



synchro/resolver amplifier
reference powered 15VA
series 175A400



FEATURES

- Transformer isolated
- Drives multiple CT & CDX loads
- Short ckt & overload protected
- Thermal cutoff

APPLICATIONS

- Training simulators
- Fire control
- Retransmission systems
- Remote indicators

GENERAL DATA

The series 175A400 is a compact synchro/resolver amplifier designed to be bolted to a chassis. The amplifier operates directly from either 26V or 115V, 60Hz or 400Hz reference power. A pulsating power supply is incorporated making the device very efficient.

This series is designed to boost the power capability of synchro transmission lines or the outputs of low power D/S or D/R converters. They can also replace electro-mechanical systems that are prone to failures. This series is specifically designed to drive passive loads such as Control Transformers (CT) and Control Differential Transmitters (CDX).

For airborne applications encountering extreme temperature ranges, high shock, vibration and humidity environments, a ruggedized version is available.

SPECIFICATIONS

Parameter	Value
Resolution	Infinite
Accuracy	±3 arc minutes
Synchro Inputs	
Input Isolation	Transformer
Voltage	11.8V or 90V L-L
Impedance	60KΩ min.
Resolver Inputs	
Input Isolation	Transformer
Voltage	6.81V or 11.8V
Impedance	60KΩ min.
Synchro Outputs	
Voltage	11.8V or 90V L-L
Gain Tolerance	1%
Phase Shift	0.5° max.
Power	No load to 15VA
Reference Input	
Isolation	Transformer
Frequency	57-63Hz or 360-440Hz
Voltage	26Vrms or 115Vrms
Thermal Characteristics	
Case Temperature Ranges	
Operating	-40° to +85°C
Storage	-55° to +125°C
Thermal Resistance	
Case to Free Air	2°/VA
Thermal Cut-off	+125°C
Altitude	Sea level to 70,000 ft.
Physical Characteristics	
Size	
60Hz Version	7.25" x 4.376" x 1.80"
400Hz Version	7.25" x 4.376" x 1.45"
Weight	3.0 lb

ORDERING INFORMATION

175A SUFFIX	INPUT TYPE	INPUT VOLTAGE	FREQ (HZ)	OUTPUT TYPE	OUTPUT VOLTAGE	POWER (RH-RL)
401	SYNC	11.8V	400	SYNC	11.8V	115V
402	SYNC	11.8V	400	SYNC	11.8V	26V
403	SYNC	11.8V	400	SYNC	90V	115V
404	SYNC	90V	400	SYNC	90V	115V
405	RSVR	6.81V	400	SYNC	11.8V	26V
406	RSVR	11.8V	400	SYNC	11.8V	26V
407	RSVR	6.81V	400	SYNC	90V	115V
408	RSVR	11.8V	400	SYNC	90V	115V
409	SYNC	11.8V	60	SYNC	90V	115V
410	SYNC	90V	60	SYNC	90V	115V
411	RSVR	6.81V	60	SYNC	90V	115V
412	RSVR	11.8V	60	SYNC	90V	115V

NOTES:

1. Power input (RH-RL) must be same source as synchro excitation.
2. Add suffix ET to part no. for extended temperature range (-55° to +85°C).
3. Add suffix ETR to part no. for ruggedized version.

PIN ASSIGNMENT

PIN	FUNCTION	PIN	FUNCTION
1	RH	14	CHASSIS GND
2	TP	15	RL
3	TP	16	TP
4	S1 OUT	17	TP
5	S3 OUT	18	S2 OUT
6	TP	19	TP
7	TP	20	NC
8	S1 IN (SIN LO)	21	S3 IN (SIN HI)
9	S4 IN (COS LO)	22	S2 IN (COS HI)
10	TP	23	NC
11	NC	24	NC
12	NC	25	NC
13	NC		

NOTES:

1. NC means no connection is made to this pin internally.
2. TP means test points intended for factory use only.

MECHANICAL OUTLINE

