













## greenfan® inc.

## Smart Fan Controller™ (SFC™) Model 1413-01

Smart Fan Controller SFC software automatically adjusts and extends cooling and heating variable fan-off delays based on the duration of on and off cycles to improve cooling and heating energy efficiency by 10 to 20% based on Intertek® laboratory tests.  Intertek® Lab Tested AC and gas furnace lab tests www.greenfan.co/s/Intertek_DXGF.pdf Heat pump and hydronic lab tests www.greenfan.co/s/Intertek_DXGF.pdf Heat pump and hydronic lab tests www.greenfan.co/s/Intertek_DXHP.pdf  CPUC-Approved SWHC059-01 Smart Fan Controller (SFC) measure package is approved statewide by the California Public Utilities Commission. www.caetrm.com/measure/SWHC059/01/  Compliance UL 916 Energy Management Accessory Certification E 366046  Compatibility Works with smart thermostats on split-system and packaged air conditioning systems and gas furnace, heat pump, electric, and hydronic heating systems.  Value Proposition High customer satisfaction based on improved indoor air quality and comfort.  Indoor Air Quality SFC prevents biofilms and maintains proper airflow by removing 0.5 to 0.8 lbs of water per AC cycle to dry evaporator coil after each cooling cycle. According to Montana State University Center for Biofilm Engineering, biofilms are formed by viruses, bacteria, mold, fungi, mites, and dust attaching to water on evaporator coils which can detach from the coil surface and flow into conditioned spaces impacting indoor air quality. https://www.biofilm.montana.edu/  Standby Power SFC standby power is only 0.3W and 2.5 kWh/y versus other fan controllers and smart thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power.  Reliability SFC opto-isolator circuit eliminates stray voltage to prevent false triggering and prevent turning on fan during smart thermostat power stealing  Electric Specifications 0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse  Wiring Harness 18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B). Black thermostat fan G, green to HVAC equipment to ensur		
Heat pump and hydronic lab tests <a href="www.greenfan.co/s/Intertek">www.greenfan.co/s/Intertek</a> DXHP.pdf CPUC-Approved  SWHC059-01 Smart Fan Controller (SFC) measure package is approved statewide by the California Public Utilities Commission. <a href="www.caetrm.com/measure/SWHC059/01/">www.caetrm.com/measure/SWHC059/01/</a> Compatibility  UL 916 Energy Management Accessory Certification E 356046  Compatibility  Works with smart thermostats on split-system and packaged air conditioning systems and gas furnace, heat pump, electric, and hydronic heating systems.  Value Proposition  High customer satisfaction based on improved indoor air quality and comfort.  Indoor Air Quality  SFC prevents biofilms and maintains proper airflow by removing 0.5 to 0.8 lbs of water per AC cycle to dry evaporator coil after each cooling cycle. According to Montana State University Center for Biofilm Engineering, biofilms are formed by viruses, bacteria, mold, fungi, mites, and dust attaching to water on evaporator coils which can detach from the coil surface and flow into conditioned spaces impacting indoor air quality. <a href="https://www.biofilm.montana.edu/">https://www.biofilm.montana.edu/</a> Standby Power  SFC standby power is only 0.3W and 2.5 kWh/y versus other fan controllers and smart thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power  Reliability  SFC opto-isolator circuit eliminates stray voltage to prevent false triggering and prevent turning on fan during smart thermostat power stealing  Electric Specifications  Wiring Harness  18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump 0/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump 0/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump 0/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump 0/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump 0/B, Black thermostat fan G, g	SFC Model 1413-01	fan-off delays based on the duration of on and off cycles to improve cooling and
the California Public Utilities Commission. <a href="www.caetrm.com/measure/SWHC059/01/">www.caetrm.com/measure/SWHC059/01/</a> Compatibility  Us 916 Energy Management Accessory Certification E 356046  Compatibility  Works with smart thermostats on split-system and packaged air conditioning systems and gas furnace, heat pump, electric, and hydronic heating systems.  Value Proposition  High customer satisfaction based on improved indoor air quality and comfort.  SFC prevents biofilms and maintains proper airflow by removing 0.5 to 0.8 lbs of water per AC cycle to dry evaporator coil after each cooling cycle. According to Montana State University Center for Biofilm Engineering, biofilms are formed by viruses, bacteria, mold, fungi, mites, and dust attaching to water on evaporator coils which can detach from the coil surface and flow into conditioned spaces impacting indoor air quality, <a href="https://www.biofilm.montana.edu/">https://www.biofilm.montana.edu/</a> Standby Power  SFC standby power is only 0.3W and 2.5 kWh/y versus other fan controllers and smart thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power  Reliability  SFC opto-isolator circuit eliminates stray voltage to prevent false triggering and prevent turning on fan during smart thermostat power stealing  Electric Specifications  0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse  Wiring Harness  18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation  SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty  5-year warranty and solid-state design lasts for life of HVAC equipment  Patented variable fanoff delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 2 to 3.5 min. HP heating f	Intertek® Lab Tested	
Compatibility  Works with smart thermostats on split-system and packaged air conditioning systems and gas furnace, heat pump, electric, and hydronic heating systems.  Value Proposition  High customer satisfaction based on improved indoor air quality and comfort.  Indoor Air Quality  SFC prevents biofilms and maintains proper airflow by removing 0.5 to 0.8 lbs of water per AC cycle to dry evaporator coil after each cooling cycle. According to Montana State University Center for Biofilm Engineering, biofilms are formed by viruses, bacteria, mold, fungi, mites, and dust attaching to water on evaporator coils which can detach from the coil surface and flow into conditioned spaces impacting indoor air quality. https://www.biofilm.montana.edu/  Standby Power  SFC standby power is only 0.3W and 2.5 kWh/y versus other fan controllers and smart thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power  Reliability  SFC opto-isolator circuit eliminates stray voltage to prevent false triggering and prevent turning on fan during smart thermostat power stealing  Electric Specifications  0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse  Wiring Harness  18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation  SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty  SFC apar warranty and solid-state design lasts for life of HVAC equipment  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  20°F-122°F (0°C-5	CPUC-Approved	
and gas furnace, heat pump, electric, and hydronic heating systems.  Value Proposition High customer satisfaction based on improved indoor air quality and comfort.  Indoor Air Quality SFC prevents biofilms and maintains proper airflow by removing 0.5 to 0.8 lbs of water per AC cycle to dry evaporator coil after each cooling cycle. According to Montana State University Center for Biofilm Engineering, biofilms are formed by viruses, bacteria, mold, fungi, mites, and dust attaching to water on evaporator coils which can detach from the coil surface and flow into conditioned spaces impacting indoor air quality. https://www.biofilm.montana.edu/  Standby Power SFC standby power is only 0.3W and 2.5 kWh/y versus other fan controllers and smart thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power  Reliability SFC opto-isolator circuit eliminates stray voltage to prevent false triggering and prevent turning on fan during smart thermostat power stealing  Electric Specifications 0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse  Wiring Harness 18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty 5-year warranty and solid-state design lasts for life of HVAC equipment  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. Hydelectric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions 32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics RoHS and Prop 65 compliant all parts are UL listed  Packaging RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions 1.2" W x 0.5" D x 8" L with thermostat wires	Compliance	UL 916 Energy Management Accessory Certification E 356046
Indoor Air Quality  SFC prevents biofilms and maintains proper airflow by removing 0.5 to 0.8 lbs of water per AC cycle to dry evaporator coil after each cooling cycle. According to Montana State University Center for Biofilm Engineering, biofilms are formed by viruses, bacteria, mold, fungi, mites, and dust attaching to water on evaporator coils which can detach from the coil surface and flow into conditioned spaces impacting indoor air quality. https://www.biofilm.montana.edu/  Standby Power  SFC standby power is only 0.3W and 2.5 kWh/y versus other fan controllers and smart thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power  Reliability  SFC opto-isolator circuit eliminates stray voltage to prevent false triggering and prevent turning on fan during smart thermostat power stealing  Electric Specifications  0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse  Wiring Harness  18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation  SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty  5-year warranty and solid-state design lasts for life of HVAC equipment  Patented variable fanoff delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics  RoHS and Prop 65 compliant ID listed labels Made in USA  Dimensions  1.2" W x 0.5" D x 8" L with thermostat wires	Compatibility	
per AC cycle to dry evaporator coil after each cooling cycle. According to Montana State University Center for Biofilm Engineering, biofilms are formed by viruses, bacteria, mold, fungi, mites, and dust attaching to water on evaporator coils which can detach from the coil surface and flow into conditioned spaces impacting indoor air quality. https://www.biofilm.montana.edu/  Standby Power  SFC standby power is only 0.3W and 2.5 kWh/y versus other fan controllers and smart thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power  Reliability  SFC opto-isolator circuit eliminates stray voltage to prevent false triggering and prevent turning on fan during smart thermostat power stealing  Electric Specifications  0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse  Wiring Harness  18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation  SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty  5-year warranty and solid-state design lasts for life of HVAC equipment  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics  RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling  RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions  1.2" W x 0.5" D x 8" L with thermostat wires	Value Proposition	High customer satisfaction based on improved indoor air quality and comfort.
thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power  Reliability  SFC opto-isolator circuit eliminates stray voltage to prevent false triggering and prevent turning on fan during smart thermostat power stealing  Electric Specifications  0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse  Wiring Harness  18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation  SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty  5-year warranty and solid-state design lasts for life of HVAC equipment  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics  RoHS and Prop 65 compliant all parts are UL listed  RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling  RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions  1.2" W x 0.5" D x 8" L with thermostat wires	Indoor Air Quality	per AC cycle to dry evaporator coil after each cooling cycle. According to Montana State University Center for Biofilm Engineering, biofilms are formed by viruses, bacteria, mold, fungi, mites, and dust attaching to water on evaporator coils which can detach from the coil surface and flow into conditioned spaces impacting indoor air
prevent turning on fan during smart thermostat power stealing  Electric Specifications  0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse  Wiring Harness  18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation  SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty  5-year warranty and solid-state design lasts for life of HVAC equipment  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics  RoHS and Prop 65 compliant all parts are UL listed  RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling  RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions  1.2" W x 0.5" D x 8" L with thermostat wires	Standby Power	SFC standby power is only 0.3W and 2.5 kWh/y versus other fan controllers and smart thermostats with 1.3 to 1.6W and 11 to 14 kWh/y standby power
Wiring Harness  18 AWG Hook-Up Wires: Red hot R, Blue common B, Yellow AC Y, White heat W (or heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation  SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty  5-year warranty and solid-state design lasts for life of HVAC equipment  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics  RoHS and Prop 65 compliant all parts are UL listed  Packaging  RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling  RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions  1.2" W x 0.5" D x 8" L with thermostat wires	Reliability	
heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot R for heat pump O or accessory diode wire for heat pump B reversing valve.  Easy Installation  SFC quick tests check wire connections for easy, high-quality, and reliable installation to ensure proper operation to save energy and avoid call backs  Warranty  5-year warranty and solid-state design lasts for life of HVAC equipment  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics  RoHS and Prop 65 compliant all parts are UL listed  Packaging  RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling  RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions  1.2" W x 0.5" D x 8" L with thermostat wires	Electric Specifications	0.3 Watts standby power, 24VAC, 50/60Hz, automatic resettable fuse
to ensure proper operation to save energy and avoid call backs  Warranty  5-year warranty and solid-state design lasts for life of HVAC equipment  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics  RoHS and Prop 65 compliant all parts are UL listed  Packaging  RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling  RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions  1.2" W x 0.5" D x 8" L with thermostat wires	Wiring Harness	heat pump O/B), Black thermostat fan G, green to HVAC terminal fan G, Purple to hot
Patented variable fan- off delays  Cooling fan-off delay: 3 to 6 min. Gas furnace heating fan-off delay: 3 to 5.5 min. HP heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions  32°F-122°F (0°C-50°C), 10%-95% RH, 86°F (30°C) maximum dew point  PCB electronics  RoHS and Prop 65 compliant all parts are UL listed  RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling  RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions  1.2" W x 0.5" D x 8" L with thermostat wires	Easy Installation	
off delays heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min. US Pat. 11460208, 9995493, 8763920, 9410713, 9797405, 10047969, 0119719  Ambient Conditions 32°F–122°F (0°C–50°C), 10%–95% RH, 86°F (30°C) maximum dew point  PCB electronics RoHS and Prop 65 compliant all parts are UL listed  Packaging RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions 1.2" W x 0.5" D x 8" L with thermostat wires	Warranty	5-year warranty and solid-state design lasts for life of HVAC equipment
PCB electronics RoHS and Prop 65 compliant all parts are UL listed  Packaging RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions 1.2" W x 0.5" D x 8" L with thermostat wires		heating fan-off delay: 1 to 3.25 min. Hyd/electric heat fan-off delay: 2 to 3.5 min.
Packaging RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462  Labeling RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions 1.2" W x 0.5" D x 8" L with thermostat wires	Ambient Conditions	32°F–122°F (0°C–50°C), 10%–95% RH, 86°F (30°C) maximum dew point
Labeling RoHS and Prop 65 compliant UL listed labels Made in USA  Dimensions 1.2" W x 0.5" D x 8" L with thermostat wires	PCB electronics	RoHS and Prop 65 compliant all parts are UL listed
Dimensions 1.2" W x 0.5" D x 8" L with thermostat wires	Packaging	RoHS and Prop 65 compliant Polyolefin, MgOH2 flame retardant UL E493462
	Labeling	RoHS and Prop 65 compliant UL listed labels Made in USA
Weight 0.8 ounces (22 grams)	Dimensions	1.2" W x 0.5" D x 8" L with thermostat wires
	Weight	0.8 ounces (22 grams)

Performance specifications are nominal and conform to acceptable industry standards. www.greenfan.co/sfc

© 2023 GreenFan Inc. 1413-01 Rev. 0