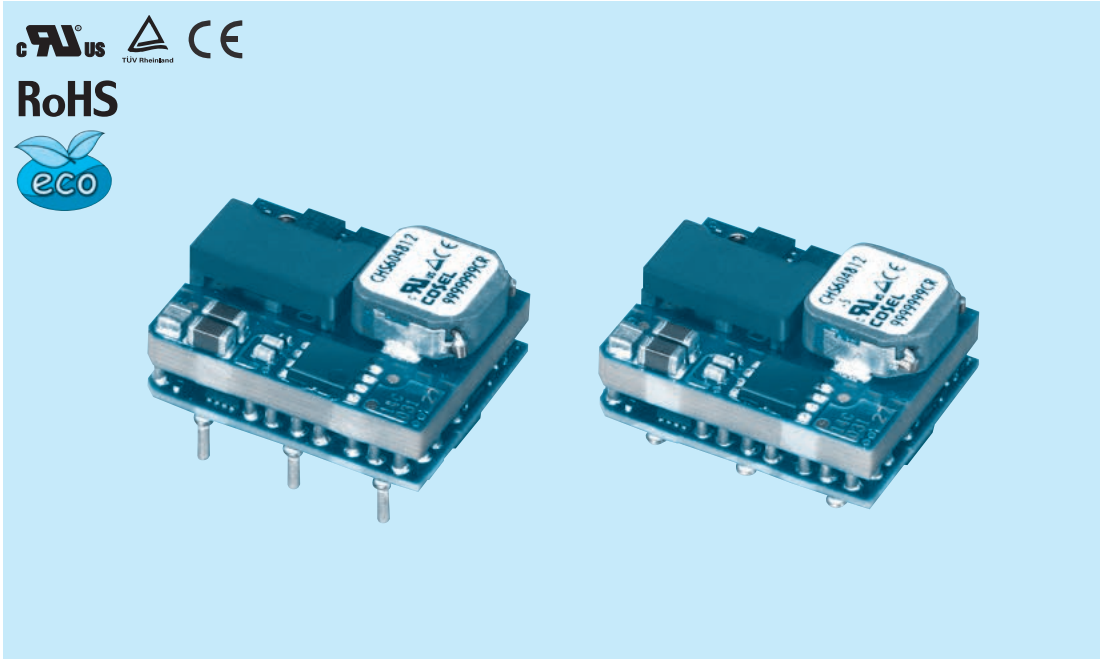
COSEL DC-DC Converters Bus Converter·Power Module Type

CHS60

Ordering information

CH	S	60	48	3R3	-□
①	②	③	④	⑤	⑧



①Series name
②Single output
③Output power
④Input voltage
48:DC36 - 76V
⑤Output voltage
3R3:3.3V
05:5.0V
12:12V
⑧Optional
R :with Remote ON/OFF
Positive logic control
U :Shut down in protection
circuit working
S :SMD

MODEL	CHS60483R3	CHS604805	CHS604812
MAX OUTPUT WATTAGE[W]	59.4	60.0	72.0
DC OUTPUT	3.3V 18A	5V 12A	12V 6A

SPECIFICATIONS

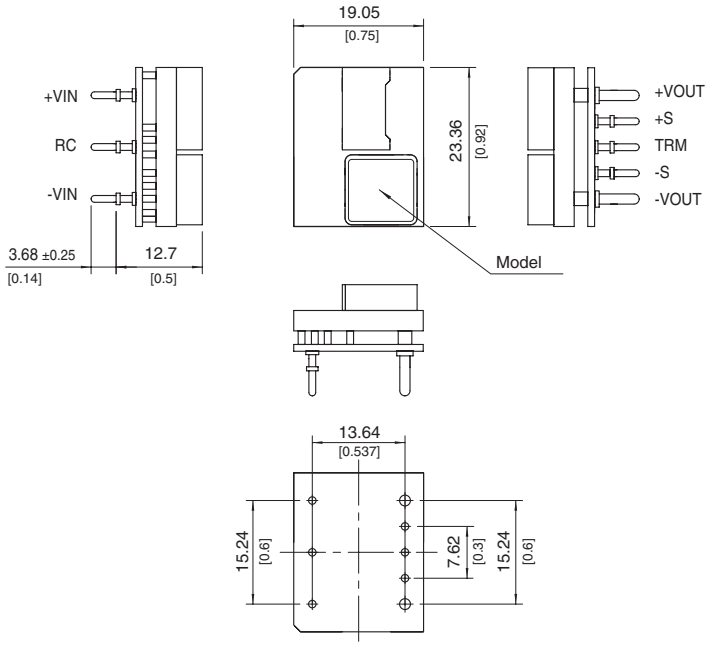
	MODEL		CHS60483R3	CHS604805	CHS604812
INPUT	VOLTAGE[V]		DC36 - 76		
	CURRENT[A]	*1	1.36typ	1.34typ	1.63typ
	EFFICIENCY[%]	*1	91.5typ	93.0typ	92.5typ
OUTPUT	VOLTAGE[V]		3.3	5	12
	CURRENT[A]		18	12	6
	LINE REGULATION[mV]		10max		
	LOAD REGULATION[mV]		10max		
	RIPPLE	[mVrms] *2	30max	30max	50max
		[mVp-p] *2	80max	100max	150max
	RIPPLE NOISE[mVp-p]	*2	120max	150max	180max
	TEMPERATURE REGULATION[mV]		66max	100max	240max
	DRIFT[mV]	*3	16max	20max	40max
	START-UP TIME[ms]		50max (DCIN 48V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE	*4	Fixed (TRM pin open), adjustable by external resistor		
			-10% / +15%	-10% / +20%	-20% / +10%
	OUTPUT VOLTAGE SETTING		±1.6%		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		120% - 140% (Auto restart)	125% - 145% (Auto restart)	115% - 135% (Auto restart)
	REMOTE SENSING		Provided		
	REMOTE ON/OFF		Provided (Neqative Logic L : ON, H :OFF)		
ISOLATION	INPUT-OUTPUT		DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 5,000m (16,000 feet) max		
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max		
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis		
	IMPACT		196.1m/s² (20G), 11ms, once each along X, Y and Z axis		
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1		
OTHERS	CASE SIZE/WEIGHT		19.05×12.7×23.36mm [0.75×0.5×0.92 inches] (W×H×D) / 15g max		
	COOLING METHOD		Convection / Forced air		

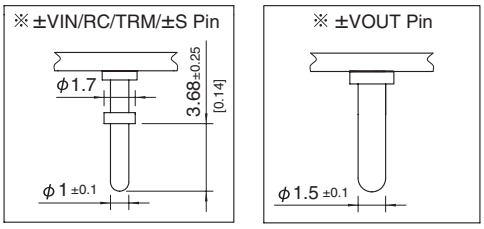
*1 At rated input (DC48V) and rated load. Ta=25℃, 2m/s.
*2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF.
*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
*4 Refer to the instruction manual for input voltage derating.

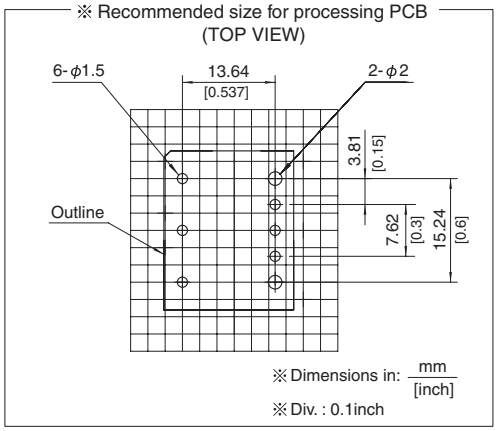
External view

1. DIP

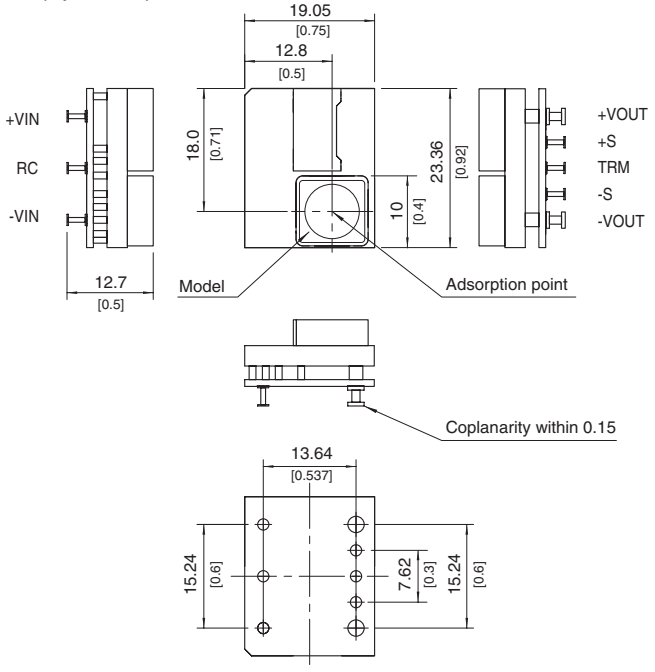
※ Tolerance:±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches

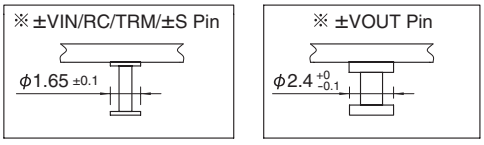


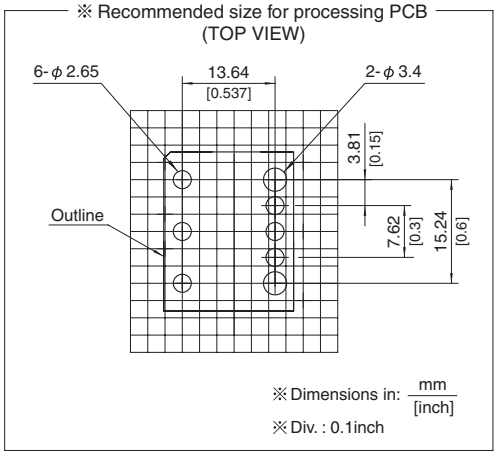




2. SMD (option S)





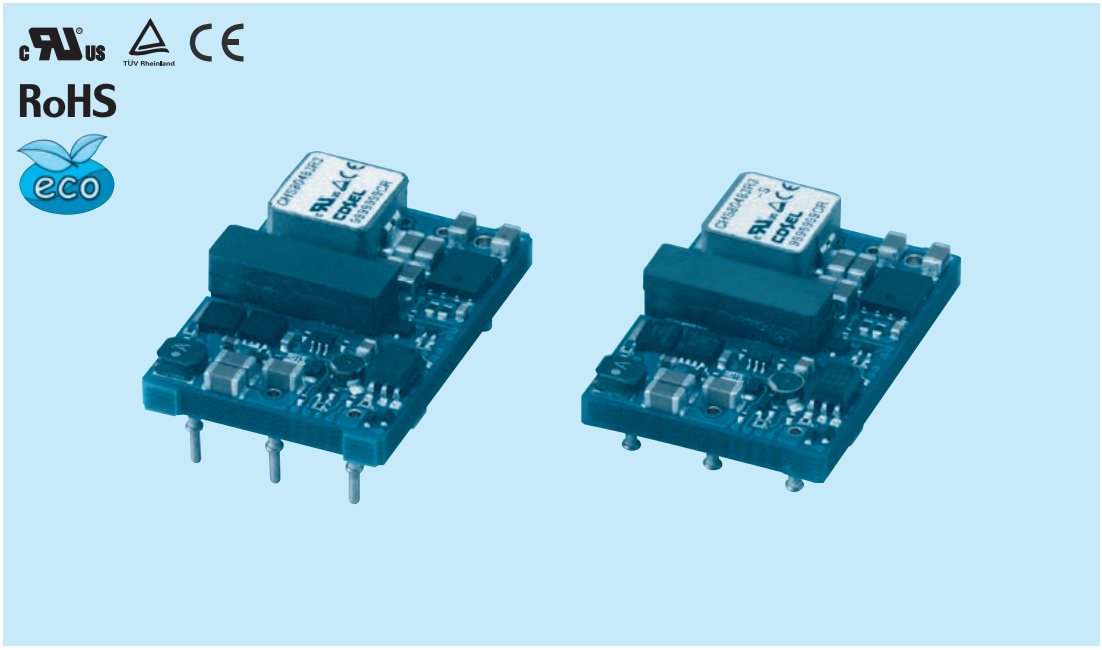


COSEL DC-DC Converters Bus Converter·Power Module Type

CHS80

Ordering information

CH	S	80	48	05	-□
①	②	③	④	⑤	⑧



①Series name
②Single output
③Output power
④Input voltage
48:DC36-76V
⑤Output voltage
3R3:3.3V
05:5.0V
12:12V
⑧Optional
R :with Remote ON/OFF
Positive logic control
U :Shut down in protection
circuit working
S :SMD

MODEL	CHS80483R3	CHS804805	CHS804812
MAX OUTPUT WATTAGE[W]	82.5	80.0	90.0
DC OUTPUT	3.3V 25A	5.0V 16A	12V 7.5A

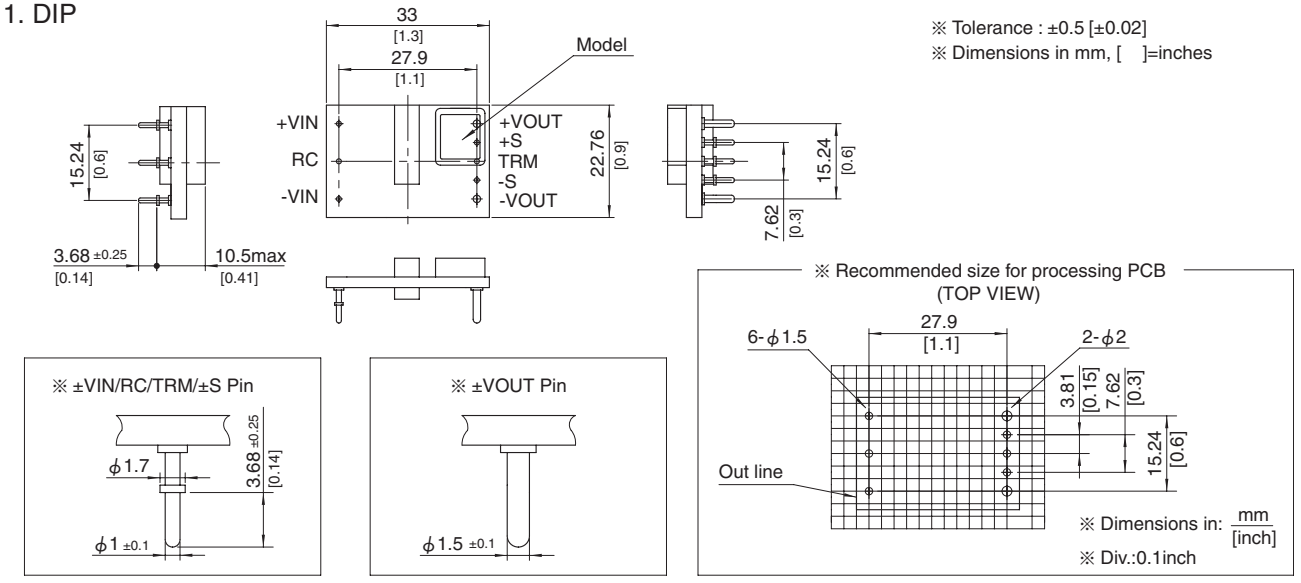
SPECIFICATIONS

	MODEL		CHS80483R3	CHS804805	CHS804812
INPUT	VOLTAGE[V]		DC36 - 76		
	CURRENT[A]	*1	1.86typ	1.81typ	2.03typ
	EFFICIENCY[%]	*1	92typ	92typ	92typ
OUTPUT	VOLTAGE[V]		3.3	5	12
	CURRENT[A]		25	16	7.5
	LINE REGULATION[mV]		±10max		
	LOAD REGULATION[mV]		±10max		
	RIPPLE	[mVrms] *2	30max	30max	50max
		[mVp-p] *2	80max	100max	150max
	RIPPLE NOISE[mVp-p]	*2	120max	150max	180max
	TEMPERATURE REGULATION[mV]		66max	100max	240max
	DRIFT[mV]	*3	16max	20max	40max
	START-UP TIME[ms]		200max (DCIN 48V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE	*4	Fixed (TRM pin open), adjustable by external resistor		
			-10% / +15%	-10% / +20%	-10% / +10%
	OUTPUT VOLTAGE SETTING		±1.6%		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		120% - 140% (Auto restart)	125% - 145% (Auto restart)	115% - 135% (Auto restart)
	REMOTE SENSING		Provided		
	REMOTE ON/OFF		Provided (Negative logic L:ON, H:OFF)		
ISOLATION	INPUT-OUTPUT		DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max		
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max		
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis		
	IMPACT		196.1m/s² (20G), 11ms, once each along X, Y and Z axis		
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1		
OTHERS	CASE SIZE/WEIGHT		33.0×10.5×22.76mm [1.3×0.41×0.9 inches] (W×H×D) / 21g max		
	COOLING METHOD		Convection / Forced air		

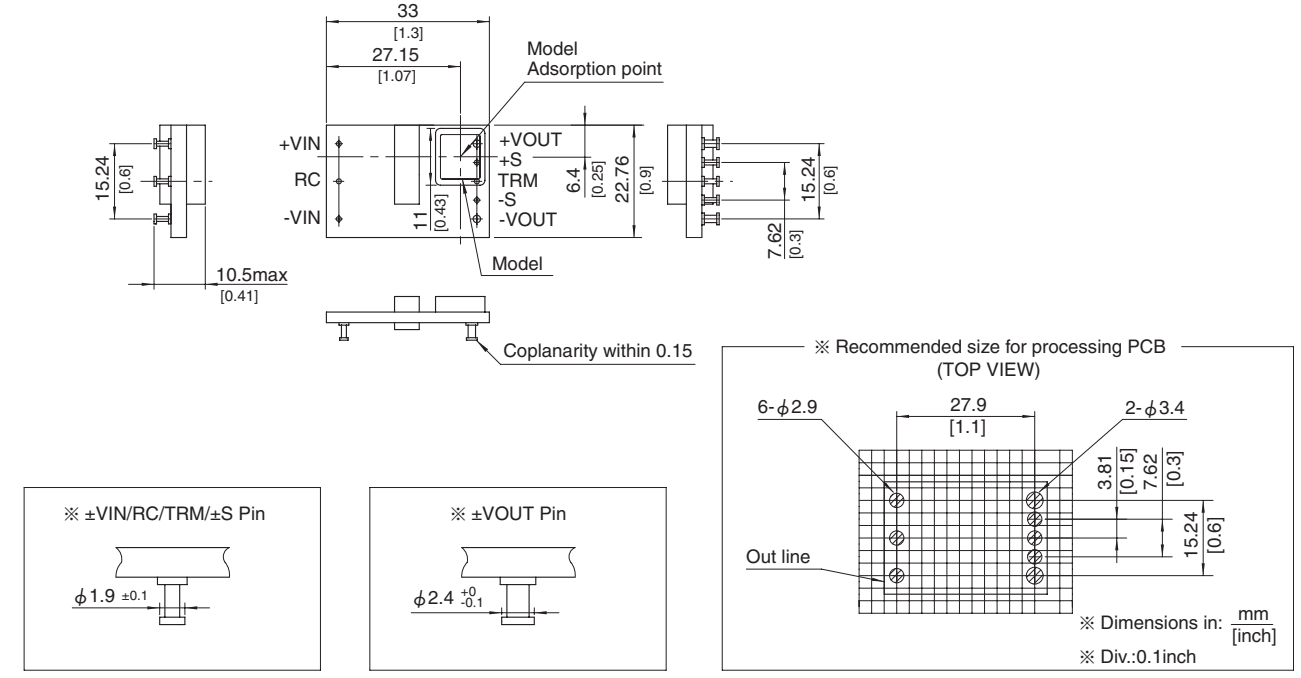
*1 At rated input(DC48V) and rated load. Ta=25℃, 2m/s.
*2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF.
*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
*4 Refer to the instruction manual for input voltage derating.

External view

1. DIP



2. SMD (optionS)

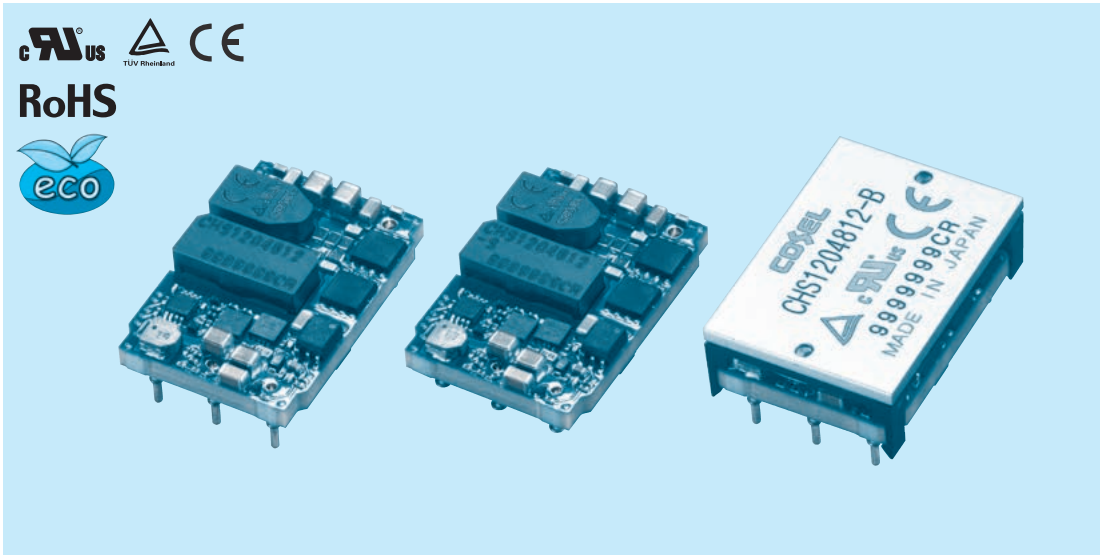


COSEL DC-DC Converters Bus Converter·Power Module Type

CHS120

Ordering information

CH	S	120	48	05	-□
①	②	③	④	⑤	⑧



①Series name
②Single output
③Output power
④Input voltage
48:DC36-76V
⑤Output voltage
3R3:3.3V
05:5.0V
12:12V
⑧Optional
R :with Remote ON/OFF Positive logic control
U :Shut down in protection circuit working
S :SMD
B :BasePlate option
L2:Pin length 5.3mm
L5:5pins option (+S,-S,TRM less)

MODEL	CHS120483R3	CHS1204805	CHS1204812
MAX OUTPUT WATTAGE[W]	99.0	120.0	120.0
DC OUTPUT	3.3V 30A	5V 24A	12V 10A

SPECIFICATIONS

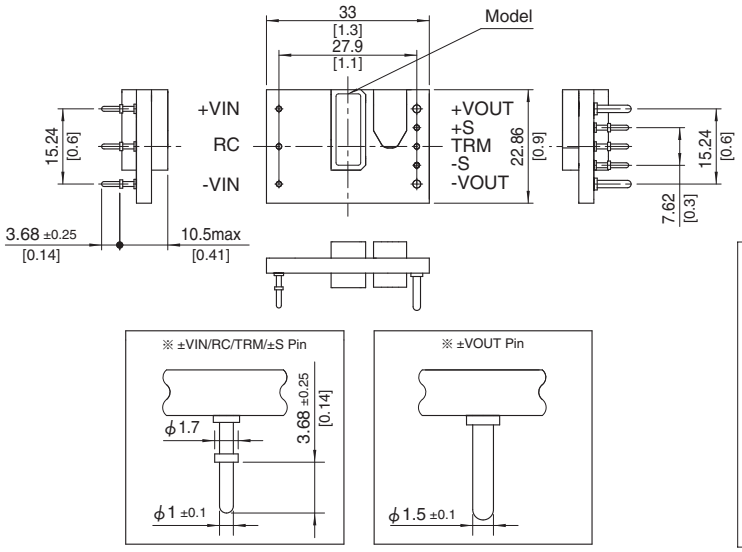
	MODEL		CHS120483R3	CHS1204805	CHS1204812
INPUT	VOLTAGE[V]		DC36 - 76		
	CURRENT[A]	*1	2.23typ	2.69typ	2.69typ
	EFFICIENCY[%]	*1	92.5typ	93typ	93typ
OUTPUT	VOLTAGE[V]		3.3	5	12
	CURRENT[A]		30	24	10
	LINE REGULATION[mV]		±10max		
	LOAD REGULATION[mV]		±10max		
	RIPPLE	[mVrms] *2	30max	30max	50max
		[mVp-p] *2	80max	100max	150max
	RIPPLE NOISE[mVp-p]	*2	120max	150max	180max
	TEMPERATURE REGULATION[mV]		66max	100max	240max
	DRIFT[mV]	*3	16max	20max	40max
	START-UP TIME[ms]		50max (DCIN 48V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE	*4	Fixed (TRM pin open), adjustable by external resistor		
			-10% / +15%	-10% / +20%	-10% / +10%
	OUTPUT VOLTAGE SETTING		±1.6%		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		120% - 140% (Auto restart)	125% - 145% (Auto restart)	115% - 135% (Auto restart)
	REMOTE SENSING		Provided		
	REMOTE ON/OFF		Provided (Negative logic L:ON, H:OFF)		
ISOLATION	INPUT-OUTPUT		DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
	INPUT-BASEPLATE	*5	DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
	OUTPUT-BASEPLATE	*5	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 5,000m (16,000feet) max		
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max		
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis		
	IMPACT		196.1m/s² (20G), 11ms, once each along X, Y and Z axis		
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1		
OTHERS	CASE SIZE/WEIGHT		33.0×10.5×22.86mm [1.3×0.41×0.9 inches] (W×H×D) / 19g max		
			33.5×12.7×23.36mm [1.32×0.5×0.92 inches] (W×H×D) / 28g max	*5	
	COOLING METHOD		Convection / Forced air / Conduction		

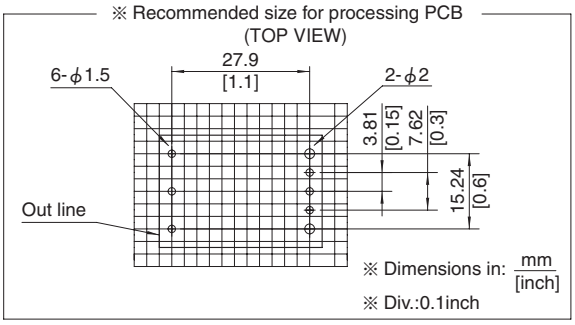
*1 At rated input(DC48V) and rated load. Ta=25℃, 2m/s.
*2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF.
*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
*4 Refer to the instruction manual for input voltage derating.
*5 BasePlate Option.

External view

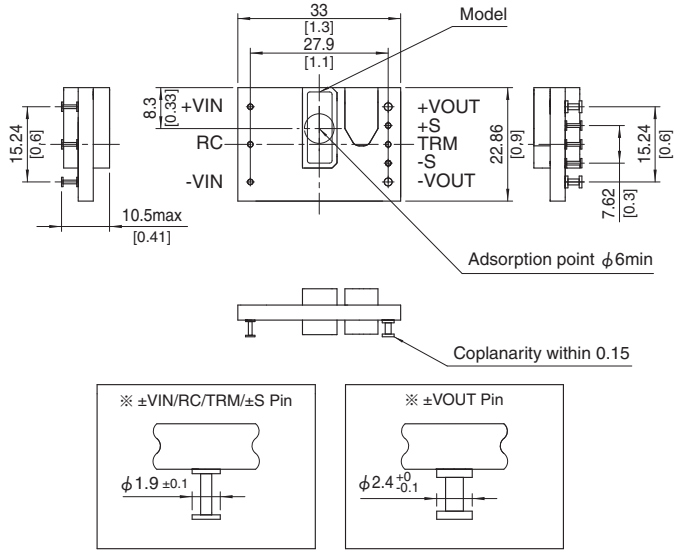
※ Tolerance : ±0.5
※ Dimensions in mm, [ ]=inches

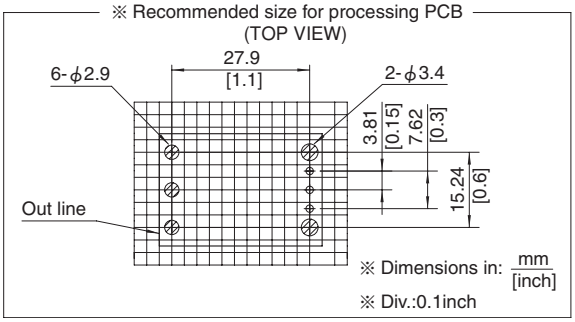
1. DIP



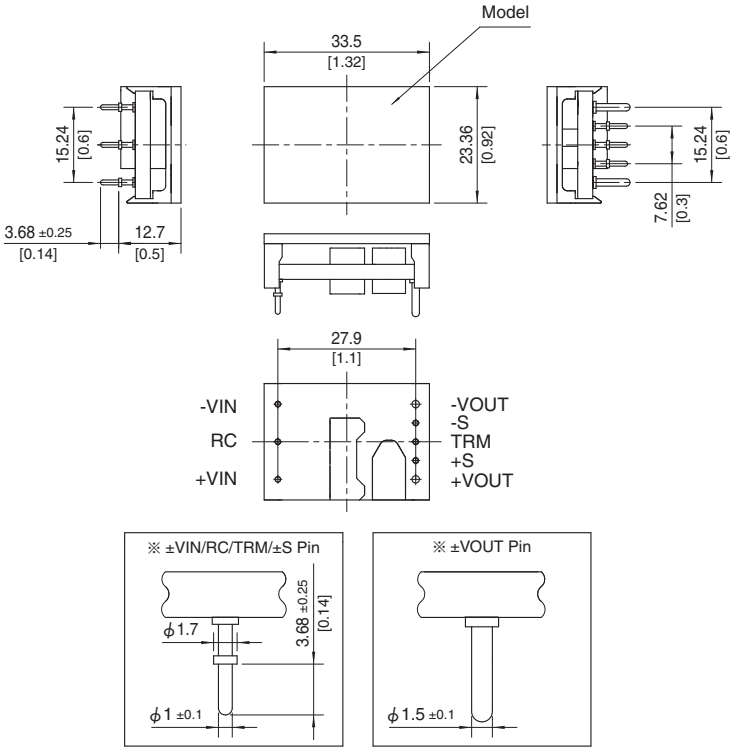


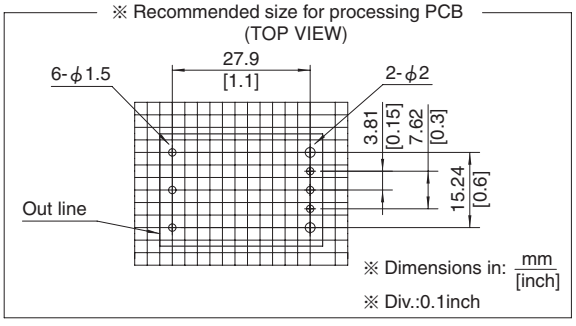
2. SMD (option S)



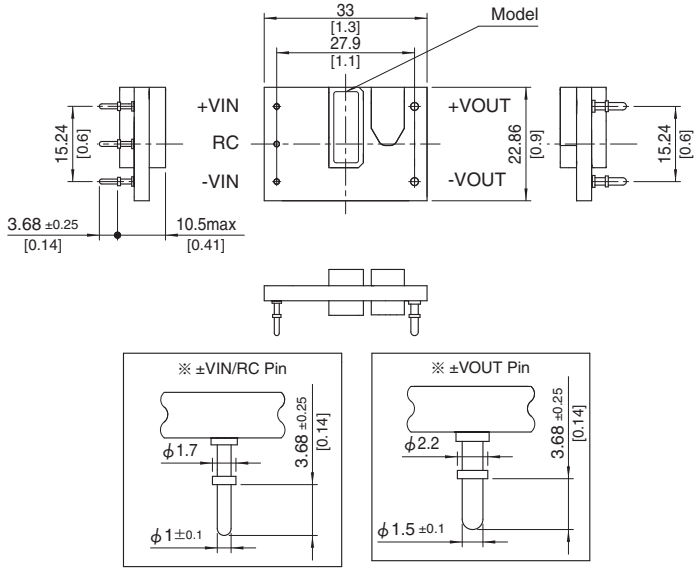


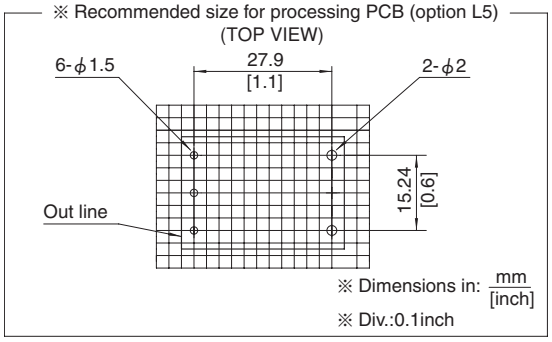
3. BasePlate (optionB)





4. 5pins type (option L5)



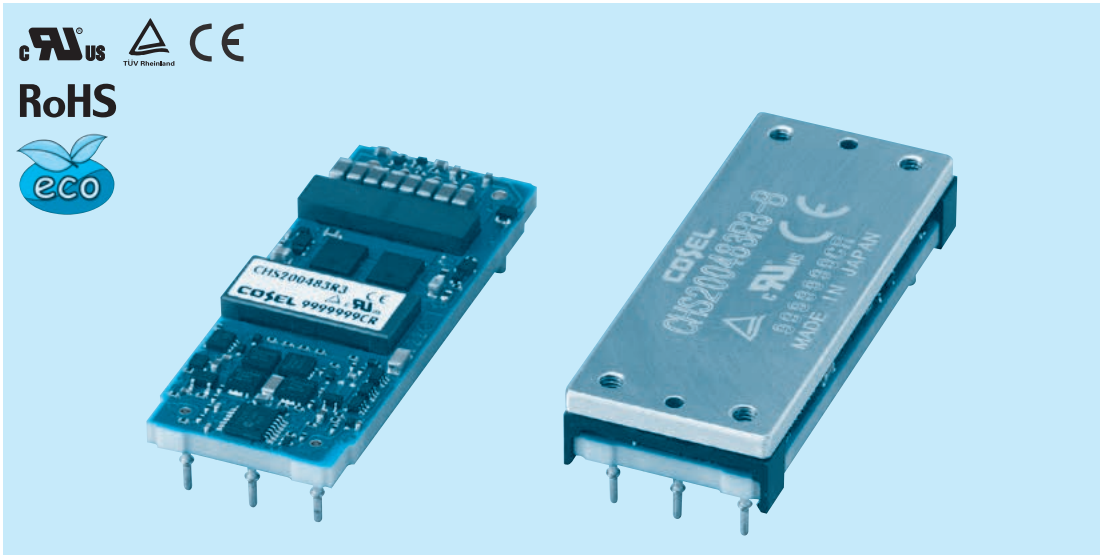


COSEL DC-DC Converters Bus Converter·Power Module Type

CHS200

Ordering information

CH	S	200	48	05	-□
①	②	③	④	⑤	⑧



①Series name
②Single output
③Output power
④Input voltage
48:DC36-76V
⑤Output voltage
3R3:3.3V
05:5.0V
12:12V
⑧Optional
R :with Remote ON/OFF Positive logic control
U :Shut down in protection circuit working
B :BasePlate option with Mounting hole M3
L2:Pin length 5.3mm
L5:5pins option (+S,-S,TRM less)

MODEL	CHS200483R3	CHS2004805	CHS2004812
MAX OUTPUT WATTAGE[W]	165.0	200.0	192.0
DC OUTPUT	3.3V 50A	5.0V 40A	12V 16A

SPECIFICATIONS

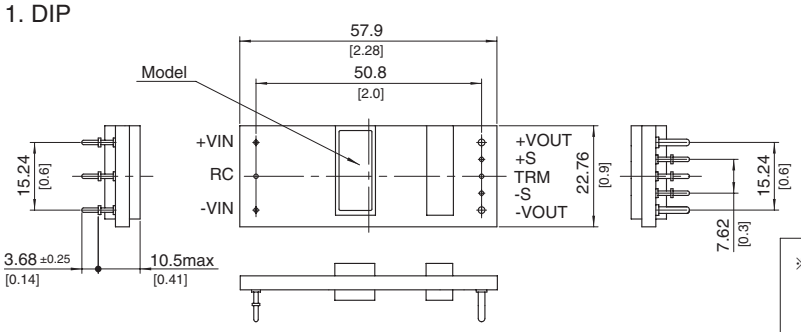
	MODEL		CHS200483R3	CHS2004805	CHS2004812
INPUT	VOLTAGE[V]		DC36 - 76		
	CURRENT[A]	∗1	3.70typ	4.43typ	4.26typ
	EFFICIENCY[%]	∗1	93typ	94typ	94typ
OUTPUT	VOLTAGE[V]		3.3	5	12
	CURRENT[A]		50	40	16
	LINE REGULATION[mV]		±10max		
	LOAD REGULATION[mV]		±10max		
	RIPPLE	[mVrms] ∗2	30max	30max	50max
		[mVp-p] ∗2	80max	100max	150max
	RIPPLE NOISE[mVp-p]	∗2	120max	150max	180max
	TEMPERATURE REGULATION[mV]		66max	100max	240max
	DRIFT[mV]	∗3	16max	20max	40max
	START-UP TIME[ms]		200max (DCIN 48V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE	∗4	Fixed (TRM pin open), adjustable by external resistor		
			-10% / +15%	-10% / +20%	-10% / +10%
	OUTPUT VOLTAGE SETTING		±1.6%		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		120% - 140% (Auto restart)	125% - 145% (Auto restart)	115% - 135% (Auto restart)
	REMOTE SENSING		Provided		
	REMOTE ON/OFF		Provided (Negative logic L:ON, H:OFF)		
ISOLATION	INPUT-OUTPUT		DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
	INPUT-BASEPLATE	∗5	DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
	OUTPUT-BASEPLATE	∗5	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max		
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max		
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis		
	IMPACT		196.1m/s² (20G), 11ms, once each along X, Y and Z axis		
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1		
OTHERS	CASE SIZE/WEIGHT		57.9×10.5×22.76mm [2.28×0.41×0.9 inches] (W×H×D) / 30g max		
			58.4×12.7×23.26mm [2.3×0.5×0.92 inches] (W×H×D) / 45g max	∗5	
	COOLING METHOD		Convection / Forced air / Conduction		

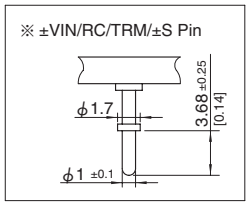
∗1 At rated input(DC48V) and rated load. Ta=25℃, 2m/s.
∗2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF.
∗3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
∗4 Refer to the instruction manual for input voltage derating.
∗5 BasePlate Option.

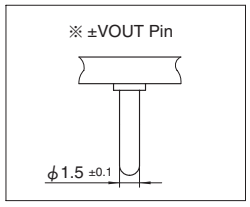
External view

1. DIP

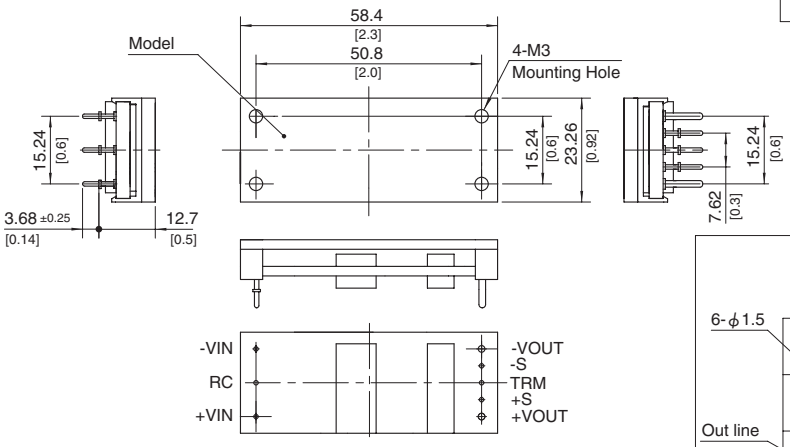
※ Tolerance : ±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches

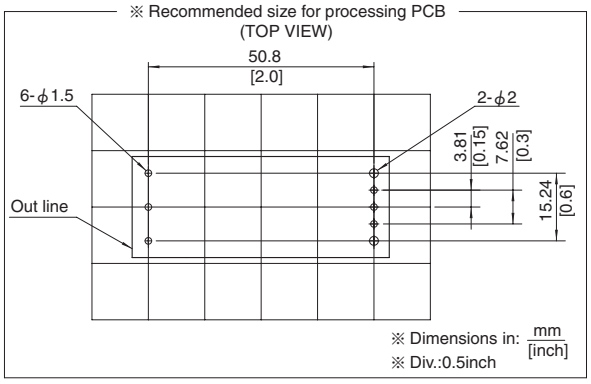




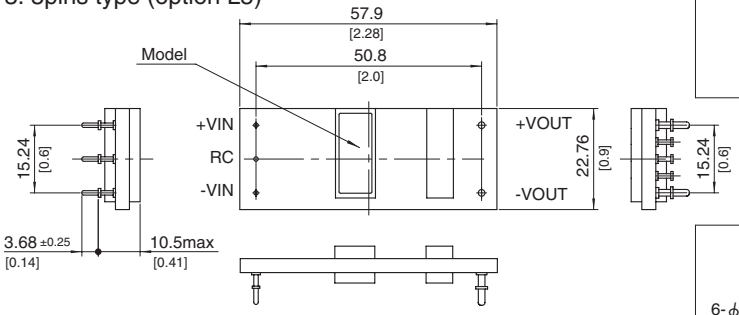


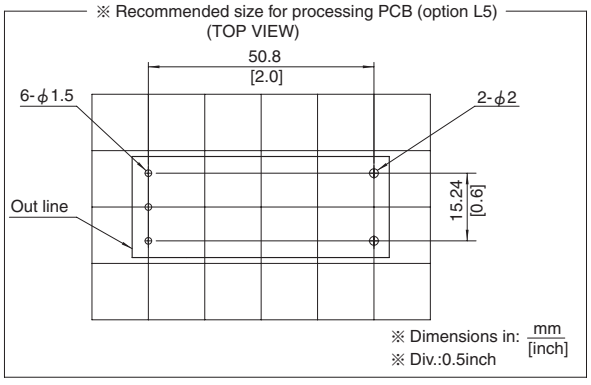
2. BasePlate (optionB)





3. 5pins type (option L5)



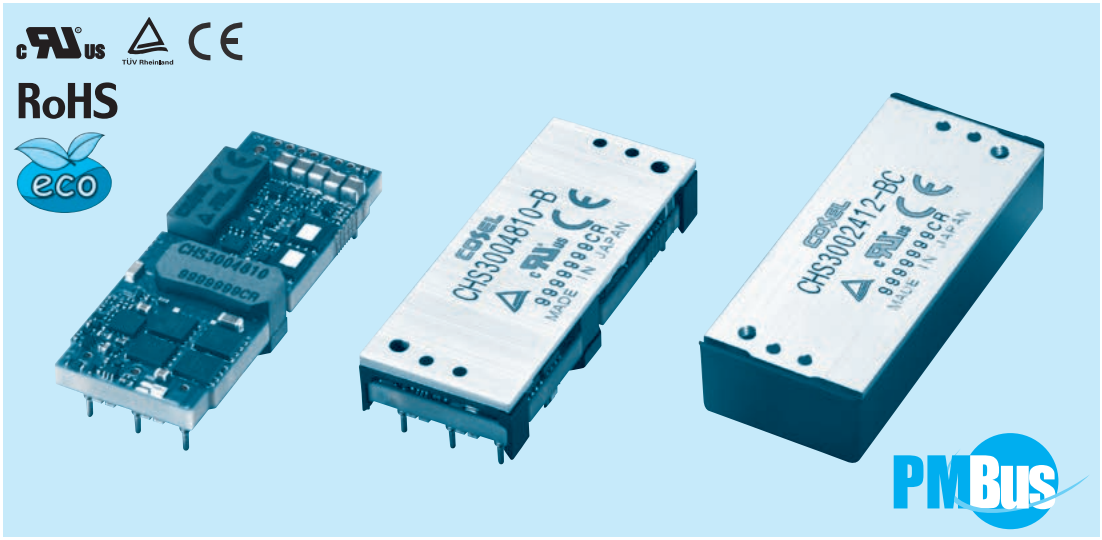


COSEL DC-DC Converters Bus Converter·Power Module Type

CHS300

Ordering information

CH	S	300	48	10	-□
①	②	③	④	⑤	⑧



①Series name
②Single output
③Output power
④Input voltage
24:DC18 - 36V
48:DC36 - 76V
⑤Output voltage
05:5V
10:10V
12:12V
12H:12V (High efficiency type)
15:15V
⑧Optional
R :with Remote ON/OFF Positive logic control
U :Shut down in protection circuit working
B :Baseplate option with mounting hole M3
BC:Baseplate and case option with mounting hole M3 (only CHS30024)
L2:Pin length 5.3mm
L5:5pins option (+S,-S,TRM less)
I :with the PMBus interface (only CHS3004810/4812)

MODEL	CHS3002405	CHS3002412	CHS3002415
MAX OUTPUT WATTAGE[W]	200.0	200.4	202.5
DC OUTPUT	5V 40A	12V 16.7A	15V 13.5A

SPECIFICATIONS

	MODEL		CHS3002405	CHS3002412	CHS3002415
INPUT	VOLTAGE[V]		DC18 - 36		
	CURRENT[A]	*1	8.91typ	9.08typ	9.02typ
	EFFICIENCY[%]	*1	93.5typ	92.0typ	93.5typ
OUTPUT	VOLTAGE[V]		5	12	15
	CURRENT[A]		40	16.7	13.5
	LINE REGULATION[mV]		10max	24max	30max
	LOAD REGULATION[mV]		10max	24max	30max
	RIPPLE	[mVrms] *2	40max	50max	100max
		[mVp-p] *2	120max	150max	280max
	RIPPLE NOISE[mVp-p]	*2	150max	180max	300max
	TEMPERATURE REGULATION[mV]		120max	240max	300max
	DRIFT[mV]	*3	20max	40max	50max
	START-UP TIME[ms]		50max (DCIN 24V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE	*4	Fixed (TRM pin open), adjustable by external resistor		
			-20% / +20%	-20% / +10%	-20% / +5%
	OUTPUT VOLTAGE SETTING	*1	±1.6%		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		125% - 145% (Auto restart)	115% - 135% (Auto restart)	110% - 130% (Auto restart)
	REMOTE SENSING		Provided		
	REMOTE ON/OFF		Provided (Negative Logic L : ON, H :OFF)		

MODEL	CHS3004810	CHS3004812	CHS3004812H
MAX OUTPUT WATTAGE[W]	300.0	300.0	300.0
DC OUTPUT	10V 30A	12V 25A	12V 25A

SPECIFICATIONS

	MODEL		CHS3004810	CHS3004812	CHS3004812H
INPUT	VOLTAGE[V]		DC36 - 76		
	CURRENT[A]	*1	6.61typ	6.61typ	6.55typ
	EFFICIENCY[%]	*1	94.5typ	94.5typ	95.5typ
OUTPUT	VOLTAGE[V]		10	12	12
	CURRENT[A]		30	25	25
	LINE REGULATION[mV]	*6	20max	24max	24max
	LOAD REGULATION[mV]	*6	20max	24max	24max
	RIPPLE	[mVrms] *2	40max	50max	50max
		[mVp-p] *2	120max	150max	150max
	RIPPLE NOISE[mVp-p]	*2	150max	180max	180max
	TEMPERATURE REGULATION[mV]		200max	240max	240max
	DRIFT[mV]	*3	30max	40max	40max
	START-UP TIME[ms]		50max (DCIN 48V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE	*4	Fixed (TRM pin open), adjustable by external resistor		
			-10% / +10%		
	OUTPUT VOLTAGE SETTING	*1	±1.6%		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		115% - 135% (Auto restart)		
	REMOTE SENSING		Provided		
	REMOTE ON/OFF		Provided (Negative Logic L : ON, H :OFF)		

GENERAL SPECIFICATIONS

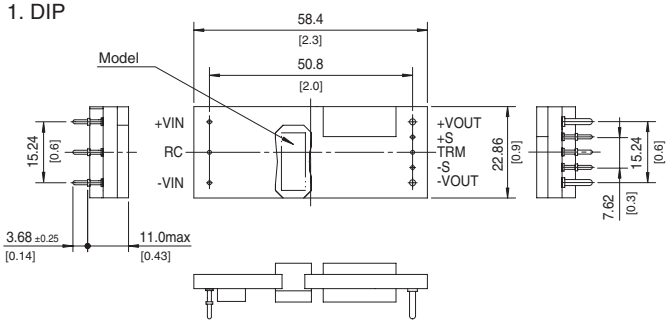
ISOLATION	INPUT-OUTPUT	DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)
	INPUT-BASEPLATE *5,*7	DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)
	OUTPUT-BASEPLATE *5,*7	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15℃)
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 5,000m (16,000 feet) max
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max
	VIBRATION	10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis
	IMPACT	196.1m/s² (20G), 11ms, once each along X, Y and Z axis
SAFETY	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1
OTHERS	CASE SIZE/WEIGHT	58.4×11.0×22.86mm [2.3×0.43×0.9 inches] (W×H×D) / 38g max
		58.9×12.7×23.26mm [2.32×0.5×0.92 inches] (W×H×D) / 50g max *5
		61.1×14.3×26.1 [2.41×0.56×1.03inches] (W×H×D) / 57g max *7
	COOLING METHOD	Convection / Forced air / Conduction

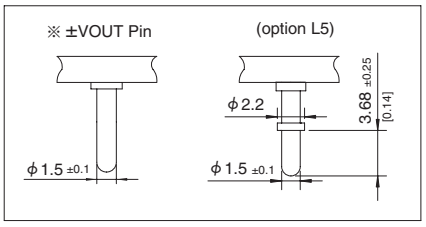
*1 At rated input (DC24V, DC48V) and rated load. Ta=25℃, 2m/s.
*2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF.
*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
*4 Refer to the instruction manual for input voltage derating.
*5 BasePlate Option.
*6 At input voltage DC36 - 76V (CHS3004810, CHS3004812), DC40 - 76V (CHS3004812H).
*7 Baseplate and case option.

External view

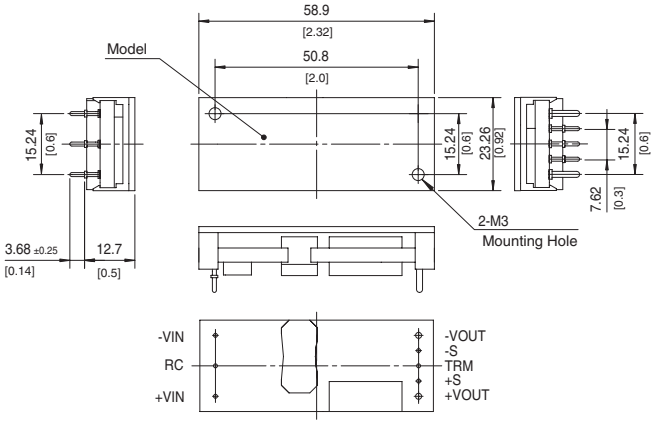
1. DIP

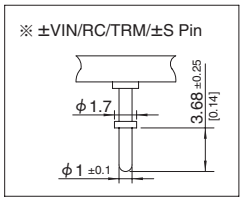
※ Tolerance:±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches

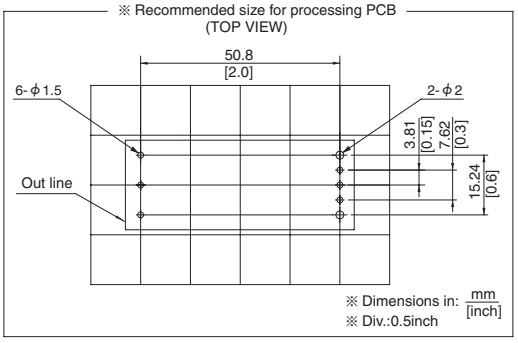




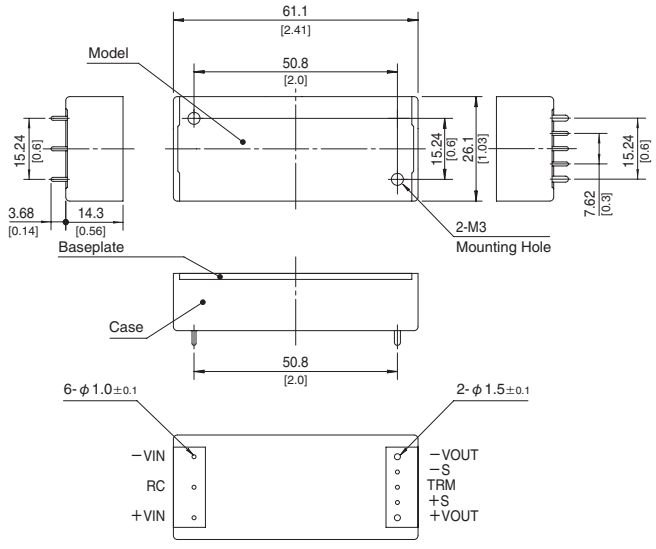
2. BasePlate (optionB)



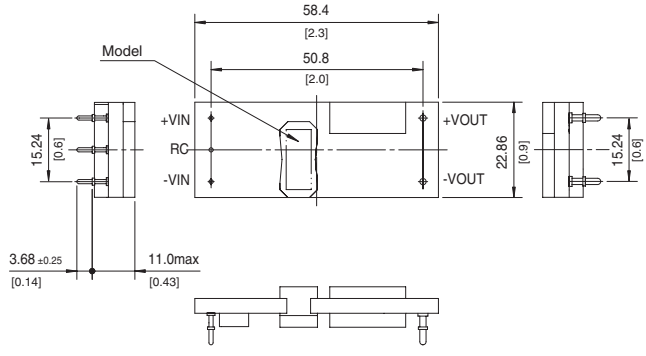


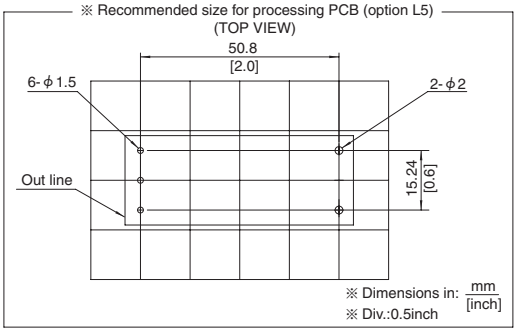


3. Baseplate and case (option BC)



4. 5pins type (option L5)





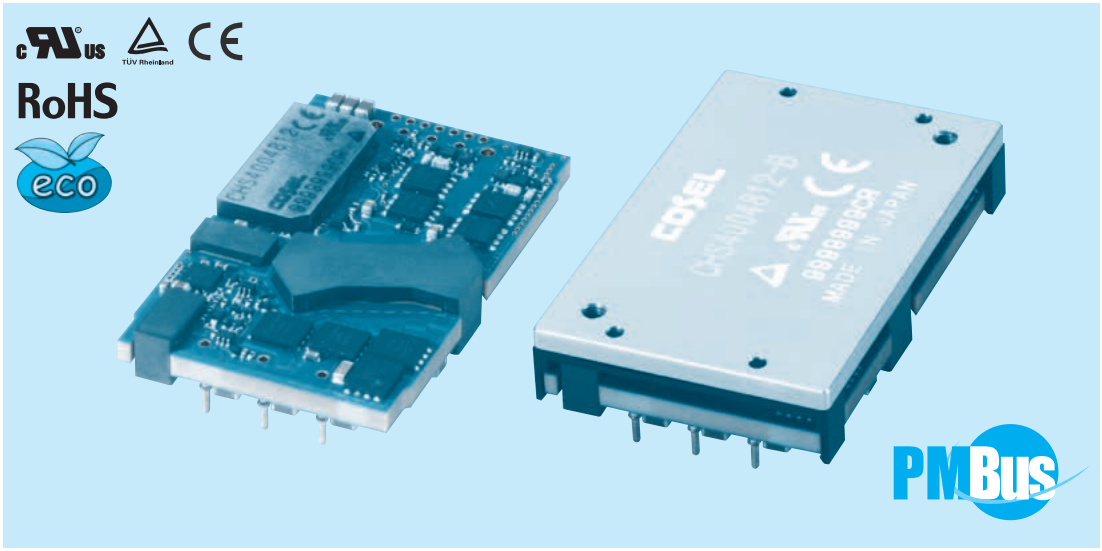
∗Please contact us about external view of the PMBus interface (option I).

COSEL DC-DC Converters Bus Converter·Power Module Type

CHS400

Ordering information

CH	S	400	48	12	-□
①	②	③	④	⑤	⑧



①Series name
②Single output
③Output power
④Input voltage
48:DC36 - 76V
⑤Output voltage
10:10V
12:12V
12H:12V(High efficiency type)
⑧Optional
R :with Remote ON/OFF Positive logic control
U :Shut down in protection circuit working
B :BasePlate option with Mounting hole M3
P :Parallel operation (5Pins :without +S,-S and TRM)
L2:Pin length 5.3mm
L5:5pins type (+S,-S,TRM less)
I :with the PMBus interface (Only CHS4004812)

MODEL	CHS4004810	CHS4004812	CHS4004812H
MAX OUTPUT WATTAGE[W]	400.0	396.0	396.0
DC OUTPUT	10V 40A	12V 33A	12V 33A

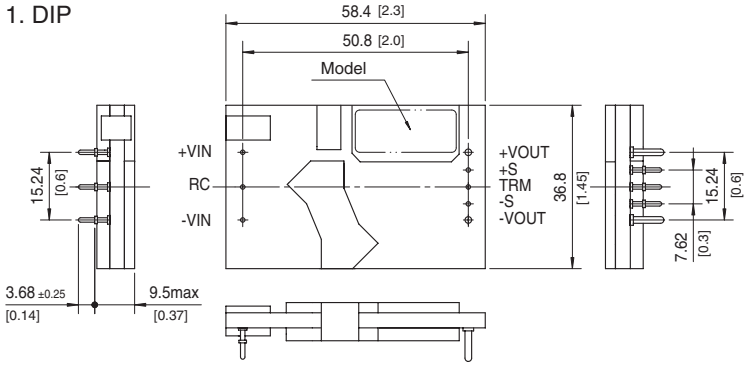
SPECIFICATIONS

	MODEL		CHS4004810	CHS4004812	CHS4004812H
INPUT	VOLTAGE[V]		DC36 - 76		
	CURRENT[A]	*1	8.82typ	8.68typ	8.64typ
	EFFICIENCY[%]	*1	94.5typ	95typ	95.5typ
OUTPUT	VOLTAGE[V]		10	12	12
	CURRENT[A]		40	33	33
	LINE REGULATION[mV]	*7	±10max	±12max	±12max
	LOAD REGULATION[mV]	*6 *7	±10max	±12max	±12max
	RIPPLE	[mVrms] *2	60max	60max	60max
		[mVp-p] *2	160max	180max	180max
	RIPPLE NOISE[mVp-p]	*2	180max	200max	200max
	TEMPERATURE REGULATION[mV]		200max	240max	240max
	DRIFT[mV]	*3	30max	40max	40max
	START-UP TIME[ms]		50max (DCIN 48V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	*4	Fixed (TRM pin open), adjustable by external resistor (N/A : parallel operation)		
			-10% / +10%	-10% / +10%	-10% / +10%
	OUTPUT VOLTAGE SETTING[V]	*1 *6	±1.6%	±1.6%	±1.6%
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		115% - 135% (Auto restart)		
	REMOTE SENSING		Provided (N/A : parallel operation)		
	REMOTE ON/OFF		Provided (Negative Logic L : ON, H :OFF)		
ISOLATION	INPUT-OUTPUT		DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
	INPUT-BASEPLATE	*5	DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
	OUTPUT-BASEPLATE	*5	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)		
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 5,000m (16,000 feet) max		
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max		
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis		
	IMPACT		196.1m/s² (20G), 11ms, once each along X, Y and Z axis		
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950		
OTHERS	CASE SIZE/WEIGHT		58.4×9.5×36.8mm [2.3×0.37×1.45 inches] (W×H×D) / 60g max		
			58.9×12.7×37.3mm [2.32×0.5×1.47 inches] (W×H×D) / 90g max	*5	
	COOLING METHOD		Convection / Forced air / Conduction		

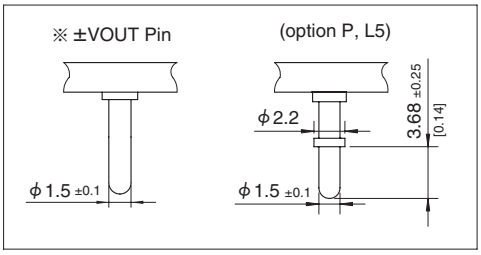
*1 At rated input (DC48V) and rated load. Ta=25℃, 2m/s.
*2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF.
*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
*4 Refer to the instruction manual for input voltage derating.
*5 BasePlate Option.
*6 Parallel operation Option is not included.
*7 At input voltage DC36-76V(CHS4004810, CHS4004812), DC40-76V(CHS4004812H).

External view

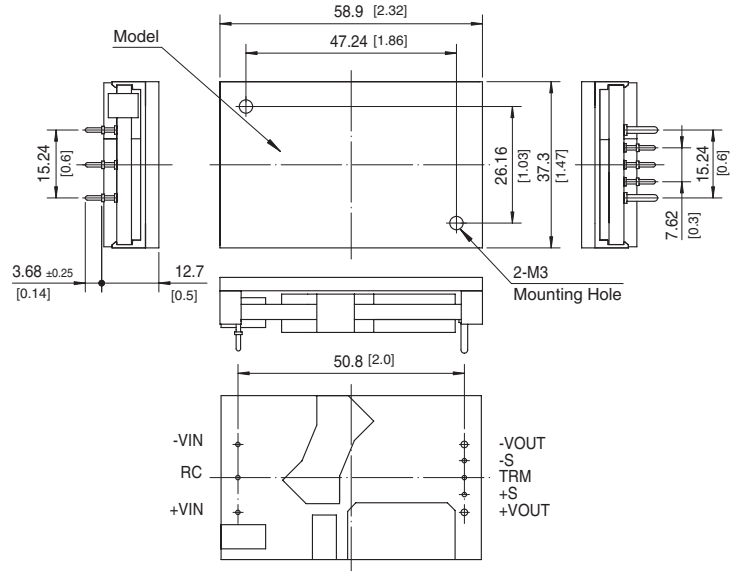
1. DIP

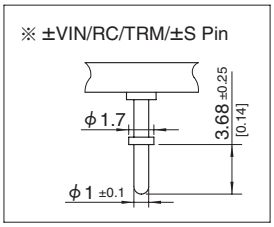


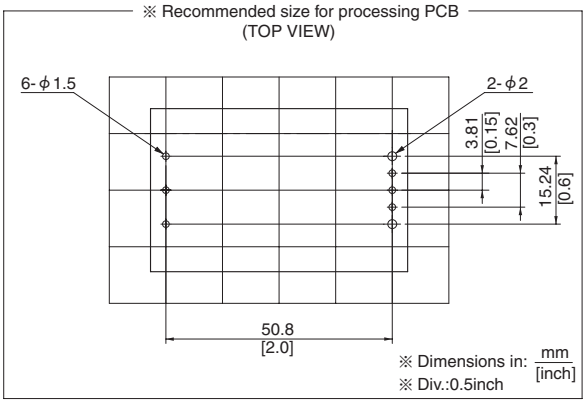
※ Tolerance:±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches



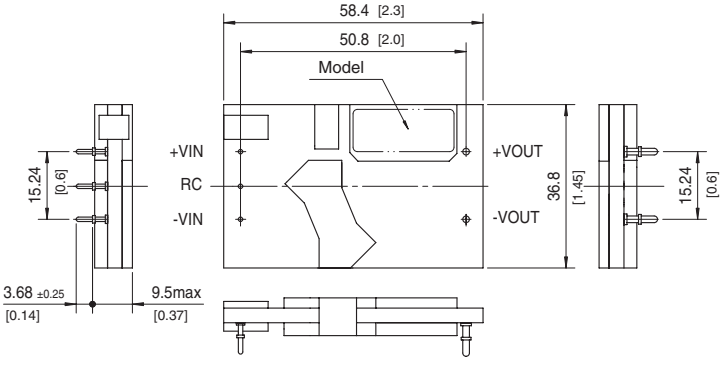
2. BasePlate (optionB)

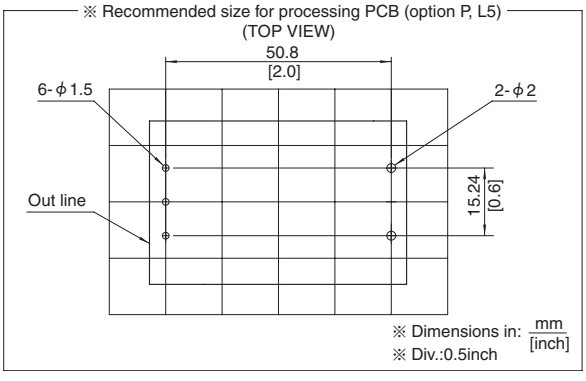






3. Parallel operation (option P)
5pins type (option L5)





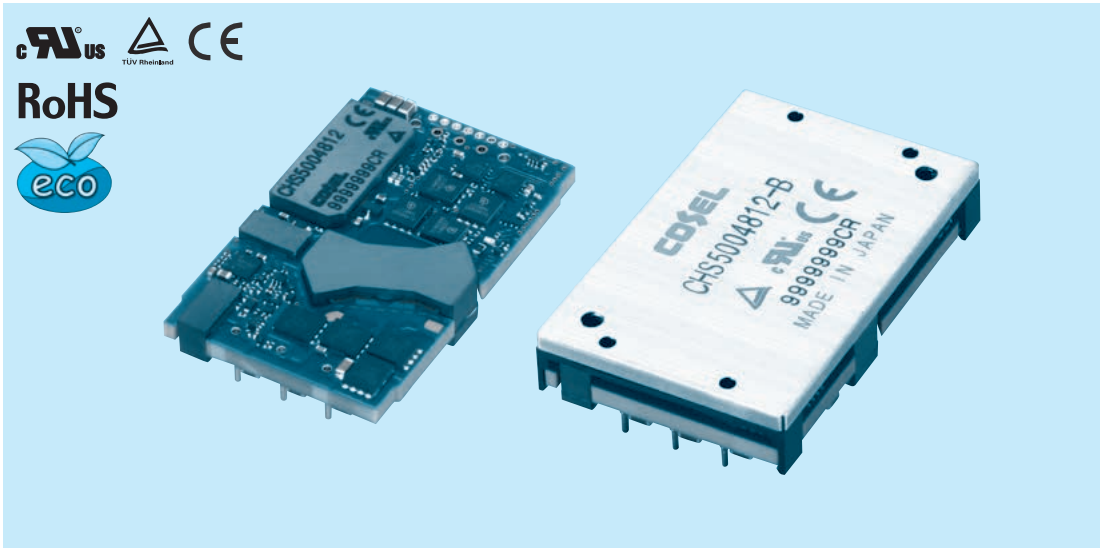
∗Please contact us about external view of the PMBus interface (option I).

COSEL DC-DC Converters Bus Converter·Power Module Type

CHS500

Ordering information

CH	S	500	48	12	-□
①	②	③	④	⑤	⑧



①Series name
②Single output
③Output power
④Input voltage
48:DC36 - 76V
⑤Output voltage
12:12V
⑧Optional
R :with Remote ON/OFF Positive logic control
U :Shut down in protection circuit working
B :BasePlate option with Mounting hole M3
P :Parallel operation (5Pins :without +S,-S and TRM)
L2:Pin length 5.3mm
L5:5pins type (+S,-S,TRM less)

MODEL	CHS5004812
MAX OUTPUT WATTAGE[W]	504.0
DC OUTPUT	12V 42A

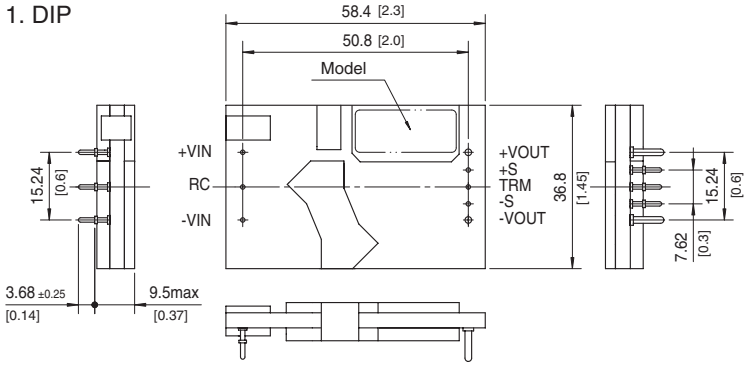
SPECIFICATIONS

	MODEL		CHS5004812
INPUT	VOLTAGE[V]		DC36 - 76
	CURRENT[A]	*1	11.06typ
	EFFICIENCY[%]	*1	95typ
OUTPUT	VOLTAGE[V]		12
	CURRENT[A]		42
	LINE REGULATION[mV]		±12max
	LOAD REGULATION[mV]	*6	±12max
	RIPPLE	[mVrms] *2	60max
		[mVp-p] *2	180max
	RIPPLE NOISE[mVp-p]	*2	200max
	TEMPERATURE REGULATION[mV]		240max
	DRIFT[mV]	*3	40max
	START-UP TIME[ms]		50max (DCIN 48V, Io=100%)
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	*4	Fixed (TRM pin open), adjustable by external resistor (N/A : parallel operation)
			-10% / +10%
	OUTPUT VOLTAGE SETTING[V]	*1 *6	±1.6%
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)
	OVERVOLTAGE PROTECTION		115% - 135% (Auto restart)
	REMOTE SENSING		Provided (N/A : parallel operation)
	REMOTE ON/OFF		Provided (Negative Logic L : ON, H :OFF)
ISOLATION	INPUT-OUTPUT		DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)
	INPUT-BASEPLATE	*5	DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)
	OUTPUT-BASEPLATE	*5	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 5,000m (16,000 feet) max
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis
	IMPACT		196.1m/s² (20G), 11ms, once each along X, Y and Z axis
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950
OTHERS	CASE SIZE/WEIGHT		58.4×9.5×36.8mm [2.3×0.37×1.45 inches] (W×H×D) / 60g max
			58.9×12.7×37.3mm [2.32×0.5×1.47 inches] (W×H×D) / 90g max *5
	COOLING METHOD		Convection / Forced air / Conduction

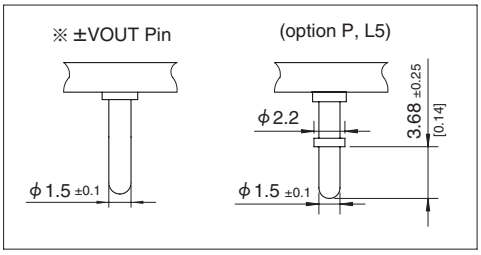
*1 At rated input (DC48V) and rated load. Ta=25℃, 2m/s.
*2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF.
*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
*4 Refer to the instruction manual for input voltage derating.
*5 BasePlate Option.
*6 Parallel operation Option is not included.

External view

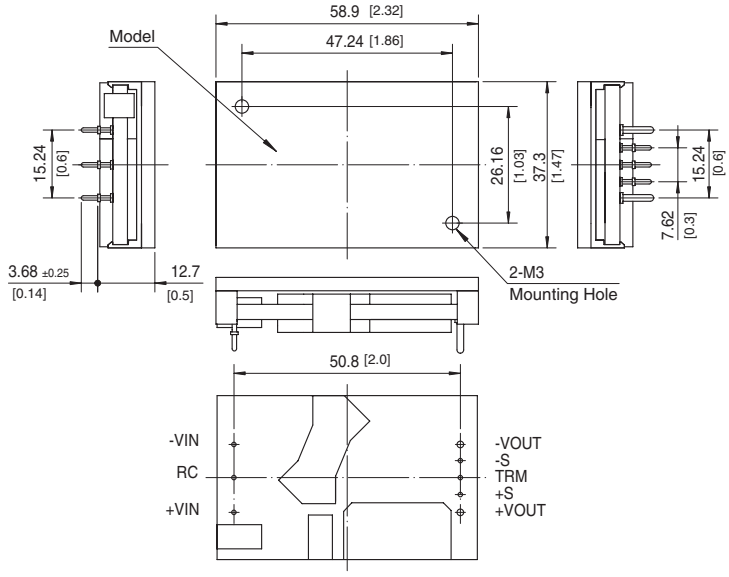
1. DIP

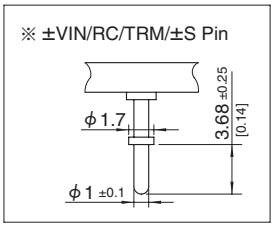


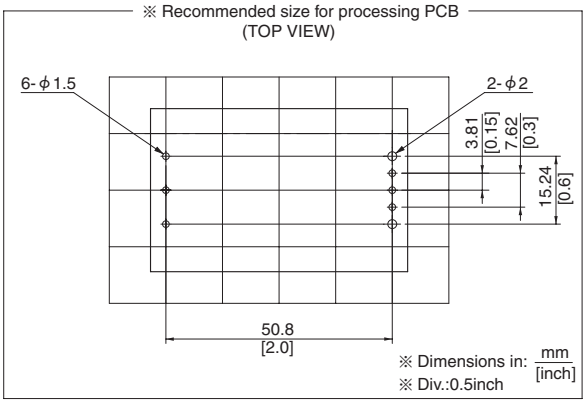
※ Tolerance:±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches



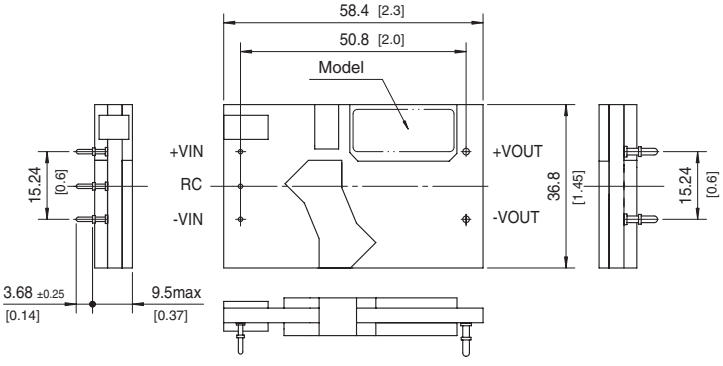
2. BasePlate (optionB)

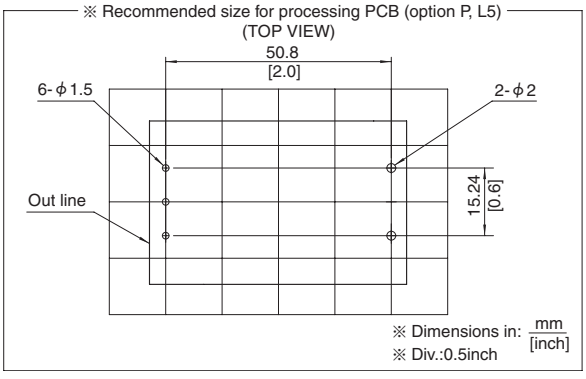






3. Parallel operation (option P)
5pins type (option L5)





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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

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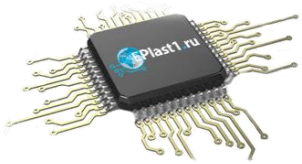
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.