

3 to 25 Amp Applications — Open Loop

- Compact PCB Mount Design
- Dual Integrated Primary
- Withstanding Voltage of 2000 Vrms
- 3A - 25A with a Bipolar $\pm 15\text{VDC}$ Supply Voltage
- Low Cost



Specifications Measured at 25°C, RL-10KΩ Vcc=±15V

Specification	L07P003D15	L07P005D15	L07P010D15	L07P015D15	L07P020D15	L07P025D15
Nominal Primary DC Current (If)	±3A	±5A	±10A	±15A	±20A	±25A
Maximum Current If(max)	±9A	±15A	±30A	±45A	±60A	±75A
Output Voltage @ If	V _{OUT} +4V±0.05V, -4V±0.150V (at If)					
Offset Voltage	V _{OE} 0± 0.50V					
Accuracy @ If ¹	X ± 1% of If					
Output Linearity ¹ (O..If Max)	E _L ≤ ± 1% (at 0A ~ If)					
Power Supply	V _{CC} ± 15V ±5%					
Response Time	T _r ≤ 10μsec (di/dt = 10A / 5μsec)					
Current Consumption	I _c ≤ 30mA					
Output Temperature Characteristic	TCE _G <± 0.1% / °C					
Offset Temperature Characteristic	V _{OT} ≤ ± 2mV / °C TYP					
Hysteresis Allowance @ If=0	V _{OH} ≤ 30mV (0A = If)					
Withstand Voltage (50/60Hz)	V _d 2,000VACrms for 1 minute (Sensing Current 0.5mA)					
Insulation Resistance @ 500VDC	R _{IS} ≥ 500MW					
Operating Temperature	T _A -10 ~ +80°C					
Storage Temperature	T _S -20 ~ +85°C					

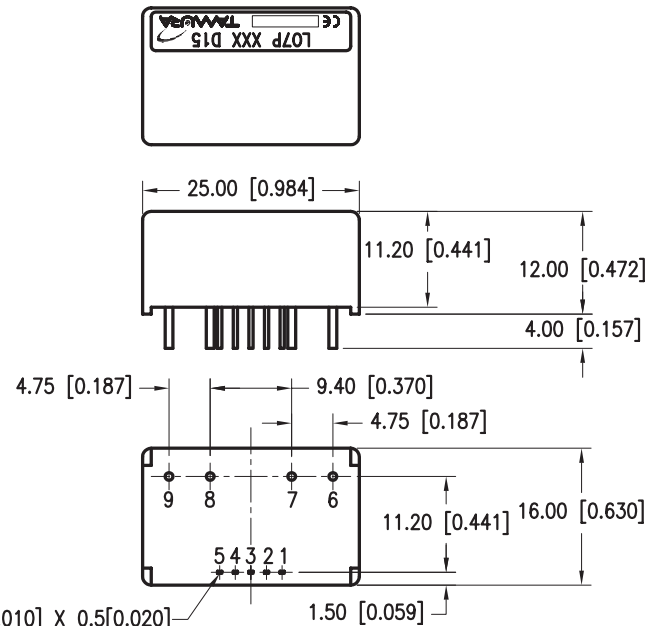
1. Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
CALL	CALL

TERMINAL	FUNCTION
1	+15V
2	-15V
3	OUT1
4	OUT2
5	GND
6	+IN1
7	-IN1
8	+IN2
9	-IN2

CURRENT	∅ PIN
3A	∅ 0.6[0.024]
5A	∅ 0.8[0.031]
10A ~ 15A	∅ 1.4[0.055]
20A ~ 25A	∅ 1.6[0.063]



5 RECTANGULAR PINS 0.25[0.010] X 0.5[0.020]

Unless otherwise specified, tolerances shall be ±0.5mm.

TAMURA CORPORATION

43352 Business Park Drive. | P.O. Box 892230 Temecula, CA 92589-2230 | www.tamuracorp.com

USA
Tel: 800-472-6624
Fax: 951-676-9482

Japan
Tel: 81 (0)3 3978-2111
Fax: 81 (0)3 3923-0230

United Kingdom
Tel: 44 (0) 1380 731 700
Fax: 44 (0) 1380 731 702

Hong Kong
Tel: 852-2389-4321
Fax: 852-2341-9689

5 to 40 Amp Applications — Open Loop

- Compact PCB Mount Design
- Dual Integrated Primary
- Withstanding Voltage of 2000 Vrms
- 5A - 40A Unipolar +5VDC Supply Voltage
- Low Cost



Specifications Measured at 25°C, RL=10KΩ Vcc=+5V

Specification	L07P005S05	L07P007S05	L07P010S05	L07P015S05	L07P020S05	L07P025S05	L07P030S05	L07P040S05
Nominal Primary DC Current (If)	+5A	+7A	+10A	+15A	+20A	+25A	+30A	+40V
Maximum Current If(max)	+6.25A	+9.375A	+12.5A	+18.75A	+25A	+31.25A	+37.5A	+50A
Output Voltage @ If	2.5V ±1.5V							
Offset Voltage V _{OE}	V _{OUT} ± 45mV							
Accuracy @ If ¹	± 1%							
Output Linearity ¹ (O.If Max)	≤ ± 1% (at 0A ~ If)							
Power Supply Vcc	+ 15V ±5%							
Response Time T _r	≤ 5μsec (di/dt = 10A / 5μsec)							
Current Consumption I _c	≤ 30mA							
Output Temperature Characteristic TCE _G	< ± 2mV / °C							
Offset Temperature Characteristic V _{OT}	≤ ± 2mV / °C MAX							
Hysteresis Allowance @ If=0 V _{OH}	≤ 15mV (0A = If)							
Withstand Voltage (50/60Hz) V _d	2,000VACrms for 1 minute (Sensing Current 0.5mA)							
Insulation Resistance @ 500VDC R _{IS}	≥ 500MΩ							
Operating Temperature T _A	-25 ~ +80°C							
Storage Temperature T _S	-25 ~ +85°C							

1. Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
CALL	CALL

TERMINAL	FUNCTION
1	+5V
2	NC
3	OUT1
4	OUT2
5	GND
6	+IN1
7	-IN1
8	+IN2
9	-IN2

CURRENT	Ø PIN
5A ~ 10A	Ø 0.6[0.024]
15A ~ 20A	Ø 0.9[0.035]
25A ~ 40A	Ø 1.2[0.047]



Unless otherwise specified, tolerances shall be ±0.5mm.

TAMURA CORPORATION

43352 Business Park Drive. | P.O. Box 892230 Temecula, CA 92589-2230 | www.tamuracorp.com

USA
Tel: 800-472-6624
Fax: 951-676-9482

Japan
Tel: 81 (0)3 3978-2111
Fax: 81 (0)3 3923-0230

United Kingdom
Tel: 44 (0) 1380 731 700
Fax: 44 (0) 1380 731 702

Hong Kong
Tel: 852-2389-4321
Fax: 852-2341-9689



3 to 30 Amp Applications — Open Loop

- Compact PCB Mount Design
- Integrated Primary
- Withstanding Voltage of 3000 Vrms
- 3A - 30A with a Bipolar ± 15 VDC Supply Voltage
- Low Cost

Specifications Measured at 25°C, RL-10K Ω Vcc= ± 15 V

Specification	L18P003D15	L18P005D15	L18P010D15	L18P015D15	L18P020D15	L18P025D15	L18P030D15
Nominal Primary DC Current (If)	± 3 A	± 5 A	± 10 A	± 15 A	± 20 A	± 25 A	± 30 A
Maximum Current If(max)	± 9 A	± 15 A	± 30 A	± 45 A	± 60 A	± 60 A	± 90 A
Output Voltage @ If	V _{OUT} $\pm 4V \pm 0.04V$ (at If)						
Offset Voltage	V _{OE} $0 \pm 0.040V$						
Accuracy @ If ¹	X $\pm 1\%$ of If						
Output Linearity ¹ (O..If Max)	E _L $\leq \pm 1\%$ MAX						
Power Supply	V _{CC} $\pm 15V \pm 5\%$						
Response Time	T _r $\leq 5\mu\text{sec}$ (di/dt = 10A / 5 μsec)						
Current Consumption	I _c $\leq 15\text{mA}$						
Output Temperature Characteristic	TCE _G $< \pm 0.1\%$ / °C MAX						
Offset Temperature Characteristic	V _{OT} $\leq \pm 1.5\text{mV}$ / °C TYP						
Hysteresis Allowance @ If=0	V _{OH} $\leq 25\text{mV}$ (0A = If)						
Withstand Voltage (50/60Hz)	V _d 3,000VACrms for 1 minute (Sensing Current 0.5mA)						
Insulation Resistance @ 500VDC	R _{IS} $\geq 500\text{M}\Omega$						
Operating Temperature	T _A $-10 \sim +80^\circ\text{C}$						
Storage Temperature	T _S $-20 \sim +85^\circ\text{C}$						

¹ Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
CALL	CALL

TERMINAL	FUNCTION
1	-V _{CC}
2	GND
3	+V _{CC}
4	OUTPUT
5	+IN
6	-IN

CURRENT	Ø PIN
3A ~ 5A	Ø 0.6[0.024]
10A ~ 15A	Ø 0.9[0.035]
20A ~ 30A	Ø 1.2[0.047]



Unless otherwise specified, tolerances shall be $\pm 0.5\text{mm}$.

TAMURA CORPORATION

43352 Business Park Drive. | P.O. Box 892230 Temecula, CA 92589-2230 | www.tamuracorp.com

USA
Tel: 800-472-6624
Fax: 951-676-9482

Japan
Tel: 81 (0)3 3978-2111
Fax: 81 (0)3 3923-0230

United Kingdom
Tel: 44 (0) 1380 731 700
Fax: 44 (0) 1380 731 702

Hong Kong
Tel: 852-2389-4321
Fax: 852-2341-9689

Hall Effect Current Sensors

40 to 60 Amp Applications — Open Loop

- Compact PCB Mount Design
- Dual Integrated Primary
- Withstanding Voltage of 3000 Vrms
- 40A - 60A Bipolar $\pm 15\text{VDC}$ Supply Voltage
- Durable Busbar Construction



Specifications Measured at 25°C, RL-10KΩ Vcc=±15V

Specification	L18P040D15	L18P050D15	L18P060D15
Nominal Primary DC Current (If)	+40A	+50A	+60A
Maximum Current If(max)	±120A	±150A	±180A
Output Voltage @ If	V _{OUT}	±4.0V ±0.050V	
Offset Voltage	V _{OE}	0± 0.040V	
Accuracy @ If ¹	X	± 1%	
Output Linearity ¹ (O..If Max)	E _L	≤ 1% MAX	
Power Supply	V _{CC}	± 15V ±5%	
Response Time	T _r	≤ 5μsec	
Current Consumption	I _c	≤ 15mA	
Output Temperature Characteristic	TCE _G	< ± 0.1% / °C MAX	
Offset Temperature Characteristic	V _{OT}	≤ ± 1.5mV / °C MAX	
Hysteresis Allowance @ If=0	V _{OH}	≤ 40mV (0A = If)	
Withstand Voltage (50/60Hz)	V _d	3000VACrms for 1 minute (Sensing Current 0.5mA)	
Insulation Resistance @ 500VDC	R _{IS}	≥ 500MΩ	
Operating Temperature	T _A	-10 ~ +80°C	
Storage Temperature	T _S	-20 ~ +85°C	

1. Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
CALL	CALL

TERMINAL	FUNCTION
1	-V _{CC}
2	GND
3	+V _{CC}
4	OUTPUT
5	+IN
6	-IN

CURRENT	Ø PIN
40A ~ 60A	BUSBAR 1.0[0.04]X6.3[2.48]



Unless otherwise specified, tolerances shall be ±0.5mm.

TAMURA CORPORATION

43352 Business Park Drive. | P.O. Box 892230 Temecula, CA 92589-2230 | www.tamuracorp.com

USA
Tel: 800-472-6624
Fax: 951-676-9482

Japan
Tel: 81 (0)3 3978-2111
Fax: 81 (0)3 3923-0230

United Kingdom
Tel: 44 (0) 1380 731 700
Fax: 44 (0) 1380 731 702

Hong Kong
Tel: 852-2389-4321
Fax: 852-2341-9689

Hall Effect Current Sensors

50 to 200 Amp Applications — Open Loop



- Compact PCB Mount Design
- Voltage Output type
- CE EN50178 (pending)

Specifications Measured at 25°C, RL=10KΩ, V_{CC}=±15V

Specification		L08P050D15	L08P100D15	L08P150D15	L08P200D15
Nominal Primary DC Current	(I _f)	50AT	100AT	150AT	200AT
Maximum Current	I _{f(max)}	±150AT	±300AT	±350AT	±350AT
Output Voltage @ I _f	V _{OUT}	4V			
Offset Voltage	V _{OE}	<±40mV			
Accuracy @ I _f ²	X	±1% of I _f			
Output Linearity ² (0..I _f MAX)	E _L	≤±1% of I _f			
Power Supply	V _{CC}	±15V±5%			
Response Time	t _r	<10μ Sec			
Current Consumption	I _c	12mA typ			
Output Temperature Characteristic	TCE _B	<±0.1% / °C	<±0.05% / °C		
Offset Temperature Characteristic	V _{OT}	<±2mV / °C	<±1mV / °C		
Hysteresis Allowance @ I _f =0	V _{OH}	< ±30mV	<± 20mV		
Withstand Voltage (50/60Hz)	V _d	2,500VACrms for 1 minute (Sensing Current 0.5mA)			
Insulation Resistance @ 500VDC	R _{IS}	≥500MΩ			
Operating Bandwidth (-3dB)	f	DC - 50kHz			
Operating Temperature	T _A	-10 - +80°C			
Storage Temperature	T _s	-20 - +85°C			

¹ Small signal only; derating needed to avoid excessive core heating at high frequency

² Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
50	25



TAMURA CORPORATION

43352 Business Park Drive. | P.O. Box 892230 Temecula, CA 92589-2230 | www.tamuracorp.com

USA

Tel: 800-872-6624
Fax: 909-676-9482

Japan

Tel: 81 (0)3 3978-2111
Fax: 81 (0)3 3923-0230

United Kingdom

Tel: 44 (0) 1380 731 700
Fax: 44 (0) 1380 731 702

Hong Kong

Tel: 852-2389-4321
Fax: 852-2341-9689

Hall Effect Current Sensors

50 to 600 Amp Applications — Open Loop

- Compact PCB Mount Design
- Voltage Output type
- Very High Linearity
- 15V Supply Voltage
- CE EN50178 (pending)



Specifications Measured at 25°C, RL=10KΩ, V_{CC}=±15V

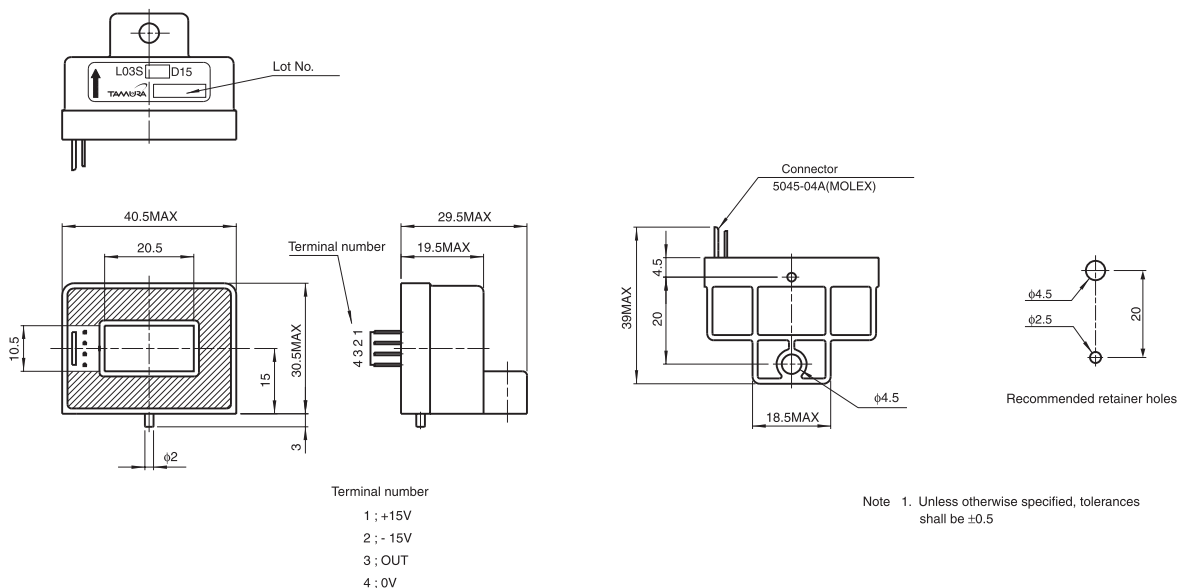
Specification	L03S050D15	L03S100D15	L03S200D15	L03S300D15	L03S400D15	L03S500D15	L03S600D15
Nominal Primary DC Current (I _f)	50AT	100AT	200AT	300AT	400AT	500AT	600AT
Maximum Current I _{f(max)}	±150AT	±300AT	±600AT	±700AT	±700AT	±700AT	±700AT
Output Voltage @ I _f	V _{OUT} 4V						
Offset Voltage V _{OE}	<± 40mV			<±30mV			
Accuracy @ I _f ²	X			±1% of I _f			
Output Linearity ² (0..I _f MAX)	E _L			±1% of I _f			
Power Supply V _{CC}	±15V±5%						
Response Time t _r	≤5μ Sec						
Current Consumption I _c	12mA typ						
Output Temperature Characteristic TCE _G	<±0.1% / °C						
Offset Temperature Characteristic V _{OT}	<±2mV / °C			<±1mV / °C			
Hysteresis Allowance @ I _f =0 V _{OH}	±30mV			±20mV		±10mV	
Withstand Voltage (50/60Hz) V _d	2,500VACrms for 1 minute (sensing current 0.5mA)						
Insulation Resistance @ 500VDC R _{IS}	≥500MΩ						
Operating Bandwidth ¹ (-3dB) f	DC - 50kHz						
Operating Temperature T _A	-10 - +80°C						
Storage Temperature T _S	-15 - +90°C						

¹ Small signal only; derating needed to avoid excessive core heating at high frequency

² Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
20	50



TAMURA CORPORATION

43352 Business Park Drive. | P.O. Box 892230 Temecula, CA 92589-2230 | www.tamuracorp.com
 USA | Japan | United Kingdom | Hong Kong
 Tel: 800-872-6624 | Tel: 81 (0)3 3978-2111 | Tel: 44 (0) 1380 731 700 | Tel: 852-2389-4321
 Fax: 909-676-9482 | Fax: 81 (0)3 3923-0230 | Fax: 44 (0) 1380 731 702 | Fax: 852-2341-9689

Hall Effect Current Sensors

50 to 600 Amp Applications — Open Loop



- Compact PCB Mount Design
- Voltage Output type
- Very High Linearity
- 5V Supply Voltage
- CE EN50178 (pending)

Specifications Measured at 25°C, RL=10KΩ, Vcc=+ 5V; Vref = $\frac{V_{CC}}{2}$

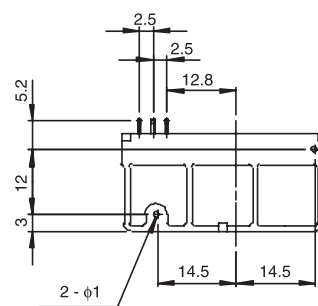
Specification	L01Z050S05	L01Z100S05	L01Z150S05	L01Z200S05	L01Z300S05	L01Z400S05	L01Z500S05	L01Z600S05
Nominal Primary DC Current (If)	50AT	100AT	150AT	200AT	300AT	400AT	500AT	600AT
Maximum Current If(max)	±62.5AT	±125AT	±187.5AT	±250AT	±375AT	±500AT	±625AT	±750AT
Output Voltage @ If	Vref±1.5V				Vref±1.5V			
Offset Voltage V _{OE}	2.5V±0.035V				2.5V±0.030V			
Accuracy @ If ²	X	<±1% of If			<±1% of If			
Output Linearity ² (0..If MAX)	E _L			±1% of If				
Power Supply Vcc				5V ±2.0%				
Response Time t _r				<5μs				
Current Consumption I _c				<15mA				
Output Temperature Characteristic TCE _o	<±2mV / °C			<±1.5mV / °C				
Offset Temperature Characteristic V _{OT}	<±2mV / °C			<±1mV / °C				
Hysteresis Allowance @ If=0 V _{OH}		±8mV		±4mV			±6mV	
Withstand Voltage (50/60Hz) V _d				2,500VACrms for 1 minute (sensing current 0.5mA)				
Insulation Resistance @ 500VDC R _{IS}				≥500MΩ				
Operating Bandwidth ¹ (-3dB) f				DC - 50kHz				
Operating Temperature T _A				-10 - +80°C				
Storage Temperature T _S				-15 - +85°C				

¹ Small signal only; derating needed to avoid excessive core heating at high frequency

² Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
50	45



- Terminal number
- 1 OUT
 - 2 OV
 - 3 5V

Note 1. Unless otherwise specified, tolerances shall be ± 0.5

TAMURA CORPORATION

43352 Business Park Drive. | P.O. Box 892230 Temecula, CA 92589-2230 | www.tamuracorp.com

USA

Tel: 800-872-6624
Fax: 909-676-9482

Japan

Tel: 81 (0)3 3978-2111
Fax: 81 (0)3 3923-0230

United Kingdom

Tel: 44 (0) 1380 731 700
Fax: 44 (0) 1380 731 702

Hong Kong

Tel: 852-2389-4321
Fax: 852-2341-9689