

DC Power supply RE series

10V to 650V, 750W to 15kW

1086-03Aa-1



For aging of electrical parts

For testing and aging of semiconductor, capacitors, various display devices, PCBs and electrical components

For surface treatment

For various surface treatment such as metal plating

For water treatment

For water treatment such as manufacturing ultrapure water and treating waste water

Research, development and other applications

Suitable for various application such as magnet coils, motor drives and heating.

Revolution of power supply!! Ultra slim high-power power supply.

Our original switching technology has realized high power, compactness and high efficiency of DC power supply RE series.

Decreased heat release coupled with its compactness of 1/10 the size and 1/20 the weight of conventional power supply have enabled high-density mounting. Also RE's low power consumption contributes to low running cost and environmental issues. Various remote control and monitor functions are standard equipment and interface for computer control can be added as optional. These enable RE to support various systems.

The best model can be chosen depending on the application from wide line-up of 118 models, from 10V to 650V, and 750W to 15kW.

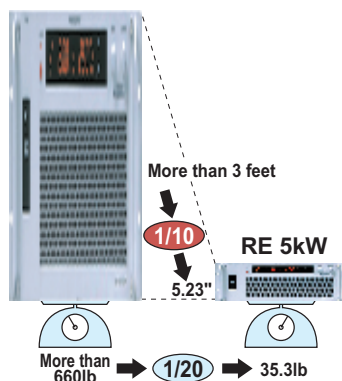
Upgrading of up to 60kW is possible with master / slave option.

FEATURES

Ultra compact · Ultra slim · Ultra light

Front panel of 1.2kW type is as thin as 1.73". Even 15kW type is only 5.23" height, making it possible to store power supply in rack cabinet.

Introducing power supplies is often costly with changing layout or addition of lab. Ultra compact RE can keep unnecessary cost to the minimum. It can be located any corner of lab and also can be shared among engineers to bring it anytime, anywhere when needed.



Full of remote functions!

It is equipped with status signal output that shows the status of power supply such as monitor for output voltage and current, operation mode of CV/CC, over voltage, over temperature, AC voltage brownout, etc. as well as output voltage and current control, output ON/OFF and OVP setting being able to be controlled remotely.

Also it can be computer controlled by mounting interface of GPIB, RS-232C, RS-485 and USB optionally. Integrated system of other measuring instruments and control device can be constructed to speed up testing and development. It is also easy to construct a system in combination with high-voltage power supply (maximum 150kV) from Matsusada Precision.

Wide range of lineups

The best model for your application can be chosen from 118 models, from 10V to 650V, from 1.2A to 1000A. 750W, 1.2kW, 2kW, 3kW, 4kW, 5kW, 7.5kW, 10kW, (12kW) and 15kW are available for models of the same output voltage. You don't need to select an excessive model and waste your investment.

Complete protection circuit!

• **Over voltage protection (OVP)**
Output is cut off at a set voltage value to protect load from over voltage. OVP value for cut-off can be set with volume on front panel or external control voltage. In the case output voltage is adjusted externally.

• **Over temperature protection (OTP)**
Output is cut off when the temperature inside the power supply gets beyond the specific temperature.

• **Input brownout (ACF)**
Output is cut off when AC input voltage goes down to less than 80% of rating, to prevent too much current being input.

• **Blackout protection**
Prevents danger caused by output being turned ON accidentally when recovery after the output being turned OFF due to blackout. Blackout protection can be canceled when application requires to turn ON and OFF the output by AC ON/OFF.

■ LINEUP

Output Voltage (V)	Output Current (A)	Output power (kW)	MODEL	Ripple (mVrms)	Ripple (mA _{rms})
0 to 10	0 to 75	750W	RE10-75	10	150
	0 to 110	1.1	RE10-110	10	220
	0 to 200	2	RE10-200	10	400
	0 to 300	3	RE10-300	15	600
	0 to 400	4	RE10-400	15	800
	0 to 450	4.5	RE10-450	30	900
	0 to 750	7.5	RE10-750	35	6A
	0 to 1000	10	RE10-1000	45	8A
0 to 15	0 to 50	750W	RE15-50	10	100
	0 to 80	1.2	RE15-80	10	160
	0 to 120	1.8	RE15-120	10	250
	0 to 200	3	RE15-200	10	400
	0 to 250	3.75	RE15-250	15	500
	0 to 300	4.5	RE15-300	15	600
	0 to 500	7.5	RE15-500	30	2.5A
	0 to 700	10.5	RE15-700	35	3.5A
0 to 20	0 to 38	750W	RE20-38	10	80
	0 to 60	1.2	RE20-60	10	120
	0 to 100	2	RE20-100	10	200
	0 to 150	3	RE20-150	15	300
	0 to 200	4	RE20-200	15	400
	0 to 250	5	RE20-250	30	500
	0 to 375	7.5	RE20-375	35	2.9A
	0 to 500	10	RE20-500	35	3.8A
0 to 600	12	RE20-600	35	4.2A	
0 to 30	0 to 25	750W	RE30-25	10	50
	0 to 40	1.2	RE30-40	15	80
	0 to 65	1.95	RE30-65	20	130
	0 to 100	3	RE30-100	20	200
	0 to 130	3.9	RE30-130	30	260
	0 to 170	5.1	RE30-170	30	340
	0 to 250	7.5	RE30-250	30	1.3A
	0 to 350	10.5	RE30-350	30	1.8A
0 to 400	12	RE30-400	30	2A	
0 to 35	0 to 22	750W	RE35-22	10	50
	0 to 34	1.2	RE35-34	10	70
	0 to 60	2.1	RE35-60	20	120
	0 to 85	3	RE35-85	20	170
	0 to 115	4	RE35-115	20	230
	0 to 140	4.9	RE35-140	30	280
	0 to 215	7.5	RE35-215	35	1.8A
	0 to 300	10.5	RE35-300	35	2A
0 to 340	12	RE35-340	35	2.4A	
0 to 45	0 to 17	765W	RE45-17	18	40
	0 to 27	1.2	RE45-27	18	60
	0 to 45	2	RE45-45	30	90
	0 to 66	3	RE45-66	30	130
	0 to 90	4	RE45-90	30	180
	0 to 110	5	RE45-110	45	220
	0 to 165	7.5	RE45-165	45	750
	0 to 220	9.9	RE45-220	45	1.1A
0 to 260	11.7	RE45-260	45	1.3A	
0 to 60	0 to 12.5	750W	RE60-12.5	20	25
	0 to 20	1.2	RE60-20	20	40
	0 to 35	2.1	RE60-35	15	70
	0 to 50	3	RE60-50	20	100
	0 to 67	4	RE60-67	20	135
	0 to 83	5	RE60-83	30	170
	0 to 125	7.5	RE60-125	60	1A
	0 to 170	10.2	RE60-170	60	1.2A
0 to 200	12	RE60-200	60	1.4A	

Output Voltage (V)	Output Current (A)	Output power (kW)	MODEL	Ripple (mVrms)	Ripple (mA _{rms})
0 to 100	0 to 7.5	750W	RE100-7.5	20	15
	0 to 12	1.2	RE100-12	20	25
	0 to 20	2	RE100-20	20	40
	0 to 30	3	RE100-30	30	60
	0 to 40	4	RE100-40	30	80
	0 to 50	5	RE100-50	40	100
	0 to 75	7.5	RE100-75	100	600
	0 to 100	10	RE100-100	100	800
	0 to 150	15	RE100-150	100	1A
	0 to 150	0 to 5	750W	RE150-5	30
0 to 8		1.2	RE150-8	30	20
0 to 14		2.1	RE150-14	25	30
0 to 20		3	RE150-20	30	40
0 to 27		4	RE150-27	30	55
0 to 33		5	RE150-33	60	70
0 to 50		7.5	RE150-50	150	400
0 to 70		10.5	RE150-70	150	500
0 to 100		15	RE150-100	150	700
0 to 200		0 to 3.8	750W	RE200-3.8	40
	0 to 6	1.1	RE200-6	40	15
	0 to 10	2	RE200-10	40	20
	0 to 15	3	RE200-15	40	30
	0 to 20	4	RE200-20	200	40
	0 to 25	5	RE200-25	200	50
	0 to 37	7.5	RE200-37	200	280
	0 to 50	10	RE200-50	200	380
	0 to 75	15	RE200-75	200	530
	0 to 300	0 to 2.5	750W	RE300-2.5	50
0 to 4		1.2	RE300-4	50	10
0 to 6.5		2	RE300-6.5	50	15
0 to 10		3	RE300-10	50	20
0 to 13		3.9	RE300-13	300	30
0 to 16		4.8	RE300-16	300	35
0 to 25		7.5	RE300-25	300	200
0 to 35		10.5	RE300-35	300	250
0 to 50		15	RE300-50	300	350
0 to 21		7.35	RE350-21	350	150
0 to 350	0 to 28	9.8	RE350-28	350	200
	0 to 42	14.7	RE350-42	350	300
	0 to 1.5	750W	RE500-1.5	150	5
	0 to 2.4	1.2	RE500-2.4	150	5
	0 to 4	2	RE500-4	150	10
	0 to 6	3	RE500-6	150	15
	0 to 8	4	RE500-8	500	20
	0 to 10	5	RE500-10	500	20
0 to 500	0 to 15	7.5	RE500-15	500	230
	0 to 20	10	RE500-20	500	160
	0 to 30	15	RE500-30	500	210
	0 to 1.2	750W	RE650-1.2	200	5
	0 to 1.8	1.2	RE650-1.8	200	5
	0 to 3	2	RE650-3	200	10
	0 to 4.5	2.9	RE650-4.5	200	10
	0 to 6	3.9	RE650-6	650	15
	0 to 7.7	5	RE650-7.7	650	20
	0 to 11	7.5	RE650-11	650	100
0 to 650	0 to 16	10.4	RE650-16	650	120
	0 to 23	15	RE650-23	650	160

· UL marked model is available. please ask to sales offices.

SPECIFICATIONS

Output control Local: Constant voltage: 10-turn potentiometer on front panel
Constant current: 10-turn potentiometer on front panel

Remote: Constant voltage: external control voltage 0Vdc to 10Vdc
or external variable resistor 0Ω to 10kΩ
Constant current: external control voltage 0Vdc to 10Vdc
or external variable resistor 0Ω to 10kΩ

Output display Output voltage: 3-digit digital meter (accuracy is 1%FS ±1dgt)
Output current: 3-digit digital meter (accuracy is 1%FS±1dgt)

Monitor output Output voltage monitor: 10V / maximum output voltage
Output current monitor: 10V / maximum output current

Protection function Over voltage protection (OVP)
Output is cut off at a set value.
Over temperature protection (OTP)
Output is cut off when internal part is heated abnormally.
Input brownout(ACF)-Blackout protection
Output is cut off when input decreased by 20% or more.

Other functions Remote sensing
Remote switch ON/OFF (TTL or external relay)
Status signal output (CV, CC, FLT)

Transient response time Recovery time 1ms (for 70⇔100% load change)

Operation temperature 0°C to +50°C(750W to 5.1kW)
0°C to +40°C(7.35kW to 15kW)

Storage temperature -40°C to +85°C

Strage humidity 0% to 80% RH (no condensation)

Dielectric voltage Between input power supply and power supply, and between
output terminals and chassis is AC1500V:1 minute

INPUT VOLTAGE / CURRENT

MODEL	Input voltage (±10%) (AC50/60Hz)		Phase
	Output voltage		
750W to 765W	115V		1Ø
	230V		
1.1kW to 1.2kW	115V		1Ø
	230V		
1.8kW to 2.1kW	220V		1Ø
			3Ø
2.9kW to 3kW	220V		3Ø
			3Ø
3.75kW to 4kW	220V		3Ø
			3Ø
4.5kW to 5.1kW	220V		3Ø
			3Ø
7.35kW to 7.5kW	10V, 15V	220V	3Ø
	20V to 60V	220V	3Ø
	over 100V	220V	3Ø
9.8kW to 10.5kW	10V, 15V	220V	3Ø
	20V to 60V	220V	3Ø
	over 100V	220V	3Ø
11.7kW to 15kW	220V		3Ø

DIMENSIONS inch(mm)

19" rack type(all model)

OPTIONS

-LGb GPIB interface board^{※1}

-LGob Optical interface board^{※1}

…Insulation control with optical communication. See catalog of digital control for optical conversion of each interface. (GPIB/RS-232C/RS-485/USB)

-LUs1 USB interface board^{※1}

-LIs Isolated remote control^{※1,※2}

…Output control signal is isolated from common(=output⊖) so that floating of control signal is not required when negative output operation or series connection (isolation voltage from output⊖ is below 250V)

-LMs Master slave control (models of less than 12kW)

…Maximum of four slave machines can be controlled from one master machine (within the range where total of maximum rating is less than 60kW). Master machine can be controlled not only by standard remote control but also LGb, LGob, LIs.

-LLp 10-turn potentiometer with lock (both voltage and current)
…only for models less than 300V

-LPfc Power factor correction circuit (3Ø input of 3.75kW to 7.5kW type only)
…The depth of 7.35kW to 7.5kW type when this option is mounted is 610mm.

-L(200V) 115V of above INPUT VOLTAGE / CURRENT table become 100V, and 230V become 200V. Input current is about 115% of Input current. 220V(3Ø) become 200V. Input current is about 110% of Input current.

-L(220V) 115V of above INPUT VOLTAGE / CURRENT table become 110V, and 230V become 220V. Input current is about 105% of Input current.

-L(240V) 115V of above INPUT VOLTAGE / CURRENT table become 120V, and 230V become 240V. Input current is about 95% of Input current. 220V(3Ø) become 240V. Input current is about 90% of Input current.

-L(1P) 220V 1Ø input. Only for 2.9kW to 3kW model.
Input current 25A, rush current 100A.

Input cable for AC1Ø (3-conductor type)

2.5 meters. Extension with increment of meter is available.

Input cable for AC3Ø

10 meters. Extension with increment of meter is available.

Add above L mark to the model number when ordering
{e.g} RE10-75-LGobLpMs(240V) alphabetical, number order.

※ 1. Either -LGb, -LGob, -LUs1, -LIs can be chosen. ※ 2. See separate catalog