

# RP230

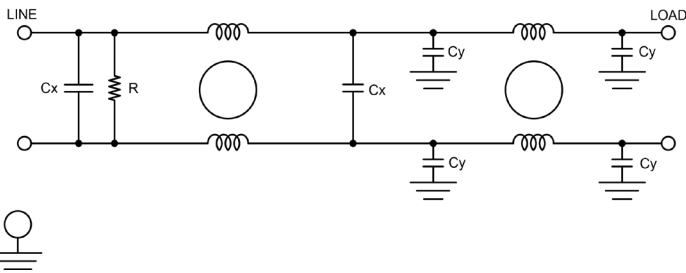
## HIGH PERFORMANCE DUAL STAGE POWER LINE FILTER

### FEATURES

- » Rated currents include **3.5A, 6.5A, 20A, 30A and 40A**
- » Dual Stage Line Filter
- » Available with **QD** tabs, **W** (wire), **S** (studs), and **C** (connector) option
- » Agency Approved to UL1283 / 60929, CSA C22.2, EN 60939
- » Y-cap value can be adjusted to fit specification



### ELECTRICAL SCHEMATIC



### SPECIFICATIONS

OPERATING FREQUENCY	50/60Hz
USABLE FREQUENCY	DC - 400 Hz
MAX. OPERATING VOLTAGE*	250 VAC / 300 VAC +10%
AMBIENT TEMPERATURE	-25 TO 40°C
CLIMATIC CATEGORY	25/100/21
TERMINALS (-T)	QD: 0.25" TABS WIRE LEADS STUD (M4) CONNECTORS
TYP. WEIGHT, LBS (KG)	0.7-3.1 (0.3-1.4)

### TYPICAL LEAKAGE CURRENT

@ 250 VAC 50 Hz	0 - 1.80 mA Max.
@ 120 VAC 60 Hz	0 - 0.90 mA Max.

### HIPOT RATINGS

LINE TO GROUND	2700 VDC
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### TYPICAL APPLICATIONS

- ✓ Household Appliances
- ✓ Automation Equipment
- ✓ Medical Devices
- ✓ Office Electronics
- ✓ Electronic Devices
- ✓ Noisy Applications
- ✓ Industrial Machinery

### HOW TO ORDER

RP230-X-Y-Z



**NOTE:** USE ANY COMBINATION OF -X (AMPS) WITH ANY -Y RATINGS

E.G. **RP230-6-2.2-QD** (6AMPS WITH 2.2 NF YCAP)

For **X, Y** and **Z** options see product specification table.

# RP230

## HIGH PERFORMANCE DUAL STAGE POWER LINE FILTER

MODEL NO.	RATED CURRENT, A @ 40° C	Y-CAP, nF	LEAKAGE CURRENT, mA @ 250V AC, 50 Hz / @ 120V AC, 60 Hz		TERMINAL OPTIONS				MAX. DIMENSIONS" (MM)		
					(QD) IN/ OUTPUT	(W) IN/ OUTPUT	(S) IN/ OUTPUT	(C) IN/ OUTPUT	WIDTH	(LENGTH)	HEIGHT
RP230-3.5-0-QD	3.5	0	-	-	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-3.5-0-W	3.5	0	-	-		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-3.5-47-QD	3.5	0.47	0.07	0.04	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-3.5-47-W	3.5	0.47	0.07	0.04		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-3.5-1-QD	3.5	1	0.15	0.09	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-3.5-1-W	3.5	1	0.15	0.09		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-3.5-2.2-QD	3.5	2.2	0.34	0.19	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-3.5-2.2-W	3.5	2.2	0.34	0.19		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-3.5-4.7-QD	3.5	4.7	0.73	0.42	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-3.5-4.7-W	3.5	4.7	0.73	0.42		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-3.5-10-QD	3.5	10	1.57	0.90	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-3.5-10-W	3.5	10	1.57	0.90		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-6.5-0-QD	6.5	0	-	-	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-6.5-0-W	6.5	0	-	-		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-6.5-47-QD	6.5	0.47	0.07	0.04	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-6.5-47-W	6.5	0.47	0.07	0.04		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-6.5-1-QD	6.5	1	0.15	0.09	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-6.5-1-W	6.5	1	0.15	0.09		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-6.5-2.2-QD	6.5	2.2	0.34	0.19	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-6.5-2.2-W	6.5	2.2	0.34	0.19		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-6.5-4.7-QD	6.5	4.7	0.73	0.42	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-6.5-4.7-W	6.5	4.7	0.73	0.42		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-6.5-10-QD	6.5	10	1.57	0.90	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-6.5-10-W	6.5	10	1.57	0.90		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-20-0-QD	20	0	-	-	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-20-0-S	20	0	-	-			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-20-0-W	20	0	-	-		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-20-47-QD	20	0.47	0.07	0.04	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-20-47-S	20	0.47	0.07	0.04			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-20-47-W	20	0.47	0.07	0.04		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-20-1-QD	20	1	0.15	0.09	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-20-1-S	20	1	0.15	0.09			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-20-1-W	20	1	0.15	0.09		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-20-2.2-QD	20	2.2	0.34	0.19	✓				2.05"(52)	3.45"(87.72)	1.61"(41)

ADDITIONAL MODEL NO. >>

# RP230

## HIGH PERFORMANCE DUAL STAGE POWER LINE FILTER

MODEL NO.	RATED CURRENT, A @ 40° C	Y-CAP, nF	LEAKAGE CURRENT, mA @ 250V AC, 50 Hz / @ 120V AC, 60 Hz		TERMINAL OPTIONS				MAX. DIMENSIONS" (MM)		
					(QD) IN/ OUTPUT	(W) IN/ OUTPUT	(S) IN/ OUTPUT	(C) IN/ OUTPUT	WIDTH	(LENGTH)	HEIGHT
RP230-20-2.2-S	20	2.2	0.34	0.19			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-20-2.2-W	20	2.2	0.34	0.19		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-20-4.7-QD	20	4.7	0.73	0.42	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-20-4.7-S	20	4.7	0.73	0.42			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-20-4.7-W	20	4.7	0.73	0.42		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-20-10-QD	20	10	1.57	0.90	✓				2.05"(52)	3.45"(87.72)	1.61"(41)
RP230-20-10-S	20	10	1.57	0.90			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-20-10-W	20	10	1.57	0.90		✓			2.05"(52)	3.35"(85)	1.61"(41)
RP230-30-0-C	30	0	-	-				✓	*	*	*
RP230-30-0-S	30	0	-	-			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-30-0-W	30	0	-	-		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-30-0.47-C	30	0.47	0.07	0.04				✓	*	*	*
RP230-30-0.47-S	30	0.47	0.07	0.04			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-30-0.47-W	30	0.47	0.07	0.04		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-30-1-C	30	1	0.15	0.09				✓	*	*	*
RP230-30-1-S	30	1	0.15	0.09			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-30-1-W	30	1	0.15	0.09		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-30-2.2-C	30	2.2	0.34	0.19				✓	*	*	*
RP230-30-2.2-S	30	2.2	0.34	0.19			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-30-2.2-W	30	2.2	0.34	0.19		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-30-4.7-C	30	4.7	0.73	0.42				✓	*	*	*
RP230-30-4.7-S	30	4.7	0.73	0.42			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-30-4.7-W	30	4.7	0.73	0.42		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-30-10-C	30	10	1.57	0.90				✓	*	*	*
RP230-30-10-S	30	10	1.57	0.90			✓		2.05"(52)	3.90"(99)	1.61"(41)
RP230-30-10-W	30	10	1.57	0.90		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-40-0-C	40	0	-	-				✓	*	*	*
RP230-40-0-S	40	0	-	-			✓		2.24"(57)	6.46"(164)	2.11"(53.6)
RP230-40-0-W	40	0	-	-		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-40-0.47-C	40	0.47	0.07	0.04				✓	*	*	*
RP230-40-0.47-S	40	0.47	0.07	0.04			✓		2.24"(57)	6.46"(164)	2.11"(53.6)
RP230-40-0.47-W	40	0.47	0.07	0.04		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-40-1-C	40	1	0.15	0.09				✓	*	*	*
RP230-40-1-S	40	1	0.15	0.09			✓		2.24"(57)	6.46"(164)	2.11"(53.6)

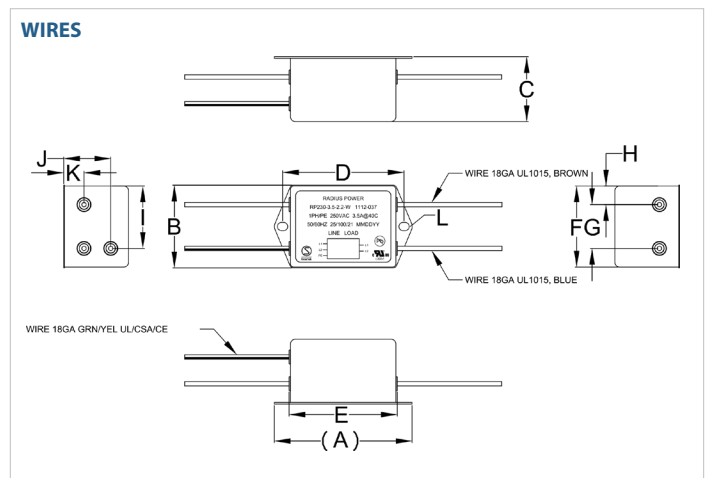
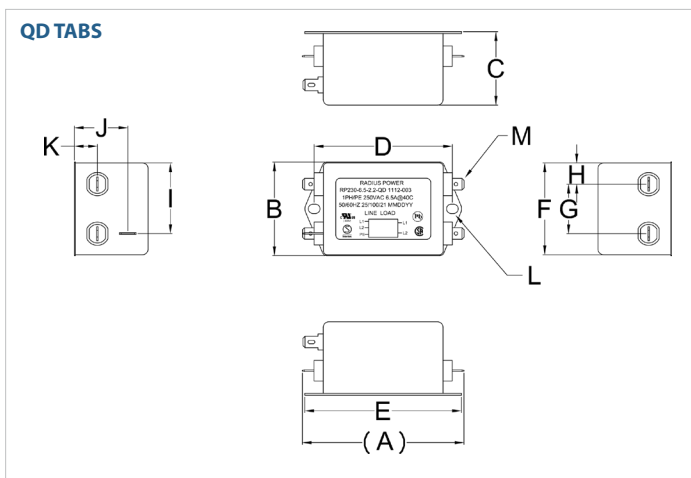
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MODEL NO.	RATED CURRENT, A @ 40° C	Y-CAP, nF	LEAKAGE CURRENT, mA @ 250V AC, 50 Hz / @ 120V AC, 60 Hz		TERMINAL OPTIONS				MAX. DIMENSIONS" (MM)		
					(QD) IN/ OUTPUT	(W) IN/ OUTPUT	(S) IN/ OUTPUT	(C) IN/ OUTPUT	WIDTH	(LENGTH)	HEIGHT
RP230-40-1-W	40	1	0.15	0.09		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-40-2.2-C	40	2.2	0.34	0.19				✓	*	*	*
RP230-40-2.2-S	40	2.2	0.34	0.19			✓		2.24"(57)	6.46"(164)	2.11"(53.6)
RP230-40-2.2-W	40	2.2	0.34	0.19		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-40-4.7-C	40	4.7	0.73	0.42				✓	*	*	*
RP230-40-4.7-S	40	4.7	0.73	0.42			✓		2.24"(57)	6.46"(164)	2.11"(53.6)
RP230-40-4.7-W	40	4.7	0.73	0.42		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)
RP230-40-10-C	40	10	1.57	0.90				✓	*	*	*
RP230-40-10-S	40	10	1.57	0.90			✓		2.24"(57)	6.46"(164)	2.11"(53.6)
RP230-40-10-W	40	10	1.57	0.90		✓			2.24"(57)	5.99"(152.1)	2.11"(53.6)

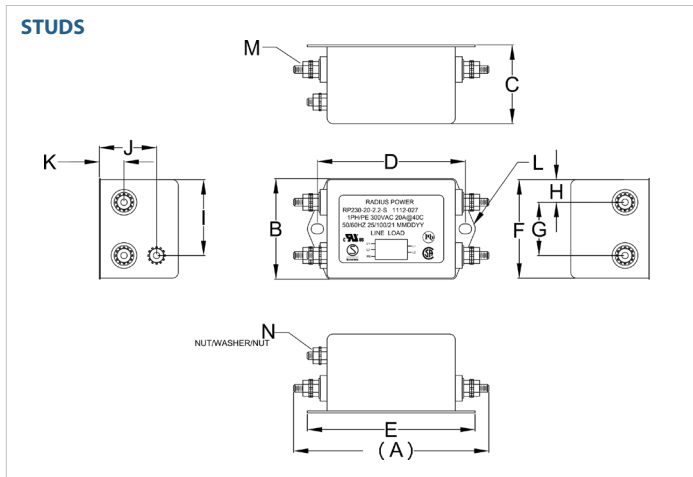
\*Contact factory for dimensions.

### RP230 MECHANICAL OUTLINES (MM)



# RP230

## HIGH PERFORMANCE DUAL STAGE POWER LINE FILTER



SERIES	(A)	B	C	D	E	F	G	H	I	J	K	L	M	N
<b>QD TABS</b> <b>(3.5-6.5A)</b>	3.45" (87.72)	2.05" (52)	1.61" (41)	2.95" (75)	3.35" (85)	2.05" (52)	1.06" (27)	0.45" (11.5)	1.52" (38.5)	1.14" (29)	0.49" (12.5)	Ø 0.25"x5.1, 2x Ø 6.4x5.1, 2x	0.25", 5x QD, MALE, 6.35, 5x	N/A
<b>WIRES</b> <b>(3.5-6.5A)</b>	3.35" (85)	2.05" (52)	1.61" (41)	2.95" (75)	2.63" (66.78)	2.01" (51)	1.06" (27)	0.45" (11.5)	1.52" (38.5)	1.14" (29)	0.49" (12.5)	Ø 0.25"x5.1, 2x Ø 6.4x5.1, 2x	N/A	N/A
<b>STUDS</b> <b>(20A)</b>	3.90" (99)	2.05" (52)	1.61" (41)	2.95" (75)	3.35" (85)	2.01" (51)	1.06" (27)	0.45" (11.5)	1.52" (38.5)	1.14" (29)	0.49" (12.5)	Ø 0.25"x5.1, 2x Ø 6.4x5.1, 2x	STUD, M4, 4x	STUD, GND, M4
<b>WIRES</b> <b>(30-40A)</b>	5.99" (152.1)	2.24" (57)	2.07" (53.6)	5.99" (152.1)	5.56" (141.34)	2.24" (57)	1.14" (29)	0.53" (13.5)	1.67" (42.5)	1.38" (35)	0.59" (15)	Ø 0.25"x5.3, 2x Ø 6.4x5.3, 2x	RING LUG 12-10AWG, #10. 5x	N/A
<b>STUDS</b> <b>(30-40A)</b>	6.46" (164)	2.24" (57)	2.07" (53.6)	5.99" (152.1)	6.00" (152.3)	2.24" (57)	1.14" (29)	0.53" (13.5)	1.67" (42.5)	1.38" (35)	0.59" (15)	Ø 0.25"x5.3, 2x Ø 6.4x5.3, 2x	STUD, M4, 4x	STUD, GND, M4

TYPICAL TOLERANCE: +/-0.02" (0.50MM)

### TYPICAL INSERTION LOSS, dB (50/50 Ohm)

Amps	Freq (MHz)	Insertion Loss (dB)				
		0.15	0.5	1.0	10	30
3.5	CM (dB)	60	62	62	52	45
	DM (dB)	40	60	68	60	60
6.5	CM (dB)	60	62	62	50	40
	DM (dB)	40	60	68	60	60
20	CM (dB)	24	46	50	60	50
	DM (dB)	25	40	60	65	65
30	CM (dB)	42	50	55	65	60
	DM (dB)	60	60	65	65	65
40	CM (dB)	28	44	55	60	60
	DM (dB)	50	52	65	65	65