

SSU33L

Three phase + N voltage monitoring | 230 V AC | 400 V AC

Power supply

Nominal voltage	230 V AC	400 V AC
Operating voltage range	160 ... 275 V	280 ... 480 V
Power consumption AC/DC	3 VA	
Rated frequency	50 Hz	

Measuring circuit

Measured parameters	U, ΔPhi, Δf	
Monitoring functions	Under, over, phase failure, phase sequence	
Number of voltage measurement inputs	4 (L1 / L2 / L3 / N)	3 (L1 / L2 / L3)
Rated AC voltage L-N / L-L	230 V / 400 V	- / 400 V
AC voltage measurement range L-N / L-L	160 ... 275 V	280 ... 480 V
Undervoltage setting range	≤ 160 V	≤ 280 V
Overvoltage setting range	≥ 275 V	≥ 480 V
Voltage difference setting range L-L	20 ... 100 V	35 ... 173 V
Rated base frequency	50 Hz	
Frequency difference setting range L-L	3 ... 15 Hz	
Phase angle difference setting range L-L	3 ... 15°	
Alarm delay	0.2 ... 5 s	

Main circuit

Number of contacts	1 CO
Contact Material	AgNi
Rated voltage	250 V
Rated current	6 A
Minimum load	10 mA, 5 V
Inrush current	15 A, 20 ms
Rated load DC	fig. 2
Rated load AC-1	1500 VA
Mechanical endurance (cycles)	3 x 10 ⁷
Electrical endurance at rated load AC-1 (cycles)	fig. 3

Insulation

Rated test voltage measuring / measuring circuit	2 kV rms / 1 min
Rated test voltage measuring circuit / main circuit	2 kV rms / 1 min
Rated test voltage open contact	1 kV rms / 1 min
Pollution degree	2
Overvoltage category	III

General data

Ambient temperature storage	-40 ... 85 °C
Ambient temperature operation	-25 ... 60 °C
Module width	fig. 4
Weight	300 g
Protection degree	IP 20
Housing material	PC

Product references

Types	Product reference	230	400
Three phase monitoring	SSU33L/AC...V	✓	
Three phase monitoring + N	SSU33L/AC...V		✓

"..." list control circuit voltage to complete product references.
Other voltages on request. Please contact support@comatreleco.com.

Accessories

Socket	S3-M
Retaining clip	HF-24
Transparent front cover	FS-23
Front panel mounting set	FZ-23



fig. 1. Wiring diagram

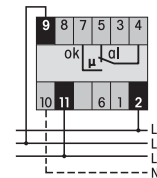


fig. 2. DC load limit curve

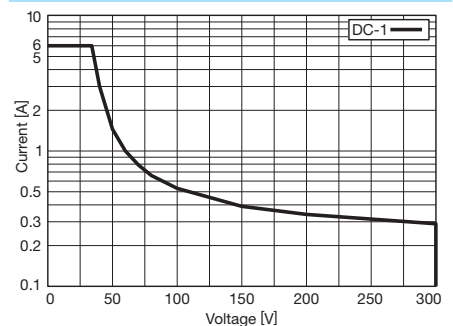


fig. 3. AC voltage endurance

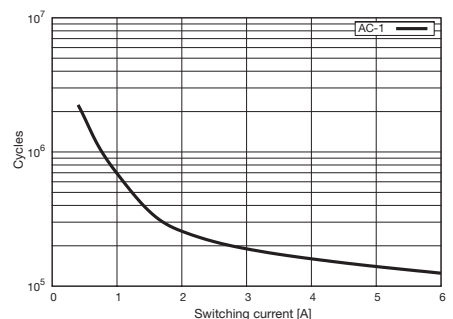
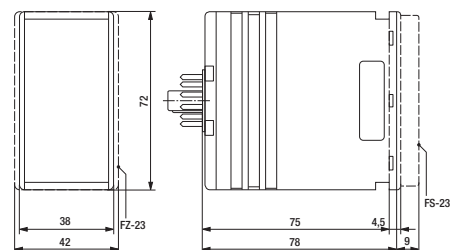


fig. 4. Dimensions (mm)



Standards and approvals

Standards IEC/EN 60947

Approvals

	Description	MRE-44S	MRM11	MRM11R	MRM32	MRM32R	MRU11	MRU32	MV53	SSU34	SSU31	SSU33L	MRI11	MRI32	TSR19	ESU-D2R	CT515R	CT524R
Monitoring	One phase voltage monitoring		●	●			●		●									
	Three phase voltage monitoring				●	●		●		●		●						
	Four channel voltage measuring	●																
	DC Voltage monitoring		●	●	●	●	●	●			●							●
	One phase current monitoring		●	●									●					
	Three phase current monitoring				●	●								●				
	Four channel current measuring	●																
	DC current monitoring		●	●	●	●							●	●				●
	Phase failure				●	●		●		●	●	●						
	Phase sequence monitoring	●			●	●		●		●	●	●						
	Phase angle monitoring / measuring*	●			●	●		●		●		●						
	Differential voltage monitoring / measuring*	●									●	●						
	Neutral failure monitoring	●									●	●						
	Frequency monitoring / measuring*	●	●	●	●	●	●	●		●		●	●	●				
	Apparent power monitoring / measuring*	●	●	●	●	●												
	Active power monitoring / measuring*	●	●	●	●	●												
	Power factor monitoring / measuring*	●	●	●	●	●												
	Active energy measuring	●																
	THDI / THDU measuring	●																
	PTC monitoring															●		
Earth failure monitoring																●		
Functions	Threshold exceeded "over" fig. 3.	●	●	●	●	●	●	●	●	●		●	●	●	●		●	●
	Threshold undershot "under" fig. 4.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Window function "inside" fig. 2.	●	●	●	●	●	●	●					●	●			●	●
	Window function "outside" fig.1.	●	●	●	●	●	●	●					●	●			●	●
	Alarm on-delay	●	●	●	●	●	●	●	●	●		●	●	●			●	●
	Alarm off-delay	●	●	●	●	●	●	●	●				●	●				
	Error storage function	●	●	●	●	●	●	●					●	●	●			
	Threshold selectable	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●
	Threshold fixed										●	●			●			
	Power supply	Supply isolated from measuring circuit	●	●	●	●	●	●	●					●	●	●	●	
Supply from measure circuit									●	●	●	●					●	●
Mounting	DIN rail mounting	●	●	●	●	●	●	●	●				●	●		●		
	Housing according IEC/EN 43880 (electrical distribution mounting)	●	●	●	●	●	●	●	●					●	●			
	Plug-in (socket mounting)											●	●		●		●	●

*Measuring: MRE-44S only

