



# Fantech

January 2008

FADE0108

## FADE SERIES

### SIDEWALL PROPELLER FANS

**100% Speed Controllable**  
**Three Year Warranty**

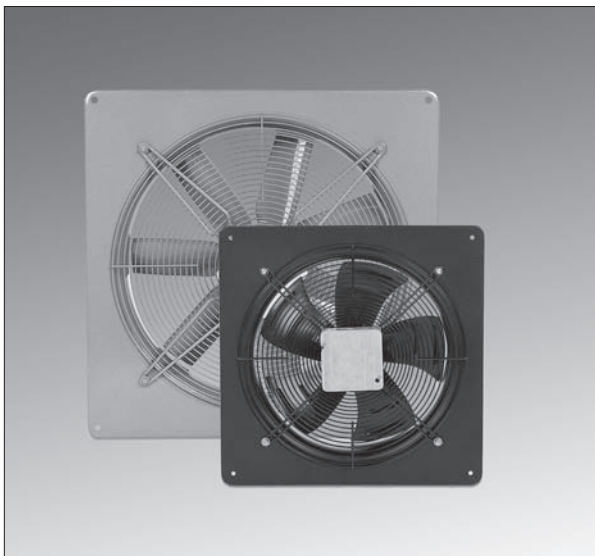


Fantech, Inc. certifies that the FADE Series shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



# FADE SERIES

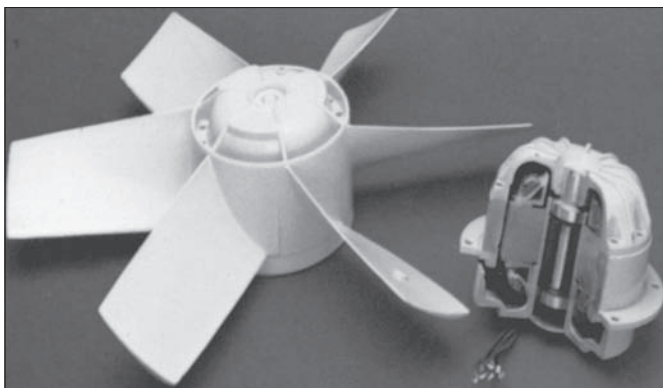
## SIDEWALL PROPELLER FANS



### Description

A series of sidewall propeller fans designed for structural stability with a slim profile for conservation of space and safety. All FADE Series fans have aerodynamically designed propeller blades and motor rotor assembled as one integral unit. All fans are statically and dynamically balanced for vibration free operation. Fans arrive fully assembled and are ready for immediate installation. All FADE fans include motor-side guards as standard. FADE Series motors are a totally enclosed Class B, direct drive external rotor type with sealed self lubricating bearings and automatic reset thermal overload protection. Motors are capable of operating in ambient air or air stream temperatures of up to 100°F. FADE Series fans are 100% speed controllable through a decrease in voltage by using either a solid state or transformer type control.

**All FADE Series fans are backed by Fantech's Three Year Warranty.**



All FADE Series fans are powered by an external rotor motorized propeller. This design provides excellent heat dissipation even at low rpm. All of the FADE Series fans 100% speed controllable through voltage reduction allowing for precision balancing of systems. Standard models are provided with 115/1/60 motors. Optional 230-460/3/60 motors available for models 20-4, 22-6 and 25-6 available.

### Features

- **100% Speed Controllable**
- Air Flows up to 7850 cfm
- Integral Blades and External Rotor allowing precision balancing
- Formed steel wall panel with Venturi
- Shallow profile with no protruding motor
- External rotor motor. Sufficient service factor provided to ensure long and maintenance free operation over maximum load conditions.
- Automatic Reset Thermal Overload Protection
- Electrostatically applied polyester/epoxy urethane powder- coat finish
- Self lubricating/sealed for life precision ball bearings
- Terminal box with prewired electrical strip
- **Three Year Warranty**

### Typical Specifications for Model FADE Sidewall Propeller Fans

Sidewall propeller fans shall be of the direct driven type.

### Construction

Fan wall panel shall be constructed of heavy gauge galvanized steel and shall incorporate a well designed inlet venturi for maximum air performance and fan efficiency. Fan motorized propeller assembly shall be mounted directly to the wall panel. Fan shall include integral motor-side inlet guard. Fan panel, guard, blades and motor shall be finished with two coats of corrosion resistant polyester/epoxy urethane powder coat finish.

Motorized propeller assembly shall be a external rotor type. Motor shall be permanent split capacitor type. Motor shall include permanently sealed self lubricating ball bearings. Motor shall be equipped with automatic reset thermal overload protection. Motor shall be acceptable for continuous duty. Sufficient service factor shall be provided to ensure long maintenance free operation over maximum load conditions.

Fan propeller blades shall incorporate an airfoil design. Propellers shall be constructed of die-cast aluminum and shall be an integral part of the motor rotor. Motorized propeller assembly shall be both statically and dynamically balanced as one integral unit to provide for vibration free performance.

### Performance

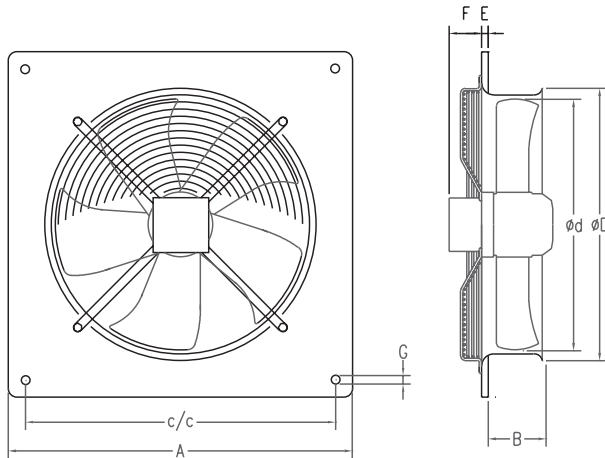
Fan performance shall be based on tests conducted in accordance with AMCA Standards 210, 300 and 301 and shall be licensed to bear the AMCA Certified Ratings label for both sound and air.

### Code Approval

Fan shall be tested and approved by UL (or equal) for safety.

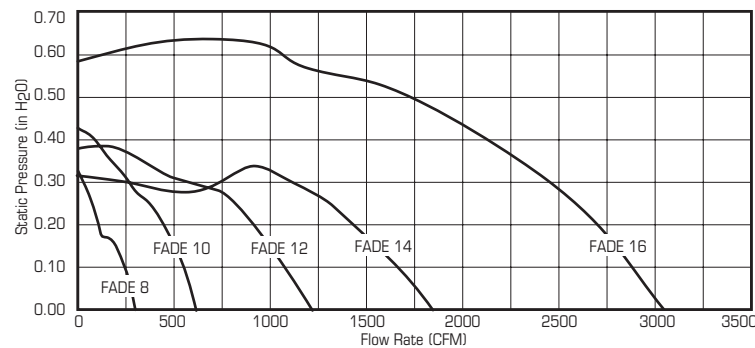
FADE Series shall be manufactured under the authority of Fantech, Inc., Sarasota, FL.

# FADE 8-16



Fan Size	Fan Dimensional Data								Shipping Weight
	A	B	c/c	d	D	E	F	G	
8	12 5/16	2	10 1/4	7 3/4	8 1/16	1/4	1 1/2	1/4	15
10	14 9/16	2	12 5/8	10	10 5/16	1/4	1 1/2	1/4	15
12	17	3	15	12	12 7/8	1/2	1 1/2	5/16	20
14	19 3/16	3 1/8	17 1/8	14	15 3/8	1/2	2	5/16	20
16	22 3/4	3 1/2	21	16 1/2	17 1/4	1/2	2	3/8	25

Dimensions in inches.



Model	Nom. RPM	Max. Watts	Nom. Hp	Static Pressure in Inches WG					
				0.0"	0.10"	0.125"	0.25"	0.375"	0.50"
8	1530	45	1/25	304	246	224	74	-	-
10	1500	68	1/15	624	558	533	377	132	-
12	1410	130	1/8	1208	1069	1030	797	-	-
14	1185	245	1/4	1839	1654	1599	1295	-	-
16	1410	458	1/3	3054	2882	2839	2570	2198	1699



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Speed (RPM) shown is nominal. Performance ratings include the effect of inlet guard. Performance certified is for installation type A: free inlet, free outlet.

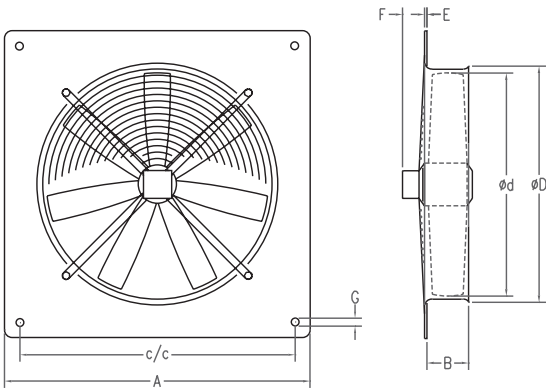
Model	Nom. RPM	SP	Sound Power re 10 <sup>-12</sup> Watts								L <sub>wi</sub> dB(A)	'Sones
			Octave Bands, Hz									
			63	125	250	500	1000	2000	4000	8000		
8	1530	0.100	60	60	55	52	52	51	48	38	57	4.1
		0.125	60	61	54	52	53	50	47	38	58	4.2
		0.250	63	65	61	56	51	53	45	38	59	4.6
10	1500	0.100	60	62	67	64	63	62	59	50	68	7.9
		0.125	60	62	67	64	63	61	59	50	68	7.8
		0.250	63	67	67	62	59	58	55	47	66	6.9
12	1410	0.100	59	67	69	65	66	65	61	54	71	9.4
		0.125	58	67	68	65	65	65	61	54	71	9.2
		0.250	60	65	62	62	62	63	58	49	68	7.7
14	1185	0.100	61	74	66	67	67	65	61	55	71	9.6
		0.125	61	74	65	67	67	64	60	55	71	9.5
		0.250	63	67	67	66	65	63	59	53	70	8.6
16	1410	0.100	60	74	68	73	69	68	66	59	75	12.0
		0.125	60	75	68	73	68	68	66	59	75	11.9
		0.250	60	73	67	71	67	67	66	58	74	11.5
		0.375	62	72	68	69	66	67	66	57	73	11.3

The sound ratings shown are loudness values in fan sones at 5ft. (1.5m) in hemispherical free field calculated per AMCA Standard 301.

Values shown are for installation Type A: Free inlet hemispherical fan sone levels. All sone values shown are calculated at 0.1" (static pressure in inches W.G.).

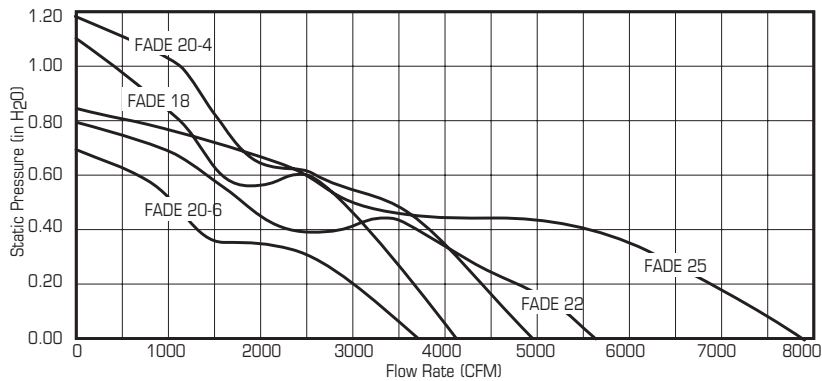
The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> and inlet L<sub>wiA</sub> sound power levels for installation type A: Free inlet, Free outlet. Ratings include the effects of duct end correction for inlet duct.

# FADE 18-25



Fan Size	Fan Dimensional Data								Shipping Weight
	A	B	c/c	d	D	E	F	G	
18	22 5/16	4 1/4	21	18	18 1/2	1/2	2	3/8	30
20-6	25 3/16	4 1/2	24 1/4	20	20 1/2	1/2	2	3/8	45
20-4	25 3/16	4 1/2	24 1/4	20	20 1/2	1/2	2	3/8	45
22	28 5/8	5 1/4	26 5/16	22	22 1/2	3/4	2	3/8	55
25	31 3/4	6	29 1/2	25	25 1/2	3/4	2	3/8	65

Dimensions in inches.



Model	Nom. RPM	Max. Watts	Nom. Hp	Static Pressure in Inches WG					
				0.0"	0.10"	0.125"	0.25"	0.375"	0.50"
18-4	1525	245	1/3	4115	3895	3840	3549	3239	2908
20-6	1080	435	1/2	3693	3368	3279	2775	1429	-
20-4	1450	916	1	4949	4682	4615	4274	3917	3445
22-6	990	756	3/4	5629	5248	5153	4432	-	-
25-6	975	1134	1 1/2	7858	7355	7230	6557	-	-



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Speed (RPM) shown is nominal. Performance ratings include the effect of inlet guard. Performance certified is for installation type A: free inlet, free outlet.

Model	Nom. RPM	SP	Sound Power re 10 <sup>-12</sup> Watts								L <sub>wi</sub> dB(A)	'Sones
			Octave Bands, Hz									
			63	125	250	500	1000	2000	4000	8000		
18-4	1530	0.100	64	70	75	72	70	71	69	64	77	14.3
		0.125	64	71	75	72	70	71	69	64	77	14.2
		0.250	64	73	75	72	71	72	70	65	78	14.7
		0.375	64	74	75	72	71	72	70	65	78	14.8
20-6	1080	0.100	61	69	71	68	66	67	65	57	73	10.7
		0.125	62	68	71	68	66	67	64	56	73	10.7
		0.250	70	74	73	70	68	67	64	57	74	11.7
20-4	1450	0.100	66	76	72	73	73	74	73	65	79	16.4
		0.125	66	76	72	73	73	74	72	65	79	16.4
		0.250	68	78	72	73	73	74	72	66	80	16.6
		0.375	72	83	77	76	75	74	72	65	81	17.8
22-6	990	0.100	61	74	69	68	70	69	66	59	75	12.0
		0.125	60	74	69	68	71	69	66	59	75	12.0
		0.250	62	71	70	69	69	68	66	60	74	11.7
25-6	975	0.100	64	77	75	73	72	72	69	63	78	14.8
		0.125	65	76	75	73	72	72	69	63	78	14.7
		0.250	68	76	75	73	73	72	69	63	78	14.9

The sound ratings shown are loudness values in fan sones at 5ft. (1.5m) in hemispherical free field calculated per AMCA Standard 301.

Values shown are for installation Type A: Free inlet hemispherical fan sone levels. All sone values shown are calculated at 0.1" (static pressure in inches W.G.).

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> and inlet L<sub>wiA</sub> sound power levels for installation type A: Free inlet, Free outlet. Ratings include the effects of duct end correction for inlet duct.

# ACCESSORIES

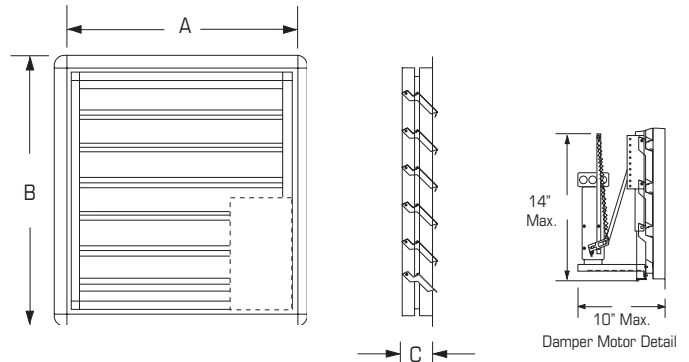
## Exterior Mount Louvered Dampers Models GDV and MDV



Fan Model	Louvered Dampers		Actuator 120V	Dimensions Loose Damper		
	Loose	w/Collar		A	B	C
8	GDV 9			9	11 ½	3
10	GDV 10			10	12 ½	3
12	GDV 12	GDV 18	MP2781A	12	14 ½	3
14	GDV 16	GDV 18	MP2781A	16	18 ½	3
16	GDV 18	GDV 21	MP2781A	18	20 ½	3
18	GDV 18	GDV 18	MP2781A	18	20 ½	3
20	GDV 21	GDV 21	MP2781A	21	23 ½	3
22	GDV 26	GDV 26	MP2781A	26	28 ½	3
25	GDV 26	GDV 26	MP2781A	26	28 ½	3

### Standard Specifications:

Maximum Face Velocity: 3000 fpm  
 Temperature Limits: -40°F to 200°F (-40°C to 94°C)  
 Minimum Size: 8" x 8"  
 Frame: 20 gauge galvanized steel  
 Front Flange: 1.25 inches wide  
 20 gauge galvanized steel  
 Blades: 0.025 inch thick aluminum  
 HD 28 gauge galvanized steel  
 Seals: Extruded vinyl, mechanically locked into blades  
 Axles: Stainless steel  
 Linkage: Stainless steel pins, galvanized steel tie bar  
 Finish: Mill

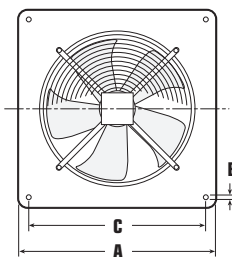


#### NOTES:

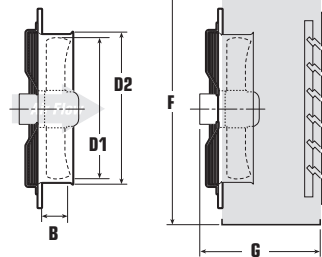
- (1) Fan should be mounted no closer to shutter than 1/3 propeller diameter or 4 inches for propellers less than 12 inches in diameter.
- (2) Standard motors are supplied as 120V single phase.
- (3) Dampers are shipped in individual cartons. Motors and mounting hardware shipped separately.
- (4) Multiple section dampers may require bracing to support the weight of the assembly and to hold against system pressure. BRACING SUPPLIED BY OTHERS.
- (5) **CAUTION:** Motor kits are not suitable for use in potentially explosive or flammable applications or areas.

# DIMENSIONAL DATA

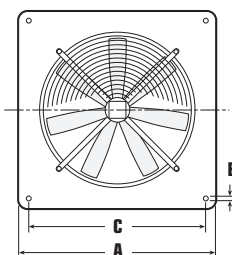
**Fade S-Type**  
"Fan Only" Model



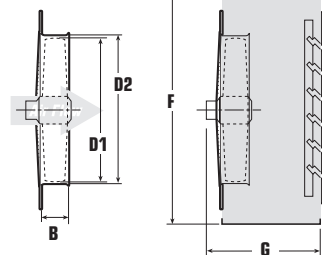
**Fade S-Type**  
"Fully Assembled" Model



**Fade A-Type**  
"Fan Only" Model



**Fade A-Type**  
"Fully Assembled" Model



Model	A	B	C	D1	D2	E	F	G	Blade Type
FADE 8	12 5/16	2	10 1/4	7 3/4	8 1/16	1/4	—	—	S
FADE 10	14 5/16	2	12 5/8	10	10 5/16	1/4	—	—	S
FADE 12	17	3	15	12	12 7/8	5/16	21	15 1/2	S
FADE 14	19 5/16	3 1/8	17 1/8	14	15 5/8	3/16	21	15 1/2	S
FADE 16	22 3/4	3 1/2	21	16 1/2	17 1/4	3/8	24	16 1/2	S
FADE 18	22 5/16	4 1/4	21	18	18 1/2	3/8	24	16 1/2	A
FADE 20-6	25 5/16	4 1/2	24 1/4	20	20 1/2	3/8	26	17 1/2	A
FADE 20-4	25 5/16	4 1/2	24 1/4	20	20 1/2	3/8	26	17 1/2	A
FADE 22	28 5/8	5 1/4	26 5/8	22	22 1/2	3/8	32	18 3/4	A
FADE 25	31 3/4	6	29 1/2	25	25 1/2	3/8	32	18 3/4	A



## Three (3) Year Warranty

This warranty supersedes all prior warranties

### DURING ENTIRE WARRANTY PERIOD:

FANTECH will repair or replace any part which has a factory defect in workmanship or material. Product may need to be returned to the Fantech factory, together with a copy of the bill of sale and identified with RMA number.

### FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by calling FANTECH either in the USA at 1.800.747.1762 or in CANADA at 1.800.565.3548. Please have bill of sale available.
- The RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer; no credit will be issued.

### OR

The Distributor may place an order for the warranty part and/or product and is invoiced. The Distributor will receive a credit equal to the invoice only after product is returned prepaid and verified to be defective.

FANTECH WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT. REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED, AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE END

USER, AS CREDIT TO DISTRIBUTOR'S ACCOUNT WILL BE PENDING INSPECTION AND VERIFICATION OF ACTUAL DEFECT BY FANTECH.

### THE FOLLOWING WARRANTIES DO NOT APPLY:

- Damages from shipping, either concealed or visible. Claim must be filed with freight company.
- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedures, such as:
  1. Improper maintenance
  2. Misuse, abuse, abnormal use, or accident, and
  3. Incorrect electrical voltage or current.
- Removal or any alteration made on the FANTECH label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

### WARRANTY VALIDATION

- The user must keep a copy of the bill of sale to verify purchase date.
- These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

## Limitation of Warranty and Liability

This warranty does not apply to any FANTECH INC. product or part which has failed as a result of faulty installation or abuse, incorrect electrical connections or alterations made by others, or use under abnormal operating conditions or misapplication of the product or parts. We will not approve for payment any repair not made by us or our authorized agent without prior written consent. The foregoing shall constitute our sole and exclusive warranty and our sole exclusive liability, and is in lieu of any other warranties, whether written, oral, implied or statutory. There are no warranties which extend beyond the description on the page hereof. In no event, whether as a result of breach of contract, or warranty or alleged negligence, defect incorrect advice or other causes, shall FANTECH be liable for special or consequential damages, including, but not limited to, loss of profits or revenue, loss of use of equipment or any other associated equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs, or claims of customers of purchase for such damages. FANTECH neither assumes or authorizes any person to assume for it any other liability in connection with the sale of product(s) or part(s). Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages so the above limitations and exclusions may not apply to you.

## Warning

FANTECH, INC. products are designed and manufactured to provide reliable performance, but they are not guaranteed to be 100% free from defects. Even reliable products will experience occasional failures and this possibility should be recognized by the user. If these products are used in a life support ventilation system where failure could result in loss or injury, the user should provide adequate backup ventilation, supplementary natural ventilation, failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

*Represented By:*



**Fantech**  
www.fantech.net

### United States

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### Canada

50 Kanalfakt Way • Bouctouche, NB E4S 3M5  
(T) 1.800.656.3548 • (F) 1.877.747.8116  
(T) 1.506.743.9500 • (F) 1.506.743.9600