Output module specifications

ITEM \ CODE		A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Y*7	W*7	Z*7	9*7
		150W suitable single output										50W suitable single output					75W dual output			
Number of slots used		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VOLTAGE[V]		+2	+3.3	+5	+7.5	+12	+15	+18	+24	+34	+48	+3.3	+5	+12	+15	+24	±5	±12	±15	±24
MINIMUM CURRENT[A]		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CURRENT1[A]		26	26	26	18	13	10	8.5	6.5	4.5	3.2	10	10	5	4	2.5	3	3.2	2.5	1.6
CURRENT2[A]		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	4.2	3.5	2.5
PEAK CURRENT[A] *1		—	—	—	—	14	12	10	8	5.5	4	—	—	—	—	—	—	5	4	—
LINE REGULATION[mV]max		20	20	20	36	48	60	72	96	120	192	20	20	48	60	96	20	48	60	60
LOAD REGULATION1[mV]max *5		40	40	40	100	100	120	120	150	180	300	40	40	100	120	150	250	600	600	600
LOAD REGULATION2[mV]max *6		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	500	750	750	750
RIPPLE [mVp-p]max	0 to +50℃ *2	80	80	80	120	120	120	120	120	120	150	80	80	120	120	120	80	120	120	120
	-20 to 0℃ *2	140	140	140	160	160	160	160	160	160	300	140	140	160	160	160	140	160	160	160
RIPPLE NOISE [mVp-p]max	0 to +50℃ *2	120	120	120	150	150	150	150	150	150	350	120	120	150	150	150	120	150	150	150
	-20 to 0℃ *2	160	160	160	180	180	180	180	180	180	400	160	160	180	180	180	160	180	180	180
TEMPERATURE COEFFICIENT[mV]max	0 to +50℃	50	50	50	90	120	150	180	240	300	480	50	50	120	150	240	50	120	150	150
DRIFT[mV]max *3		20	20	20	36	48	60	72	96	120	192	20	20	48	60	96	20	48	60	60
OUTPUT VOLTAGE SETTING[V]		2.00–2.20	3.25–3.45	4.99–5.30	7.20–7.80	11.5–12.5	14.4–15.6	17.3–18.7	23.0–25.0	33.0–35.0	46.0–50.0	3.25–3.45	4.99–5.30	11.5–12.5	14.4–15.6	23.0–25.0	4.99–5.30	11.5–12.5	14.4–15.6	23.0–25.0
OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4		1.60–2.60	2.60–3.60	4.00–5.50	6.00–8.20	9.00–13.2	13.2–16.5	16.5–19.2	19.2–26.4	27.2–37.4	38.4–52.8	2.60–3.60	4.00–5.50	9.00–13.2	13.2–16.5	19.2–26.4	4.99–6.00	9.60–13.2	13.2–16.5	19.2–26.4
OVERCURRENT PROTECTION[A]		Works over 105%min of rated current or 101%min of peak current. Automatic recovery.																		
OVERVOLTAGE PROTECTION[V]		3.00–4.80	4.00–5.25	Works at 115 - 140% of rated voltage								4.00–5.25	Works at 115 - 140% of rated voltage				6.90–8.40	13.8–16.8	17.25–21.0	27.6–33.6
FUNCTION		Remotesensing, remote ON/OFF, alarm (LV)										Remote ON/OFF, alarm (LV)								

ITEM \ CODE		2A	2B	2C	2D	2E	2F	2G	2H	2J	2K	S*8		T*8		U*8		Q*7	V*7	I ★
		300W suitable single output										100W insulation dual output						150W dual output		
Number of slots used		2	2	2	2	2	2	2	2	2	2	1		1		1		1	1	1
VOLTAGE[V]		+2	+3.3	+5	+7.5	+12	+15	+18	+24	+34	+48	V_1:+5	V_2:+5	V_1:+5	V_2:+12	V_1:+5	V_2:+24	±12	±15	Input module Refer to Instruction manual 6 Input.
MINIMUM CURRENT[A]		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CURRENT1[A]		60	60	60	40	25	20	17	14	10	7	10	5	10	4.2	10	2.1	6.4	5.5	
CURRENT2[A]		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	7	
PEAK CURRENT[A] *1		—	—	—	—	34	27	23	20	14	10	—	—	—	—	—	—	10	8	
LINE REGULATION[mV]max		20	20	20	36	48	60	72	96	120	192	20	20	20	48	20	96	48	60	
LOAD REGULATION1[mV]max *5		40	40	40	100	100	120	120	150	180	300	40	40	40	100	40	150	600	600	
LOAD REGULATION2[mV]max *6		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	750	750	
RIPPLE [mVp-p]max	0 to +50℃ *2	80	80	80	120	120	120	120	120	120	150	80	80	80	120	80	120	140	140	
	-20 to 0℃ *2	140	140	140	160	160	160	160	160	160	300	140	140	140	160	140	160	200	200	
RIPPLE NOISE [mVp-p]max	0 to +50℃ *2	120	120	120	150	150	150	150	150	150	350	120	120	120	150	120	150	230	230	
	-20 to 0℃ *2	160	160	160	180	180	180	180	180	180	400	160	160	160	180	160	180	350	350	
TEMPERATURE COEFFICIENT[mV]max	0 to +50℃	50	50	50	90	120	150	180	240	300	480	50	50	50	120	50	240	120	150	
DRIFT[mV]max *3		20	20	20	36	48	60	72	96	120	192	20	20	20	48	20	96	48	60	
OUTPUT VOLTAGE SETTING[V]		2.00–2.20	3.25–3.45	4.99–5.30	7.20–7.80	11.5–12.5	14.4–15.6	17.3–18.7	23.0–25.0	33.0–35.0	46.0–50.0	4.99–5.30	4.99–5.30	4.99–5.30	11.5–12.5	4.99–5.30	23.0–25.0	11.5–12.5	14.4–15.6	
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		1.60–2.60	2.60–3.60	4.00–5.50	6.00–8.20	9.00–13.2	13.2–16.5	16.5–19.2	19.2–26.4	27.2–37.4	38.4–52.8	4.99–5.50	3.00–5.50	4.99–5.50	7.50–13.2	4.99–5.50	15.0–26.4	9.60–13.2	13.2–16.5	
OVERCURRENT PROTECTION[A]		Works over 105%min of rated current or 101%min of peak current. Automatic recovery.																		
OVERVOLTAGE PROTECTION[V]		3.00–4.80	4.00–5.25	Works at 115 - 140% of rated voltage																
FUNCTION		Remotesensing, remote ON/OFF, alarm (LV)										Remote ON/OFF						Same as W,Z		—

*1 Operating condition of peak current : Peak current is less than 10sec., duty is less than 35% and average current is less than rated current. (rated current2 at Module W, Z, 9, Q and V)
*2 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN : RM101). Ripple and Ripple Noise is measured by using measuring board with capacitor of 22μF within 150mm from output terminal.
*3 Drift is changed in DC output for an eight hour period after half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
*4 When the output voltage of module A is used less than 2.0V, keep minimum output current 2.6A.
*5 It is a value from 0 to rated output current1. The current on non-measurement side is fixed.
*6 It is a value from 0 to rated output current2. The current on non-measurement side is fixed.
*7 The sum of +power and -power must be less than output power(Y:50W, W:76.8W, Z:75W, 9:76.8W, Q:153.6W, V:165W).
*8 Ratings of V_2 can draw up to 50% of rated current at the time of 0A in load of V_1. (Only module S,T,U. refer to instruction manual 4.2 for details.)
* Each output of module Y-Z, 9, Q and V is a ground common type (not isolated),each output of module S,T and U is isolated.
★ For ACE300F,450F and 650F , input and output terminals can be set at the same side if Input module (code:I) is installed instead of the most left module.
* Modules which can correspond to medical electrical equipment (UL2601-1, EN60601-1) are all modules except module S, T and U. Refer to instruction manual 7. for details.

Block diagram