm

**JPC-300T**



**Detail B**

Connector

**Connector**

Manufacturer	Part Number	Old Part Number
Molex	38-00-6293	6410-03C (102)

- Primary through-hole  $\varnothing$  20.1 mm