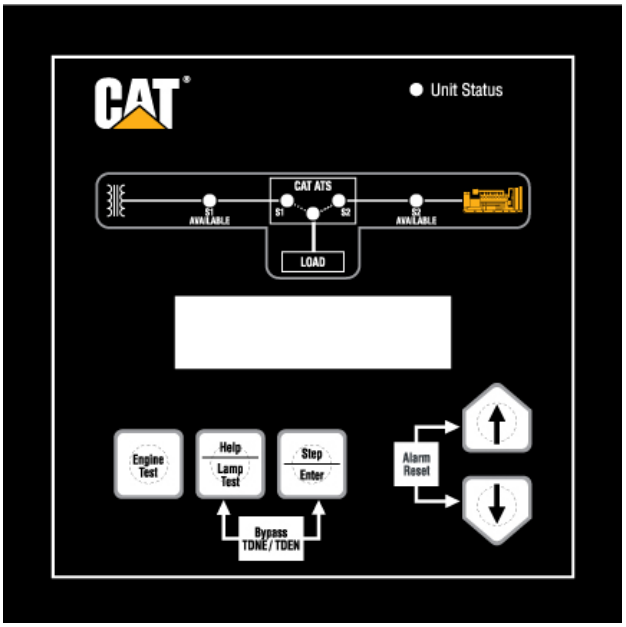

Image Shown may not Reflect Actual Package

ATC-300+ CONTROLLER

The ATC-300+ is a comprehensive and multifunctional microprocessor-based ATS controller. It is a compact and self-contained panel-mounted device that is designed to replace traditional relay and solid-state logic panels.

The ATC-300+ Controller provides programmed flexibility to address the needs of any system. It operates from all system voltages between 120 to 600V, single-phase and three-phase at 50 or 60 Hz. In addition, a period of no control power is provided. The controller monitors the condition of the three-phase line-to-line voltage and frequency of Source 1 and Source 2 power sources and can be programmed for single-phase operation. The ATC-300+ Controller provides the intelligence to ensure that the ATS operates properly through a series of programmed sensing and timing functions.

FEATURES

- Auxiliary relay contacts:
  - Source 1 present 2NO and 2NC
  - Source 2 present 2NO and 2NC
- Source 1 and source 2 sensing:
  - Undervoltage / underfrequency
  - Overvoltage / overfrequency
  - Three-phase rotation protection
  - Three-phase voltage unbalance/loss
- Pre-transfer signal contacts 1NO and 1NC
- Go to emergency (Source 2)
- Seven field-programmable time delays
- LCD-based display for programming, system diagnostic and help message display
- Mimic diagram with source available and connected LED indication
- Time-stamped history log
- System test pushbutton
- Programmable plant exercise (off, daily, 7,14 and 28 day) interval selectable run time 0-600 minutes no load/load with fail-safe
- Integral overcurrent protection (optional)
- In-phase transition
- Stainless steel cover for controller (optional)
- Communications via RS-232 or Modbus through an integrated RS-485 port (optional)

ATC-300+ CONTROLLER SPECIFICATIONS

Description	Specification	
Input control voltage	65 to 145 Vac 50/60 Hz	
Voltage measurements of	Source 1 V_{AB}	Source 2 V_{AB}
	Source 1 V_{BC}	Source 2 V_{BC}
	Source 1 V_{CA}	Source 2 V_{CA}
Voltage measurement range	0 to 790 Vac rms (50/60 Hz)	
Voltage measurement accuracy	±2% of nominal input voltage	
Frequency measurement for	Source 1 and Source 2	
Frequency measurement range	40 Hz to 70 Hz	
Frequency measurement accuracy	±0.1 Hz	
Undervoltage dropout range	50% to 90% of nominal voltage	
Undervoltage pickup range	(Dropout +2%) to 99% of the nominal system voltage	
Overvoltage dropout range	105% to 120% of nominal voltage	
Overfrequency dropout range	103 to 110% of the nominal system frequency	
Overfrequency pickup range	101% to (dropout –1 Hz) of the nominal system frequency	
Underfrequency dropout range	90 to 97% of the nominal system frequency	
Underfrequency pickup range	(Dropout +1 Hz) to 99% of the nominal system frequency	
Overfrequency pickup range	101% to (dropout –1 Hz) of the nominal system frequency	
Operating temperature range	–20 to +70°C (–4 to +158°F)	
Storage temperature range	–30 to +85°C (–22 to +185°F)	
Operating humidity	0 to 95% relative humidity (noncondensing)	
Operating environment	Resistant to ammonia, methane, nitrogen, hydrogen and hydrocarbons	
Generator start relay	5A, 1/6 hp @ 250 Vac	
	5A @ 30 Vdc with a 150W maximum load	
K1, K2, pretransfer, alarm relays	10A, 1–3 hp @ 250 Vac	
	10A @ 30 Vdc	
Applicable testing	UL-recognized component	
	Meets intent of UL 991, 1008	
	Meets IEC 1000-4-2, 1000-4-3, 1000-4-4, 1000-4-5, 1000-4-6, 1000-4-11	
	Meets CISPR 11, Class A	
	Complies with CSA 22.2-178	
	Complies with FCC Part 15, Class A	
Enclosure compatibility	NEMA 1, NEMA 3R and NEMA 12	
	UV-resistant ATC-300+ faceplate	

Parameters Setpoints	
TDNE	0 to 1800 seconds
TDEN	0 to 1800 seconds
TDEC	0 to 1800 seconds
TDES	0 to 120 seconds
TDN	0 to 120 seconds
TDEF	0 to 6 seconds
In-phase	Enabled or disabled
In-phase frequency difference	0.0 to 3.0 Hz
Sync time	1 to 60 minutes
Pretransfer signal service	0 to 120 seconds
Plant exerciser	Disabled, 7, 14 or 28-day intervals, 0–600 minutes, load or no load
Sensing	Three-phase or single-phase
System selection	Utility—utility or utility—generator
Engine test mode	Disabled, load or no load

ATC-300+ CONTROLLER SETPOINTS

Setpoint	Units	Description	Range	Factory Default
New password	Four digits	Set new password	0000 to 9999	300
TDES	Minutes: seconds	Time delay engine start	0 to 120 seconds	0:03
TDNE	Minutes: seconds	Time delay normal to emergency	0 to 1800 seconds	0:00
TDEN	Minutes: seconds	Time delay emergency to normal	0 to 1800 seconds	5:00
TDEC	Minutes: seconds	Time delay engine cool off	0 to 1800 seconds	5:00
NOM FREQ	Hertz	Nominal frequency	50 or 60 Hz	As ordered
NOM VOLTS	Volts	Nominal voltage	120 to 600 Volts	As ordered
S1 UV DROP	Volts	Source 1 undervoltage dropout range	78 to 97% of nominal system voltage	85%
S2 UV DROP	Volts	Source 2 undervoltage dropout range	78 to 97% of nominal system voltage	85%
S1 UV PICK	Volts	Source 1 undervoltage pickup range	(Dropout +2%) to 99% of nominal system voltage	90%
S2 UV PICK	Volts	Source 2 undervoltage pickup range	(Dropout +2%) to 99% of nominal system voltage	90%
S1 OV DROP	Volts	Source 1 overvoltage dropout range	105 to 110% of nominal system voltage	110%
S2 OV DROP	Volts	Source 2 overvoltage dropout range	105 to 110% of nominal system voltage	110%
S1 OV PICK	Volts	Source 1 overvoltage pickup range	103% to (dropout –2%) of nominal system voltage	105%
S2 OV PICK	Volts	Source 2 overvoltage dropout range	103% to (dropout –2%) of nominal system voltage	105%
S1 UF DROP	Hertz	Source 1 underfrequency dropout range	90 to 97% of nominal system voltage	90%
S2 UF DROP	Hertz	Source 2 underfrequency dropout range	90 to 97% of nominal system voltage	90%
S1 UF PICK	Hertz	Source 1 underfrequency pickup range	(Dropout +1 Hz) to 99% of nominal system voltage	95%
S2 UF PICK	Hertz	Source 2 underfrequency pickup range	(Dropout +1 Hz) to 99% of nominal system voltage	95%
S1 OF DROP	Hertz	Source 1 overfrequency dropout range	103 to 105% of nominal system frequency	105%
S2 OF DROP	Hertz	Source 2 overfrequency dropout range	103 to 105% of nominal system frequency	105%
S1 OF PICK	Hertz	Source 1 overfrequency pickup range	101% to (dropout –1 Hz) of nominal system frequency	102%
S2 OF PICK	Hertz	Source 2 overfrequency pickup range	101% to (dropout –1 Hz) of nominal system frequency	102%
PLANT EXER	Days	Plant exerciser programming	Off, daily, 7-day, 14-day or 28-day	OFF
PE LOAD XFR		Plant exerciser load transfer	0 or 1 (1 = yes)	0
PE DAY	Days	Plant exerciser day of the week	1 Sun, 2 Mon, 3 Tues, 4 Wed, 5 Thu, 6 Fri or 7 Sat	
PE HOUR	Hours	Plant exerciser hour	0 to 23	0
PE MINUTE	Minutes	Plant exerciser minute	0 to 59	0
TEST MODE		Test mode	0, 1 or 2 (2 = no load engine test, 1 = load engine test, 2 = disabled)	0
TER	Hours: minutes	Engine run test time	0 min to 600 min	5:00
TPRE	Minutes:Seconds	Pretransfer delay timer	0 sec to 120 sec	0:00
PHASES		Three-phase or single phase	1 or 3	As ordered
VOLT UNBAL	Volts	Volts unbalanced	0 or 1 (1=enabled)	0:00
UNBAL DROP %	Percent	Percent for unbalanced voltage dropout	5 to 20% of phase-to-phase voltage unbalances	20%
UNBAL PICK%	Percent	Percent for unbalanced voltage pickup	Dropout minus (UNBAL DROP % -2) to 3%	10%
UNBAL DELAY	Seconds	Unbalanced delay timer	10 to 30	0:20
TDEF	Seconds	Time Delay emergency fail timer	0 to 6 sec	6
IP FREQ DIFF	Hertz	In-phase transition frquency difference	0.0 Hz to 3.0 Hz	1
SYNC TIME	Minutes	In-phase transition synchronization timer	1 min to 60 min	5
PHASE REV		Phase reversal	OFF,ABC,CBA	OFF
DST ADJUST		Daylight savings	0 or 1 (1 = enabled)	1
LANGUAGE		Selected language	English, French or Spanish	English

ATC-300+ CONTROLLER SETPOINTS-CONTINUED

Setpoints	Setpoint Units	Description	Range	Factory Default
CHANGE TIME/DATE?		Set time and date	0 to 23	Eastern Standard Time
		Set hour	0 to 59	Eastern Standard Time
	Hours	Set minute	Sun, Mon, Tues, Wed, Thu, Fri or Sat	Eastern Standard Time
	Minutes	Set weekday	Jan or 01	Eastern Standard Time
	Weekday	Set month	1 to 31	Eastern Standard Time
	Month	Set day	Current Year	Eastern Standard Time
	Day	Set year		
	Year			
RESET SYSTEM COUNTERS?			Yes or no	No
RESET ALL?		Resets all system counters	Yes or no	No
RESET ENGINE RUN?	Hours	Resets ENGINE RUN counter	0 to 9999	XXXX
RESET S1 CONN	Hours	Resets S1 CONN counter	0 to 9999	XXXX
RESET S2 CONN	Hours	Resets S2 CONN counter	0 to 9999	XXXX
RESET S1 AVAIL	Hours	Resets S1 AVAIL counter	0 to 9999	XXXX
RESET S2 AVAIL	Hours	Resets S2 AVAIL counter	0 to 9999	XXXX
RESET LOAD ENERG	Hours	Resets LOAD ENERG counter	0 to 9999	XXXX
RESET TRANSFERS	Hours	Resets TRANSFERS counter	0 to 9999	XXXX
SAVE SETPOINTS		Save changed setpoints	Yes or no	Yes