

350W to 1000W Compact Single Output General Purpose Power Supplies



Industrial

Test

LED

Broadcast

COMM

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The compact 350W, 600W and 1000W rated GUS power supplies are designed to provide reliable performance at an economical price. The GUS models are available with 12, 24, 36 and 48V output voltages and have efficiencies up to 95%. All models are certified to IEC62368-1, designed to meet IEC61010-1 and meet Class B radiated and conducted EMI standards. Remote on/off is an option for all models, with the GUS350 having an optional output voltage adjustment function (standard on GUS600 and GUS1000). The GUS600 and GUS1000 models have an internal cooling fan with the GUS350 being convection cooled.

Features

- Compact Size
- Conservative Electrolytic Capacitor Ratings
- Class B Conducted and Radiated EMI
- IEC62368-1 Certification, Compliant to IEC61010-1

Benefits

- Saves Space in System
- Long Field Life
- Easier System EMC Compliance
- Quicker System Compliance

Model Selector

Model	Voltage (V)	Output Adjustment (V) (Specify ADJ option suffix for GUS350, standard on the GUS600 and GUS1000)	Max Current (A)	Max Output Power (W)	Ripple & Noise (mV)	Ovevoltage (V)	Overcurrent (A)	Efficiency (typ) (115 / 230Vac) (%)
GUS350-12	12	11.7 - 12.9	29.2	350.4	240	13.80 - 16.20	>30.66	93 / 95
GUS600-12	12	11.7 - 12.9	50	600	240	13.80 - 16.20	>52.50	92 / 94
GUS1000-12	12	11.7 - 12.6	66.7 (83.4 peak)	800.4 (1000.8 peak)	240	13.80 - 16.20	>87.6	91 / 93
GUS350-24	24	23.4 - 25.9	14.6	350.4	360	27.60 - 32.40	>15.33	94 / 95.5
GUS600-24	24	23.4 - 25.9	25	600	360	27.60 - 32.40	>26.25	93 / 95
GUS1000-24	24	23.4 - 25.9	41.7	1000.8	360	27.60 - 32.40	<43.8	93 / 95
GUS350-36	36	35.1 - 38.8	9.8	352.8	480	41.40 - 48.60	>10.29	94 / 95.5
GUS600-36	36	35.1 - 38.8	16.7	601.2	480	41.40 - 48.60	>17.54	93 / 95
GUS1000-36	36	35.1 - 38.8	27.8	1000.8	480	41.40 - 48.60	>29.2	93.3 / 95.3
GUS350-48	48	46.8 - 51.8	7.4	355.2	480	55.20 - 64.80	>7.77	94 / 95.5
GUS600-48	48	46.8 - 51.8	12.6	604.8	480	55.20 - 64.80	>13.23	93 / 95
GUS1000-48	48	46.8 - 51.8	20.9	1003.2	480	55.20 - 64.80	22	93.5 / 95.5

GUS350

24

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R

Model and Output power

Output voltage 12, 24, 36, 48

Blank	No options
R	Remote On/Off
ADJ	Output voltage adjustment potentiometer (option for GUS350 only, standard on the GUS600 and GUS1000)
/D	DIN rail mounting bracket (GUS350-24 only)

Related Products

Type	Part Number(s)	Description
AC-DC power supplies	RWS-B	50 to 1500W, industrial 7-year warranty
AC-DC power supplies	CUS-M	30 to 1500W, industrial/medical 5-year warranty

GUS600 and GUS1000 models are preliminary

Specifications				
Model		GUS350	GUS600	GUS1000
Input				
AC Input Voltage Range (Operating)	Vac	85 - 265 ⁽¹⁾		
Nominal Input Voltage Range	Vac	100 - 240 (Note: Safety certified for 90 - 264Vac only)		
AC Input Frequency	Hz	47 - 63		
Input Current (115/230Vac)	A	3.4 / 1.7	6 / 3	12V: 4 / 4, 24-48V: 10 / 5
Inrush Current at 115/200Vac (Cold Start)	A	25 / 50		
Leakage Current	mA	< 0.75		< 0.5
Power Factor (10/200Vac)	-	0.99 / 0.95		
Harmonic Compliance	-	Meets IEC61000-3-2, Class A		
Hold Up Time (typical)	ms	12		11
Efficiency	-	See model selector table		
Conducted & Radiated EMI	-	EN55011/EN55032-B		
Immunity	-	IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11		
Safety Certifications and Markings	-	IEC/EN/UL/CSA 62368-1. CE Mark and UKCA Mark. Designed to meet IEC 61010-1 and IEC62477-1 (OVC III)		
Output				
Switching Frequency	kHz	40 to 260	TBA	TBA
Line Regulation	-	12V: 48, 24V: 96, 36V: 144, 48: 192		12V: 60, 24V: 120, 36V: 180, 48: 240
Load Regulation	-	12V: 96, 24V: 192, 36V: 288, 48: 384		12V: 120, 24V: 240, 36V: 360, 48: 480
External Load Capacitance (Maximum)	uF	12V: 10,000, 24V: 7,200, 36V: 1,400, 48V: 1,300	TBA	TBA
Ripple & Noise	-	See model selector table		
Temperature Coefficient	%/°C	0.02		
Minimum Load	-	No minimum load required		
Overcurrent Protection	%	See model selector table		
Overvoltage Protection	-	Latching (unit shutdown), cycle AC input to reset		
Overtemperature Protection	-	Latching (unit shutdown), cycle AC input to reset		
Remote Sense	-	No		
Remote On/Off	-	Specify option R		
Indicators	-	Green LED indicates DC is OK		
Environmental				
Operating Temperature	°C	-20 to +70 (See derating curves below, GUS1000 TBD) (-40 start-up)		
Storage Temperature	°C	-40 to +85		
Humidity (non condensing)	%RH	Operating and Storage: 10 - 95		
Cooling	-	Convection	Internal fan	
Altitude	m	<5000 (<4,000 for IEC62477-1)		
Withstand Voltage (For 1 minute)	Vac	Input to ground 2,000, Input to output 3,000, Output to ground 500 for 1 minute		
Vibration (Non operating)	-	10-55Hz (Sweep for 1min.) 19.6m/s2 Constant X,Y,Z 1 hour each		
Shock (Non operating)	-	Less than 196m/s2, 11ms, ±X, ±Y, ±Z 3 times each		
Other				
Weight (Typ)	g	550	800	910
Size (WxHxD)	mm	101.6 x 41 x 127	101.6 x 41 x 152.4	101.6 x 41 x 177.8
Size (WxHxD)	Inches	4 x 1.61 x 5	4 x 1.61 x 6	4 x 1.61 x 7
Connectors	-	Screw terminal input and output. Signal connectors JST S2B-EH. See output drawings		
MTBF - Telcordia SR-332 issue 3*	Hours	1,573,939	TBD	TBD
Warranty	Years	3 years		

Notes:

See website for detailed specifications, test methods and installation manual

(1) Derate below 115Vac input. See derating curves

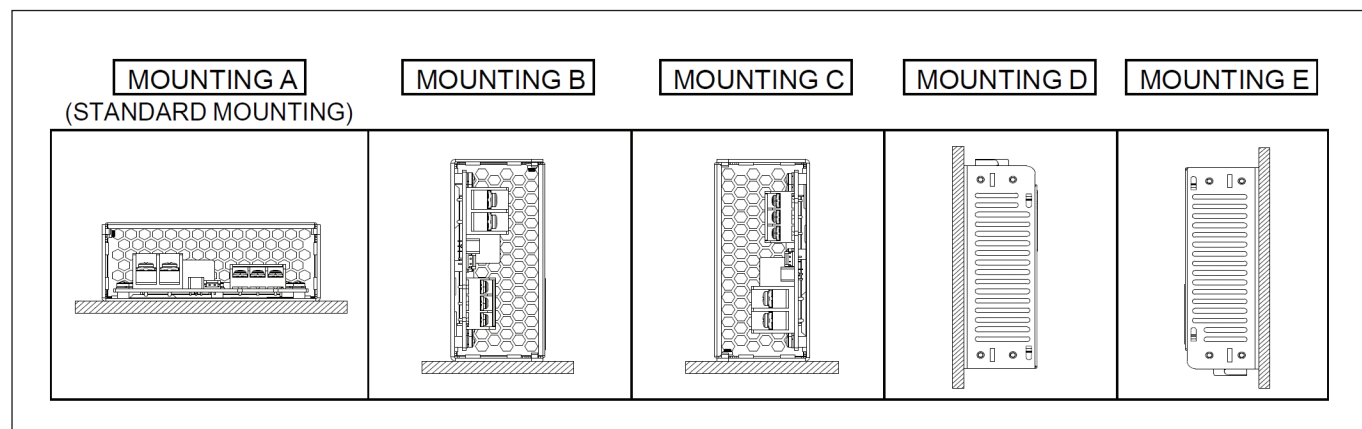
*25°C ambient, full load, 24Vdc output, 230Vac input

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GUS350 Immunity

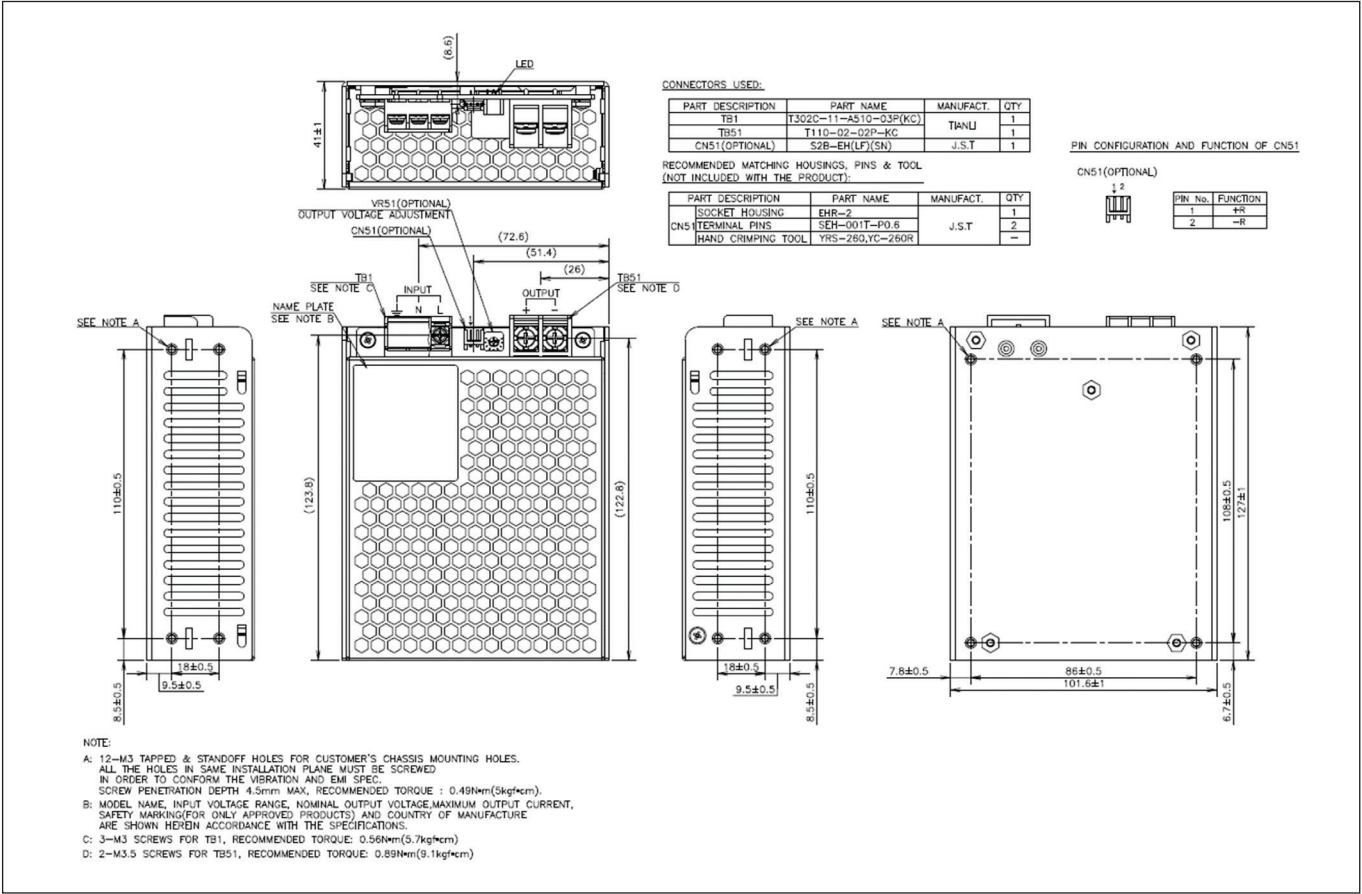
Test	Standard	Test Level	Criteria	Notes:
ESD	EN61000-4-2	Contact Discharge: 8kV Air Discharge: 15kV	A	-
Radiated Susceptibility	EN61000-4-3	Radiation Field Strength 3V/m Radiation Field Strength 10V/m	A	Electromagnetic Frequency: 1.4 - 6GHz Electromagnetic Frequency: 80 - 1000GHz
Electrical Fast Transient Burst	EN61000-4-4	Input Power Port and Enclosure Port: 4kV Output Power Port and Signal Port: 2kV	A	-
Surge	EN61000-4-5	Common Mode: 4kV Normal Mode: 2kV	A	-
Conducted Susceptibility	EN61000-4-6	10V	A	-
Magnetic fields	EN61000-4-8	30A/m	A	-
Voltage Dips and Input Interruptions	IEC61000-4-11 100-120Vac input	Dip: 20% 5000ms	A	-
		Dip: 30% 500ms	A	-
		Dip: 60% 200ms	A/B	A: ≤150W, B: >150W
		Dip: 100% 10ms	A	-
		Dip: 100% 20ms	A/B	A: ≤200W, B: >200W
		Dip: 100% 5000ms	B	-
	IEC61000-4-11 200-240Vac input	Dip: 20% 5000ms	A	-
		Dip: 30% 500ms	A	-
		Dip: 60% 200ms	A	-
		Dip: 100% 10ms	A	-
		Dip: 100% 20ms	A/B	A: ≤200W, B: >200W
		Dip: 100% 5000ms	B	-
SEMI F47 Line Dip	SEMI F47	-	-	At input voltages > 200Vac

GUS Mounting

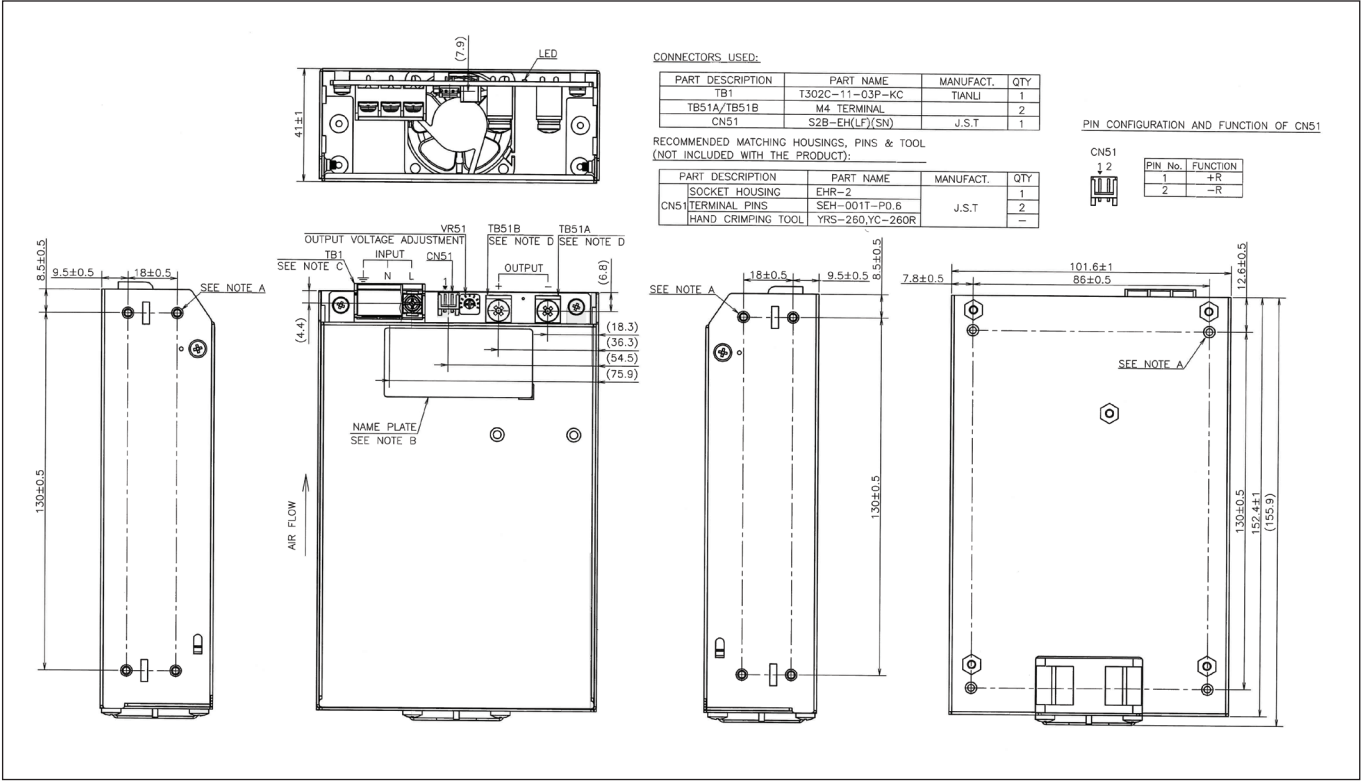


GUS600 and GUS1000 models are preliminary

Outline Drawing GUS350

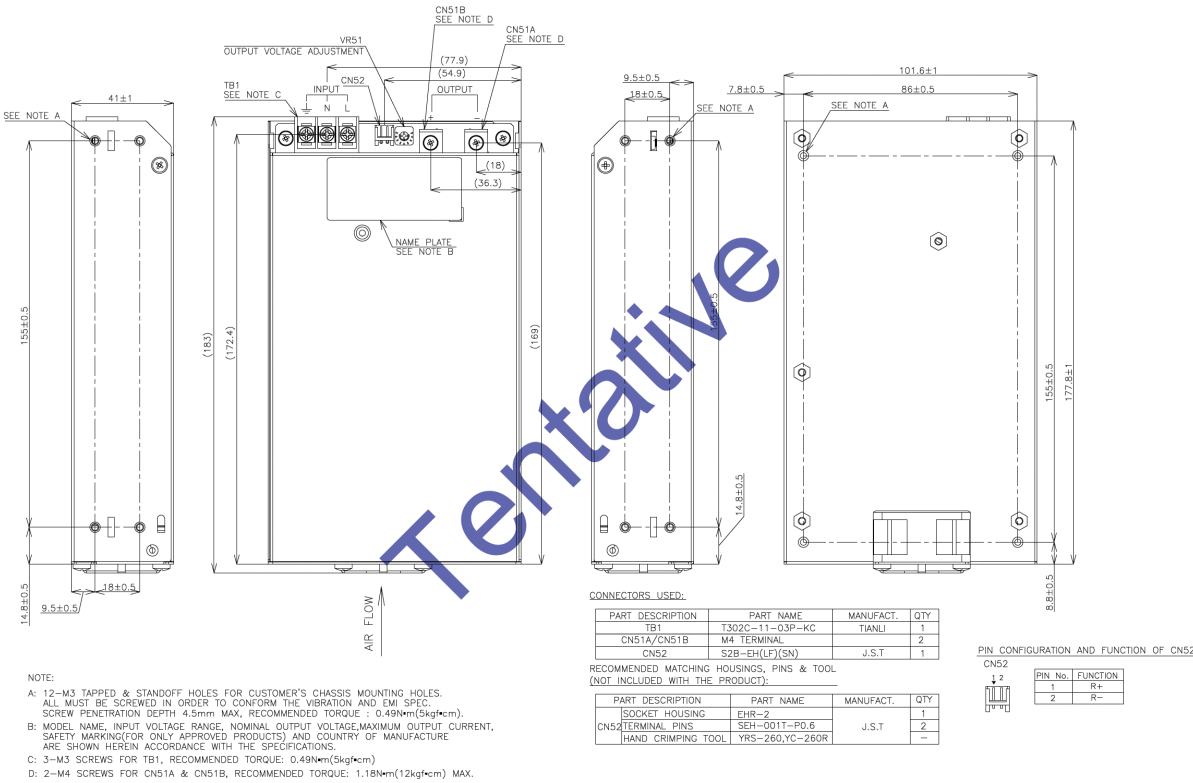


Outline Drawing GUS600



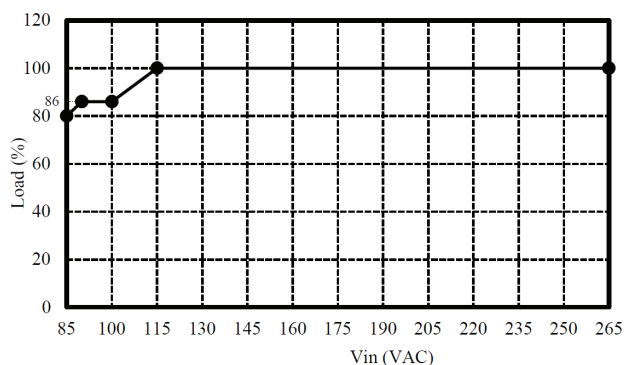
GUS600 and GUS1000 models are preliminary

Outline Drawing GUS1000

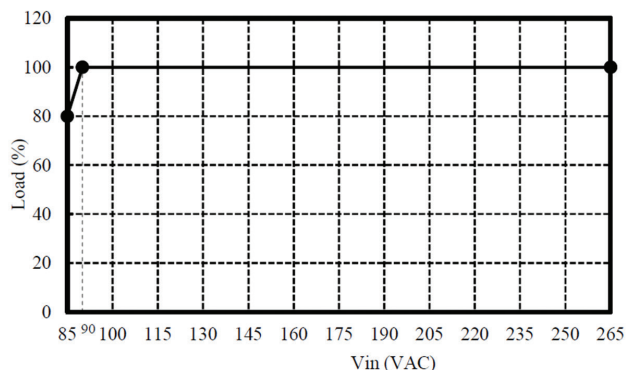


GUS600 and GUS1000 models are preliminary

GUS350 derating Curves vs Input Voltage



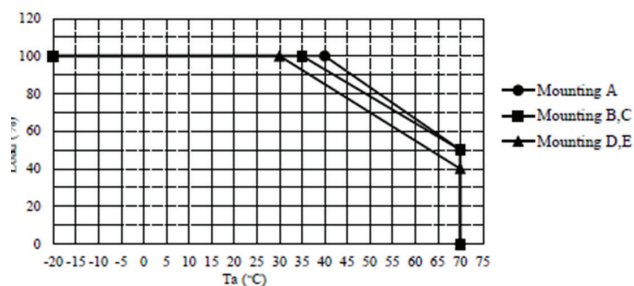
GUS600 derating Curves vs Input Voltage



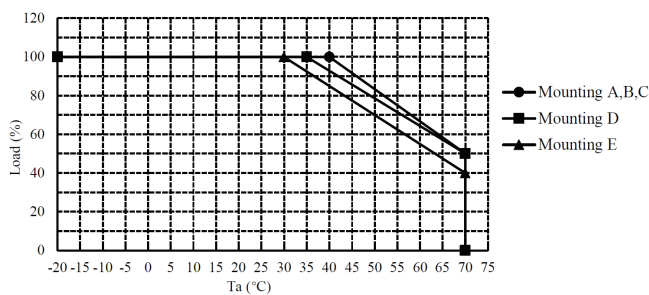
GUS1000 derating Curves vs Input Voltage

TBD

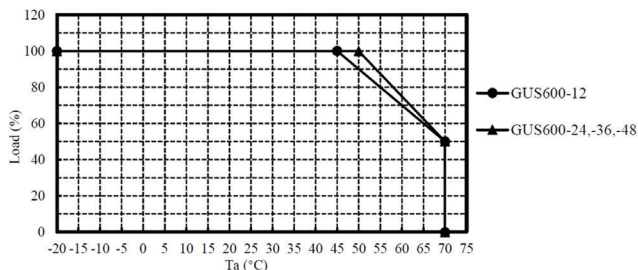
GUS350-12 Derating Curves vs Temperature



GUS350-24,-36,-48 Derating Curves vs Temperature



GUS600 Derating Curves vs Temperature



GUS600 and GUS1000 models are preliminary

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