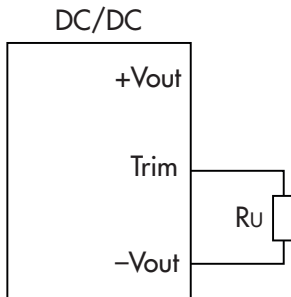


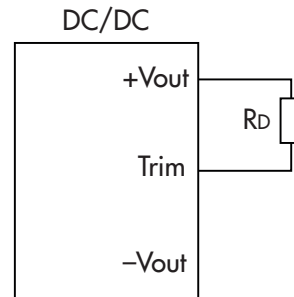
### Output Voltage Adjustment

Output voltage set point adjustment allows the user to increase or decrease the output voltage set point 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 set point increases. With an external resistor between the Trim and +Vout pin, the output voltage set point decreases. The external TRIM resistor needs to be at least 1/16 W of rated power.

#### Connection of trim up resistor



#### Connection of trim down resistor



#### Trim-Up equation

$$R_U[\Omega] = \frac{G \times L}{V_{out\_up} - L - K} - H$$

#### Trim-Down equation

$$R_D[\Omega] = \frac{(V_{out\_down} - L) \times G}{V_{out\_nom} - V_{out\_down}} - H$$

#### Trim constants

Model	G	H	K	L
TPP 40-105E-D TPP 65-105E-D	7'500	2'000	2.5	2.5
TPP 40-112E-D TPP 65-112E-D	51'000		9.5	
TPP 40-115E-D TPP 65-115E-D			12.5	
TPP 40-124E-D TPP 65-124E-D	120'000		21.5	
TPP 40-136E-D TPP 65-136E-D	270'000		33.5	
TPP 40-148E-D TPP 40-148E-D			45.5	

**Trim-Tables for single output converters**

TPP 40-105E-D / TPP 65-105E-D										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	5.05	5.10	5.15	5.20	5.25	5.30	5.35	5.40	5.45	5.50
R <sub>u</sub> [kOhm]	373.0	185.5	123.0	91.8	73.0	60.5	51.6	44.9	39.7	35.5
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	4.95	4.90	4.85	4.80	4.75	4.70	4.65	4.60	4.55	4.50
R <sub>p</sub> [kOhm]	365.5	178.0	115.5	84.3	65.5	53.0	44.1	37.4	32.2	28.0

TPP 40-112E-D / TPP 65-112E-D										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	12.12	12.24	12.36	12.48	12.60	12.72	12.84	12.96	13.08	13.20
R <sub>u</sub> [kOhm]	1'060.5	529.3	352.2	263.6	210.5	175.1	149.8	130.8	116.1	104.3
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	11.88	11.76	11.64	11.52	11.40	11.28	11.16	11.04	10.92	10.80
R <sub>p</sub> [kOhm]	3'984.5	1'965.8	1'292.8	956.4	754.5	619.9	523.8	451.7	395.6	350.8

TPP 40-115E-D / TPP 65-115E-D										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	16.50
R <sub>u</sub> [kOhm]	848.0	423.0	281.3	210.5	168.0	139.7	119.4	104.3	92.4	83.0
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	14.85	14.70	14.55	14.40	14.25	14.10	13.95	13.80	13.65	13.50
R <sub>p</sub> [kOhm]	4'197.0	2'072.0	1'363.7	1'009.5	797.0	655.3	554.1	478.3	419.2	372.0

**Trim-Tables for single output converters**

TPP 40-124E-D / TPP 65-124E-D										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	24.24	24.48	24.72	24.96	25.20	25.44	25.68	25.92	26.16	26.40
R <sub>u</sub> [kOhm]	1'248.0	623.0	414.7	310.5	248.0	206.3	176.6	154.3	136.9	123.0
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	23.76	23.52	23.28	23.04	22.80	22.56	22.32	22.08	21.84	21.60
R <sub>p</sub> [kOhm]	10'628.0	5'253.0	3'461.3	2'565.5	2'028.0	1'669.7	1'413.7	1'221.8	1'072.4	953.0

TPP 40-136E-D / TPP 65-136E-D										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	36.36	36.72	37.08	37.44	37.8	38.16	38.52	38.88	39.24	39.6
R <sub>u</sub> [kOhm]	1'873.0	935.5	623.0	466.8	373.0	310.5	265.9	232.4	206.3	185.5
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	35.64	35.28	34.92	34.56	34.2	33.84	33.48	33.12	32.76	32.4
R <sub>p</sub> [kOhm]	24'853.0	12'290.5	8'103.0	6'009.3	4'753.0	3'915.5	3'317.3	2'868.6	2'519.7	2'240.5

TPP 40-148E-D / TPP 65-148E-D										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	48.48	48.96	49.44	49.92	50.4	50.88	51.36	51.84	52.32	52.8
R <sub>u</sub> [kOhm]	1'404.3	701.1	466.8	349.6	279.3	232.4	198.9	173.8	154.3	138.6
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V <sub>out</sub> [V]	47.52	47.04	46.56	46.08	45.6	45.12	44.64	44.16	43.68	43.2
R <sub>p</sub> [kOhm]	25'321.8	12'524.9	8'259.3	6'126.4	4'846.8	3'993.6	3'384.3	2'927.2	2'571.8	2'287.4