

# ZUS1R5

ZU S 1R5 12 05

① ② ③ ④ ⑤



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage



MODEL	ZUS1R50505	ZUS1R50512	ZUS1R50515	ZUS1R51205	ZUS1R51212	ZUS1R51215	ZUS1R52405	ZUS1R52412	ZUS1R52415	ZUS1R54805	ZUS1R54812	ZUS1R54815	
MAX OUTPUT WATTAGE[W]	1.50	1.56	1.50	1.50	1.56	1.50	1.50	1.56	1.50	1.50	1.56	1.50	
DC OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15
	CURRENT[A]	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10

## SPECIFICATIONS

	MODEL	ZUS1R50505	ZUS1R50512	ZUS1R50515	ZUS1R51205	ZUS1R51212	ZUS1R51215	ZUS1R52405	ZUS1R52412	ZUS1R52415	ZUS1R54805	ZUS1R54812	ZUS1R54815	
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18			DC18 - 36			DC36 - 72			
	CURRENT[A]	*1 0.441typ	0.459typ	0.441typ	0.176typ	0.183typ	0.176typ	0.088typ	0.092typ	0.088typ	0.043typ	0.045typ	0.043typ	
	EFFICIENCY[%]	*1 68typ	68typ	68typ	71typ	71typ	71typ	71typ	71typ	71typ	73typ	73typ	73typ	
OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15	
	CURRENT[A]	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	
	LINE REGULATION[mV]	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max	
	LOAD REGULATION[mV]	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	100max	120max	
	RIPPLE[mVp-p]	*2 80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	150max	180max
	DRIFT[mV]	*3 20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max	
	START-UP TIME[ms]	20max (Minimum input, Io=100%)												
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed												
OUTPUT VOLTAGE SETTING[V]	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically												
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)												
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)												
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)												
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max												
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max												
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis												
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis												
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, EN50178, CSA C22.2 No.60950-1 Complies with IEC60950-1												
OTHERS	CASE SIZE/WEIGHT	27.5 × 7 × 18mm (W × H × D) / 10g max												
	COOLING METHOD	Convection												

\*1 Rated input 5V, 12V, 24V or 48V DC Io=100%.

\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* Series/Parallel operation with other model is not possible.

External view

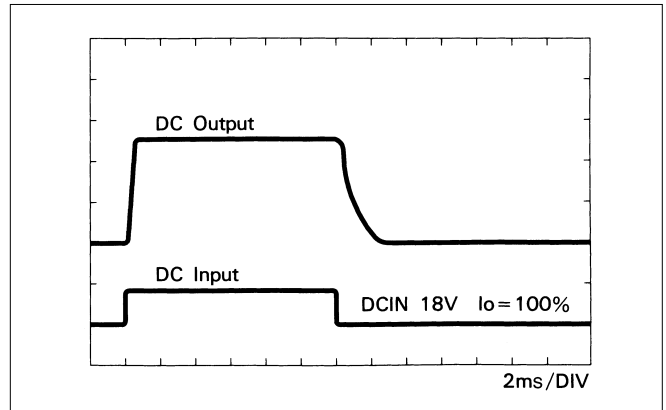


Performance data

■ STATIC CHARACTERISTICS (ZUS1R52405)



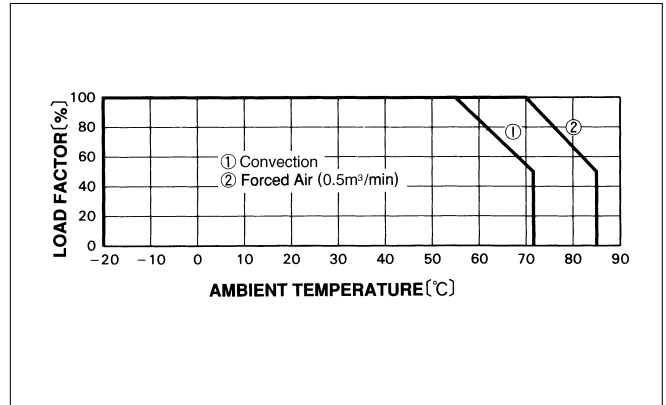
■ RISE TIME & FALL TIME (ZUS1R52405)



■ OVERCURRENT CHARACTERISTICS (ZUS1R52405)



■ DERATING CURVE



ZU/ZT

# ZUS3

**ZU S 3 12 05**

① ② ③ ④ ⑤



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage



MODEL	ZUS30505	ZUS30512	ZUS30515	ZUS31205	ZUS31212	ZUS31215	ZUS32405	ZUS32412	ZUS32415	ZUS34805	ZUS34812	ZUS34815
MAX OUTPUT WATTAGE[W]	3	3	3	3	3	3	3	3	3	3	3	3
DC OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12
	CURRENT[A]	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25

## SPECIFICATIONS

	MODEL	ZUS30505	ZUS30512	ZUS30515	ZUS31205	ZUS31212	ZUS31215	ZUS32405	ZUS32412	ZUS32415	ZUS34805	ZUS34812	ZUS34815	
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18			DC18 - 36			DC36 - 72			
	CURRENT[A]	*1 0.896typ	0.857typ	0.857typ	0.357typ	0.338typ	0.338typ	0.176typ	0.167typ	0.167typ	0.088typ	0.082typ	0.082typ	
	EFFICIENCY[%]	*1 67typ	70typ	70typ	70typ	74typ	74typ	71typ	75typ	75typ	71typ	76typ	76typ	
OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15	
	CURRENT[A]	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20	
	LINE REGULATION[mV]	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max	
	LOAD REGULATION[mV]	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	100max	120max	
	RIPPLE[mVp-p]	*2 80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	150max	180max
	DRIFT[mV]	*3 20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max	
	START-UP TIME[ms]	20max (Minimum input, I <sub>o</sub> =100%)												
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed												
OUTPUT VOLTAGE SETTING[V]	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically												
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)												
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)												
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)												
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max												
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max												
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis												
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis												
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1												
OTHERS	CASE SIZE/WEIGHT	35 × 7 × 23mm (W × H × D) / 16g max												
	COOLING METHOD	Convection												

\*1 Rated input. 5V, 12V, 24V or 48V DC, I<sub>o</sub>=100%

\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* Series/Parallel operation with other model is not possible.

External view



Performance data

■ STATIC CHARACTERISTICS (ZUS32405)



■ RISE TIME & FALL TIME (ZUS32405)



■ OVERCURRENT CHARACTERISTICS (ZUS32405)



■ DERATING CURVE



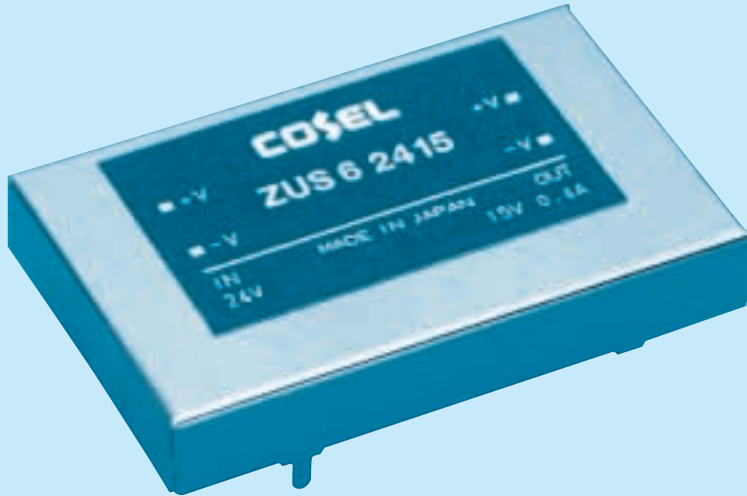
# ZUS6

ZU S 6 12 05

① ② ③ ④ ⑤



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage



MODEL	ZUS6053R3	ZUS60505	ZUS60512	ZUS60515	ZUS61205	ZUS61212	ZUS61215	ZUS62405	ZUS62412	ZUS62415	ZUS6483R3	ZUS64805	ZUS64812	ZUS64815	
MAX OUTPUT WATTAGE[W]	3.3	5	6	6	6	6	6	6	6	6	3.96	6	6	6	
DC OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15
	CURRENT[A]	1.0	1.0	0.5	0.4	1.2	0.5	0.4	1.2	0.5	0.4	1.2	1.2	0.5	0.4

## SPECIFICATIONS

	MODEL	ZUS6053R3	ZUS60505	ZUS60512	ZUS60515	ZUS61205	ZUS61212	ZUS61215	ZUS62405	ZUS62412	ZUS62415	ZUS6483R3	ZUS64805	ZUS64812	ZUS64815	
INPUT	VOLTAGE[V]	DC4.5 - 9				DC9 - 18				DC18 - 36			DC36 - 72			
	CURRENT[A]	*1 0.94typ	1.41typ	1.63typ	1.63typ	0.69typ	0.65typ	0.65typ	0.35typ	0.33typ	0.33typ	0.09typ	0.18typ	0.17typ	0.17typ	
	EFFICIENCY[%]	*1 70typ	71typ	74typ	74typ	73typ	78typ	78typ	73typ	78typ	78typ	73typ	73typ	78typ	78typ	
OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15	
	CURRENT[A]	1.0	1.0	0.5	0.4	1.2	0.5	0.4	1.2	0.5	0.4	1.2	1.2	0.5	0.4	
	LINE REGULATION[mV]	20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max	
	LOAD REGULATION[mV]	40max	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	40max	100max	120max	
	RIPPLE[mVp-p]	*2 80max	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	80max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	50max	150max	180max
	DRIFT[mV]	*3 20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max	
	START-UP TIME[ms]	20max (Minimum input, Io=100%)														
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed														
OUTPUT VOLTAGE SETTING[V]	3.20 - 3.47	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	3.20 - 3.47	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically														
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max														
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max														
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis														
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis														
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1														
OTHERS	CASE SIZE/WEIGHT	44.5 × 7 × 28mm (W × H × D) / 25g max														
	COOLING METHOD	Convection														

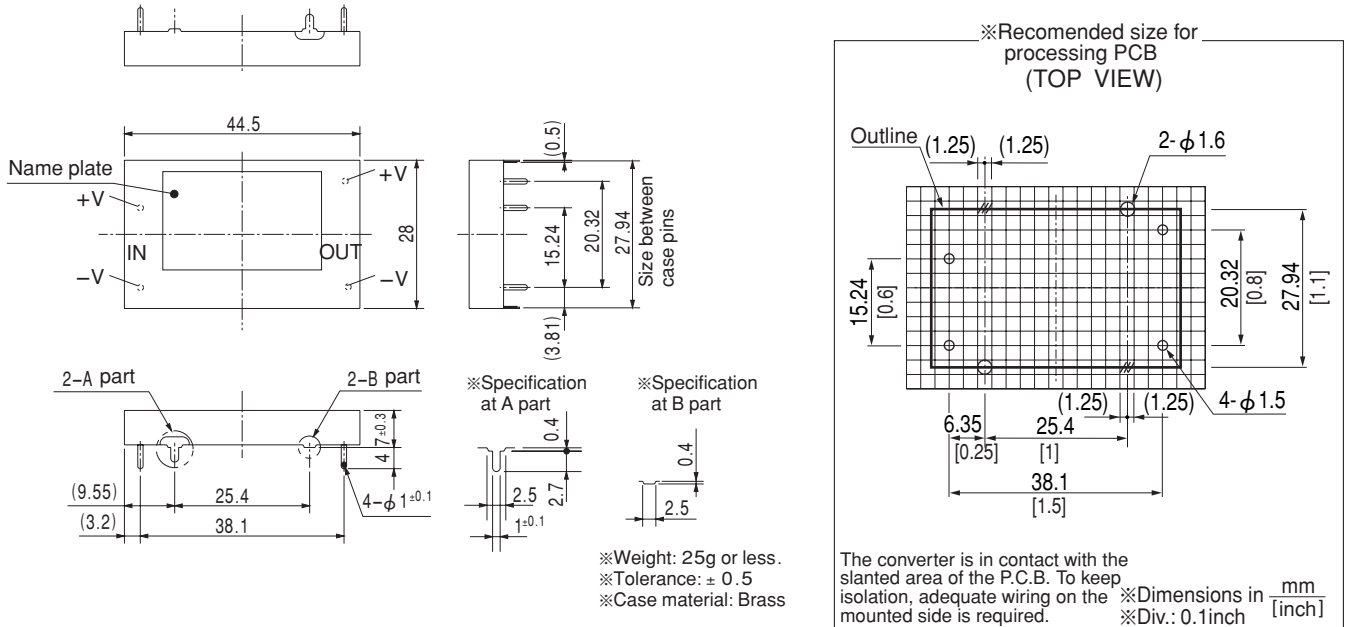
\*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%

\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

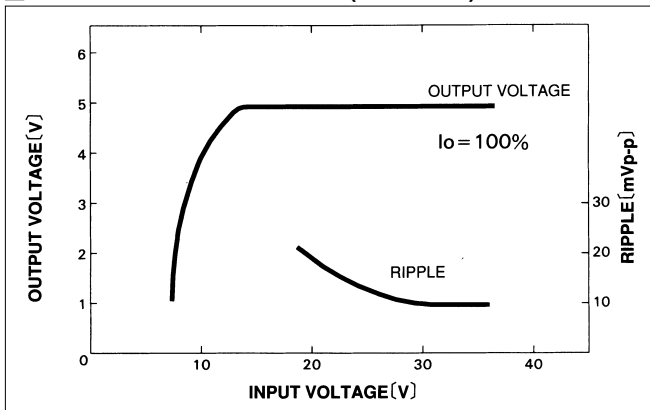
\* Series/Parallel operation with other model is not possible.

External view

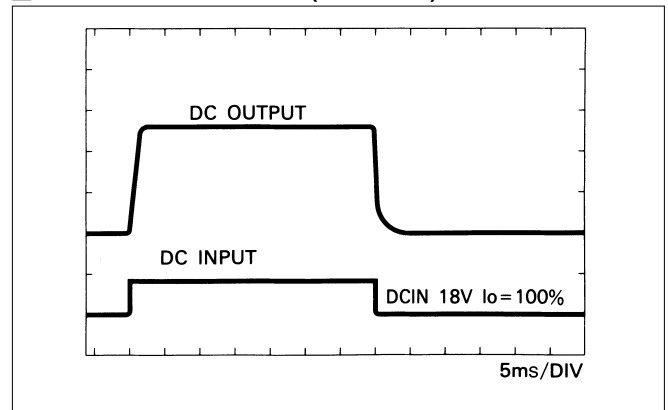


Performance data

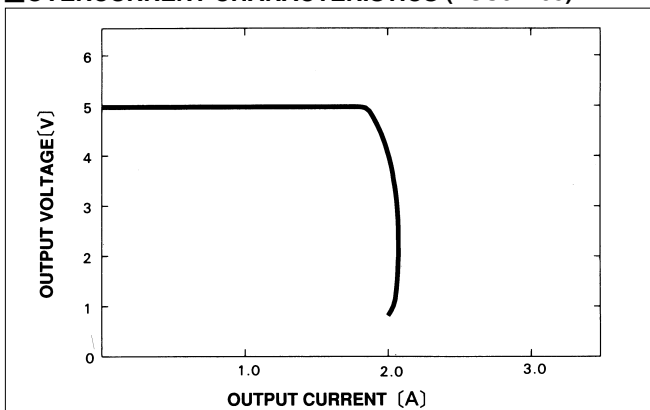
■ STATIC CHARACTERISTICS (ZUS62405)



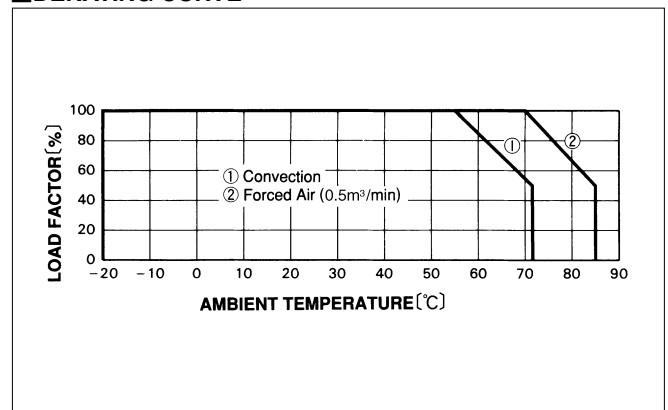
■ RISE TIME & FALL TIME (ZUS62405)



■ OVERCURRENT CHARACTERISTICS (ZUS62405)



■ DERATING CURVE



ZU/ZT

# ZUS10

ZU S 10 12 05

① ② ③ ④ ⑤



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage



MODEL	ZUS10053R3	ZUS100505	ZUS100512	ZUS100515	ZUS101205	ZUS101212	ZUS101215	ZUS102405	ZUS102412	ZUS102415	ZUS10483R3	ZUS104805	ZUS104812	ZUS104815	
MAX OUTPUT WATTAGE[W]	5.28	8.0	8.4	9.0	10.0	10.8	10.5	10.0	10.8	10.5	6.6	10.0	10.8	10.5	
DC OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15
	CURRENT[A]	1.6	1.6	0.7	0.6	2.0	0.9	0.7	2.0	0.9	0.7	2.0	2.0	0.9	0.7

## SPECIFICATIONS

	MODEL	ZUS10053R3	ZUS100505	ZUS100512	ZUS100515	ZUS101205	ZUS101212	ZUS101215	ZUS102405	ZUS102412	ZUS102415	ZUS10483R3	ZUS104805	ZUS104812	ZUS104815	
INPUT	VOLTAGE[V]	DC4.5 - 9				DC9 - 18			DC18 - 36			DC36 - 72				
	CURRENT[A]	*1 1.48typ	2.14typ	2.24typ	2.40typ	1.05typ	1.10typ	1.07typ	0.53typ	0.55typ	0.54typ	0.18typ	0.27typ	0.28typ	0.27typ	
	EFFICIENCY[%]	*1 72typ	75typ	75typ	75typ	80typ	82typ	82typ	80typ	82typ	82typ	75typ	80typ	82typ	82typ	
OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15	
	CURRENT[A]	1.6	1.6	0.7	0.6	2.0	0.9	0.7	2.0	0.9	0.7	2.0	2.0	0.9	0.7	
	LINE REGULATION[mV]	20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max	
	LOAD REGULATION[mV]	40max	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	40max	100max	120max	
	RIPPLE[mVp-p]	*2 80max	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	80max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	50max	150max	180max
	DRIFT[mV]	*3 20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max	
	START-UP TIME[ms]	20max (Minimum input, Io=100%)														
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed														
OUTPUT VOLTAGE SETTING[V]	3.20 - 3.47	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75	3.20 - 3.47	4.85 - 5.25	11.40 - 12.60	14.25 - 15.75		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically														
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max														
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max														
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis														
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis														
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1														
OTHERS	CASE SIZE/WEIGHT	45 × 7 × 35mm (W × H × D) / 40g max														
	COOLING METHOD	Convection														

\*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%

\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* Series/Parallel operation with other model is not possible.

External view



Performance data

■ STATIC CHARACTERISTICS (ZUS102405)



■ RISE TIME & FALL TIME (ZUS102405)



■ OVERCURRENT CHARACTERISTICS (ZUS102405)



■ DERATING CURVE



ZU/ZT



# ZUS15

ZU S 15 12 05

① ② ③ ④ ⑤



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage

MODEL	ZUS15053R3	ZUS150505	ZUS150512	ZUS151205	ZUS151212	ZUS152405	ZUS152412	ZUS15483R3	ZUS154805	ZUS154812	
MAX OUTPUT WATTAGE[W]	6.6	10.0	12.0	12.0	15.6	12.0	15.6	7.92	12.0	15.6	
DC OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12
	CURRENT[A]	2.0	2.0	1.0	2.4	1.3	2.4	1.3	2.4	2.4	1.3

## SPECIFICATIONS

	MODEL	ZUS15053R3	ZUS150505	ZUS150512	ZUS151205	ZUS151212	ZUS152405	ZUS152412	ZUS15483R3	ZUS154805	ZUS154812	
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18		DC18 - 36		DC36 - 75			
	CURRENT[A]	*1 1.83typ	2.50typ	2.96typ	1.25typ	1.57typ	0.63typ	0.78typ	0.21typ	0.31typ	0.39typ	
	EFFICIENCY[%]	*1 72typ	80typ	81typ	80typ	83typ	80typ	83typ	78typ	80typ	83typ	
OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12	
	CURRENT[A]	2.0	2.0	1.0	2.4	1.3	2.4	1.3	2.4	2.4	1.3	
	LINE REGULATION[mV]	20max	20max	48max	20max	48max	20max	48max	20max	20max	48max	
	LOAD REGULATION[mV]	40max	40max	100max	40max	100max	40max	100max	40max	40max	100max	
	RIPPLE[mVp-p]	*2 80max	80max	120max	80max	120max	80max	120max	80max	80max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	120max	150max	120max	150max	120max	150max	120max	120max	150max	
	TEMPERATURE REGULATION[mV] 0 to +55°C	50max	50max	150max	50max	150max	50max	150max	50max	50max	150max	
	DRIFT[mV]	*3 20max	20max	48max	20max	48max	20max	48max	20max	20max	48max	
	START-UP TIME[ms]	100max (Minimum input, Io=100%)										
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Internally fixed (TRM pin open), adjustable by external VR										
OUTPUT VOLTAGE SETTING[V]	3.20 - 3.47	±5%						3.20 - 3.47	±5%			
OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically											
OVERVOLTAGE PROTECTION	4.0 - 5.25V	Works at 115 - 140% of rating						4.0 - 5.25V	Works at 115 - 140% of rating			
REMOTE ON/OFF	Between RC and -side of input:short - 1.2V · · · output ON, 2.4V - 5.5V(or open) · · · output OFF, Compatible to TTL											
INPUT-OUTPUT ISOLATION	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)											
INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)											
OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)											
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max										
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max										
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis										
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis										
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1										
OTHERS	CASE SIZE/WEIGHT	45 × 8.5 × 50mm (W × H × D) / 55g max										
	COOLING METHOD	Convection										

\*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%

\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* Series/Parallel operation with other model is not possible.

External view



note) Internal parts  
 ※Weight: 55g or less.  
 ※Tolerance: ± 0.5  
 ※Case material: Aluminum



Performance data

■ STATIC CHARACTERISTICS (ZUS151205)



■ RISE TIME & FALL TIME (ZUS151205)



■ OVERCURRENT CHARACTERISTICS (ZUS151205)



■ DERATING CURVE



ZU/ZT

# ZUS25

**ZU S 25 12 05**

① ② ③ ④ ⑤



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage

MODEL	ZUS25053R3	ZUS250505	ZUS250512	ZUS251205	ZUS251212	ZUS252405	ZUS252412	ZUS25483R3	ZUS254805	ZUS254812	
MAX OUTPUT WATTAGE[W]	13.2	16.0	20.4	20.0	25.2	20.0	25.2	13.2	20.0	25.2	
DC OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12
	CURRENT[A]	4.0	3.2	1.7	4.0	2.1	4.0	2.1	4.0	4.0	2.1

## SPECIFICATIONS

	MODEL	ZUS25053R3	ZUS250505	ZUS250512	ZUS251205	ZUS251212	ZUS252405	ZUS252412	ZUS25483R3	ZUS254805	ZUS254812	
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18		DC18 - 36		DC36 - 75			
	CURRENT[A]	*1 3.66typ	4.00typ	4.98typ	2.03typ	2.47typ	1.02typ	1.23typ	0.35typ	0.51typ	0.62typ	
	EFFICIENCY[%]	*1 72typ	80typ	82typ	82typ	85typ	82typ	85typ	78typ	82typ	85typ	
OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12	
	CURRENT[A]	4.0	3.2	1.7	4.0	2.1	4.0	2.1	4.0	4.0	2.1	
	LINE REGULATION[mV]	20max	20max	48max	20max	48max	20max	48max	20max	20max	48max	
	LOAD REGULATION[mV]	40max	40max	100max	40max	100max	40max	100max	40max	40max	100max	
	RIPPLE[mVp-p]	*2 80max	80max	120max	80max	120max	80max	120max	80max	80max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	120max	150max	120max	150max	120max	150max	120max	120max	150max	
	TEMPERATURE REGULATION[mV]   0 to +55°C	50max	50max	150max	50max	150max	50max	150max	50max	50max	150max	
	DRIFT[mV]	*3 20max	20max	48max	20max	48max	20max	48max	20max	20max	48max	
	START-UP TIME[ms]	100max (Minimum input, Io=100%)										
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Internally fixed (TRM pin open), adjustable by external VR										
OUTPUT VOLTAGE SETTING[V]	3.20 - 3.47	±5%						3.20 - 3.47	±5%			
OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically											
OVERVOLTAGE PROTECTION	4.0 - 5.25V	Works at 115 - 140% of rating							4.0 - 5.25V	Works at 115 - 140% of rating		
REMOTE ON/OFF	Between RC and -side of input:short - 1.2V · · · output ON, 2.4V - 5.5V(or open) · · · output OFF, Compatible to TTL											
INPUT-OUTPUT ISOLATION	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)											
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OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)											
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max										
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max										
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis										
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis										
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1										
OTHERS	CASE SIZE/WEIGHT	65 × 8.5 × 50mm (W × H × D) / 65g max										
	COOLING METHOD	Convection										

\*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%

\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* Series/Parallel operation with other model is not possible.

External view



Performance data

■ STATIC CHARACTERISTICS (ZUS251205)



■ RISE TIME & FALL TIME (ZUS251205)



■ OVERCURRENT CHARACTERISTICS (ZUS251205)



■ DERATING CURVE



ZU/ZT