

RP300H-(R)W Series ◇ DC-DC Converter

300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

RECOM
DC/DC Converter**FEATURES**

- 4:1 wide input voltage range
- 3kVDC isolation
- Efficiency up to 92.5%
- Wide operating temperature range -40°C to +105°C
- Operating altitude up to 5000m
- Optional heat sink version
- 3 year warranty



Dimensions (LxWxH)
without heat sink:

61.0 x 57.9 x 12.7mm (2.4 x 2.28 x 0.5 inch)
107g (0.24 lbs)

APPLICATIONS**SAFETY & EMC****DESCRIPTION**

The RP300H-(R)W series is a high-performance 300W isolated DC/DC converter family featuring a 4:1 wide input range and up to 92.5% efficiency. Designed for demanding railway, industrial, and automation applications. The series offers 3kVDC isolation, and full protections including OVP, OCP, OTP, SCP at hiccup mode. With an operating temperature range of -40°C to +105°C (case), altitude up to 5000m, and optional heat sink version, it ensures reliable operation in harsh environments. Output voltage is adjustable $\pm 10\%$ /-20%, remote ON/OFF with positive/negative logic, and Sense/Trim pins are provided. The series meets railway standards, RoHS & REACH.

SELECTION GUIDE

Part Number	Input Voltage Range [VDC]	nom. Output Voltage [VDC]	Output Current max. [mA]	Efficiency typ. ⁽¹⁾ [%]	Max. Capacitive Load ⁽²⁾ [μF]
RP300H-2405SW ^(3, 4)	9-36	05	60000	88.5	108000
RP300H-2412SW ^(3, 4)	9-36	12	25000	91	19150
RP300H-2415SW ^(3, 4)	9-36	15	20000	91	12000
RP300H-2424SW ^(3, 4)	9-36	24	12500	89	4800
RP300H-2428SW ^(3, 4)	9-36	28	10700	90	3450
RP300H-2448SW ^(3, 4)	9-36	48	6200	89	1250
RP300H-2454SW ^(3, 4)	9-36	54	5600	89	930

RP300H-(R)W Series ◇ DC-DC Converter

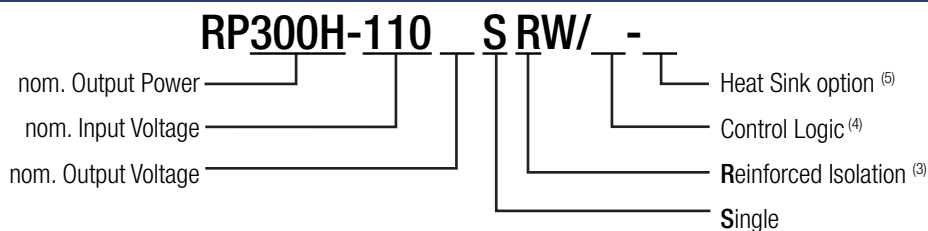
300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

SELECTION GUIDE

Part Number	Input Voltage Range [VDC]	nom. Output Voltage [VDC]	Output Current max. [mA]	Efficiency typ. ⁽¹⁾ [%]	Max. Capacitive Load ⁽²⁾ [μF]
RP300H-4805SW ^(3, 4)	18-75	05	60000	90	108000
RP300H-4812SW ^(3, 4)	18-75	12	25000	92	19150
RP300H-4815SW ^(3, 4)	18-75	15	20000	92	12000
RP300H-4824SW ^(3, 4)	18-75	24	12500	92	4800
RP300H-4828SW ^(3, 4)	18-75	28	10700	92.5	3450
RP300H-4848SW ^(3, 4)	18-75	48	6200	90.5	1250
RP300H-4854SW ^(3, 4)	18-75	54	5600	90.5	930
RP300H-11005SRW ^(3, 4)	40-160	05	60000	89	108000
RP300H-11012SRW ^(3, 4)	40-160	12	25000	91	19150
RP300H-11015SRW ^(3, 4)	40-160	15	20000	91	12000
RP300H-11024SRW ^(3, 4)	40-160	24	12500	90	4800
RP300H-11028SRW ^(3, 4)	40-160	28	10700	90	3450
RP300H-11048SRW ^(3, 4)	40-160	48	6200	91	1250
RP300H-11054SRW ^(3, 4)	40-160	54	5600	91	930

Note1: Efficiency is tested at nominal input and full load at +25°C ambient

Note2: Max. Cap Load is tested at nominal input and full resistive load

MODEL NUMBERINGNote3: "R" = Reinforced Isolation for nom. V_{IN} = 110VDC types only
without "R" = nom. V_{IN} = 24V and 48VDC typesNote4: add suffix "/N" for negative logic
add suffix "/P" for positive logicNote5: add suffix "/N-HC" for negative logic and pre-mounted heat sink
add suffix "/P-HC" for positive logic and pre-mounted heat sink**BASIC CHARACTERISTICS (measured @ T_{AMB} = 25°C, nom. V_{IN} , full load and after warm-up unless otherwise stated)**

Parameter	Condition		Min.	Typ.	Max.
Internal Input Filter					Pi-Type
Input Voltage Range	nom. V_{IN} = 24VDC		9VDC	24VDC	36VDC
	nom. V_{IN} = 48VDC		18VDC	48VDC	75VDC
	nom. V_{IN} = 110VDC		40VDC	110VDC	160VDC
Input Surge Voltage	nom. V_{IN} = 24VDC	1 second max.			50VDC
	nom. V_{IN} = 48VDC				100VDC
	nom. V_{IN} = 110VDC				185VDC
Under Voltage Lockout (UVLO)	nom. V_{IN} = 24VDC	DC-DC ON			9VDC
		DC-DC OFF	7.2VDC	7.7VDC	8.3VDC
	nom. V_{IN} = 48VDC	DC-DC ON			18VDC
		DC-DC OFF	15VDC	16VDC	16.6VDC
	nom. V_{IN} = 110VDC	DC-DC ON			40VDC
		DC-DC OFF	33VDC	34.5VDC	35.8VDC
Output Voltage Adjustability	„Output Voltage Trimming“	nom. V_{OUT} = 15V, 24VDC single types	-20%		+10%
Remote Sense ⁽⁶⁾					10% of V_{OUT} nom.

Note6 : If remote sense is not being used, Sense pins should be connected to corresponding polarity OUTPUT pins.

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BASIC CHARACTERISTICS (measured @ $T_{AMB} = 25^{\circ}\text{C}$, nom. V_{IN} , full load and after warm-up unless otherwise stated)

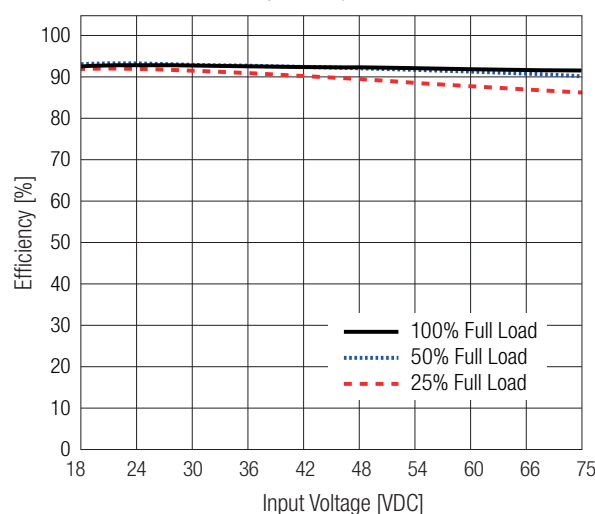
Parameter	Condition		Min.	Typ.	Max.
Start-up Time	constant resistive load	power up		75ms	100ms
		remote ON/OFF		75ms	100ms
ON/OFF CTRL ⁽⁷⁾	refer to „On/off ctrl“	Negative Logic (standard version)	DC/DC ON		
			Short or 0VDC - 1.2VDC		
		Positive Logic (optional "/P" version)	DC/DC OFF		
			Open or 3VDC - 12VDC		
Input Current of CTRL pin		Negative Logic (standard version)	DC/DC ON		
			Open or 3VDC - 12VDC		
		Positive Logic (optional "/P" version)	DC/DC ON		
			Short or 0VDC - 1.2VDC		
Standby Current		nom. $V_{IN} = 24\text{VDC}$		-0.5mA	+1.0mA
		nom. $V_{IN} = 48\text{VDC}$			
		nom. $V_{IN} = 110\text{VDC}$			
		remote OFF			
Output Ripple and Noise ⁽⁸⁾	measured with 20MHz BW	22 μF /25V X7R MLCC and a 22 μF /25V SP-CAP	nom. $V_{OUT} = 5\text{VDC}$		100mVp-p
			nom. $V_{OUT} = 12\text{V}, 15\text{VDC}$		125mVp-p
		4.7 μF /50V X7R MLCC	nom. $V_{OUT} = 24\text{V}, 28\text{VDC}$		200mVp-p
			nom. $V_{OUT} = 48\text{V}, 54\text{VDC}$		300mVp-p

Note7: The ON/OFF control function can be positive or negative logic. The pin voltage is referenced to -Vin

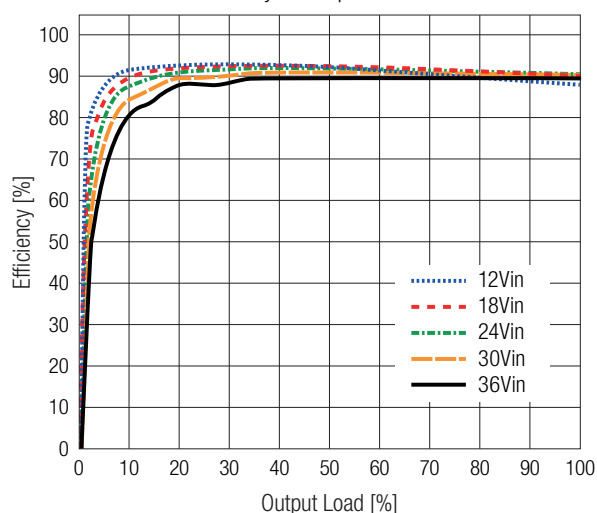
Note8: The test setup can have an impact on ripple noise values (placement of scope probe, capacitors, it's specifications, wires, PCB tracks, distances, etc.)

RP300H-4828SW

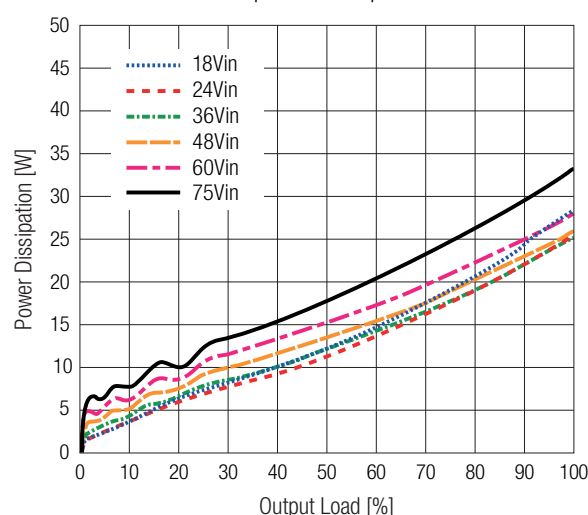
Efficiency vs. Output Load

**RP300H-2448SW**

Efficiency vs. Output Load



Power Dissipation vs. Output Load



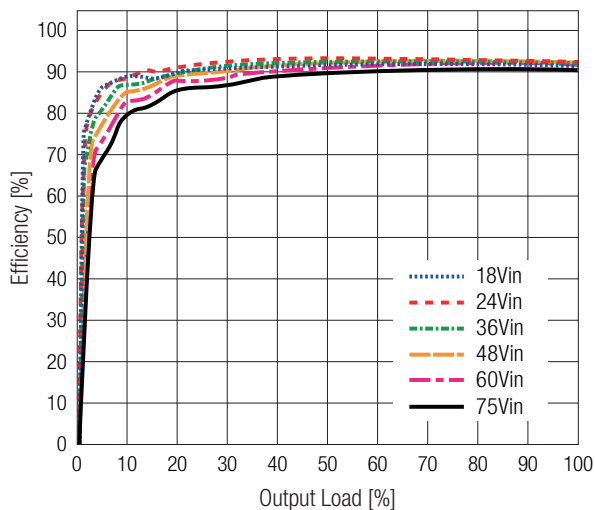
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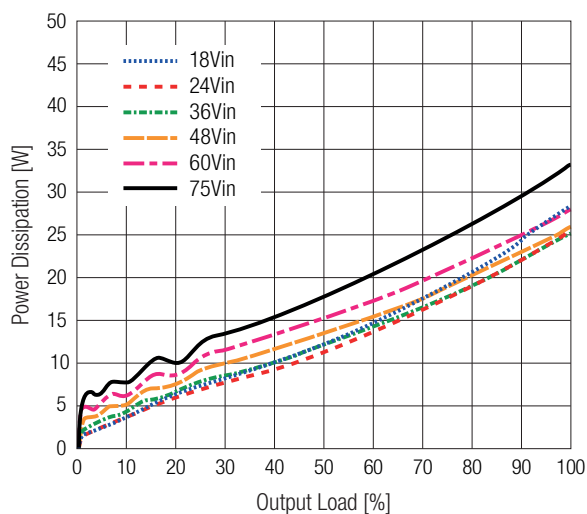
BASIC CHARACTERISTICS (measured @ $T_{AMB} = 25^{\circ}\text{C}$, nom. V_{IN} , full load and after warm-up unless otherwise stated)

RP300H-4828SW

Efficiency vs. Input Voltage

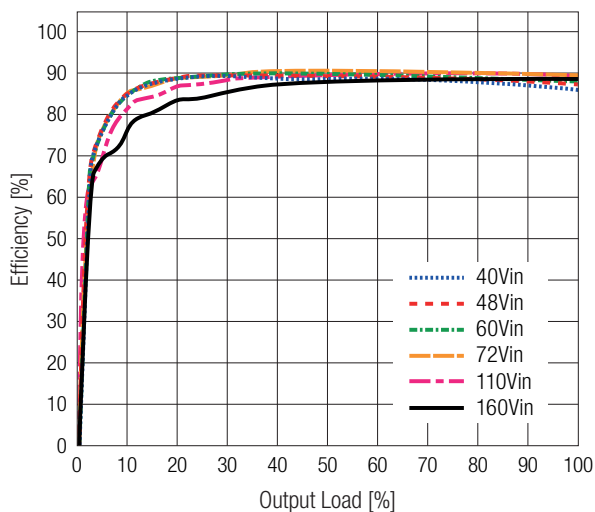


Power Dissipation vs. Output Load

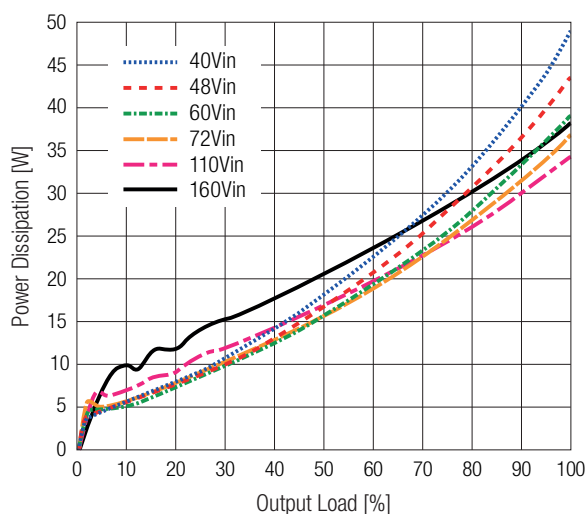


RP300H-11024SRW

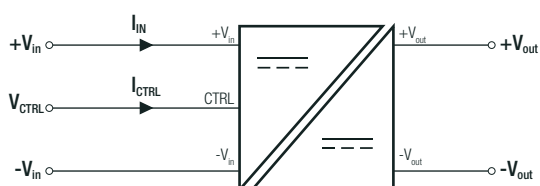
Efficiency vs. Input Voltage



Power Dissipation vs. Output Load



ON/OFF CTRL



Positive Logic

DC-DC ON

Open or 3VDC - 12VDC

DC-DC OFF

Short or 0VDC - 1.2VDC

Negative Logic

DC-DC ON

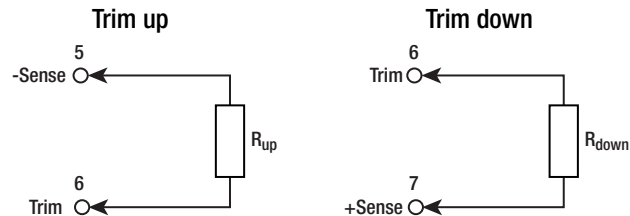
Short or 0VDC - 1.2VDC

DC-DC OFF

Open or 3VDC - 12VDC

OUTPUT VOLTAGE TRIMMING

It allows the user to increase or decrease the output voltage of the module. This is accomplished by connecting an external resistor between the Trim pin and either the +Vout or -Vout pins. With an external resistor between the Trim and -Vout pin, the output voltage increases. With an external resistor between the Trim and +Vout pin, the output voltage decreases. The external Trim resistor needs to be at least 1/8W of rated. The values for trim resistors shown in trim tables below are according to standard E96 values; therefore, the specified voltage may slightly vary.

**RP300H-xx05S(R)W**

Trim up	1	2	3	4	5	6	7	8	9	10	[%]
$V_{out_set} =$	5.05	5.1	5.15	5.2	5.25	5.3	5.35	5.4	5.45	5.5	[VDC]
$R_{up} (E96) \approx$	255k	124k	82k5	61k9	48k7	40k2	34k8	30k1	26k1	22k6	[Ω]

Trim down	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	[%]
$V_{out_set} =$	4.95	4.9	4.85	4.8	4.75	4.7	4.65	4.6	4.55	4.5	[VDC]
$R_{down} (E96) \approx$	249k	121k	78k7	56k2	44k2	35k7	29k4	24k9	21k	18k2	[Ω]

Trim down	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	[%]
$V_{out_set} =$	4.45	4.4	4.35	4.3	4.25	4.2	4.15	4.1	4.05	4.0	[VDC]
$R_{down} (E96) \approx$	16k2	14k	12k4	11k	10k	8k87	7k87	7k15	6k34	5k62	[Ω]

RP300H-xx12S(R)W

Trim up	1	2	3	4	5	6	7	8	9	10	[%]
$V_{out_set} =$	12.12	12.24	12.36	12.48	12.60	12.72	12.84	12.96	13.08	13.2	[VDC]
$R_{up} (E96) \approx$	205k	100k	64k9	47k5	36k5	29k4	24k9	21k	17k9	15k8	[Ω]

Trim down	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	[%]
$V_{out_set} =$	11.88	11.76	11.64	11.52	11.4	11.28	11.16	11.04	10.92	10.8	[VDC]
$R_{down} (E96) \approx$	768k	383k	249k	182k	143k	118k	97k6	84k5	73k2	63k4	[Ω]

Trim down	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	[%]
$V_{out_set} =$	10.68	10.56	10.44	10.32	10.2	10.08	9.96	9.84	9.72	9.6	[VDC]
$R_{down} (E96) \approx$	56k2	51k1	45k3	41k2	37k4	34k	31k6	28k7	26k7	24k3	[Ω]

RP300H-xx15S(R)W

Trim up	1	2	3	4	5	6	7	8	9	10	[%]
$V_{out_set} =$	15.15	15.3	15.45	15.6	15.75	15.9	16.05	16.2	16.35	16.5	[VDC]
$R_{up} (E96) \approx$	162k	78k7	49k9	36k5	28k	22k6	18k7	15k8	13k3	11k5	[Ω]

Trim down	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	[%]
$V_{out_set} =$	14.85	14.7	14.55	14.4	14.25	14.1	13.95	13.8	13.65	13.5	[VDC]
$R_{down} (E96) \approx$	825k	402k	261k	191k	150k	124k	105k	88k7	76k8	68k1	[Ω]

Trim down	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	[%]
$V_{out_set} =$	13.35	13.2	13.05	12.9	12.75	12.6	12.45	12.3	12.15	12.0	[VDC]
$R_{down} (E96) \approx$	60k4	54k9	48k7	44k2	40k2	37k4	34k	30k9	28k7	26k7	[Ω]

RP300H-(R)W Series ◇ DC-DC Converter

300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

OUTPUT VOLTAGE TRIMMING

RP300H-xx24S(R)W

Trim up	1	2	3	4	5	6	7	8	9	10	[%]
$V_{out_set} =$	24.24	24.48	24.72	24.96	25.2	25.44	25.68	25.92	26.16	26.4	[VDC]
$R_{up}(E96) \approx$	576k	280k	182k	133k	105k	84k5	69k8	60k4	52k3	45k3	[Ω]
Trim down	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	[%]
$V_{out_set} =$	23.76	23.52	23.28	23.04	22.8	22.56	22.32	22.08	21.84	21.6	[VDC]
$R_{down}(E96) \approx$	4990k	2430k	1620k	1180k	931k	768k	649k	562k	487k	432k	[Ω]
Trim down	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	[%]
$V_{out_set} =$	21.36	21.12	20.88	20.64	20.4	20.16	19.92	19.68	19.44	19.2	[VDC]
$R_{down}(E96) \approx$	374k	348k	316k	287k	267k	243k	226k	210k	196k	182k	[Ω]

RP300H-xx28S(R)W

Trim up	1	2	3	4	5	6	7	8	9	10	[%]
$V_{out_set} =$	28.28	28.56	28.84	29.12	29.4	29.68	29.96	30.24	30.52	30.8	[VDC]
$R_{up}(E96) \approx$	487k	237k	154k	113k	86k6	69k8	59k	49k9	42k2	37k4	[Ω]
Trim down	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	[%]
$V_{out_set} =$	27.72	27.44	27.16	26.88	26.6	26.32	26.04	25.76	25.48	25.2	[VDC]
$R_{down}(E96) \approx$	4990k	2490k	1620k	1210k	953k	787k	665k	562k	499k	442k	[Ω]
Trim down	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	[%]
$V_{out_set} =$	24.92	24.64	24.36	24.08	23.8	23.52	23.24	22.96	22.68	22.4	[VDC]
$R_{down}(E96) \approx$	392k	357k	324k	294k	274k	249k	232k	215k	200k	187k	[Ω]

RP300H-xx48S(R)W

Trim up	1	2	3	4	5	6	7	8	9	10	[%]
$V_{out_set} =$	48.48	48.96	49.44	49.92	50.4	50.88	51.36	51.48	52.32	52.8	[VDC]
$R_{up}(E96) \approx$	316k	143k	86k6	59k	42k2	30k1	22k1	15k8	11k3	7k32	[Ω]
Trim down	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	[%]
$V_{out_set} =$	47.52	47.04	46.56	46.08	45.6	45.12	44.64	44.16	43.68	43.2	[VDC]
$R_{down}(E96) \approx$	6190k	3010k	2000k	1470k	1150k	953k	806k	681k	604k	536k	[Ω]
Trim down	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	[%]
$V_{out_set} =$	42.72	42.24	41.76	41.28	40.8	40.32	39.84	39.36	38.88	38.4	[VDC]
$R_{down}(E96) \approx$	475k	432k	392k	357k	324k	301k	274k	255k	237k	221k	[Ω]

RP300H-xx54S(R)W

Trim up	1	2	3	4	5	6	7	8	9	10	[%]
$V_{out_set} =$	54.54	55.08	55.62	56.16	56.7	57.24	57.78	58.32	58.86	59.4	[VDC]
$R_{up}(E96) \approx$	280k	124k	75k	48k7	34k	23k7	16k5	11k3	6k98	3k57	[Ω]
Trim down	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	[%]
$V_{out_set} =$	53.46	52.92	52.38	51.84	51.3	50.76	50.22	49.68	49.14	48.6	[VDC]
$R_{down}(E96) \approx$	6190k	3090k	2000k	1470k	1130k	953k	806k	698k	604k	536k	[Ω]
Trim down	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	[%]
$V_{out_set} =$	48.06	47.52	46.98	46.44	45.9	45.36	44.82	44.28	43.74	43.2	[VDC]
$R_{down}(E96) \approx$	475k	432k	392k	357k	324k	301k	280k	255k	237k	221k	[Ω]

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300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

SWITCHING CHARACTERISTICS

Parameter	Condition	Min.	Typ.	Max.
Switching Frequency Range		200kHz	245kHz	290kHz

REGULATIONS (measured @ $T_{AMB}=25^{\circ}\text{C}$, nom. V_{IN} , full load and after warm-up unless otherwise stated)

Parameter	Condition	Value
Output Accuracy		$\pm 1.0\%$ max.
Line Regulation	low line to high line, full load	$\pm 0.1\%$ max.
Load Regulation	0% to 100% load	$\pm 0.1\%$ max.
Transient Response	25% load step change	200 μs typ. / 250 μs max.

PROTECTIONS (measured @ $T_{AMB}=25^{\circ}\text{C}$, nom. V_{IN} , full load and after warm-up unless otherwise stated)

Parameter	Condition			Value
Short Circuit Protection (SCP)	below 100mΩ			continuous, automatic recovery
Over Voltage Protection (OVP)	hiccup mode			115% of V _{OUT} nom. min. / 140% of V _{OUT} nom. max.
Over Load Protection (OLP)	hiccup mode			120% of rated I _{OUT} min. / 150% of rated I _{OUT} max.
Over Temperature Protection (OTP)	internal temperature sensor			115°C typ.
Isolation Voltage ⁽⁹⁾	I/P to O/P	1 minute	nom. V _{IN} = 110VDC	3kVDC
	I/P (O/P) to case			1.5kVDC
	I/P to O/P		others	3kVDC
	I/P (O/P) to case			1.6kVDC
Isolation Resistance	V _{ISO} = 500VDC			1GΩ min.
Isolation Capacitance				2500pF max.
Insulation Grade	24V, 48Vin standard types			basic
	110Vin types			reinforced

Note7: For repeat Hi-Pot testing, reduce the time and/or the test voltage.

Note8: Refer to local safety regulations if input over-current protection is also required.

Note9: This power module is not internally fused. An input line fuse must always be used.

Recom suggests:

- For nom. $V_{IN}=24\text{VDC}$, fuse rating 50A, fast acting type
- For nom. $V_{IN}=48\text{VDC}$, fuse rating 25A, fast acting type
- For nom. $V_{IN}=110\text{VDC}$, fuse rating 12A, fast acting type

ENVIRONMENTAL (measured @ $T_{AMB}=25^{\circ}\text{C}$, nom. V_{IN} , full load and after warm-up unless otherwise stated)

Parameter	Condition			Value
Operating Temperature Range	refer to „Derating Graph“			-40°C to +105°C
Maximum Case Temperature				+105°C
Temperature Coefficient				±0.02%/K
Thermal Impedance	24V, 48Vin standard types only			6.1°C/W typ.
	mount on iron baseplate ⁽¹⁰⁾	110Vin types only		2.7°C/W typ.
	with heat sink			3.2°C/W typ.
Operating Altitude				5000m
Operating Humidity				5%-95% RH
Pollution Degree				PD2
Shock				according to MIL-STD-810F
Thermal Shock				according to MIL-STD-810F
Vibration				according to MIL-STD-810F
MTBF	according to MIL-HDBK-217F, G.B.	@full load	T _{AMB} = +25°C	519.8 x 10 ³ hours

Note10: The iron baseplate dimension is 482.6 x 88.9 x 1.6mm with height EIA standard 2U.

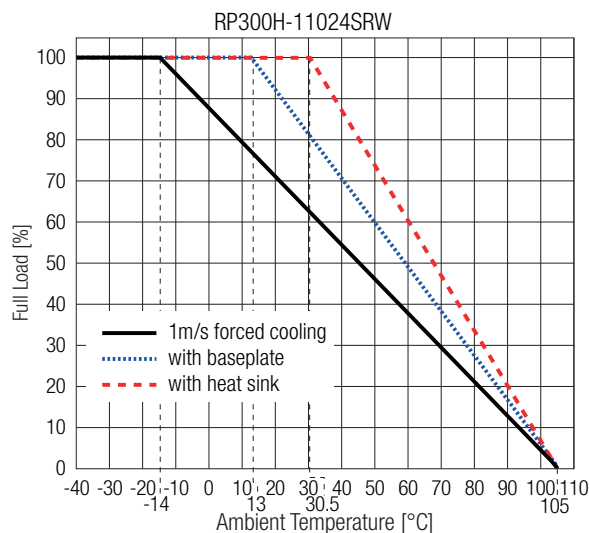
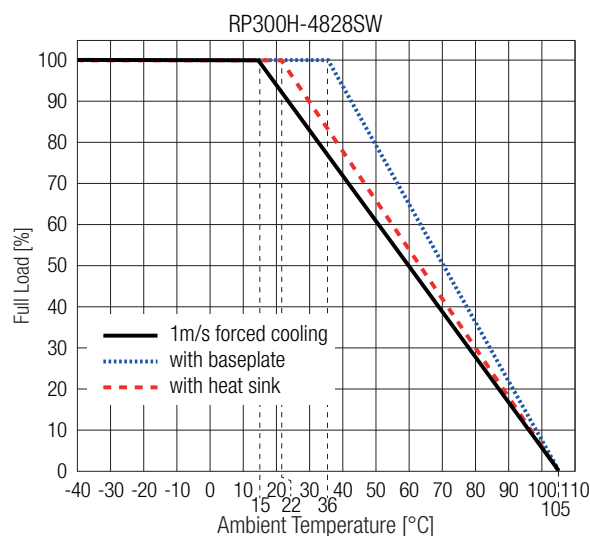
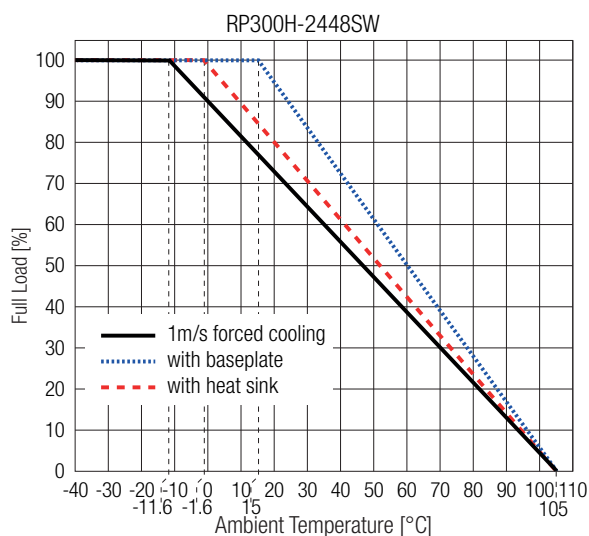
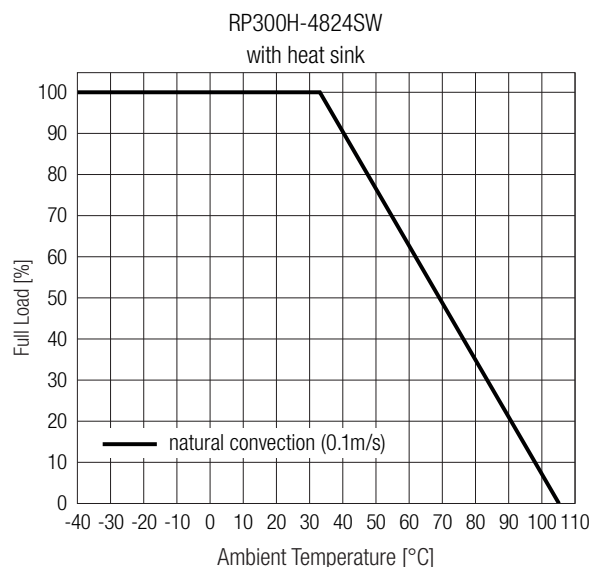
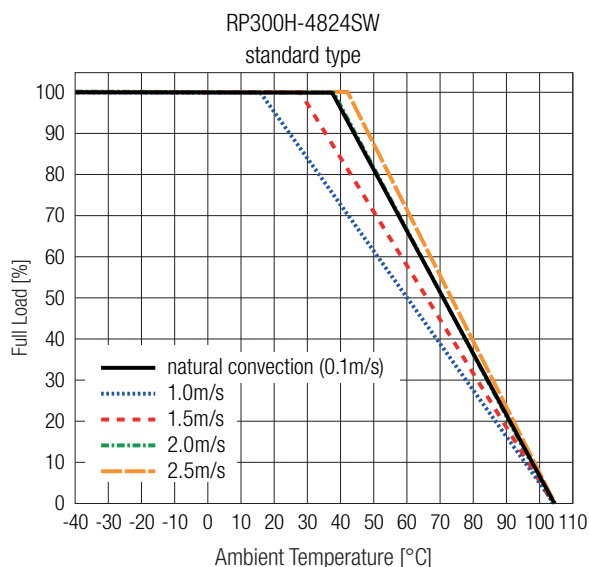
RP300H-(R)W Series ◇ DC-DC Converter

300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

ENVIRONMENTAL (measured @ $T_{AMB}=25^{\circ}\text{C}$, nom. V_{IN} , full load and after warm-up unless otherwise stated)

Derating Graph

(@natural convection (0.1m/s), vertical direction)



RP300H-(R)W Series ◇ DC-DC Converter

300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

SAFETY AND CERTIFICATION

Certificate Type (Safety)	Report / File Number	Standard
Audio/Video, information and communication technology equipment - Part1: Safety requirements	E196683	UL62368-1:2014 2nd Edition CAN/CSA-C22.2 No. 62368-1-14 2nd Edition
Audio/Video, information and communication technology equipment - Part1: Safety requirements	24V, 48Vin types	IEC62368-1:2018 3rd Edition EN IEC 62368-1:2020+A11:2020
Audio/Video, information and communication technology equipment - Part1: Safety requirements (LVD)	110Vin types	EN IEC 62368-1:2020+A11:2020
RoHS2		RoHS 2011/65/EU + AM2015/863

EMC Compliance	Condition	Standard / Criterion
Electromagnetic compatibility of multimedia equipment - Emission requirements	with external components ⁽¹²⁾	EN55032, Class A
Electromagnetic compatibility of multimedia equipment - Immunity requirements		EN55035
ESD Electrostatic discharge immunity test	Air: ±8kV, Contact: ±6kV	EN61000-4-2, Criteria A
Radiated, radio-frequency, electromagnetic field immunity test	20V/m	EN61000-4-3, Criteria A
Fast Transient and Burst Immunity ⁽¹³⁾	DC Power Port: ±2kV	EN61000-4-4, Criteria A
Surge Immunity ⁽¹³⁾	DC Power Port: ±2kV	EN61000-4-5, Criteria A
Immunity to conducted disturbances, induced by radio-frequency fields	DC Power Port: 10V _{rm}	EN61000-4-6, Criteria A
Power Magnetic Field Immunity	100A/m continuous, 1000A/m 1 second	EN61000-4-8, Criteria A

Note11: The power module operates to specification without external components, assuming a low-impedance source with stable voltage regulation. Highly inductive impedances may impact stability—add an external filter capacitor for real voltage sources.

Note12: For the EMI guidelines refer to [RECOM Website/ RP300H-\(R\)W/Documentation](http://www.recom-power.com/Website/Documentation)

Note13: Nom. V_{IN}= 24VDC models tested with 2pcs of aluminum electrolytic capacitors (220µF/100V) and a TVS (58V, 3000W peak pulse power) in parallel.
Nom. V_{IN}= 48VDC models tested with 2pcs of aluminum electrolytic capacitors (220µF/100V) and a TVS (120V, 3000W peak pulse power) in parallel.
Nom. V_{IN}= 110VDC models tested with 2pcs of aluminum electrolytic capacitors (220µF/200V) and a TVS (170V, 3000W peak pulse power) in parallel.

DIMENSION & PHYSICAL CHARACTERISTICS

Parameter	Type		Value
Material	case	nom. V _{IN} = 24VDC	metal
		nom. V _{IN} = 48VDC	
		nom. V _{IN} = 110VDC	aluminum baseplate with plastic case
	potting		silicone, (UL94 V-0)
	baseplate	nom. V _{IN} = 24VDC	FR4 PCB
		nom. V _{IN} = 48VDC	
		nom. V _{IN} = 110VDC	iron
Dimension (LxWxH)	without heat sink	all types	61.0 x 57.9 x 12.7 mm 2.4 x 2.28 x 0.5 inch
	with heat sink (" -HC")	all types	61.0 x 57.9 x 30.2 mm 2.4 x 2.28 x 1.19 inch
Weight	without heat sink	all types	107g typ 0.24 lbs
	with heat sink (" -HC")	all types	154.9g 0.3 lbs

RP300H-(R)W Series ◇ DC-DC Converter

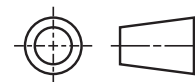
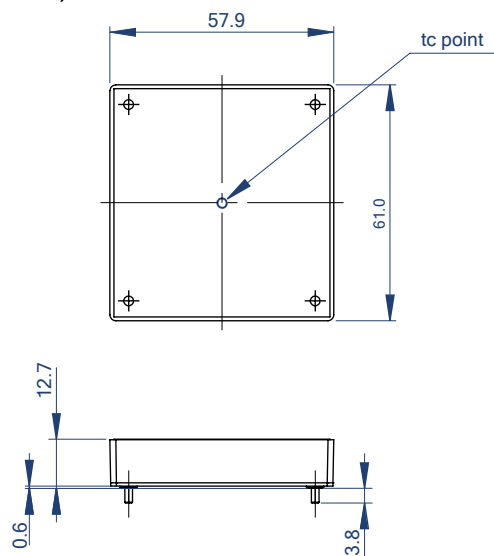
300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

RECOM
DC/DC Converter

DIMENSION & PHYSICAL CHARACTERISTICS

Dimension Drawing (mm)

nom. V_{IN} = 24V, 48VDC



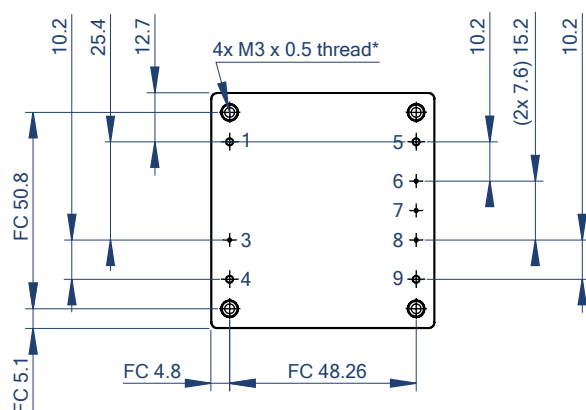
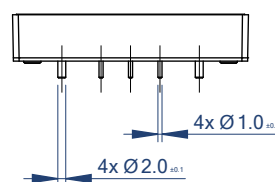
Pinning Information

Pin #	Single	Pin diameter
1	-Vin	2mm
3	CTRL	1mm
4	+Vin	2mm
5	-Vout	2mm
6	-Sense	1mm
7	Trim	1mm
8	+Sense	1mm
9	+Vout	2mm

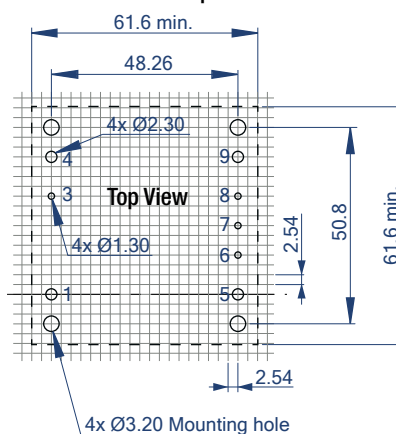
FC= fixing center

*screw locked torque:

MAX 3.5kgf-cm/0.34N-m



Recommended Footprint Detail



Tolerances:
x.x= ±0.5mm
x.xx= ±0.25mm

RP300H-(R)W Series ◇ DC-DC Converter

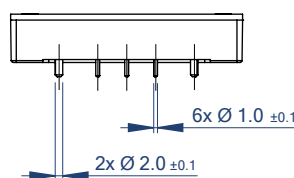
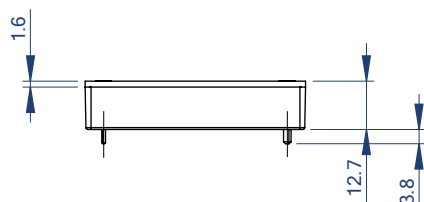
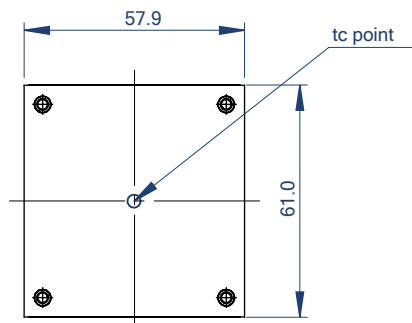
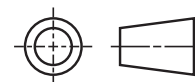
300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

RECOM
DC/DC Converter

DIMENSION & PHYSICAL CHARACTERISTICS

Dimension Drawing (mm)

nom. V_{IN} = 110VDC



Pinning Information

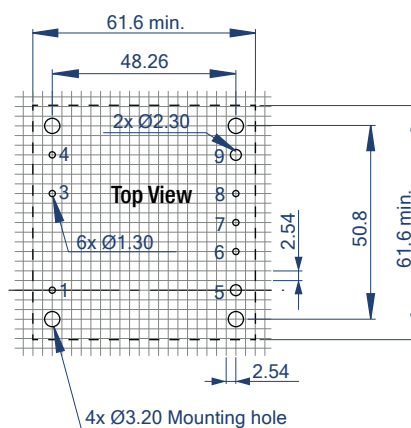
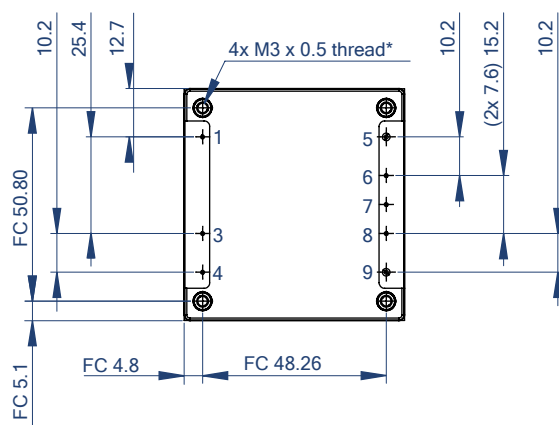
Pin #	Single	Pin diameter
1	-Vin	1mm
3	CTRL	1mm
4	+Vin	1mm
5	-Vout	2mm
6	-Sense	1mm
7	Trim	1mm
8	+Sense	1mm
9	+Vout	2mm

FC= fixing center

*screw locked torque:

MAX 3.5kgf-cm/0.34N-m

Recommended Footprint Detail



Tolerances:
x.x= ±0.5mm
x.xx= ±0.25mm

RP300H-(R)W Series ◇ DC-DC Converter

300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

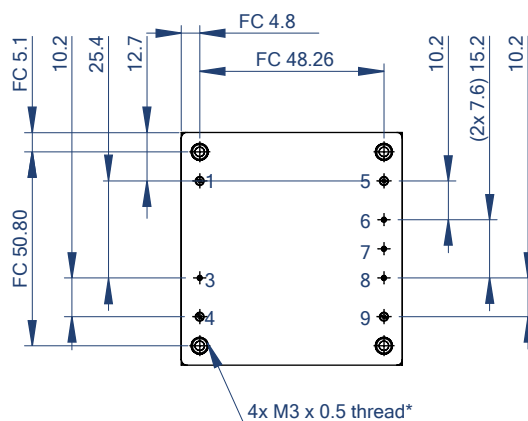
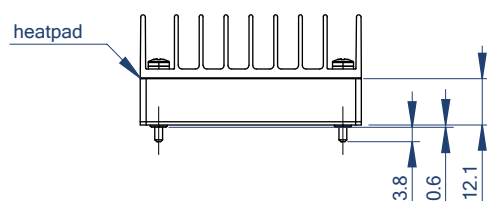
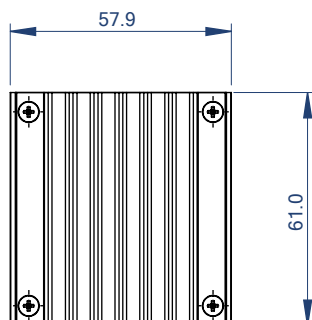
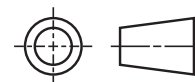
RECOM
DC/DC Converter

DIMENSION & PHYSICAL CHARACTERISTICS

Dimension Drawing (mm)

Heat sink option

nom. V_{IN} = 24V, 48VDC



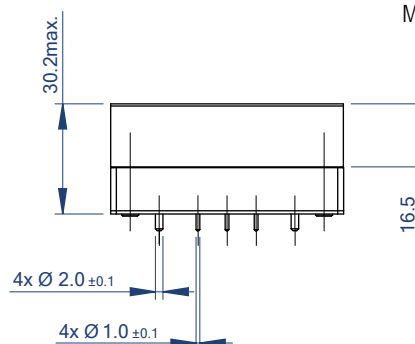
Pinning Information

Pin #	Single	Pin diameter
1	-Vin	2mm
3	CTRL	1mm
4	+Vin	2mm
5	-Vout	2mm
6	-Sense	1mm
7	Trim	1mm
8	+Sense	1mm
9	+Vout	2mm

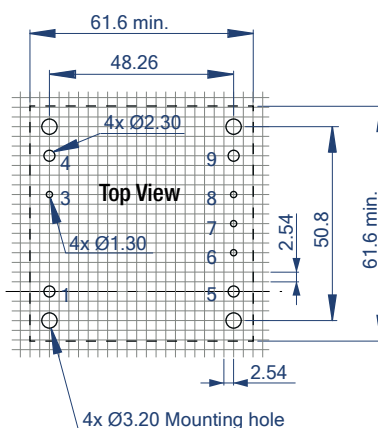
FC= fixing center

*screw locked torque:

MAX 3.5kgf-cm/0.34N-m



Recommended Footprint Detail



Tolerances:
x.x= ±0.5mm
x.xx= ±0.25mm

RP300H-(R)W Series ◇ DC-DC Converter

300W ◇ 4:1 Wide Input: 9V-36VDC / 18V-75VDC / 40V-160VDC

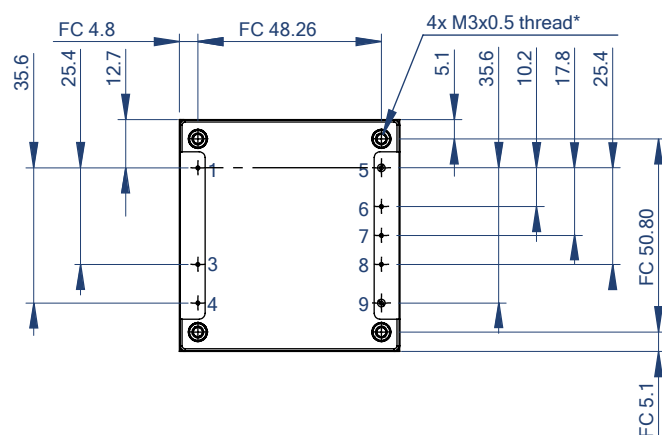
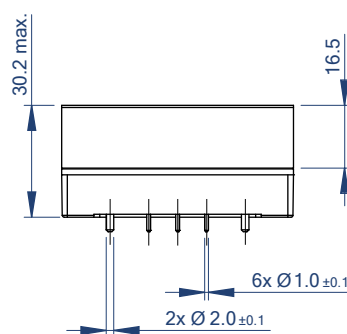
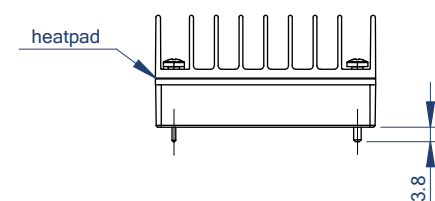
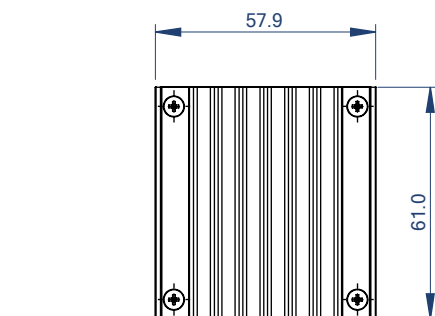
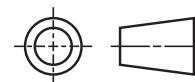
RECOM
DC/DC Converter

DIMENSION & PHYSICAL CHARACTERISTICS

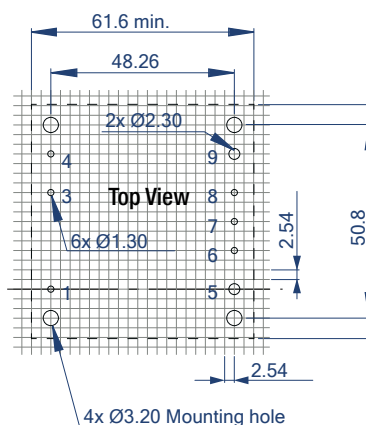
Dimension Drawing (mm)

Heat sink option

nom. V_{IN} = 110VDC



Recommended Footprint Detail



Pinning Information

Pin #	Single	Pin diameter
1	-Vin	1mm
3	CTRL	1mm
4	+Vin	1mm
5	-Vout	2mm
6	-Sense	1mm
7	Trim	1mm
8	+Sense	1mm
9	+Vout	2mm

FC= fixing center

*screw locked torque:

MAX 3.5kgf-cm/0.34N-m

Tolerances:
x.x= ±0.5mm
x.xx= ±0.25mm

PACKAGING INFORMATION

Parameter	Type		Value
Packaging Dimension (LxWxH)	single box	without heat sink	70.0 x 60.0 x 30.0mm
	cardboard box	with heat sink ("HC")	400.0 x 184.0 x 126.0mm
Packaging Quantity	single box	without heat sink	1pcs
	cardboard box	with heat sink ("HC")	30pcs
Storage Temperature Range			-55°C to +125°C
Storage Humidity	non-condensing		5% - 95% RH

The product information and specifications may be subject to changes even without prior written notice. The product has been designed for various applications; its suitability lies in the responsibility of each customer. The products are not authorized for use in safety-critical applications without RECOM's explicit written consent. A safety-critical application is an application where a failure may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The applicant shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.