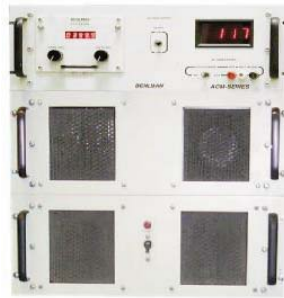


ACM SERIES



ACM-250 with OSN-1-45/2500



ACM-3000 OSN-1-45/2500

FEATURES

- Linear Amplifier with wide bandwidth to 10,000 Hz
- Low output distortion – less than 0.5% THD
- Plug in oscillator offers flexibility
- Front panel controls for voltage and frequency

PRECISION, HIGH QUALITY POWER FOR LABORATORY AND PRODUCTION APPLICATIONS

Behlman's ACM Series AC Power Sources deliver clean, regulated linear power. Models provide from 250 VA up to 9000 VA of power at output frequencies from 45 to 10,000 Hz. The ACM Series combines highly advanced magnetics with solid state circuitry for stability and reliability. The ACM series has many unique features including: low output distortion, wide bandwidth, fast transient response, dual voltage ranges, variable voltage & frequency controls.

A digital feedback system in the power amplifier ensures precise regulation and low distortion. Sophisticated electronic overload and short circuit protection systems recover instantly when an overload is removed. The ACM Series is ideal for a variety of laboratory and manufacturing applications.

All performance specifications are based on 25° C ambient temperature, nominal input line, unity power factor and operation at 74 to 100% of output voltage range. Specifications subject to change without prior notice.

TABLE 1: ACM SERIES MODEL SELECTION

Model Number	Power Output		Output Current/Phase (Amps)		Weight. lbs (kgs)	Dimensions 19" (48.3 cm) Rack-mount chassis H"xD" (cm)	No. of chassis
	Rated	Maximum	135 V range	270 V range			
Single-phase output models							
ACM-250	250 VA	335 VA	2.5	1.3	40 (18.2)	5.25"x15" (13.3x38.1)	1
ACM-750	750 VA	1.000 VA	7.5	3.8	69 (31.3)	7.00"x19" (17.8x48.3)	1
ACM-1.000	1.000 VA	1.350 VA	10.0	5.0	90 (40.9)	8.75" x 19" (22.2x48.3)	1
ACM-1.500	1.500 VA	2.025 VA	15.0	7.5	126 (57.2)	14.00" x 19" (35.6x48.3)	2
ACM-3.000	3.000 VA	4.050 VA	30.0	15.0	189 (85.8)	21.00" x 22" (53.3x48.3)	3
Three-phase output models							
ACM-3X250	750 VA	1.000 VA	2.5	1.3	75 (34.0)	7.00"x19" (17.8x48.3)	1
ACM-3X350	1.050 VA	1.425 VA	3.5	1.8	115 (52.2)	8.75"x22" (22.2x55.9)	1
ACM-3X500	1.500 VA	2.025 VA	5.0	2.5	153 (69.5)	14.00"x19" (35.6x48.3)	2

OSCILLATOR SPECIFICATIONS

The oscillators and input modules depicted below are designed to plug into Behlman's precision ACM Power Sources. They are available in fixed and variable frequency output configurations. Variable frequency oscillators provide digital readout of frequency.

TABLE 2: ACM SERIES OSCILLATOR MODEL SELECTION

Single Phase	Three Phase	Frequency Range	Frequency Accuracy
Fixed Frequency	Fixed Frequency		
OSN-1-50	OSN-3-50	50 Hz	+/-0.01%
OSN-1-60	OSN-3-60	60 Hz	+/-0.01%
OSN-1-400	OSN-3-400	400 Hz	+/-0.01%
OSN-1-CSF	OSN-3-CSF	50 Hz, 60 Hz, 400 Hz and customer selected frequency. Note 3	+/-0.01%
Variable Frequency	Variable Frequency	Meter Accuracy	Frequency Accuracy
OSN-1-45/2500	OSN-3-45/2500	45-2500 Hz, single band	+/-0.01% of reading
OSN-1-45/10000	OSN-3-45/10000	45-10000 Hz, dual band	+/-0.01% of reading
External Input	External Input		
EIP-1 Note 4 & 5	EIP-3 Note 4 & 5		

INPUT

Voltage	ACM-250/ACM-1500 and ACM-3X250/ACM-3X500
Standard	115/230 VAC +/-10%, 1-phase
Option 05	100/200 VAC +/-10%, 1-phase
ACM-3000	
Standard	120/208 VAC +/-10%, 3-phase
Option 03	230/400 VAC +/-10%, 3-phase
Option 04	240/415 VAC +/-10%, 3-phase
Frequency	47-63 Hz

OUTPUT

Power	See Table 1
Voltage	0-135, 0-270 VAC, Switch selectable
Option 06	0-34, 0-135 VAC, Switch selectable
Note	Current output on 0–34 VAC range is 4 times the 0–135 VAC range per phase up to maximum of 30 Amps per phase
Frequency	45–2.500 Hz
Option 07	45–10.000 Hz
Current	See Table 1
Peak current	200% of rated output current... Repetitive current required to charge a capacitor in a typical diode capacitor filter
Power Factor	100% of rated output into any power factor load... (unity to zero, leading or lagging)
Distortion:	Less then 0.5% THD at rated power output into linear load, up to 2.500 Hz
Option 07:	Less then 1.0%THD at rated power output into linear load, up to 2.500 Hz. Less then 2.0% THD at rated power output into linear load, up to 10.000 Hz
Maximum Power Output	Obtainable at 100% of either output voltage range
Maximum Output Current	Up to 120% of rated current output for a maximum of one-half hour
Line Regulation	+/-0.1% for +/-10% line change
Load Regulation	+/-0.5% no load to full load
Amplifier response	50 microseconds to 90% of programmed value

NOTES

1. Switch selectable - four fixed frequencies of 50, 60, 400 Hz, and one customer specified frequency, from 45 to 2500 Hz.
2. Provides user direct access to the amplifier for external signal input capability.
3. Amplifier drive signal 0-8.0V RMS into 15K ohms impedance.

PROTECTIVE CIRCUITS

Input	Fast-acting main circuit breaker
Overload	Electronic overload and short circuit protection which folds back the voltage and instantaneously recovers when the overload is removed
Thermal	Internal temperature sensor shuts off output to prevent heat damage

ENVIRONMENTAL / CONNECTIONS

Operating Temp	32° F to 131° F (0-55° C)
Humidity	0-95% RH non-condensing
Input Connections	Barrier strip on rear
Output Connections	Barrier strip on rear

CONTROLS / INDICATORS

Power On/Off	Circuit breaker and indicator
Output On/Off	Toggle switch
Range Select	Toggle switch (High/Low)
Volts display	DMM for volts OUTPUT
Oscillator	Plug-in Oscillator see table 2 for selection
Volts adj.	Ten-turn potentiometer
Freq. adj.	Ten-turn potentiometer (variable freq. models)
Freq. display	DMM for frequency (variable freq. models)

ADDITIONAL OPTIONS

08V/F	External 0-10VDC control of amplitude (V) and frequency (F), via rear terminal strip. (Select 08A or 08B on oscillator options) Not available with oscillator option 11.
09	Allows user to sync AC source with external signal via BNC connector. Not available with oscillator option 11
13	Allows user to parallel phases on three phase models
CE	Available with CE mark
CS-2	Slides

OSCILLATOR OPTIONS

08A	Removes front panel controls for voltage and frequency. To be used with Option 08 on the AC source.
08B	Local-Remote. In remote mode, uses the 0-10VDC control. In local mode, uses front panel controls for voltage and frequency. To be used with Option 08 on the AC source.
10V/F	Locking controls. Allows user to lock potentiometer adjustment of voltage and/or frequency.
11	Specifies original style Behlman oscillator connector for compatibility with legacy Behlman amplifiers.

