



Allis Electric Co., Ltd.

SWITCHING
MODE RECTIFIER



ES3048 SERIES

54V/55.5A

Key Features

- Innovative single phase input stage with wide input range.
(187-240Vac, Max 3kW)
- Power factor > 0.99. Sinusoidal input current.
Meet EN61000-3-2.
- High efficiency.
- Microprocessor based.
- Active or passive load sharing.
- Rear "push in to plug in" connection for AC, DC and communications link.
- Mass less than 2.0kg.



Specifications

Model	
Input	
Voltage	Wide Input Range: (187-240Vac, Max 3kW (100-186Vac at de-rated output power)
Current	< 19Arms
Frequency	50-60 Hz
Power Factor	>0.99 at full load; sinusoidal wave shape
Input Protection	HRC fuses at input of SMR(line and neutral); power circuit is turned off if the AC voltage exceeds 275Vac or falls to less than 90Vac.
THD	<5% at full load; satisfies requirements of EN61000-3-2
Efficiency	> 95% at nominal mains voltage
Output	
Voltage	Float -Adjustable 48-56Vdc
Static Regulation	Line- +0.1%;Load- +1.0%
Current Limit	Adjustable 10-63A
Power(Max)	3000W @ 48-56Vdc (input 187-240Vac);1000W @ 48-56Vdc (input 100-186Vac)
Load Sharing	Better than $\pm 5\%$ of full scale with active current sharing from MCSU2048.
Protection	Overvoltage - only faulty unit shuts down; Overcurrent - can sustain short circuit at output terminals indefinitely; Over-temperature - gradual reduction of current limit if heat-sink temperature exceeds pre-set limit
Static Regulation	Line- +0.1%;Load- +1.0%
Dynamic Regulation	+3% for 10-90% or 90-10% load variation; +1% for +25% step change in AC input voltage
Output Noise	< 2mVrms Psophometric weighting; < 10mVrms 10kHz - 100MHz; < 100mV peak to peak 0-30MHz bandwidth
Other Specifications	
Surge Protection	IEC 61000-4-4 / IEC 61000-4-5 / IEEE C62.41
EMC	Emission: EN 61000-6-3,Immunity: EN61000-6-1
Inrush Current	< 28.5 Arms peak at nominal mains voltage
Voltage Withstand Test	3.0 kVAc - input and output (4.25 kVDC primary-secondary); 1.5 kVAc - input earth (2.12 kVDC primary-ground)
Safety	UL 60950-1
Environmental	
Audible Noise at 1 Meter	< 55dBA
Operating temperature	Operating range -10°C ~ 70°C; derated power at 50°C ~ 70°C.
Cooling	Two fan cooled, speed controlled and alarmed
Humidity	0-95% non-condensing
Mechanical	
Dimension (W x H x D)(mm)	41 x 144 x 338
Weight	<2.1Kg
Alarms	
Alarm and Status LED indications on SMR	On (Green) - SMR functioning normally; Alarm (Yellow) - Blinking when any SMR alarm is present. Shutdown (Red) - Stays on when SMR has turned off due to a signal from the MCSU2048 or an internal fault.
Rectifier Alarms	Low/High output voltage alarm; Over voltage shutdown alarm; Current limit alarm; Fan Alarm Temperature alarm; Rectifier failure alarm

Asia

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