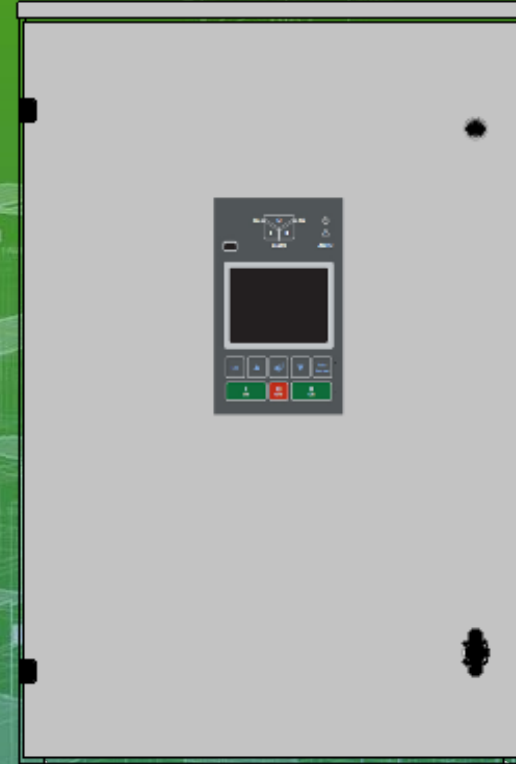




POWER SOLUTIONS



AUTOMATIC TRANSFER SWITCHES

**1200 Amp and Below
March 2024**



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ATS Part Number Breakdown

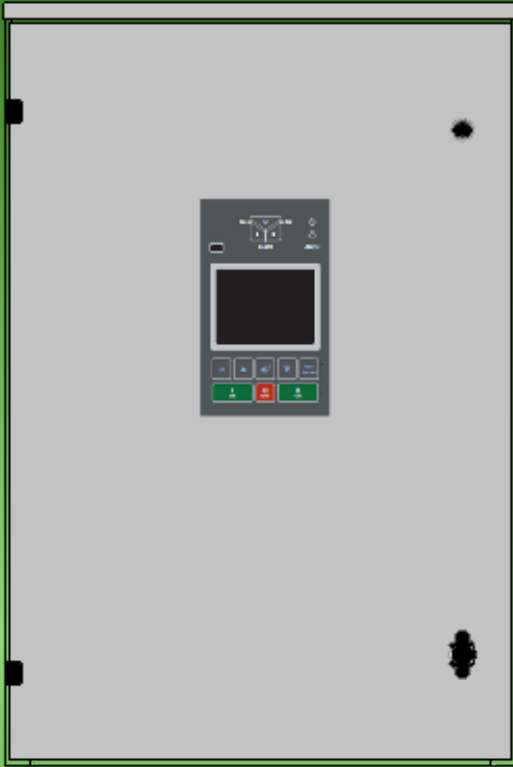
	Product Family (5 digits)	Ampacity (2 digits)		Voltage, Pole/Phase, (2 digits)			Enclosure Rating (2 digits)	
ATS D3	Automatic Transfer Switch ATS__	01	100 amps**	M	200-480 V	2	2 Pole**	T1 Type 1
	Series 2 Controller, open transition O2	02	200 amps			3	3 pole	3R Type 3R Painted Steel
	Series 3 Controller, open transition O3**	26	260 amps			4	4 pole	3X Type 3RX 316 Stainless Steel
	Series 4 Controller, open transition O4	04	400 amps					T4 Type 4
	Series 2 Controller, delayed transition D2	06	600 amps					4X Type 4X 316 Stainless Steel**
	Series 3 Controller, delayed transition D3	08	800 amps					12 Type 12 Painted Steel
	Series 4 Controller, delayed transition D4	12	1200 amps					

Stock (standard) units utilize Delayed transition series 3 controller, from 200 through 1200 amps, 3 and 4 pole, Type 3R enclosure, ship immediately. Open Transition Controller, 2 pole units (100-400A), and 100 amp rated, 3 and 4 pole units are available in 2-4 weeks. Series 2 and Series 4 controller are subject to factory availability and have a standard lead time of 6-10 weeks.

Part Number Example ATSD3-04-M4-3R:

Automatic Transfer Switch, Delayed transition series 3 controller, 400 Amps, 200-480V
4 Pole, Type 3R enclosed.

ATS Series



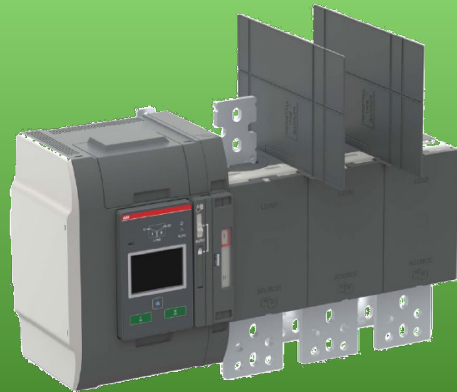
Type 3R Enclosure Standard



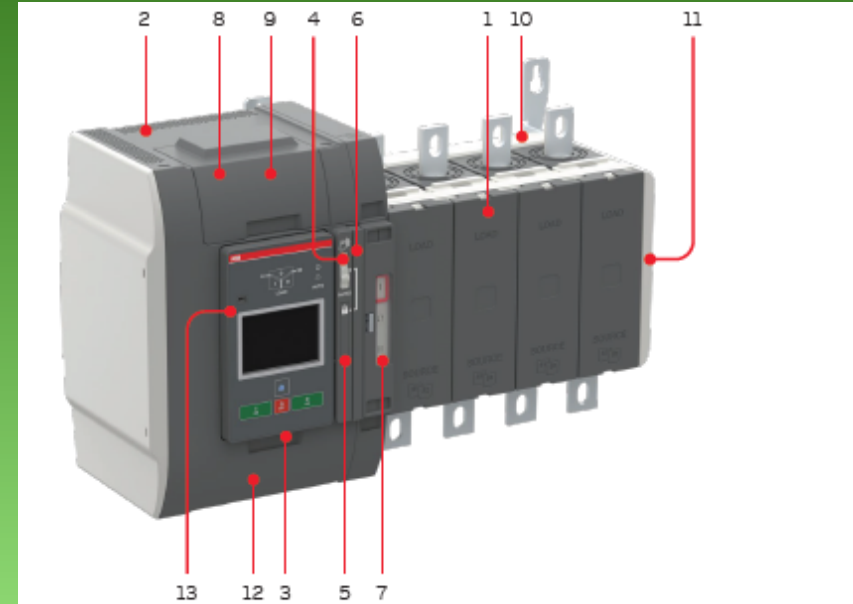
UL 1008 Listed



Door Mounted, Lockable Cover,
Type 3 Controller Standard



3 and 4 Pole Standard



1. Automatic transfer switch
2. Embedded ATS control unit and mechanism
3. Detachable HMI unit, three types (Level 2 DIP, Level 3 LCD and Level 4 Touch)
4. Slide switch (Hand - Locking - AUTO) for selection of the operation mode
5. Padlocking the automatic transfer switch to prevent automatic and manual operation
6. Handle for manual operation
7. Position indication
8. Terminals for control circuit connections (behind the cover)
9. Place for connectivity modules (aux power supply, com and signaling)
10. Place for sensor module (with Level 4 controls)
11. Place for auxiliary contact block
12. Location of product identification label
13. Programming port, only for Ekip Programming module and Ekip Connect software

Controller Features

TruONE™ feature comparison



Virtual HMI - Level 2 controls



Virtual HMI - Level 4 controls



	Level 2 controls	Level 3 controls	Level 4 controls
Ampere sizes available	IEC: 200-1600 A UL: 30-1200 A	IEC: 200-1600 A UL: 30-1200 A	IEC: 200-1600 A UL: 30-1200 A
Rated voltage, three phase	200-480Vac	200-480Vac	200-480Vac
Rated voltage, single phase	200-240Vac	200-240Vac	200-240Vac
Rated frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Phase system	Single and Three	Single and Three	Single and Three
Number of poles	2, 3 and 4	2, 3 and 4	3 and 4
Neutral configuration			
Switched	Yes	Yes	Yes
Overlapping	No	Yes	Yes
Product type			
Open transition (I-II)	Yes	Yes	Yes
Delayed transition (I-O-II)	Yes	Yes	Yes
Voltage and frequency settings			
Pick up Voltage Source 1	Fixed 2% above drop out	71-99%, 101-119%	71-99%, 101-119%
Drop out Voltage Source 1	+/-5, 10, 15, 20%	70-99%, 102-120%	70-99%, 102-120%
Pick up Voltage Source 2	Fixed 2% above drop out	71-99%, 101-119%	71-99%, 101-119%
Drop out Voltage Source 2	+/-5, 10, 15, 20%	70-99%, 102-120%	70-99%, 102-120%
Pick up Frequency Source 1	Fixed 1% above drop out	80.5-99.5%, 100.5-119.5%	80.5-99.5%, 100.5-119.5%
Drop out Frequency Source 1	+/-5, 10 %	80-99%, 101-120%	80-99%, 101-120%
Pick up Frequency Source 2	Fixed 1% above drop out	80.5-99.5%, 100.5-119.5%	80.5-99.5%, 100.5-119.5%
Drop out Frequency Source 2	+/-5, 10 %	80-99%, 101-120%	80-99%, 101-120%
Time delay settings			
Override momentary Source 1 Outage, sec	0, 1, 2, 3, 4, 5, 10, 15, 20, 30	0-60	0-60
Transfer from Source 1 to Source 2, sec	2 (0-3600 via Ekip Connect)	0-3600	0-3600
Override momentary Source 2 Outage, sec	2 (0-60 via Ekip Connect)	0-60	0-60
Transfer from Source 2 to Source 1, min	0, 1, 2, 3, 4, 5, 10, 15, 20, 30	0-120	0-120
Generator stop delay, min	30 secs or 4 mins	0-60	0-60
Center-OFF delay, sec	0 or 4	0-300	0-300
Pre-transfer delay S1 to S2, sec	No	0-300	0-300
Post-transfer delay S1 to S2, sec	No	0-300	0-300
Pre-transfer delay S2 to S1, sec	No	0-300	0-300
Post-transfer delay S2 to S1, sec	No	0-300	0-300
Elevator Pre-signal delay S1 to S2, sec	No	0-60	0-60
Elevator Post-signal delay S1 to S2, sec	No	0-60	0-60
Elevator Pre-signal delay S2 to S1, sec	No	0-60	0-60
Elevator Post-signal delay S2 to S1, sec	No	0-60	0-60
Load shed delay, sec	No	0-60	0-60

TruONE™ feature comparison

Consult ABB for more information



	Level 2 controls	Level 3 controls	Level 4 controls
Source failure detections			
No voltage	Yes	Yes	Yes
Undervoltage	Yes	Yes	Yes
Overvoltage	Yes	Yes	Yes
Phase missing	Yes	Yes	Yes
Voltage unbalance	Yes	Yes	Yes
Invalid frequency	Yes	Yes	Yes
Incorrect phase sequence	Yes	Yes	Yes
Features			
Controls	DIP + keys	LCD + keys	Touch + keys
LED indications for ATS, S1 and S2 status	Yes	Yes	Yes
Open transition - Standard digital Inputs/outputs	0 / 1	1 / 1	2 / 1
Delayed transition - Standard digital Inputs/outputs	1 / 1	2 / 1	3 / 1
Programmable digital Inputs/outputs	No	Yes	Yes
Auto config (voltage, frequency, phase system)	Yes	Yes	Yes
Source priority	Source 1, No priority	Source 1/2, No priority	Source 1/2, No priority
Manual retransfer	Yes	Yes	Yes
In-phase monitor (synchro check)	Yes	Yes	Yes
Local genset exercising: on-load, off-load	via HMI	via HMI, digital Inputs	via HMI, digital Inputs
Scheduled genset exercising: on-load, off-load	via Ekip Connect	via HMI, Ekip Connect	via HMI, Ekip Connect
In-built power meter module	No	No	Yes
Load shedding	No	Yes	Yes
Real time clock (48h back-up after power outage)	via Ekip Connect	via HMI, Ekip Connect	via HMI, Ekip Connect
Event log	via Ekip Connect	via HMI, Ekip Connect	via HMI, Ekip Connect
Predictive maintenance	No	No	Yes
Harmonics measuring	No	Voltage	Voltage, current
Field-mount accessories			
Auxiliary contacts for position indication	Yes	Yes	Yes
Digital Input/output modules	No	Yes	Yes
12-24 Vdc aux supply module for controller	No	Yes	Yes
Communication modules	No	Yes	Yes
Connectivity			
Modbus RTU (RS-485)	No	Yes	Yes
Modbus/TCP	No	Yes	Yes
Profibus DP	No	Yes	Yes
Profinet	No	Yes	Yes
DeviceNet	No	Yes	Yes
Ethernet IP	No	Yes	Yes
Ekip Com Hub (monitoring via ABB Ability™: Energy and Asset Manager)	No	Yes	Yes
For applications			
Mains - Mains	Yes	Yes	Yes
Mains - Generator ¹⁾	Yes	Yes	Yes

¹⁾ Contact ABB for applications with smaller than 20 kVA gensets

ATS Technical Specifications

3 and 4 pole construction - Operating performance and short-circuit capability

				Switch size						
Data according to UL1008				OX30	OX60	OX100	OX125	OX160	OX200	
Rated operational voltage		Vac		200 - 480						
Operating voltage range		Vac		160 - 576						
Rated frequency		Hz		50-60						
Emergency systems - Motor loads or total system		A	30	60	100	125	160	200		
Optional standby systems - Motor loads or total system		A	30	60	100	125	160	200		
Minimum enclosure size or equivalent volume		W x H x D	mm	600 x 800 x 300						
Short-circuit withstand/closing and short-time current ratings		kA	See table B							
Contact transfer time I-II, II-I		Load interrupting time	ms	<50						
Operating transfer time I-II, II-I			ms	<500						
ATS current draw during transfer / time duration		A / ms	37 / <110							
Mechanical endurance		No. of operating cycles		6050	6050	6050	6050	6050	6050	
Weight without accessories		3-pole switch	kg	14	14	14	14	14	14	
		4-pole switch	kg	15.6	15.6	15.6	15.6	15.6	15.6	
Suitable for applications				Transformer - Transformer, Transformer - Generator ¹⁾						
Data according to IEC60947-6-1										
Rated operational current, AC-31B		up to 240 V	A					160	250	
Rated operational current, AC-32B		up to 240 V	A					160	250	
Rated operational current, AC-33B		up to 240 V	A					160	250	
Rated breaking capacity in category AC-33		up to 240 V	A					1600	2500	
Rated operational current, AC-31A		up to 415 V	A					160 ²⁾	200 ²⁾	
Rated operational current, AC-33iA ⁵⁾		up to 415 V	A					125	125	
Rated operational current, AC-33A		up to 415 V	A					125 ²⁾	125 ²⁾	
Rated conditional short-circuit current Iq (r.m.s.) and corresponding protective devices (fuse or circuit breaker)		Iq (r.m.s.) 100 kA, 500 V	İc (peak) ⁴⁾	kA				49	49	
		Max. OFA fuse size	gG/aM	A/A					400 / 400	400 / 400
		Iq (r.m.s.) 50 kA, 500 V								
		ABB circuit breaker type						T5L630	T5L630	
Rated short-time withstand current		Icw (r.m.s.)	415 V 0.1s	kA				18	18	
		Icw (r.m.s.)	415 V 0.3s	kA				18	18	
		Icw (r.m.s.)	415 V 0.5s	kA						
Rated short-time making capacity ³⁾		Icm peak	415 V	kA				36	36	

- 1) **Contact Salient for applications with smaller than 20kVA gensets**
- 2) **OX_B bottom entry versions only**
- 3) **Short circuit duration > 50ms, without fuse protection**
- 4) **Cut-off current \hat{i}_c (peak) value. The cut-off current \hat{i}_c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).**
- 5) **AC-33iA according to GB/T 14048.11**

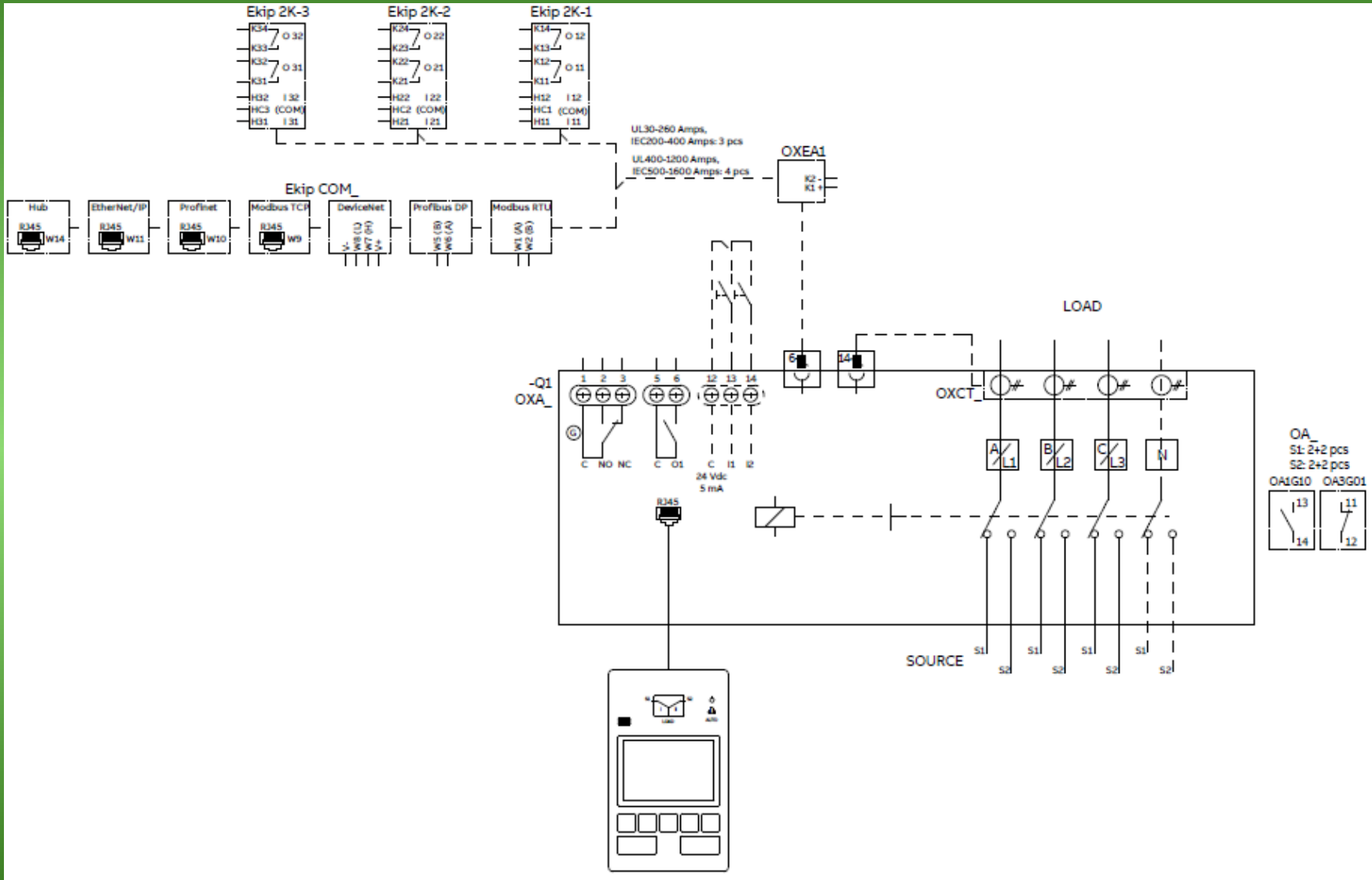
ATS Technical Specifications Cont'd

3 and 4 pole construction - Operating performance and short-circuit capability

				Switch size						
Data according to UL1008				OX260	OX400	OX600	OX800	OX1000	OX1200	
Rated operational voltage		Vac		200 - 480						
Operating voltage range		Vac		160 - 576						
Rated frequency		Hz		50-60						
Emergency systems - Motor loads or total system		A		260	400	600	800	1000	1200	
Optional standby systems - Motor loads or total system		A		260	400	600	800	1000	1200	
Minimum enclosure size or equivalent volume		W x H x D	mm	600 x 800 x 300			800 x 1000 x 300			
Short-circuit withstand/closing and short-time current ratings		kA		See table B						
Contact transfer time I-II, II-I		Load interrupting time	ms	<50						
Operating transfer time I-II, II-I			ms	<500						
ATS current draw during transfer / time duration		A / ms		37 / <110	40 / <130					
Mechanical endurance		No. of operating cycles		6050	4050	3050	3050	3050	3050	
		3-pole switch	kg	15.4	19.1	19.1	31.1	31.1	31.1	
		4-pole switch	kg	17.5	21.4	21.4	37.1	37.1	37.1	
Suitable for applications				Transformer - Transformer, Transformer - Generator ³⁾						
Data according to IEC60947-6-1										
Rated operational current, AC-31B		up to 415 V	A	400	400	800	1000	1250	1600	
Rated operational current, AC-32B		up to 415 V	A	400	400	800 ²⁾	1000 ²⁾	1250 ²⁾	1600 ²⁾	
Rated operational current, AC-33B		up to 415 V	A	400	400	800 ²⁾	1000 ²⁾	1250 ²⁾	1250 ²⁾	
Rated breaking capacity in category AC-33		up to 415 V	A	4000	4000	8000 ²⁾	10000 ²⁾	12500 ²⁾	12500 ²⁾	
Rated operational current, AC-31A		up to 415 V	A	315 ²⁾	315 ²⁾	630 ²⁾	1000 ²⁾	1250 ²⁾	1250 ²⁾	
Rated operational current, AC-33iA ⁵⁾		up to 415 V	A	250	250 ²⁾	630 ²⁾	1000 ²⁾	1250 ²⁾	1250 ²⁾	
Rated operational current, AC-33A		up to 415 V	A	160 ²⁾	160 ²⁾	315 ²⁾	630 ²⁾	800 ²⁾	800 ²⁾	
Rated conditional short-circuit current I _q (r.m.s.) and corresponding protective devices (fuse or circuit breaker)		I _q (r.m.s.) 100 kA, 500 V	î _c (peak) ⁴⁾	kA	69	76	90	95	95	95
		Max. OFA_fuse size	gG/aM	A/A	630 / 630	800/800	1000 / 1000	1600 / 1250	1600 / 1250	1600 / 1250
		I _q (r.m.s.) 50 kA, 500 V								
		ABB circuit breaker type			T6L630	T6L630	T6L1000			
		I _q (r.m.s.) 85 kA, 500 V								
		ABB circuit breaker type						T7L1600	T7L1600	T7L1600
Rated short-time withstand current		I _{cw} (r.m.s.)	415 V 0.1s	kA	25	30	42	65	65	65
		I _{cw} (r.m.s.)	415 V 0.3s	kA	25	30	30	50	50	50
		I _{cw} (r.m.s.)	415 V 0.5s	kA			30	50	50	50
Rated short-time making capacity ³⁾		I _{cm} peak	415 V	kA	52.5	89	89	105	105	105

- 1) **Contact Salient for applications with smaller than 20kVA gensets**
- 2) **OX_B bottom entry versions only**
- 3) **Short circuit duration > 50ms, without fuse protection**
- 4) **Cut-off current îc (peak) value. The cut-off current îc refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).**
- 5) **AC-33iA according to GB/T 14048.11**

ATS Wiring Diagram



Withstand and Short Circuit Ratings

Table B: UL1008 Short-circuit withstand/closing and short-time current ratings

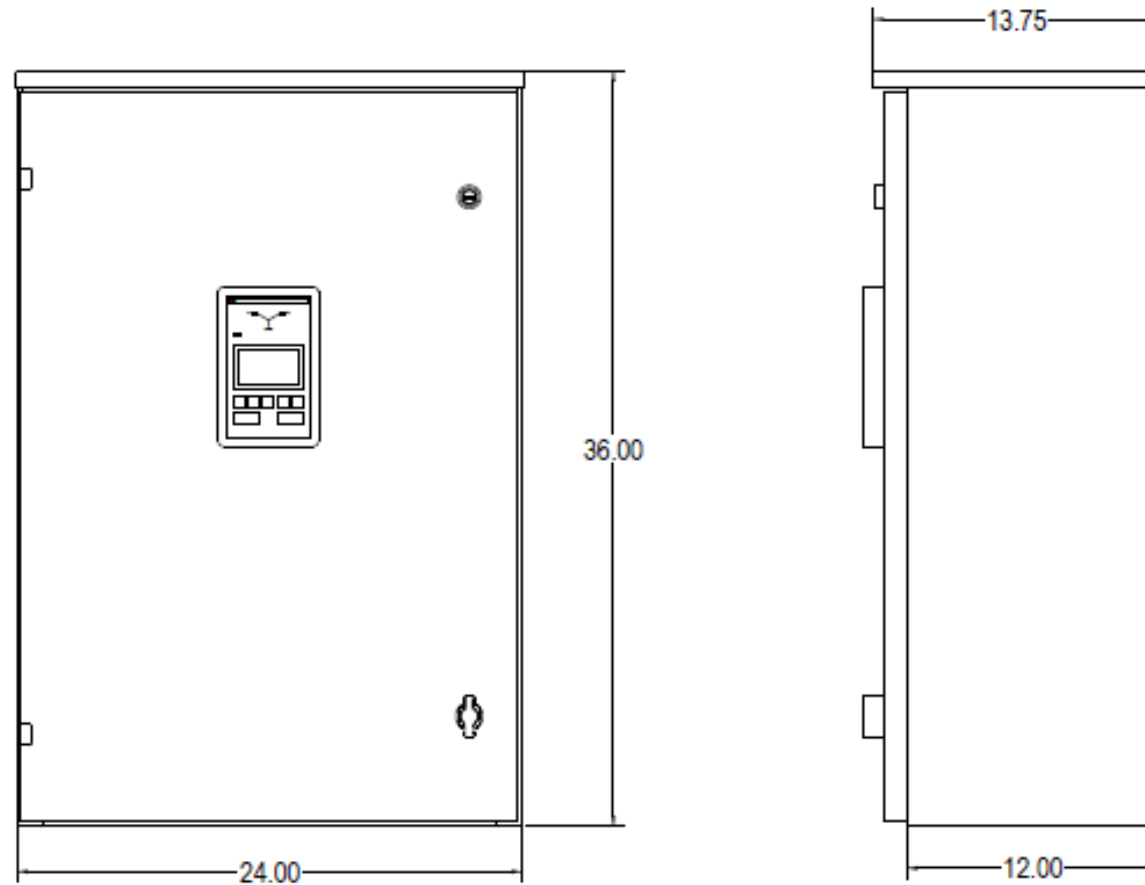
3 and 4 pole construction

Switch rating (A)	UL short-time rating (STR) & time ¹⁾ (s)	Time based WCR rating (A) & Time ^{1) 2)} (s)	Maximum voltage (V)	Maximum coordinated breaker rating (A)	Breaker mfg	Max breaker size (A)	Breaker type	Current limiting fuse rating (A)	Max fuse size (A)
30 60 100 125 160 200	18 0.300 sec	18 0.100 sec	480	50,000	ABB	125 250 250	XT2H125 T4H250 XT4H250	200,000 Class J	200
260	25 0.300 sec	25 0.100 sec	480	50,000	ABB	600	T5H600	200,000 Class J	400
400	30 0.250 sec	30 0.100 sec	480	50,000	ABB	600	T5H600	200,000 Class J	600
600	42 0.100 sec 30 0.500 sec	42 0.100 sec	480	50,000	ABB	800	T6S800	200,000 Class L	800
800 1000 1200	65 0.100 sec 50 0.500 sec	65 0.100 sec	480	85,000	ABB	1200	T7L1200	200,000 Class L	1200

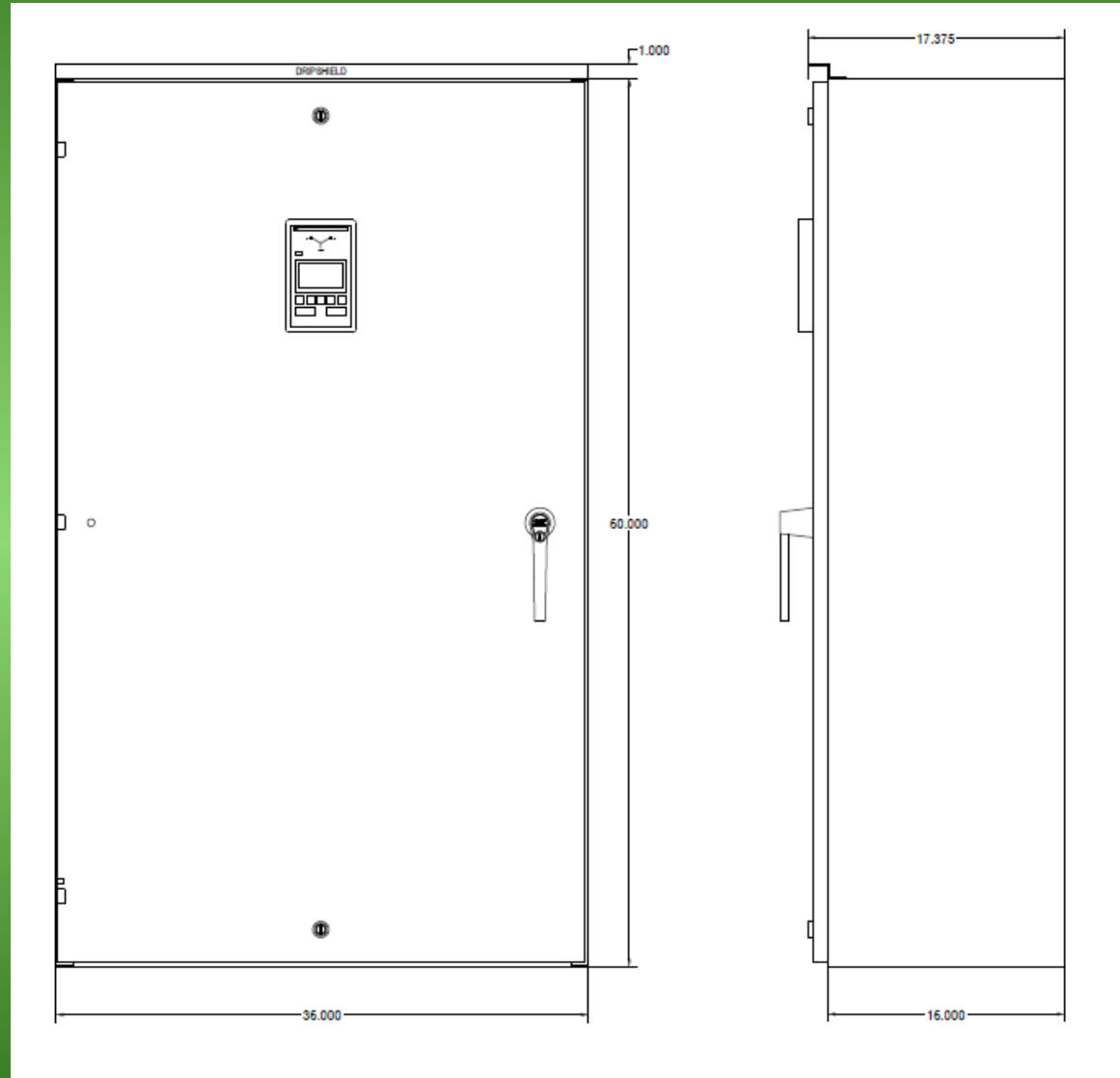
¹⁾ This rating is available only with the TruONE UL Level 4 versions

²⁾ Time-based ratings are also known as any-breaker ratings

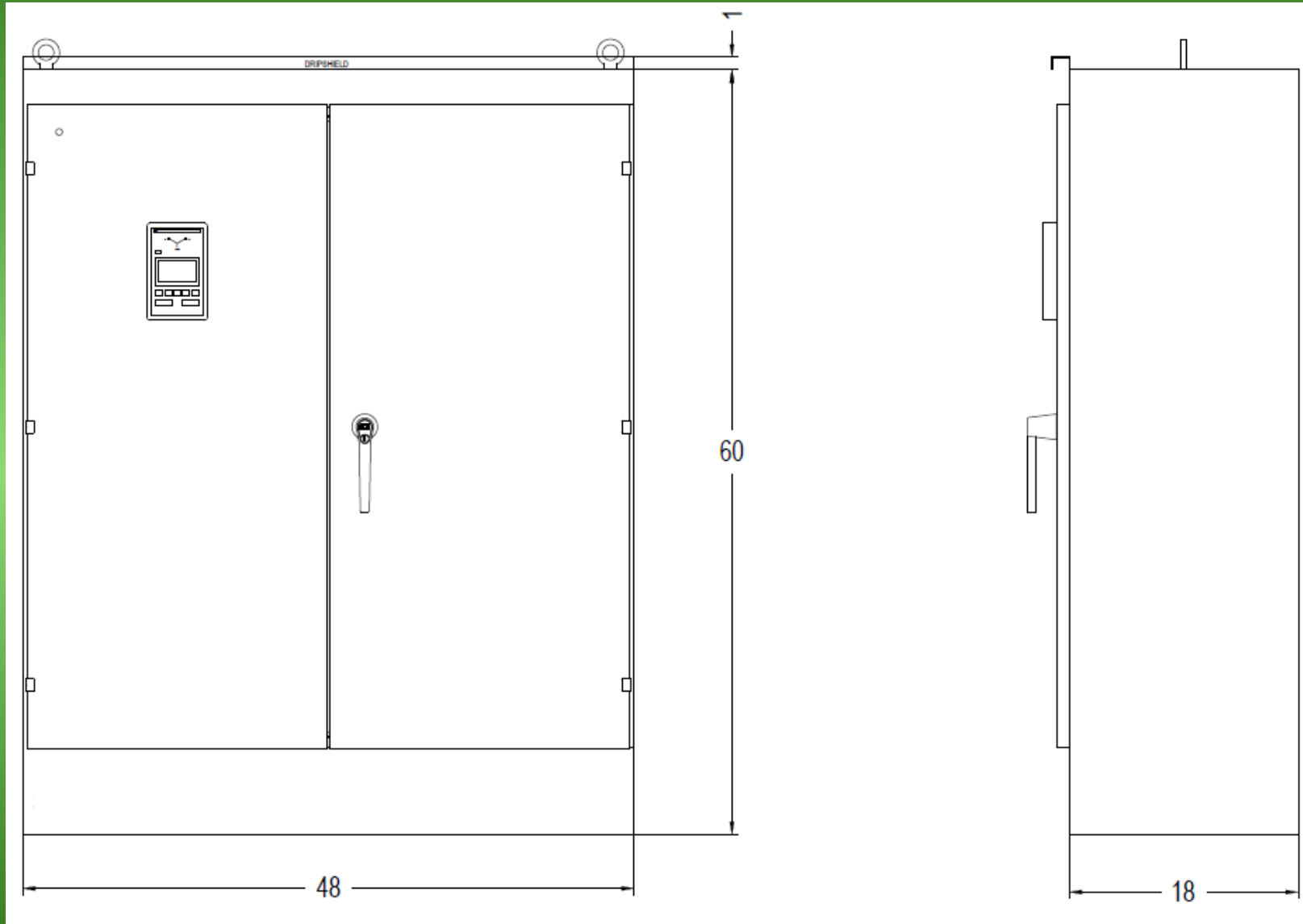
ATS 200 Amp and below



ATS 600-260 Amp



ATS 1200-800 Amp



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Salient Power Solutions Your Beacon in the Dark

