Switch To Safety!

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PROJOY electric

Manual & Automatic Transfer Switches

For Solar, Storage, And Backup Power Systems



PC & CB Class

Transfer + circuit protection

Dual Interlock

Mechanical + electrical safety

IEC 60947 Certified

Global standard compliance

PECS Series — Manual Changeover (16–125A) | PEATS Series— Automatic ATS · PC Class & CB Class (6–800A)

WHY TRANSFER SWITCHES?

The Safe Connection Between Different Power Sources

THE PROBLEM

Three Power Sources. One Critical Gap.

Most solar + storage systems have three power sources — **utility grid/generator**, **solar inverter/battery** and **diesel generator system**. Connection at the same time is dangerous:

- Short circuits and fire hazards
- Damage to expensive inverters and batteries
- Risk to maintenance workers

Without a transfer switch, you must manually unplug and replug cables every time the power changes.

THE SOLUTION

Transfer Switches: The Safe Connection.

A transfer switch connects your load to only one power source at a time. It physically separates different sources so they can never touch each other.

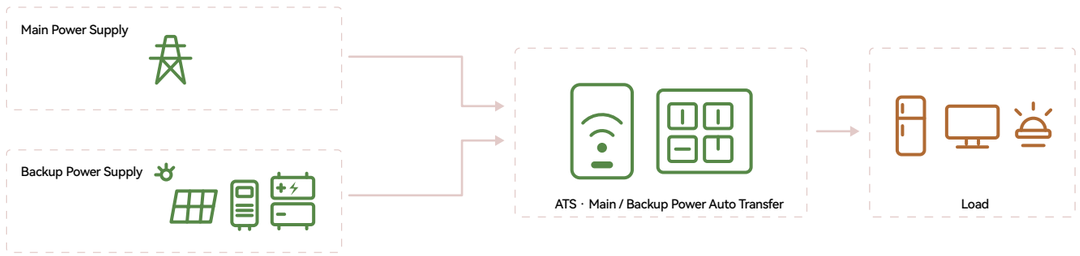
PROJOY offers two types:

	PECS — Manual	PEATS — Automatic & manual
How it works	You turn a handle	It switches by itself
Best for	Small systems, maintenance	Critical loads, unmanned sites

Simple analogy: A transfer switch is like a railroad switch — it sends electricity down one track at a time, so two trains never collide.

Note: After installing the PEATS ATS, residual current protection devices such as RCDs or RCBOs must be installed either upstream or downstream of the unit, or the system shall be equipped with a solid earthing protection arrangement

Off-grid PV & Storage System



$2.02B
Global Market 2025

7.03%
Annual Growth (CAGR)

62.3%
ATS Market Share

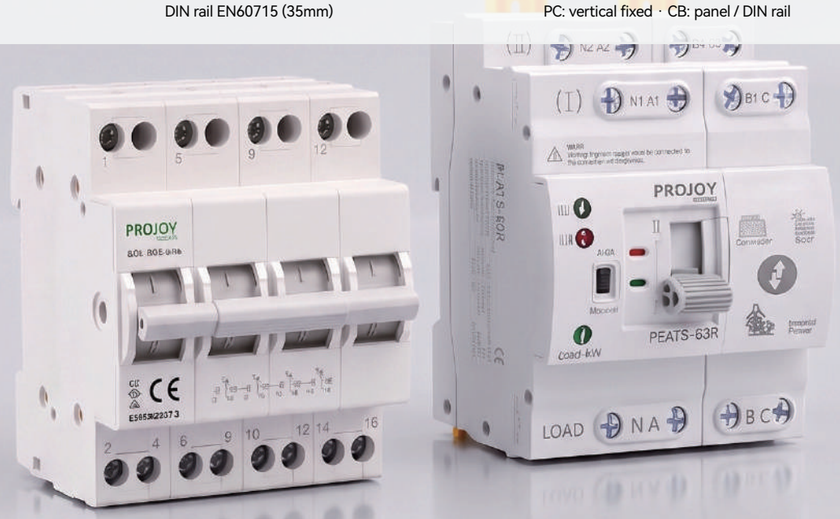
Source: Fortune Business Insights, 2026. Projected to reach $3.72B by 2034.

COMPARISON · PECS VS. PEATS, SIDE BY SIDE

MANUAL OR AUTOMATIC?

Both switches keep you safe. The difference is how they operate and what they cost

Feature	PECS Manual Changeover	PEATS Automatic (ATS)
Operation	Manual handle — you turn it	Automatic — switches by itself
Power Monitoring	No — does not check power status	Yes — 24/7 voltage & phase monitoring
Transfer Time	Depends on operator	PC: 0.6s contact / 1.3s total · CB: ≤2–3s
Current Range	16A – 125A (3 frames)	PC: 16–800A · CB: 6–630A
Poles	1P / 2P / 3P / 4P	2P / 3P / 4P
Equipment Class	PC class (AC-22A)	PC class (AC-32B/33iB) · CB class (with breaker protection)
Circuit Protection	None — needs external breaker	CB class: built-in short-circuit & overload protection
Safety Isolation	Mechanical interlock + visible 0-position	Mechanical + electrical dual interlock
Controller Types	None (pure mechanical)	PC: A/B/C · CB: W1 (LED) / W2 (LED digit) / W3 (LCD)
Extra Functions	Auxiliary contact (signal feedback)	Fire link, generator start, RS485 comm., position feedback
Best For	Manned sites, maintenance, budget	Unmanned sites, critical loads, solar+storage
Mounting	DIN rail EN60715 (35mm)	PC: vertical fixed · CB: panel / DIN rail



QUICK PICK · THREE QUESTIONS. ONE RIGHT ANSWER

30-Second Selection Guide

Three questions. One right answer

Quick Product Reference

MANUAL

PECS Manual

- 1P/2P/3P/4P
- Mechanical interlock + 0-pos
- DIN rail · -35~70°C
- 16–125A (3 frames)
- IEC 60947-3 · AC-22A

AUTOMATIC·PC

PEATS PC Class

- 2P/3P/4P
- IEC 60947-6-1 · PC class
- Phase wire detection
- 16–800A (8 frames)
- 0.6s contact / 1.3s total

AUTOMATIC·CB

PEATS CB Class

- 2P/4P
- IEC 60947-6-1 · CB class
- W1/W2/W3 controllers
- 6–630A (4 frames)
- Built-in breaker protection

Three questions point you to the right switch

Q1 Need automatic switching when the grid fails?

Yes → **PEATS** · No → Go to Q2

Q2 Critical load (hospital, data center, fire pump)?

Yes → **PEATS (PC preferred; CB if no upstream protection)** · No → Go to Q3

Q3 Staff on site, switching is rare?

Yes → **PECS (Manual)** · No → PEATS (Automatic)

PECS - Manual Changeover

Simple. Safe. Reliable. | Pure mechanical. Zero electronics. Zero failure points.

What It Is

PECS is a purely mechanical changeover switch. No motor, no controller, no electronics. You turn the handle to select which source feeds your load. **PA66 flame-retardant housing** ensures safety.

How It Works (3 Positions)

Position I	Position 0	Position II
Source 1 (e.g., grid)	OFF — visible isolation safe for maintenance	Source 2 (e.g. / PV inverters / PCS)

Key Features

- **Mechanical Interlock** — Two sources can NEVER be connected at the same time
- **Visible Break (0 Position)** — You can SEE that power is disconnected
- **Pure Mechanical** — No electronics to fail. Extremely long life
- **PA66 Flame-Retardant Housing** — High safety and durability
- **PC class Icw** — withstands short-time fault SC; upstream SC protection required
- **Auxiliary Contact** — Optional signal feedback for remote monitoring
- **DIN Rail Mount** — EN60715 35mm rail, fast installation
- **Wide Temperature Range** — -35°C to +70°C operation

Why Choose PECS?

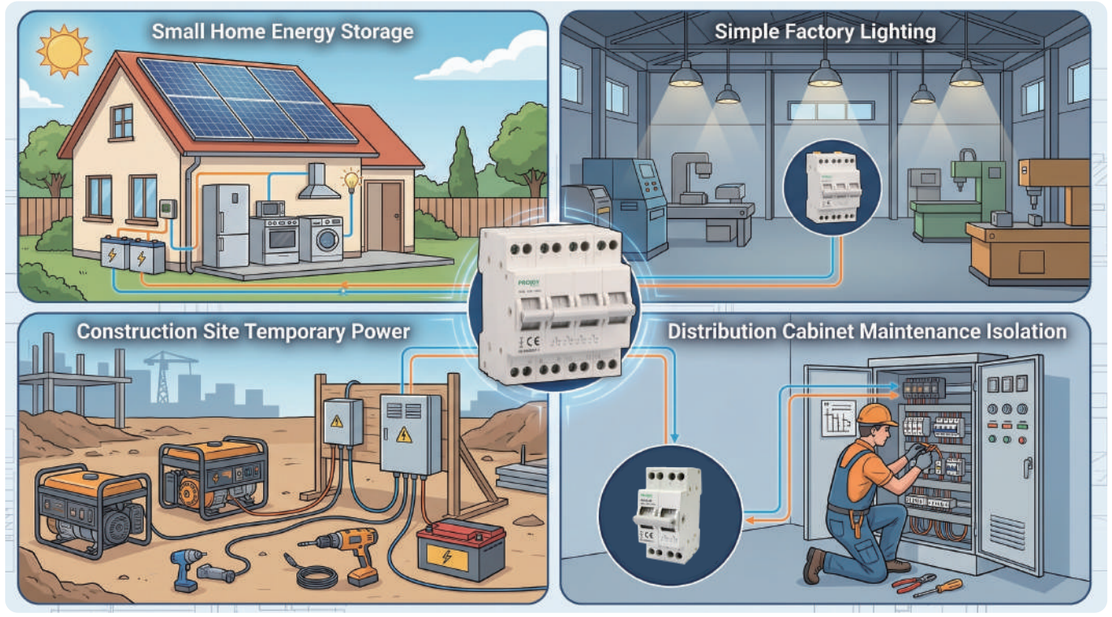
- Lowest cost option
- Simplest to install and use
- Almost zero maintenance
- Perfect for sites with staff on duty
- Ideal for maintenance and service isolation



PECS-40

Technical Specifications

Parameter	Value		
Product Model	PECS-40	PECS-63	PECS-125
Rated Current	16/25/32/40A	16/25/32/40/63A	63/80/100/125A (125)
Rated Voltage	AC 230V/400V (1P) · AC 400V (2P/3P/4P)		
Frequency	50/60 Hz		
Poles	1P / 2P / 3P / 4P		
Standard	IEC 60947-3		
Utilization Category	AC-22A		
Contact Form	1 — 0 — 2 (I-0-II)		
Equipment Class	PC class		
Mechanical Life	8,500 cycles		
Electrical Life	1,500 cycles		
Mounting	DIN rail EN60715 (35mm)		
Housing	PA66 flame-retardant		
Protection	IP20		
Operating Temp	-35°C to +70°C		
Terminal/Cable size	10mm²	16mm²	50mm²



PEATS - Automatic Transfer Switch

Auto Transfer · Dual Interlock · Built-in Protection (CB Class) | 6A–800A, 12+ frames

CB CLASS — Transfer + Protection

CB class switches integrate two circuit breakers into one body. They transfer loads AND provide built-in short-circuit and overload protection — no external breaker needed. Bakelite housing ensures zero flying arc. Ideal for compact, all-in-one installations.

Key Specs:

- Frames: 63 / 125 / 250 / 630
- Current: 6A – 630A
- Transfer time: ≤2s (63) / ≤3s+delay (125–630)
- Break before make transition
- Breaking capacity: 7.5kA–143kA (ultimate)
- Controllers: W1 LED / W2 LED-digit / W3 LCD
- Bakelite housing, zero flying arc

PC CLASS — Transfer Only

PC class switches are designed for load transfer only. They do NOT provide short-circuit or overload protection. An external circuit breaker (SCPD) must be installed upstream. Ideal when protection already exists in the distribution panel.

Key Specs:

- Frames: 63 / 80 / 125 / 225 / 250 / 400 / 630 / 800
- Current: 6A – 800A
- Contact transfer: 0.6s · Total: 1.3s
- Make before break transition
- Short-time withstand: 5–32kA
- Controllers: A Economy / B Basic / C Intelligent
- Mounting: Vertical fixed

How PEATS Works

Step 1: Normal
Load on Source I. PEATS monitors voltage & phase 24/7.

Step 2: Grid Fails
Detects under-voltage, voltage loss, or phase loss instantly.

Step 3: Auto Transfer
Load moves to Source II (solar/storage/generator) automatically.

Step 4: Grid Returns
Waits for stable power, then transfers back automatically.

Typical Applications

Home Solar + Storage
Auto-transfer to battery when grid fails. Fridge, lights, Wi-Fi keep running.
→ *PEATS-63 CB or PC*

Commercial & Industrial
Protect production lines, offices, safety equipment. Up to 800A for industrial loads.
→ *PEATS-250~800 PC*

Unmanned & Remote Sites
Telecom base stations, remote pumps, data rooms. 24*7 automatic operation.
→ *PEATS-63~125*

Critical Loads
Hospitals, fire pumps, emergency lighting, elevators. CB class adds breaker protection.
→ *PEATS CB class*

Generator Backup
Auto-start generator on grid failure. Auto-return when grid recovers.
→ *PEATS with gen-start*

Data Centers
Dual-source redundancy for server racks and cooling systems.
→ *PEATS-125~400 PC*

PEATS PC Class

Transfer-only design for systems with existing upstream protection

PEATS-63R

Technical Specifications

Parameter	Value
Rated operating current Ie(A)	6/10/16/20/25/32/40/50/63A
Rated insulation voltage UI	690V
Rated impulse withstand voltage Uimp	8kV
Rated working voltage Ue	AC110V/230V
Rated frequency	50/60Hz
Pole number	2P / 4P
Rated short-circuit current Iq	50kA
Short circuit protection device (fuse)	RT16-00-63A
Control circuit	Rated control voltage Us:AC230V/110V,50/60Hz, Normal working conditions:85%Us-110%Us
Auxiliary circuit	AC110V/230V 50/60Hz (Ie=5A)
Mechanical life	>8000 times
Electrical Life	1,500 cycles
Usage category	AC-31B



PEATS PC Class

Transfer-only design for systems with existing upstream protection

PEATS (63~225)

PEATS (225~800)

Technical Specifications

Parameter	PEATS-63	PEATS-80	PEATS-125	PEATS-225	PEATS-250	PEATS-400	PEATS-630	PEATS-800
Rated Operational Voltage Ue (V)	AC-230V/50Hz(2P) AC-400V/50Hz				AC-230V/50Hz(2P) AC-400V/50Hz	AC-400V/415V/50Hz		
Rated Insulation Voltage Ui(V)	800				1000	1000		
Maximum Rated Current (A)	63	80	125	225	250	400	630	800
Rated Impulse Withstand Voltage Uimp(kV)	8				8	12		
Rated Short-time Withstand Current Icw(kA)	5/30ms		10/30ms		10/30ms	25/1s	25/1s	32/1s
Rated Short-circuit Making Capacity Icm(kA)	8		17		17	52.5	52.5	67.2
Poles	2P/3P/4P				2P/3P/4P	3P/4P		
Utilization Category	AC-32B		AC-33iB	AC-32B	AC-33iB	AC-32B		
Contact Transfer Time(s)	0.6±20%				0.6±20%			
Transfer Operating Time(s)	1.3±10%				1.3±10%			
Mounting	Vertical Fixed Mounting				Vertical Fixed Mounting			
EMC Environment	Environment B				Environment B			
Protection Degree	IP20 (excluding main circuit terminals)				IP20 (excluding main circuit terminals)			
Supply Voltage Deviation Range (V)	160±10%(Economy,Standard)				160±10%(Economy,Standard)			
Normal Operating Range	85% Ue ~ 110% Ue				85% Ue ~ 110% Ue			
Max Conductors per Terminal	1				1	2		
Screw Tightening Torque(N·m)	2.5	8			10	22	28	28
Screw Breaking Torque(N·m)	3	12			15	26	33	33
Mechanical Life	8000(*)				8000(*)	5000(*)	4000(*)	3000(*)
Electrical Life	2000(*)				2000(*)	1000(*)	1000(*)	1000(*)





PEATS PC Class

Transfer-only design for systems with existing upstream protection

Parameter	PEATS-63ET	PEATS-125ET	PEATS-250ET	PEATS-630ET
Rated Operating Current (A)	16A ~ 63A	20A ~ 125A	160A ~ 250A	315A ~ 630A
Rated Insulation Voltage Ui	AC800V (Main Circuit) AC690V (Control Circuit)			
Rated Impulse Withstand Voltage Uimp	8kV (Main Circuit) 4kV (Control Circuit)			
Rated Operational Voltage Ue	AC230V (2P); AC380V/400V/415V (3P, 4P)			
Rated Frequency	50Hz			
Poles	2P/3P/4P			
Rated Short-Circuit Current Iq	120kA (with upstream fuse protection)			
Short-Time Withstand Current Icw	5kA/30ms	10kA/30ms	10kA/60ms	12.6kA/60ms
Making and Breaking Capacity	10Ie			
Contact Transfer Time	< 150 ms			
Switching Operating Time	100ms～400ms+ (Delay time tolerance ±10%)			
Auxiliary Switch (Optional)	2NO + 2NC for both Power Source I & II, Switch rating: 15A/AC250V			
Accessories	Manual operating handle, phase barrier			
Electrical / Mechanical Life	6,000 times / 20,000 times		6,000 times / 20,000 times	
Utilization Category	AC-33A		AC-33A	
Cyclic Operation Cycles	60 cycles/h			
Operating Mode	R: Auto-recovery after power restoration; B: Source II priority; S: Non-auto-recovery / mutual standby			



PEATS CB Class

CB class has built-in circuit breaker protection and requires no additional breaker.

Parameter	PEATS-63	PEATS-125	PEATS-250	PEATS-630
Maximum Rated Current (A)	63	125	250	630
Rated Voltage	AC230V/AC400V	AC400V/AC690V	AC400V/AC690V	AC400V/AC690V
Poles	2P / 4P	2P / 4P	2P / 4P	2P / 4P
Standard	EN/IEC 60947-6-1	EN/IEC 60947-6-1	EN/IEC 60947-6-1	EN/IEC 60947-6-1
Transfer Time	≤2s	≤3s + delay	≤3s + delay	≤3s + delay
Rated short-circuit making capacity (Icm)	7.5 kA	52.5 kA	73.5 kA	143 kA
Rated short-circuit breaking capacity (Icn)	5 kA	25 kA	35 kA	65 kA
Mechanical Life	10,000	7,000	5,000	3,000
Electrical Life	4,500	3,000	2,000	1,000
Controller Options	W	W1/W2/W3	W1/W2/W3	W1/W2/W3
Working Modes	R (self-recover) / S (no self-recover) / B (Source II Priority) / F (grid-gen) / T (comm.)			
Protection Degree	IP20			
Operating Temp	-5°C to +40°C			
Housing	Bakelite, zero flying arc			

CB Class controllers: W (standard integrated LED indicator controller, only for 63 frame size products) · W1 (integral LED indicator) · W2 (split LED digital tube) · W3 (split LCD display). Functions include fire protection input, generator auto-start, RS485 communication, voltage/frequency display, and adjustable transfer delays.



Why PROJOY?

A decade of expertise in new energy safety

Our Expertise

Specialist in **green energy safety protection**. PROJOY Electric manufactures safety protection devices for solar, energy storage, and EV charging. Over 15 years in DC protection, rapid shutdown, circuit breakers, and transfer switches. Trusted by **80% of leading inverter makers**, installed in **60+ countries**.

15+
Years experience

60+
Countries served

80%
Inverter makers

100%
Products tested



More Than Just Transfer Switches

One supplier. Complete protection – from the DC side to storage.

Electrical Products

DC Isolators – PEDS Series

DC Circuit Breakers – PEBS Series

Surge Protection – PESP Series

Transfer Switches – PECS · PEATS



PV Safety Products

Rapid Shutdown – PEFS-PL · PEFS-EL

PV Optimizers – PEOP Series

Combiner Boxes – PEJB · PEDB · PEJDB



Energy Storage Products

Energy Storage Systems – PEOS-ESS Series



AUTOMATED PRODUCTION · 100% TESTED



Quality & Certifications

Certified. Tested. Trusted.

Quality: ISO 9001 | **Standards:** IEC, EN/IEC, AS, UL | **Environmental:** REACH, RoHS