

Solar & PV Power Distribution Catalog

Catalog CT-31 · 2026 Edition

Array to interconnection: combiners, DC/AC protection, isolation, MC4 connectivity, EV charging and tooling.

All products UL listed · Custom MC4 jumpers and leads cut and assembled to order in Oxnard, CA

06 MC4 CONNECTORS & STRING WIRING

08 PV WIRE & CUSTOM LEADS IN CONDUIT

COMBINERS & DC PROTECTION

01 · 02

EV CHARGING

07

TRANSFER & BACKUP

04

05 DC ISOLATION

03 AC ISOLATION & DISTRIBUTION

CT-31

Combiners · DC & AC protection · Transfer · Isolation · MC4 · EV charging · Cable & tools

conversiontech.com · cs@conversiontech.com · (307) 206-0534 · Oxnard, CA

Mail: 41 S. Wake Forest Ave. #3129, Ventura CA 93003

The CT-31 Engineering Edition is a buying-decision document for installers, distributors, and system engineers. Every product family carries full technical specifications, application and selection guidance, ratings matrices, and an ordering-code configurator; each section opens with engineering reference material — single-line diagrams, trip characteristics, protection-mode drawings, and code sizing references. Product lines are backed by our engineering team, factory quality testing, UL listing and international compliance (TUV, CE, CB, RoHS where indicated), with fast shipping and competitive volume pricing.

HOW TO ORDER

- Order online 24/7 at www.conversionstech.com — items marked “ORDER ONLINE” list live store SKUs.
- Configured items: build the part number with each family's ORDERING CODE bar and send to cs@conversionstech.com.
- Volume, contractor, and distributor pricing tiers — apply at www.conversionstech.com/pages/wholesale.
- Cross-reference support: send any competitor part number for a direct CT equivalent and quote.

CONTENTS

01	COMBINER & DISTRIBUTION ENCLOSURES	PAGE 05
02	DC POWER DISTRIBUTION	PAGE 14
03	AC POWER DISTRIBUTION	PAGE 25
04	TRANSFER SWITCHES & POWER CONTROL	PAGE 33
05	DC ISOLATION & PV SAFETY	PAGE 39
06	MC4 SOLAR CONNECTORS	PAGE 45
07	EV CHARGING	PAGE 53
08	PV CABLE, TOOLS & INSTALLATION	PAGE 60

Cohesive with the Conversions Tech catalog library — CT-26 Electrical Hardware, CT-27 Wire Mesh Cable Tray, CT-30 Conduit, Fittings & Support Systems: www.conversionstech.com/pages/catalogs.



APPLICATION Combiner, inverter, AC disconnect and meter joined by conduit on a residential equipment wall

Engineers do not switch component brands for a discount — they switch when the spec holds, the stock is real, and someone answers the phone. That is the entire company strategy.

ENGINEERED, NOT JUST SOURCED

Every product family passes our own incoming-QC and application review before it earns a CT part number. Our engineering team validates crimp pull strength, dielectric withstand, IP sealing, and thermal performance against the datasheet — then stands behind the spec on the phone when you call.

UL LISTED TO THE SAME STANDARDS

UL listed, with TUV, CE, CB and RoHS marks; devices built and tested to IEC 60947, IEC 60898, IEC 61008/61009, EN 50539-11, IEC 61643, and UL 1449 4th Edition where indicated. The test regime on the label is the same one the premium brands print — the difference is the number after the dollar sign.

STOCK, NOT LEAD TIMES

Premium-brand PV protection routinely quotes 4–12 week distributor lead times. Our catalog items ship from stock with live SKUs you can order at 2 a.m. — because a crew standing on a roof waiting for a fuse holder is the most expensive component on the job.

DIRECT PRICING, WHOLE-BOM SAVINGS

No three-tier distribution markup. Contractor, Distributor and Wholesale programs price the entire balance-of-system — enclosures, protection, connectivity, tooling — so the savings compound across every line of the BOM, not just the hero SKU.

ONE VENDOR, WHOLE SYSTEM

Array to interconnection from a single catalog: combiners, DC/AC protection, isolation, rapid shutdown, connectivity, EV charging, and the tools to install it. One PO, one support contact, one brand on the wall — and components engineered to coordinate with each other.

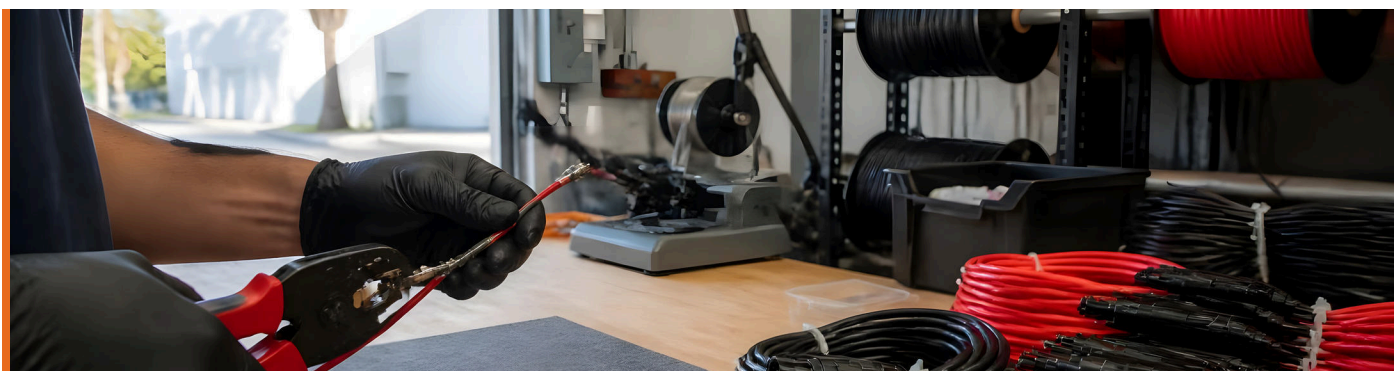
CROSS-REFERENCE CONFIDENCE

Send us any premium-brand part number — protection, connectors, enclosures — and our team returns the CT equivalent with a side-by-side spec table and quote, typically same business day. Switching brands should take an email, not an engineering study.

SPEC-FOR-SPEC: CT vs. PREMIUM LEGACY BRANDS

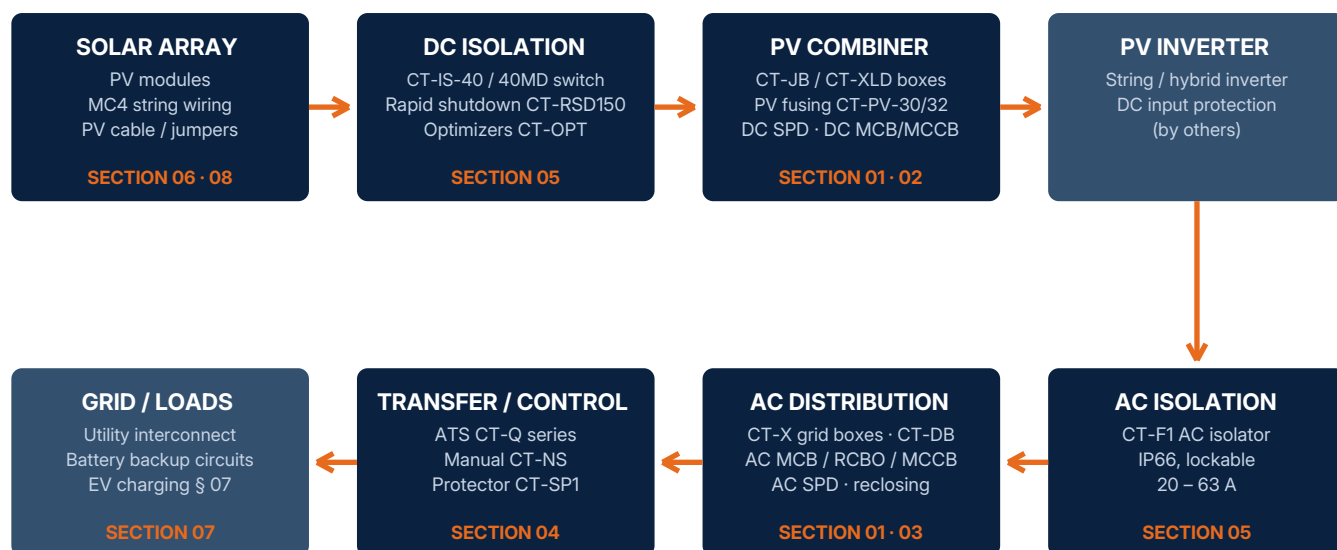
DECISION FACTOR	PREMIUM LEGACY BRANDS	CONVERSIONS TECH
Test / listing regime	IEC · EN · UL as marked	Same IEC · EN · UL regimes as marked
1500 V DC coverage	Often special-order tiers	Standard catalog items, stocked
Typical availability	4–12 week distributor lead times	Ships from stock — live online SKUs
Pricing structure	List price + multi-tier markup	Direct trade pricing, volume tiers
BOS coverage	Protection only — multi-vendor BOM	Array-to-POI single-vendor BOM
Order channel	Distributor account, MOQs, quotes	Online 24/7 · no MOQ on stock items
Engineering access	Call-center escalation paths	Direct line to the product team
Cross-reference	You do the legwork	Same-day CT equivalent + quote

Prove it on your next BOM: send the premium-brand parts list to cs@conversiontech.com — we return the CT line-for-line quote, typically same business day.



APPLICATION Custom MC4 jumpers and leads, cut, crimped and pull-tested to order in Oxnard, CA

Component placement across a grid-tied PV system with battery backup and EV charging. Section numbers reference this catalog; every stage of the DC and AC path is covered by a Conversions Tech product line.



VOLTAGE CLASS SELECTION GUIDE

600 V DC systems

CT-JB-A/B · CT-JB-4B/6B combiners · CT-B1Z-63 (2P) · CT-SP-600 SPD · CT-JB-250 enclosed MCCB

1000 V DC systems

CT-XLD combiners · CT-B1Z-63 (4P) / 125 · CT-B2Z-63 · CT-PV-30 fusing · CT-SP-1000 · CT-MC4-1000

1500 V DC systems

CT-XLD-24/1 · CT-M1Z/5Z · CT-M6Z MCCB · CT-PV-32 fusing · CT-SP-1500 · CT-MC4-1500 · CT-IS-40

AC side (230–1000 V)

CT-B1 MCB · CT-B1LE RCBO · CT-RC-100B RCCB · CT-M1 MCCB · CT-SPD-40 · CT-Q transfer switches



APPLICATION 1500 V tracker rows: combiners on the piles, string harnesses on messenger wire, central inverter skid

WHERE IT INSTALLS

01 | Combiner & Distribution Enclosures

IP65-rated PV combiner and distribution enclosures for string aggregation, overcurrent protection, and surge defense on residential, commercial, and utility-scale arrays. Available in engineered polymer (PC+ABS, UL94V-2 flame retardant) and powder-coated steel with integrated DC protection devices.

- Rooftop and wall-mount string combining, 600–1500 V
- Commercial roofs ahead of string and central inverters
- 1500 V utility blocks with string monitoring
- Point-of-interconnection AC assemblies

IN THIS SECTION CT-JB · CT-DB · CT-CDB · CT-XLD · CT-HL · CT-X · CT-ES

All products UL listed

IP65-rated PV combiner and distribution enclosures for string aggregation, overcurrent protection, and surge defense on residential, commercial, and utility-scale arrays. Available in engineered polymer (PC+ABS, UL94V-2 flame retardant) and powder-coated steel with integrated DC protection devices.

THE CT ADVANTAGE

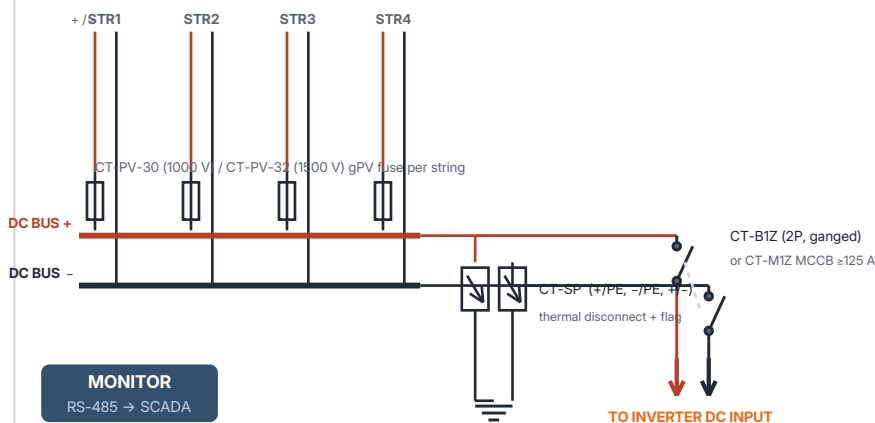
- Ships assembled & tested — mount, land conductors, energize
- IP65 polymer or steel for every mounting environment
- String monitoring available where O&M visibility pays

IN THIS SECTION

CT-JB-A / CT-JB-B	PV DC Combiner Box	CT-XLD-24/1	PV DC Combiner Box — 24 String
CT-DB	AC Distribution Box	CT-HL	PV AC Combiner Box
CT-CDB	PV Combiner & Distribution Box	CT-X-200	PV Grid-Connected Distribution Box
CT-JB-4B / CT-JB-6B	DC Combiner Box	CT-X-20	PV Grid-Connected Distribution Box
CT-XLD-16/1	PV DC Combiner Box — 16 String	CT-ES (6/9/13/18/26 Way)	DC/AC Distribution Box
CT-XLD-4/1 · 6/1 · 12/1	PV DC Combiner Box — 4 / 6 / 12 String		

COMBINER INTERNAL SINGLE-LINE — POSITIVE & NEGATIVE BUS

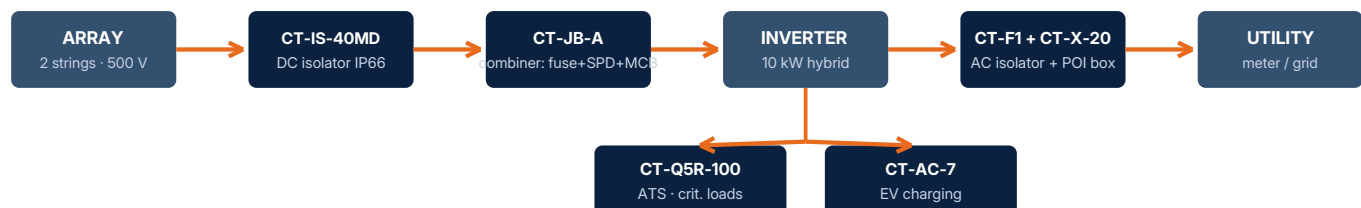
CT-JB / CT-XLD architecture, N strings



CT-XLD-16/24: per-string current CTs on each fuse leg

APPLICATION ONE-LINE — RESIDENTIAL 10 kW GRID-TIE + BACKUP

every tag = a CT catalog item



BOM: CT-IS-40MD · CT-JB-A · CT-PV-30 x2 · CT-SP-600 · CT-B1Z-63-2P · CT-F1 · CT-X-20 · CT-SPD-40 · CT-Q5R-100 · CT-MC4-1000 · CT-PV-CBL

APPLICATION ONE-LINE — 1500 V UTILITY BLOCK (2.5 MW)

24-string monitored combining



Per combiner: 24× CT-PV-32 + gPV 30 A · CT-SP-1500 T1+T2 · CT-IS-40 isolator · CT-M1Z-250 output

String wiring: CT-MC4-1500 (8 AWG) · CT-PV-CBL 6 mm² · rapid shutdown per code: CT-RSD150 per 10 strings

STRING PROTECTION SIZING WORKSHEET

reference — NEC 690 · verify per AHJ

1. String Isc (STC)	from module datasheet	e.g. 13.9 A
2. Min fuse rating	$1.56 \times I_{sc}$ (690.9B)	$13.9 \times 1.56 = 21.7 \rightarrow 25$ A gPV
3. Check module limit	$\leq$ max series fuse rating	module rated 30 A ■
4. Conductor ampacity	$\geq 1.56 \times I_{sc}$ before derates	≥ 21.7 A $\rightarrow$ CT-PV-CBL 4 mm ²
5. System voltage	$1.25 \times V_{oc}$, low-temp corrected	select 1000 V or 1500 V class
6. SPD class	$U_c \geq$ max system V; T1+2 if LPS	CT-SP-1000 / CT-SP T1+T2

Fusing required when 3+ strings parallel (module series-fuse rating exceeded). Worked example uses a typical 580 W bifacial module.

CT-JB-A / CT-JB-B

PV DC Combiner Box

FOR Residential solar installers · roofing-solar crews · small EPCs

WHERE Rooftop or wall adjacent to inverter, 600/1200 V string syst



APPLICATION & SELECTION

Pre-wired string aggregation for residential and small-commercial rooftop arrays. Each string lands on a touch-safe fuse holder, combines on a copper bus, and passes through the integrated DC isolator or MCB with a Type 2 DC SPD across the output. Specify CT-JB-A for 600 V string architectures and CT-JB-B for 1200 V. Hinged transparent cover permits visual fuse inspection without opening the enclosure.

WHY CT Fully assembled protection stack at a fraction of a custom-built box — and it ships from stock, not a 6-week panel-shop queue.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP65	System voltage	600 V / 1200 V DC
Enclosure material	PC + ABS	Surge protection	Integrated DC SPD
Switching	DC isolation switch / DC MCB	Fusing	DC fuse holders, per string

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

500-69604 4-String PV Combiner Box, 600/1000 V, IP65
500-69606 6-String PV Combiner Box, 600/1000 V, IP65

CT-DB

AC Distribution Box

FOR Residential & light-commercial electricians

WHERE AC side of inverter, 6–16 kW grid-tie interconnections



APPLICATION & SELECTION

AC-side load distribution downstream of the inverter, sized 6 kW (single-phase, 32 A main) and 16 kW (three-phase, 40 A main). Ships with a Type 2 AC SPD pre-wired and DIN positions for up to six CT-B1 branch breakers; knockouts top and bottom accept 20/25 mm conduit. Cuts AC-side install time to under 30 minutes versus a field-built board.

WHY CT Factory-assembled, IEC-tested protection stacks shipped from stock — no panel-shop lead times, no premium-brand configured-order pricing.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP65	Power range	6 kW / 16 kW
Enclosure material	PC + ABS	Surge protection	Integrated AC SPD
Overcurrent	AC circuit breaker	Mounting	Wall-mounted

CT-CDB

PV Combiner & Distribution Box

FOR Residential installers who want one box on the wall

WHERE Between array home-run and utility panel, 3–20 kW systems



APPLICATION & SELECTION

Single-enclosure solution combining the DC string side (isolation switch + fuse holders) and the AC output side (SPD + breaker) for 3–20 kW grid-tie systems at 220/380 V. Eliminates a second enclosure and reduces wall space and conduit runs on residential installs.

WHY CT Factory-assembled, IEC-tested protection stacks shipped from stock — no panel-shop lead times, no premium-brand configured-order pricing.

TECHNICAL SPECIFICATIONS

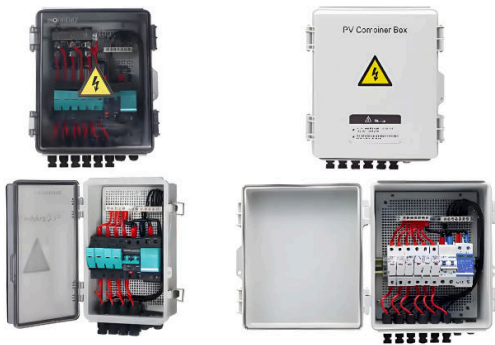
Enclosure rating	IP65	Power range	3 / 6 / 10 / 20 kW
AC voltage	220 V / 380 V	Enclosure material	PC + ABS
DC side	DC isolation switch + fuse holders	AC side	AC SPD + AC circuit breaker

CT-JB-4B / CT-JB-6B

DC Combiner Box

FOR Carport, pergola & ground-mount installers

WHERE Array-adjacent posts and racking, 600–1000 V strings



APPLICATION & SELECTION

Compact 4- and 6-string DC combiners in UV-stabilized polycarbonate/ABS for 600–1000 V arrays. Fuse-per-string architecture with Type 2 DC SPD and DC output breaker. Suited to carport, ground-mount, and pergola arrays where a light non-metallic enclosure is preferred.

WHY CT Factory-assembled, IEC-tested protection stacks shipped from stock — no panel-shop lead times, no premium-brand configured-order pricing.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP65	System voltage	600 V – 1000 V DC
Enclosure material	Polycarbonate / ABS	Fusing	DC fuse holders
Surge protection	DC SPD	Overcurrent	DC circuit breaker

CT-XLD-16/1

PV DC Combiner Box — 16 String

FOR Commercial EPCs · O&M teams needing string data

WHERE Commercial rooftop, ahead of string/central inverters



APPLICATION & SELECTION

Steel-bodied 16-string combiner for commercial rooftops and distributed utility blocks at 1000/1500 V. Includes per-string fusing, DC SPD, output breaker or MCCB, and an integrated string-monitoring module reporting string current and status to the plant SCADA/datalogger over RS-485.

WHY CT String monitoring included — a paid option on premium-brand combiners — with the same IEC-tested protection devices inside.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP65	System voltage	1000 V / 1500 V DC
Enclosure material	Powder-coated steel	Fusing	DC fuse holders, per string
Protection	DC SPD + DC breaker / MCCB	Monitoring	String monitoring module

CT-XLD-4/1 · 6/1 · 12/1

PV DC Combiner Box — 4 / 6 / 12 String

FOR Commercial EPCs · design-build electrical contractors

WHERE Commercial rooftop & ground-mount, 1000/1500 V blocks



APPLICATION & SELECTION

Steel 4-, 6-, and 12-string combiners for 1000/1500 V commercial arrays. Per-string fusing, Type 2 DC SPD, and DC output breaker/MCCB in an IP65 powder-coated enclosure with padlockable latch. Bottom-gland cable entry with strain relief for PV wire home runs.

WHY CT Factory-assembled, IEC-tested protection stacks shipped from stock — no panel-shop lead times, no premium-brand configured-order pricing.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP65	System voltage	1000 V / 1500 V DC
Enclosure material	Powder-coated steel	Fusing	DC fuse holders, per string
Surge protection	DC SPD	Overcurrent	DC circuit breaker / DC MCCB

CT-XLD-24/1

PV DC Combiner Box — 24 String

FOR Utility-scale EPCs · plant designers

WHERE 1500 V utility blocks feeding central inverters

APPLICATION & SELECTION

High-density 24-string combiner for 1500 V utility-scale blocks. Monitored string architecture with per-string fusing, surge protection, and MCCB output. Reduces homerun conductor count into central inverters and provides SCADA-visible string diagnostics for O&M.



WHY CT Utility-density combining without the utility-brand price tag or the 12-week configured-order lead time.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP65	System voltage	1500 V DC
Enclosure material	Powder-coated steel	Fusing	DC fuse holders, per string
Protection	DC SPD + DC breaker / MCCB	Monitoring	String monitoring module

CT-HL

PV AC Combiner Box

FOR Commercial EPCs on multi-inverter sites

WHERE AC recombination ahead of transformer / POI

APPLICATION & SELECTION

AC recombiner for multi-inverter commercial sites operating to 690 V AC. Aggregates inverter outputs onto a common bus ahead of the transformer or point of interconnection, with isolation, fusing, and surge protection in a single steel IP65 enclosure.



WHY CT Factory-assembled, IEC-tested protection stacks shipped from stock — no panel-shop lead times, no premium-brand configured-order pricing.

TECHNICAL SPECIFICATIONS

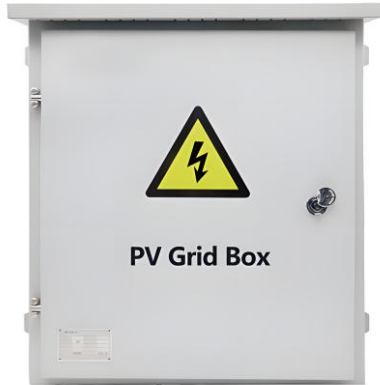
Enclosure rating	IP65	System voltage	690 V AC
Enclosure material	Powder-coated steel	Surge protection	DC SPD
Switching	DC isolation switch / DC MCB	Fusing	DC fuse holders

CT-X-200

PV Grid-Connected Distribution Box

FOR Commercial installers · inspection-focused GCs

WHERE Point of interconnection, 8–50 kW commercial PV



APPLICATION & SELECTION

Grid-interconnection cabinet for 8–50 kW commercial PV. Combines AC SPD, main AC breaker, grid-connected knife switch, and PV smart circuit breakers in a rainproof anti-corrosion steel cabinet — a complete, inspection-ready point-of-interconnection assembly.

WHY CT Factory-assembled, IEC-tested protection stacks shipped from stock — no panel-shop lead times, no premium-brand configured-order pricing.

TECHNICAL SPECIFICATIONS

Environmental	Rainproof / waterproof / anti-corrosion	Power range	8 – 50 kW
Enclosure material	Powder-coated steel	Surge protection	AC SPD
Switching	Grid-connected knife switch	Overcurrent	AC breaker + PV smart circuit breakers

CT-X-20

PV Grid-Connected Distribution Box

FOR Residential installers in wet/coastal climates

WHERE Point of interconnection, 3–10 kW residential PV



APPLICATION & SELECTION

Grid-interconnection cabinet for 3–10 kW residential PV with the same protection stack as the CT-X-200 in a compact wall-mount format: AC SPD, AC breaker, visible-break knife switch, and PV smart breakers behind a lockable rainproof door.

WHY CT Factory-assembled, IEC-tested protection stacks shipped from stock — no panel-shop lead times, no premium-brand configured-order pricing.

TECHNICAL SPECIFICATIONS

Environmental	Rainproof / waterproof / anti-corrosion	Power range	3 – 10 kW
Enclosure material	Powder-coated steel	Surge protection	AC SPD
Switching	Grid-connected knife switch	Overcurrent	AC breaker + PV smart circuit breakers

CT-ES (6/9/13/18/26 Way)

DC/AC Distribution Box

FOR Panel builders · electricians · integrators

WHERE Anywhere a field-built DIN protection assembly is needed



APPLICATION & SELECTION

General-purpose IP65 DC/AC distribution enclosures with metal DIN rail and copper terminal busbars, sized 6 to 26 modules. Impact-, heat-, low-temperature-, and chemical-resistant PC+ABS body accepts the full CT breaker, SPD, and isolator range for field-built protection assemblies.

WHY CT Factory-assembled, IEC-tested protection stacks shipped from stock — no panel-shop lead times, no premium-brand configured-order pricing.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP65	Material	PC + ABS, metal DIN rail
Busbars	Copper terminal busbars	Configurations	6 / 9 / 13 / 18 / 26 way
Durability	Impact, heat, low-temp & chemical resistant	Installation	Wall-mounted

SECTION 01 QUICK SELECT — WHO USES WHAT

CT-JB-A / CT-JB-B	Residential solar installers · roofing-solar crews ·	Rooftop or wall adjacent to inverter, 600/1200 V
CT-DB	Residential & light-commercial electricians	AC side of inverter, 6–16 kW grid-tie interconne
CT-CDB	Residential installers who want one box on the wall	Between array home-run and utility panel, 3–20 k
CT-JB-4B / CT-JB-6B	Carport, pergola & ground-mount installers	Array-adjacent posts and racking, 600–1000 V str
CT-XLD-16/1	Commercial EPCs · O&M teams needing string data	Commercial rooftop, ahead of string/central inve
CT-XLD-4/1 · 6/1 · 12/1	Commercial EPCs · design-build electrical contractor	Commercial rooftop & ground-mount, 1000/1500 V b
CT-XLD-24/1	Utility-scale EPCs · plant designers	1500 V utility blocks feeding central inverters
CT-HL	Commercial EPCs on multi-inverter sites	AC recombination ahead of transformer / POI
CT-X-200	Commercial installers · inspection-focused GCs	Point of interconnection, 8–50 kW commercial PV
CT-X-20	Residential installers in wet/coastal climates	Point of interconnection, 3–10 kW residential PV
CT-ES (6/9/13/18/26 Way)	Panel builders · electricians · integrators	Anywhere a field-built DIN protection assembly i

WHERE IT INSTALLS

02 | DC Power Distribution

DC-rated miniature and moulded-case circuit breakers, surge protection devices, and PV fuse systems engineered for string and array protection to 1500 V DC. All breakers built to IEC 60947-2 with B/C trip curves and multiple pole configurations.

- String and sub-array protection to 1500 V DC
- Combiner outputs, recombiners and battery buses
- Surge protection inside string boxes and at inverters
- gPV string fusing, 10×38 to 10×85 mm

IN THIS SECTION CT-B1Z · CT-B2Z · CT-M1Z/M5Z · CT-M6Z · CT-SP · CT-PV-30/32

All products UL listed

DC-rated miniature and moulded-case circuit breakers, surge protection devices, and PV fuse systems engineered for string and array protection to 1500 V DC. All breakers built to IEC 60947-2 with B/C trip curves and multiple pole configurations.

THE CT ADVANTAGE

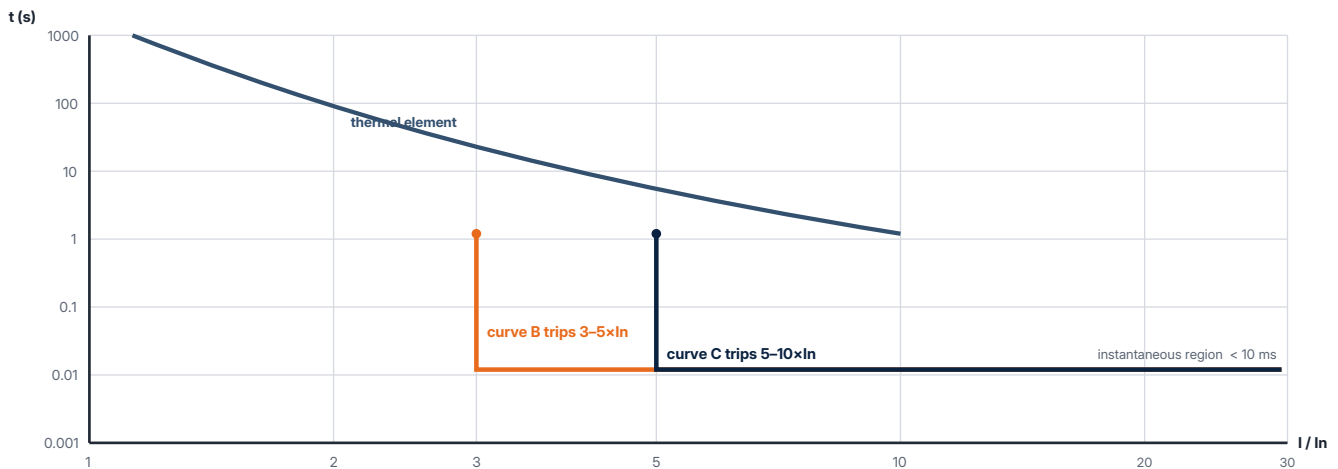
- Every voltage class 250–1500 V DC from one product family
- B/C curves, 1–4 poles, 6/10 kA — the full selection grid in stock
- Fuse, breaker & SPD engineered to coordinate together

IN THIS SECTION

CT-B1Z-63	DC Miniature Circuit Breaker	CT-SP Series	PV DC Surge Protection Device
CT-B1Z-125	DC Miniature Circuit Breaker	CT-SP T1+T2	PV DC Surge Protection Device — Type 1+2
CT-B2Z-63	DC Miniature Circuit Breaker	CT-PV-30	PV Fuse Holder — 10 × 38 mm
CT-M1Z / CT-M5Z	DC Moulded Case Circuit Breaker	CT-PV-32	PV Fuse Holder — 1500 V
CT-M6Z	DC Moulded Case Circuit Breaker		

TIME-CURRENT CHARACTERISTIC — CT-B1Z / CT-B1 MCB FAMILIES

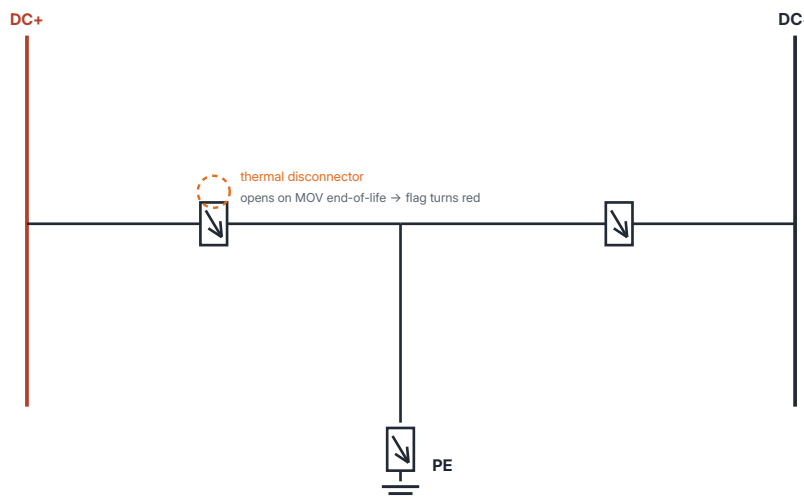
log-log, 30 °C ref



Selection: string circuits → B (low fault current available) · combiner outputs / battery feeds → C. Magnetic-hydraulic trip: no thermal derating –40 to +70 °C.

DC SPD — Y-NETWORK PROTECTION MODES & DISCONNECTOR

CT-SP series, EN 50539-11



LEAD LENGTH

≤ 0.5 m total to bus & PE — every extra meter adds ~1 kV to let-through

LOCATION

one SPD set per combiner + one at inverter DC input if runs > 10 m

COORDINATION

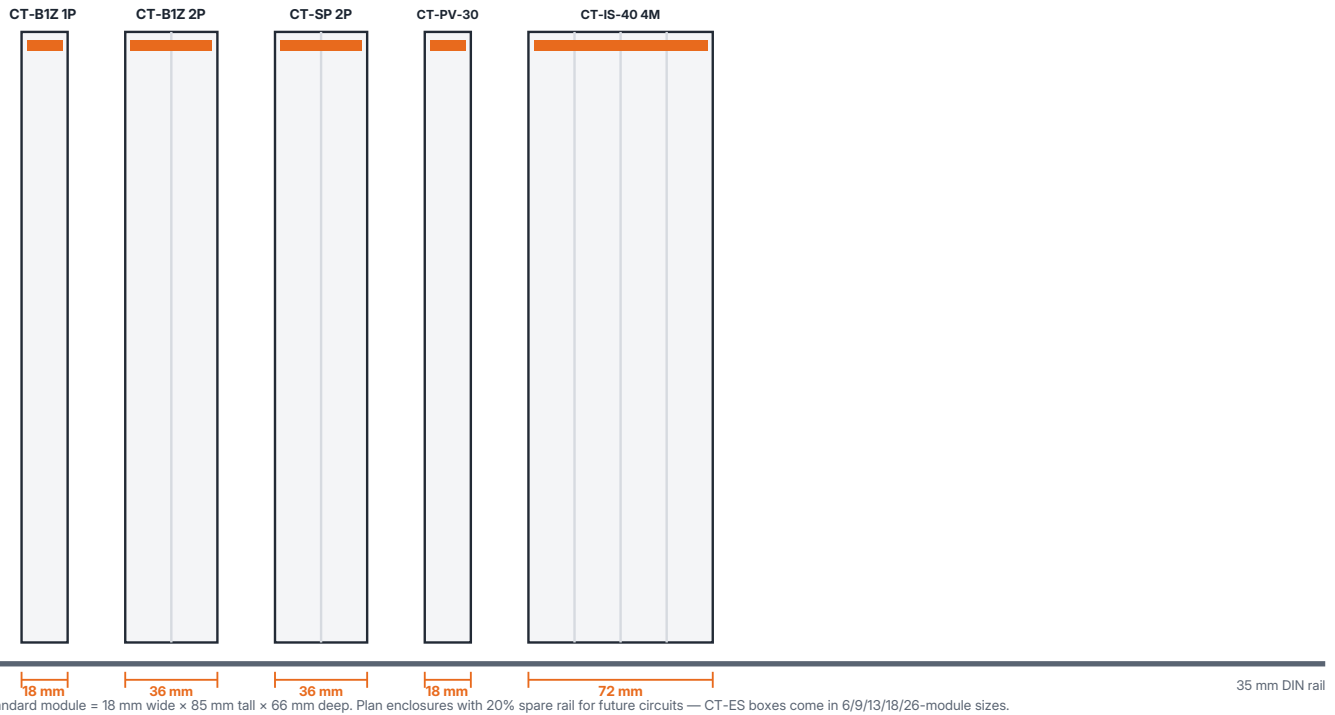
T1+T2 at building DC entry when LPS present; T2 (CT-SP) elsewhere

MONITORING

remote-signal contact available for SCADA fault annunciation

DIN-RAIL FOOTPRINT REFERENCE — PANEL LAYOUT PLANNING

35 mm rail · EN 60715



DC INTERRUPTION — WHY POLARITY & SERIES POLES MATTER

AC breakers must never be used on DC

NO ZERO CROSSING

DC current never passes through zero, so the arc must be stretched and cooled to extinction — this is what pole count buys you.

SERIES VOLTAGE BUILD-UP

Each pole adds arc-chute length: 1P = 250 V, 2P = 600 V, 3P = 800 V, 4P = 1000 V on the CT-B1Z-63. Always wire poles in series per the diagram on the device face.

POLARITY MARKING

Polarity-sensitive frames (CT-B2Z-63) steer the arc magnetically — reversing + / - defeats the arc chute. Non-polarized frames (CT-B1Z) accept either direction.

FUSE VS. BREAKER

gPV fuses (CT-PV-30/32) clear high-current faults fastest and cheapest per string; breakers add resettable switching and isolation — combiners use both, in series.

AC BREAKER MISUSE

An AC MCB on a PV string may fail to clear a DC fault and sustain an internal arc. Spec DC-rated frames only — every frame in this section carries a V DC rating.

CT-B1Z-63

DC Miniature Circuit Breaker

FOR System designers · panel builders · battery integrators

WHERE String circuits, combiner outputs, battery feeds to 1000 V D



APPLICATION & SELECTION

Primary string and sub-array overcurrent protection to 1000 V DC. Series-connected poles build system voltage — one pole per 250 V DC. Magnetic-hydraulic sensing is stable across the full -40 °C to +70 °C range with no thermal derating of the trip point. Select curve B for string circuits (3–5×I_n) and curve C for combiner outputs and battery feeds (5–10×I_n).

WHY CT Same IEC 60947-2 test regime and magnetic-hydraulic stability the premium brands sell — direct-priced, in stock, in every pole count.

TECHNICAL SPECIFICATIONS

Rated voltage	250 / 600 / 800 / 1000 V DC	Rated current (I _n)	10 / 16 / 20 / 25 / 32 / 40 / 50 / 63 A
Breaking capacity (I _{cn})	6 kA / 10 kA	Poles	1P, 2P, 3P, 4P
Trip curves	B / C	Standard	IEC 60947-2 · IP40 (port IP20)

VOLTAGE BUILD-UP BY POLE COUNT (SERIES CONNECTION)

POLES	RATED VOLTAGE	RATED CURRENTS (I _N)	I _{CN}	CURVES
1P	250 V DC	10 · 16 · 20 · 25 · 32 · 40 · 50 · 63 A	6 / 10 kA	B · C
2P	600 V DC	10 · 16 · 20 · 25 · 32 · 40 · 50 · 63 A	6 / 10 kA	B · C
3P	800 V DC	10 · 16 · 20 · 25 · 32 · 40 · 50 · 63 A	6 / 10 kA	B · C
4P	1000 V DC	10 · 16 · 20 · 25 · 32 · 40 · 50 · 63 A	6 / 10 kA	B · C

ORDERING CODE CT-B1Z-63 – [P] [I_n] [Curve] P = 1P/2P/3P/4P I_n = 10...63 Curve = B/C

Example: CT-B1Z-63-2P32C = 2-pole · 32 A · curve C · 600 V DC

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

CTDC5-63	1P 6 A DC MCB, 250 V DC, 6 kA
CTDC5-6340	1P 40 A DC MCB, 250 V DC, 6 kA
CTDC5-63202	2P 20 A DC MCB, 500 V DC, 6 kA

CT-B1Z-125

DC Miniature Circuit Breaker

FOR Commercial designers · storage integrators

WHERE Combiner outputs, inverter DC inputs, battery banks 80–125 A

APPLICATION & SELECTION

High-ampacity DC MCB for combiner outputs, battery banks, and inverter DC inputs from 80–125 A at 600/1000 V DC. Same 18 mm-per-pole DIN footprint family as the CT-B1Z-63, permitting mixed protection assemblies on a single rail.



WHY CT The same IEC 60947-2 / EN 50539-11 test regimes the premium protection brands test to — direct-priced and stocked for immediate shipment.

TECHNICAL SPECIFICATIONS

Rated voltage	600 / 1000 V DC	Rated current (In)	80 / 100 / 125 A
Breaking capacity (Icn)	6 kA / 10 kA	Poles	2P, 4P
Trip curves	B / C	Standard	IEC 60947-2 · IP40 (port IP20)

AVAILABLE CONFIGURATIONS

POLES	RATED VOLTAGE	RATED CURRENTS (IN)	ICN	CURVES
2P	600 V DC	80 · 100 · 125 A	6 / 10 kA	B · C
4P	1000 V DC	80 · 100 · 125 A	6 / 10 kA	B · C

ORDERING CODE CT-B1Z-125 – [P] [In] [Curve] P = 2P/4P In = 80/100/125 Curve = B/C

Example: CT-B1Z-125-4P100B = 4-pole · 100 A · curve B · 1000 V DC

SECTION 02 QUICK SELECT — WHO USES WHAT

CT-B1Z-63	System designers · panel builders · battery integrators	String circuits, combiner outputs, battery feeds
CT-B1Z-125	Commercial designers · storage integrators	Combiner outputs, inverter DC inputs, battery banks
CT-B2Z-63	String-level designers on 800–1000 V systems	Both-pole string protection inside combiners
CT-M1Z / CT-M5Z	C&I and storage engineers, 125–630 A frames	Recombiners, battery buses, central-inverter DC
CT-M6Z	Utility-scale & BESS engineers to 800 A	1500 V recombiner outputs and battery main disco
CT-SP Series	Every combiner build · inverter protection retrofits	Inside string boxes and at inverter DC terminals
CT-SP T1+T2	Sites with lightning protection systems / long DC runs	Service side of DC entry on LPS-equipped buildings

CT-B2Z-63

DC Miniature Circuit Breaker

FOR String-level designers on 800–1000 V systems

WHERE Both-pole string protection inside combiners

APPLICATION & SELECTION

Two-pole DC MCB purpose-built for 800/1000 V string circuits where both polarity legs must break simultaneously. Internal arc-chute geometry is polarity-sensitive — observe line/load and +/- markings during installation.



WHY CT The same IEC 60947-2 / EN 50539-11 test regimes the premium protection brands test to — direct-priced and stocked for immediate shipment.

TECHNICAL SPECIFICATIONS

Rated voltage	800 / 1000 V DC	Rated current (In)	10 – 63 A
Breaking capacity (Icn)	6 kA / 10 kA	Poles	2P
Trip curves	B / C	Standard	IEC 60947-2 · IP40 (port IP20)

ORDERING CODE CT-B2Z-63 – [In] [Curve] In = 10...63 Curve = B/C

Example: CT-B2Z-63-25C = 2-pole · 25 A · curve C

SECTION 02 QUICK SELECT — WHO USES WHAT

CT-B1Z-63	System designers · panel builders · battery integrat	String circuits, combiner outputs, battery feeds
CT-B1Z-125	Commercial designers · storage integrators	Combiner outputs, inverter DC inputs, battery ba
CT-B2Z-63	String-level designers on 800–1000 V systems	Both-pole string protection inside combiners
CT-M1Z / CT-M5Z	C&I and storage engineers, 125–630 A frames	Recombiners, battery buses, central-inverter DC
CT-M6Z	Utility-scale & BESS engineers to 800 A	1500 V recombiner outputs and battery main disco
CT-SP Series	Every combiner build · inverter protection retrofits	Inside string boxes and at inverter DC terminals
CT-SP T1+T2	Sites with lightning protection systems / long DC ru	Service side of DC entry on LPS-equipped buildin
CT-PV-30	Installers & panel builders on ≤1000 V systems	Per-string positions in combiner and junction bo
CT-PV-32	Utility-scale builders · 1500 V O&M stock rooms	Per-string positions in 1500 V combiners

CT-M1Z / CT-M5Z

DC Moulded Case Circuit Breaker

FOR C&I and storage engineers, 125–630 A frames

WHERE Recoiners, battery buses, central-inverter DC inputs

APPLICATION & SELECTION

DC moulded-case protection for combiner outputs, recoiners, battery buses, and central-inverter DC inputs from 125–630 A at 1000/1500 V DC. 8 kV impulse withstand suits exposed-array service; adjustable-trip frames available on request.



WHY CT The same IEC 60947-2 / EN 50539-11 test regimes the premium protection brands test to — direct-priced and stocked for immediate shipment.

TECHNICAL SPECIFICATIONS

Rated voltage	1000 / 1500 V DC	Rated current (In)	125 / 250 / 400 / 630 A
Impulse withstand (Uimp)	8 kV	Poles	2P, 4P
Trip curves	B / C	Standard	IEC 60947-2 · IP40 (port IP20)

FRAME SELECTION

FRAME	RATED CURRENT (IN)	RATED VOLTAGE	POLES	UIMP
CT-M1Z-125	125 A	1000 / 1500 V DC	2P · 4P	8 kV
CT-M1Z-250	250 A	1000 / 1500 V DC	2P · 4P	8 kV
CT-M5Z-400	400 · 630 A	1000 / 1500 V DC	2P · 4P	8 kV

SECTION 02 QUICK SELECT — WHO USES WHAT

CT-B1Z-63	System designers · panel builders · battery integrat	String circuits, combiner outputs, battery feeds
CT-B1Z-125	Commercial designers · storage integrators	Combiner outputs, inverter DC inputs, battery ba
CT-B2Z-63	String-level designers on 800–1000 V systems	Both-pole string protection inside combiners
CT-M1Z / CT-M5Z	C&I and storage engineers, 125–630 A frames	Recombiners, battery buses, central-inverter DC
CT-M6Z	Utility-scale & BESS engineers to 800 A	1500 V recombiner outputs and battery main disco
CT-SP Series	Every combiner build · inverter protection retrofits	Inside string boxes and at inverter DC terminals
CT-SP T1+T2	Sites with lightning protection systems / long DC ru	Service side of DC entry on LPS-equipped buildin
CT-PV-30	Installers & panel builders on ≤1000 V systems	Per-string positions in combiner and junction bo

CT-M6Z

DC Moulded Case Circuit Breaker

FOR Utility-scale & BESS engineers to 800 A

WHERE 1500 V recombiner outputs and battery main disconnects



APPLICATION & SELECTION

Heavy-frame DC MCCB to 800 A and 1500 V DC with 12 kV impulse withstand for utility-scale recombiners and battery energy storage systems. 2P, 3P, and 4P pole stacks permit series voltage building and ganged positive/negative switching.

WHY CT 1500 V / 800 A frames that premium brands quote as engineered specials — here they're standard catalog items.

TECHNICAL SPECIFICATIONS

Rated voltage	1000 / 1500 V DC	Rated current (In)	250 / 320 / 400 / 630 / 800 A
Impulse withstand (Uimp)	12 kV	Poles	2P, 3P, 4P
Trip curves	B / C	Standard	IEC 60947-2 · IP20

SECTION 02 QUICK SELECT — WHO USES WHAT

CT-B1Z-63	System designers · panel builders · battery integrat	String circuits, combiner outputs, battery feeds
CT-B1Z-125	Commercial designers · storage integrators	Combiner outputs, inverter DC inputs, battery ba
CT-B2Z-63	String-level designers on 800–1000 V systems	Both-pole string protection inside combiners
CT-M1Z / CT-M5Z	C&I and storage engineers, 125–630 A frames	Recombiners, battery buses, central-inverter DC
CT-M6Z	Utility-scale & BESS engineers to 800 A	1500 V recombiner outputs and battery main disco
CT-SP Series	Every combiner build · inverter protection retrofits	Inside string boxes and at inverter DC terminals
CT-SP T1+T2	Sites with lightning protection systems / long DC ru	Service side of DC entry on LPS-equipped buildin
CT-PV-30	Installers & panel builders on ≤1000 V systems	Per-string positions in combiner and junction bo
CT-PV-32	Utility-scale builders · 1500 V O&M stock rooms	Per-string positions in 1500 V combiners

CT-SP Series

PV DC Surge Protection Device

FOR Every combiner build · inverter protection retrofits

WHERE Inside string boxes and at inverter DC terminals

APPLICATION & SELECTION

Type 2 DC surge protection for combiner boxes and inverter DC inputs. Y-configuration MOV network protects (DC+)–PE, (DC–)–PE, and (DC+)–(DC–) modes. Pluggable cartridges replace from the front without disturbing wiring; thermal disconnect with visual status flag on each pole.



WHY CT Identical MOV protection architecture and EN 50539-11 rating class as the big-name arresters at panel-builder pricing.

TECHNICAL SPECIFICATIONS

Max discharge (Imax)	40 kA	Continuous voltage (Uc)	600 / 1000 / 1500 V DC
Protection level (Up)	≤ 3.8 kV	Poles	2P, 3P
Module	Pluggable, field-replaceable	Standard	EN 50539-11

MODEL SELECTION BY SYSTEM VOLTAGE

MODEL	UC (MAX CONTINUOUS)	IMAX (8/20 MS)	UP	POLES
CT-SP-600	600 V DC	40 kA	≤ 3.8 kV	2P · 3P
CT-SP-1000	1000 V DC	40 kA	≤ 3.8 kV	2P · 3P
CT-SP-1500	1500 V DC	40 kA	≤ 3.8 kV	2P · 3P

ORDERING CODE CT-SP – [Uc] [P] Uc = 600/1000/1500 P = 2P/3P

Example: CT-SP-1000-3P = 1000 V DC · 3-pole (+ / – / PE)

SECTION 02 QUICK SELECT — WHO USES WHAT

CT-B1Z-63	System designers · panel builders · battery integrat	String circuits, combiner outputs, battery feeds
CT-B1Z-125	Commercial designers · storage integrators	Combiner outputs, inverter DC inputs, battery ba
CT-B2Z-63	String-level designers on 800–1000 V systems	Both-pole string protection inside combiners
CT-M1Z / CT-M5Z	C&I and storage engineers, 125–630 A frames	Recombiners, battery buses, central-inverter DC
CT-M6Z	Utility-scale & BESS engineers to 800 A	1500 V recombiner outputs and battery main disco
CT-SP Series	Every combiner build · inverter protection retrofits	Inside string boxes and at inverter DC terminals
CT-SP T1+T2	Sites with lightning protection systems / long DC ru	Service side of DC entry on LPS-equipped buildin

CT-SP T1+T2

PV DC Surge Protection Device — Type 1+2

FOR Sites with lightning protection systems / long DC runs

WHERE Service side of DC entry on LPS-equipped buildings



APPLICATION & SELECTION

Combined lightning-current and surge arrester (Class I+II / Type 1+2) for string boxes and inverters on buildings with external lightning protection or long exposed DC feeders. Rated for 12.5 kA (10/350 μ s) partial lightning current per path with 40 kA (8/20 μ s) nominal discharge.

WHY CT UL 1449 4th Edition listed Type 1+2 in one module — most brands make you buy two devices to get this coverage.

TECHNICAL SPECIFICATIONS

Ratings	600 / 1000 / 1200 / 1500 V DC	Surge rating	I_{total} 12.5 kA (10/350 μ s) · 40 kA (8/20 μ s)
Category	Class I+II / Type 1+2	Protection modes	(DC+)-PE, (DC-)-PE, (DC+)-(DC-)
Elements	High-energy MOV, pluggable design	Compliance	IEC/EN 61643-31 · UL 1449 4th Ed.

CT-PV-30

PV Fuse Holder — 10 × 38 mm

FOR Installers & panel builders on ≤ 1000 V systems

WHERE Per-string positions in combiner and junction boxes



APPLICATION & SELECTION

Touch-safe 10×38 mm fuse holder for gPV string fuses to 1000 V DC. Lever-out carrier de-energizes the fuse before contact is possible. Size string fuses at a minimum of $1.56 \times I_{sc-SC}$ per NEC 690.9(B) and verify against the module's maximum series fuse rating.

WHY CT The same IEC 60947-2 / EN 50539-11 test regimes the premium protection brands test to — direct-priced and stocked for immediate shipment.

TECHNICAL SPECIFICATIONS

Rated voltage (Ue)	1000 V DC	Fuse range (In)	1 – 32 A
Breaking capacity	20 kA	Fuse size	10 × 38 mm
Safety	Touch-safe fuse replacement	Options	Blown-fuse indicator light

ORDERING CODE CT-PV-30 – [P] + gPV fuse [In] P = 1P/2P In = 1...32 A

Example: CT-PV-30-1P + 15 A gPV = single-pole holder, 15 A string fuse

CT-PV-32

PV Fuse Holder — 1500 V

FOR Utility-scale builders · 1500 V O&M stock rooms

WHERE Per-string positions in 1500 V combiners

APPLICATION & SELECTION

1500 V DC fuse system using 10×65 mm and 10×85 mm gPV cartridges for utility-scale strings. Optional blown-fuse indicator provides at-a-glance O&M status across a fully loaded combiner. Fuse and holder are stocked online — see SKUs below.



WHY CT Holder and fuse both live-stocked online — premium-brand 1500 V fusing is routinely a 4+ week distributor order.

TECHNICAL SPECIFICATIONS

Rated voltage (Ue)	1500 V DC	Fuse range (In)	1 – 32 A
Breaking capacity	20 kA	Fuse size	10 × 65 mm / 10 × 85 mm
Safety	Touch-safe fuse replacement	Options	Blown-fuse indicator light

ORDERING CODE CT-PV-32 – [P] + gPV fuse [In] P = 1P/2P In = 1...32 A

Example: CT-PV-32-1P + 30 A gPV = 1500 V holder with 30 A fuse (SKUs below)

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

MDPV-32	DIN Rail 1500 V DC Fuse Holder
MDPV-32F	1500 V 30 A PV Fuse

SECTION 02 QUICK SELECT — WHO USES WHAT

CT-B1Z-63	System designers · panel builders · battery integrat	String circuits, combiner outputs, battery feeds
CT-B1Z-125	Commercial designers · storage integrators	Combiner outputs, inverter DC inputs, battery ba
CT-B2Z-63	String-level designers on 800–1000 V systems	Both-pole string protection inside combiners
CT-M1Z / CT-M5Z	C&I and storage engineers, 125–630 A frames	Recombiners, battery buses, central-inverter DC
CT-M6Z	Utility-scale & BESS engineers to 800 A	1500 V recombiner outputs and battery main disco
CT-SP Series	Every combiner build · inverter protection retrofits	Inside string boxes and at inverter DC terminals
CT-SP T1+T2	Sites with lightning protection systems / long DC ru	Service side of DC entry on LPS-equipped buildin
CT-PV-30	Installers & panel builders on ≤1000 V systems	Per-string positions in combiner and junction bo
CT-PV-32	Utility-scale builders · 1500 V O&M stock rooms	Per-string positions in 1500 V combiners

WHERE IT INSTALLS

03 | AC Power Distribution

AC miniature and moulded-case circuit breakers, residual current devices, surge protection, contactors, and automatic reclosing breakers for the AC side of grid-tied and hybrid PV systems. Built to IEC 60898-1, IEC 60947-2, IEC 61008/61009, and IEC 61643 standards.

- Inverter AC outputs and interconnection boards
- Final circuits, feeders and EV supplies
- Earth-leakage and surge protection
- Contactor switching for loads and PV auxiliaries

IN THIS SECTION — CT-B1 · CT-B1LE · CT-RC · CT-M1 · CT-SPD-40 · CT-ICT

All products UL listed

AC miniature and moulded-case circuit breakers, residual current devices, surge protection, contactors, and automatic reclosing breakers for the AC side of grid-tied and hybrid PV systems. Built to IEC 60898-1, IEC 60947-2, IEC 61008/61009, and IEC 61643 standards.

THE CT ADVANTAGE

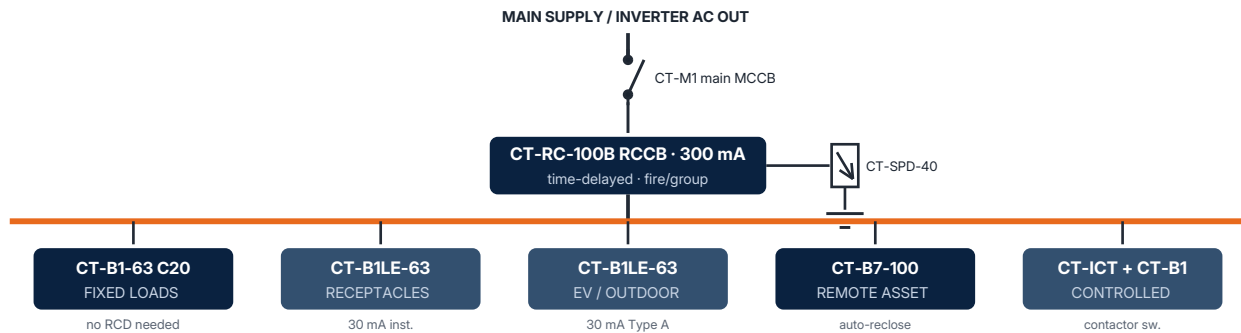
- MCB, RCBO, RCCB, MCCB, SPD & contactor in one matched line
- B/C/D curves and 30/100/300 mA sensitivities on the shelf
- Auto-reclose option cuts truck rolls on remote assets

IN THIS SECTION

CT-B1-63	AC Miniature Circuit Breaker	CT-M1	AC Moulded Case Circuit Breaker
CT-B1-125	AC Miniature Circuit Breaker	CT-SPD-40	AC Surge Protection Device
CT-B1LE-63	Residual Current Breaker w/ Overcurrent (RCB)	CT-ICT	Modular Contactor
CT-B1LE-125	Residual Current Breaker w/ Overcurrent (RCB)	CT-B7-100	Automatic Reclosing Circuit Breaker
CT-RC-100B	Residual Current Circuit Breaker (RCCB)		

AC BOARD ARCHITECTURE — SELECTIVE RESIDUAL-CURRENT PROTECTION

upstream delayed · downstream instantaneous



Selectivity: a 30 mA downstream fault clears locally; the delayed 300 mA head stays closed — the rest of the board never blinks. All devices one brand, one aesthetic, one order.

CT-B1-63

AC Miniature Circuit Breaker

FOR Electricians · panel builders · solar AC-side work

WHERE Final circuits and branch positions in AC boards



APPLICATION & SELECTION

General-purpose AC branch protection to 63 A, built to IEC 60898-1 for final circuits. Curve B for long resistive circuits and electronics, C for general distribution and small motor loads, D for high-inrush loads such as transformers and welder feeds.

WHY CT IEC 60898-1 branch protection at a price that lets you standardize the whole board on one brand.

TECHNICAL SPECIFICATIONS

Rated voltage	230/400 V (1P) · 400 V (2–4P)	Rated current (In)	6 – 63 A
Breaking capacity (Ui)	4.5 / 6 / 10 kA	Poles	1P, 2P, 3P, 4P
Trip curves	B / C / D	Standard	IEC 60898-1 · IP20

TRIP CURVE APPLICATION GUIDE

CURVE	MAGNETIC TRIP	TYPICAL LOADS
B	3 – 5 × In	Long final circuits, resistive loads, electronics
C	5 – 10 × In	General distribution, lighting, small motors
D	10 – 20 × In	Transformers, welders, high-inrush machinery

ORDERING CODE CT-B1-63 – [P] [In] [Curve] P = 1P...4P In = 6...63 Curve = B/C/D

Example: CT-B1-63-1P20C = 1-pole · 20 A · curve C

SECTION 03 QUICK SELECT — WHO USES WHAT

CT-B1-63	Electricians · panel builders · solar AC-side work	Final circuits and branch positions in AC boards
CT-B1-125	Commercial electricians	Sub-mains and feeders 80–125 A
CT-B1LE-63	Electricians on receptacle, outdoor & EV circuits	Final circuits requiring personnel/earth-leakage
CT-B1LE-125	Commercial electricians · EV infrastructure crews	Feeders to sub-panels, EVSE, outbuildings 63–100
CT-RC-100B	Panel designers grouping MCB circuits	Head of final-circuit groups needing leakage pro
CT-M1	Commercial & industrial electrical engineers	Mains, feeders, inverter AC outputs 63–1250 A
CT-SPD-40	Every service entrance · inverter AC protection	Main distribution boards and AC combiner panels

CT-B1-125

AC Miniature Circuit Breaker

FOR Commercial electricians

WHERE Sub-mains and feeders 80–125 A

APPLICATION & SELECTION

AC MCB frame extension covering 80/100/125 A to IEC 60947-2 — the range where a moulded-case breaker is oversized and overpriced but a 63 A frame is maxed out. Sub-mains, EV feeders, and heat-pump circuits share the same DIN profile as the CT-B1-63, so both frames align on one rail.



WHY CT Standardize the whole AC board on one brand: matched breakers, RCDs, SPDs and contactors that fit, look, and file together.

TECHNICAL SPECIFICATIONS

Rated voltage	230 V (1P) · 400 V (2–4P)	Rated current (In)	80 / 100 / 125 A
Breaking capacity (Ui)	6 / 10 kA	Poles	1P, 2P, 3P, 4P
Trip curves	B / C / D	Standard	IEC 60947-2 · IP20

SECTION 03 QUICK SELECT — WHO USES WHAT

CT-B1-63	Electricians · panel builders · solar AC-side work	Final circuits and branch positions in AC boards
CT-B1-125	Commercial electricians	Sub-mains and feeders 80–125 A
CT-B1LE-63	Electricians on receptacle, outdoor & EV circuits	Final circuits requiring personnel/earth-leakage
CT-B1LE-125	Commercial electricians · EV infrastructure crews	Feeders to sub-panels, EVSE, outbuildings 63–100
CT-RC-100B	Panel designers grouping MCB circuits	Head of final-circuit groups needing leakage pro
CT-M1	Commercial & industrial electrical engineers	Mains, feeders, inverter AC outputs 63–1250 A
CT-SPD-40	Every service entrance · inverter AC protection	Main distribution boards and AC combiner panels
CT-ICT	Automation & HVAC/EV integrators	DIN panels switching heating, lighting, EVSE, PV
CT-B7-100	O&M teams with remote/unmanned assets	Pump stations, telecom, monitoring & off-grid ca

CT-B1LE-63

Residual Current Breaker w/ Overcurrent (RCBO)

FOR Electricians on receptacle, outdoor & EV circuits

WHERE Final circuits requiring personnel/earth-leakage protection



APPLICATION & SELECTION

Combined overcurrent + residual-current protection (RCBO) in one device to 63 A. Apply 30 mA sensitivity for personnel protection on receptacle and wet-location circuits; 100/300 mA for equipment and fire protection on feeders.

WHY CT Standardize the whole AC board on one brand: matched breakers, RCDs, SPDs and contactors that fit, look, and file together.

TECHNICAL SPECIFICATIONS

Rated voltage	230 V~ / 400 V~	Rated current (In)	10 – 63 A
Breaking capacity (Icn)	6 / 10 kA	Poles	1P, 2P, 3P, 4P
Trip curves	B / C / D	Standard	IEC 61009-1 · IP20

RESIDUAL CURRENT SENSITIVITY SELECTION

SENSITIVITY	PROTECTION OBJECTIVE	TYPICAL CIRCUITS
30 mA	Personnel (additional protection)	Receptacles, bathrooms, outdoor, EV
100 mA	Equipment / fire	Sub-feeders, machine circuits
300 mA	Fire protection	Main feeders, distribution boards

ORDERING CODE CT-B1LE-63 – [P] [In] [Curve] [IΔn] IΔn = 30/100/300 mA

Example: CT-B1LE-63-2P40C30 = 2-pole · 40 A · C · 30 mA

SECTION 03 QUICK SELECT — WHO USES WHAT

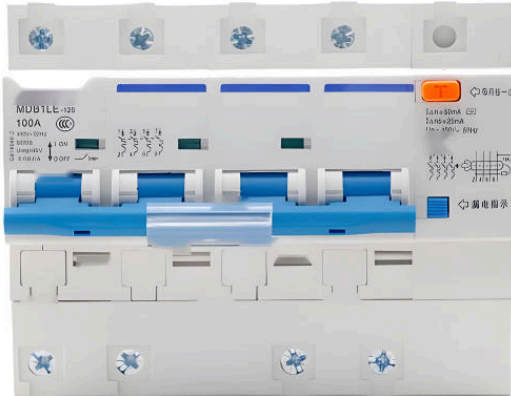
CT-B1-63	Electricians · panel builders · solar AC-side work	Final circuits and branch positions in AC boards
CT-B1-125	Commercial electricians	Sub-mains and feeders 80–125 A
CT-B1LE-63	Electricians on receptacle, outdoor & EV circuits	Final circuits requiring personnel/earth-leakage
CT-B1LE-125	Commercial electricians · EV infrastructure crews	Feeders to sub-panels, EVSE, outbuildings 63–100
CT-RC-100B	Panel designers grouping MCB circuits	Head of final-circuit groups needing leakage pro
CT-M1	Commercial & industrial electrical engineers	Mains, feeders, inverter AC outputs 63–1250 A
CT-SPD-40	Every service entrance · inverter AC protection	Main distribution boards and AC combiner panels

CT-B1LE-125

Residual Current Breaker w/ Overcurrent (RCBO)

FOR Commercial electricians · EV infrastructure crews

WHERE Feeders to sub-panels, EVSE, outbuildings 63–100 A



APPLICATION & SELECTION

High-frame RCBO for 63–100 A feeders requiring combined earth-leakage and overcurrent protection — sub-panels, EV charging feeders, and outbuilding supplies.

WHY CT Standardize the whole AC board on one brand: matched breakers, RCDs, SPDs and contactors that fit, look, and file together.

TECHNICAL SPECIFICATIONS

Rated voltage	230 V~ / 400 V~	Rated current (In)	63 / 80 / 100 A
Breaking capacity (Icn)	6 / 10 kA	Poles	1P, 2P, 3P, 4P
Trip curves	B / C / D	Standard	IEC 61009-1 · IP20

CT-RC-100B

Residual Current Circuit Breaker (RCCB)

FOR Panel designers grouping MCB circuits

WHERE Head of final-circuit groups needing leakage protection



APPLICATION & SELECTION

Dedicated residual-current circuit breaker (RCCB), 100 A frame. Provides earth-leakage protection for a group of downstream MCB-protected circuits; must be backed by an upstream overcurrent device per IEC 61008-1.

WHY CT Standardize the whole AC board on one brand: matched breakers, RCDs, SPDs and contactors that fit, look, and file together.

TECHNICAL SPECIFICATIONS

Rated voltage (Ue)	230 V / 2P · 400 V / 4P	Frame current	100 A
Impulse withstand (Uimp)	4 kV	Insulation (Ui)	400 V
Poles	2P, 4P	Standard	IEC 61008-1 · IP20

CT-M1

AC Moulded Case Circuit Breaker

FOR Commercial & industrial electrical engineers

WHERE Mains, feeders, inverter AC outputs 63–1250 A



APPLICATION & SELECTION

AC moulded-case breaker for mains, feeders, and inverter AC outputs from 63–1250 A at up to 1000 V AC. 6/8 kV impulse withstand; 3P and 4P frames with B/C/D response characteristics.

WHY CT Standardize the whole AC board on one brand: matched breakers, RCDs, SPDs and contactors that fit, look, and file together.

TECHNICAL SPECIFICATIONS

Rated voltage	500 / 800 / 1000 V AC	Rated current (In)	63 – 1250 A
Impulse withstand (Uimp)	6 / 8 kV	Poles	3P, 4P
Trip curves	B / C / D	Standard	IEC 60947-2 · IP20

CT-SPD-40

AC Surge Protection Device

FOR Every service entrance · inverter AC protection

WHERE Main distribution boards and AC combiner panels



APPLICATION & SELECTION

Type 2 AC surge arrester for service entrances and distribution boards. 40 kA maximum discharge with pluggable field-replaceable modules and thermal-disconnect status indication. Select Uc at least 10% above nominal phase-earth voltage.

WHY CT Standardize the whole AC board on one brand: matched breakers, RCDs, SPDs and contactors that fit, look, and file together.

TECHNICAL SPECIFICATIONS

Rated voltage	380 V / 220 V	Max discharge current	40 kA
Continuous voltage (Uc)	275 / 320 / 385 / 420 V	Poles	2P, 4P, 3P (380 V)
Module	Pluggable, field-replaceable	Standard	IEC 61643-1

CT-ICT

Modular Contactor

FOR Automation & HVAC/EV integrators

WHERE DIN panels switching heating, lighting, EVSE, PV auxiliaries



APPLICATION & SELECTION

Silent-operation modular contactor (no 50/60 Hz hum — suitable for living spaces) switching heating, lighting, EVSE, and PV auxiliary circuits from 16–100 A. Coil options 12/24/48 V AC integrate directly with energy-management and BMS outputs; 2.5 kV impulse withstand, 1–4 pole DIN body.

WHY CT Standardize the whole AC board on one brand: matched breakers, RCDs, SPDs and contactors that fit, look, and file together.

TECHNICAL SPECIFICATIONS

Rated voltage (Ue)	250 V AC (1P, 2P) · 400 V AC (3P, 4P)	Rated current (In)	16 / 20 / 25 / 40 / 63 / 100 A
Impulse withstand (Uimp)	2.5 kV (4 kV for 12/24/48 V AC coils)	Poles	1P, 2P, 3P, 4P
Mounting	35 mm DIN rail	Standard	IEC 60529

CT-B7-100

Automatic Reclosing Circuit Breaker

FOR O&M teams with remote/unmanned assets

WHERE Pump stations, telecom, monitoring & off-grid cabinets



APPLICATION & SELECTION

Self-reclosing residual-current breaker for remote and unattended sites — pump stations, telecom, monitoring cabinets, and off-grid PV. After a leakage trip the device tests the circuit and automatically restores service if the fault has cleared, eliminating truck rolls for nuisance trips.

WHY CT Auto-reclose after cleared leakage faults — a capability premium brands reserve for their industrial-tier lines — priced for every remote cabinet.

TECHNICAL SPECIFICATIONS

Rated current (In)	6 – 63 A	Residual current action	30 / 100 / 300 mA
Type	A / AC selectable	Sensing	Electronic / electromagnetic
Poles	2P / 4P	Frequency	50 / 60 Hz

WHERE IT INSTALLS

04 | Transfer Switches & Power Control

Automatic and manual dual-power transfer switches for utility/PV, utility/generator, and hybrid backup configurations from 6 A residential circuits to 1600 A commercial mains, plus digital voltage and current protection.

- Utility / PV / generator changeover, 6–1600 A
- Residential backup sub-panels
- Commercial main switchboards
- Voltage and current protection on unstable grids

IN THIS SECTION CT-Q8 · CT-Q2 · CT-Q5R · CT-Q3 · CT-NS · CT-SP1

All products UL listed

Automatic and manual dual-power transfer switches for utility/PV, utility/generator, and hybrid backup configurations from 6 A residential circuits to 1600 A commercial mains, plus digital voltage and current protection.

THE CT ADVANTAGE

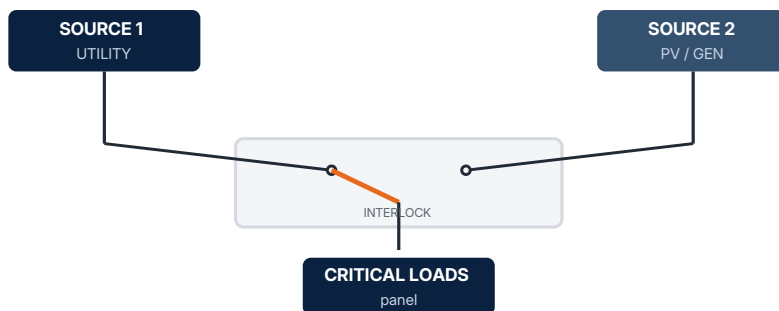
- 6 A to 1600 A transfer from one catalog page
- CB and PC topologies — pick protection-through-path or speed
- Mechanical + electrical interlock standard, not optional

IN THIS SECTION

CT-Q8-100 / CT-Q8-125	Dual Power Automatic Transfer Switch	CT-NS-63	AC Dual Power Manual Transfer Switch
CT-Q2-63	Dual Power Automatic Transfer Switch	CT-NS-125	AC Dual Power Manual Transfer Switch
CT-Q5R-100	Dual Power Automatic Transfer Switch	CT-SP1	Digital Voltage & Current Protector
CT-Q3	Dual Power Automatic Transfer Switch		

AUTOMATIC TRANSFER — ONE-LINE + TRANSFER SEQUENCE

CT-Q series



TRANSFER SEQUENCE (AUTO MODE)

- t0** Source 1 fails ($U < 70\%$ or f drift)
- t0+1-3 s** Validation delay — rides through dips
- t0+3 s** Open S1 → interlock → close S2 (<100 ms PC type)
- restore** S1 returns → retransfer after stability delay
- manual** Front-panel override + padlockable OFF

CB topology (CT-Q2) adds overcurrent protection through the transfer path; PC topology (CT-Q8/Q5R) transfers fastest. Both mechanically + electrically interlocked — paralleling is impossible.



APPLICATION Automatic transfer switch between the main panel, hybrid inverter, batteries and a standby generator

CT-Q8-100 / CT-Q8-125

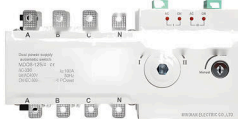
Dual Power Automatic Transfer Switch

FOR Commercial engineers · critical-facility designers

WHERE Main switchboards transferring 100–1600 A between sources

APPLICATION & SELECTION

Commercial ATS in PC (power-contactor) topology from 100–1600 A, transferring mains between utility and PV/backup sources with mechanical and electrical interlock. Auto and manual modes with front-panel source indication; 3P/4P for TN and TT systems.



WHY CT PC-topology transfer with full interlock at contactor-grade pricing — comparable frames from legacy switchgear brands cost multiples.

TECHNICAL SPECIFICATIONS

Rated voltage	400 V	Rated current	100 – 1600 A
Poles	3P, 4P	Power source	Utility / PV-to-Utility
Mechanism · control	PC type · Auto / Manual	Standard	EN IEC 60947-1, 60947-6

ATS TOPOLOGY COMPARISON — CT-Q FAMILY

MODEL	CURRENT	MECHANISM	SOURCE PAIRING	CONTROL
CT-Q8-100/125	100 – 1600 A	PC (contactor)	Utility / PV-to-Utility	Auto · Manual
CT-Q5R-100	100 A	PC (contactor)	Utility / PV-to-Utility	Auto · Manual
CT-Q2-63	63 A	CB (breaker)	Utility / Gen-to-Utility	Auto · Manual
CT-Q3	6 – 63 A	Compact	PV / Gen-to-Utility	Auto

ORDERING CODE CT-Q8 – [In] [P] In = 100...1600 P = 3P/4P

Example: CT-Q8-250-4P = 250 A · 4-pole · auto/manual

SECTION 04 QUICK SELECT — WHO USES WHAT

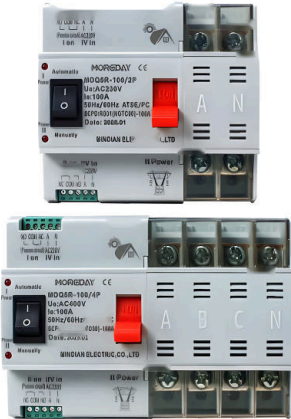
CT-Q8-100 / CT-Q8-125	Commercial engineers · critical-facility designers	Main switchboards transferring 100–1600 A between
CT-Q2-63	Residential generator & backup installers	Service entrance / backup sub-panel changeover t
CT-Q5R-100	Hybrid PV+storage installers	Between utility, PV/backup source, and critical
CT-Q3	Small hybrid & off-grid system builders	Compact source changeover 6–63 A
CT-NS-63	Electricians needing simple, positive changeover	Manual source selection with center-OFF to 40 A

CT-Q2-63

Dual Power Automatic Transfer Switch

FOR Residential generator & backup installers

WHERE Service entrance / backup sub-panel changeover to 63 A



APPLICATION & SELECTION

CB-type 63 A ATS for residential and light-commercial utility/generator changeover. Breaker-based topology provides overcurrent protection through the transfer path — no separate backup breaker required in many layouts.

WHY CT Interlocked transfer capability at pricing that makes backup power viable on projects where legacy-brand ATS gear killed the budget.

TECHNICAL SPECIFICATIONS

Rated voltage	AC 220 V $\pm 10\%$ · AC 380 V $\pm 10\%$	Rated current	63 A
Poles	2P, (3P), 4P	Power source	Utility / Generator-to-Utility
Mechanism · control	CB type · Auto / Manual	Standard	EN IEC 60947-1, 60947-6

CT-Q5R-100

Dual Power Automatic Transfer Switch

FOR Hybrid PV+storage installers

WHERE Between utility, PV/backup source, and critical loads panel



APPLICATION & SELECTION

PC-type 100 A ATS for utility/PV hybrid systems. Fast contactor transfer with mechanical interlock; DIN-format footprint for panel building. Auto mode transfers on source failure and returns on restoration with adjustable delay.

WHY CT Interlocked transfer capability at pricing that makes backup power viable on projects where legacy-brand ATS gear killed the budget.

TECHNICAL SPECIFICATIONS

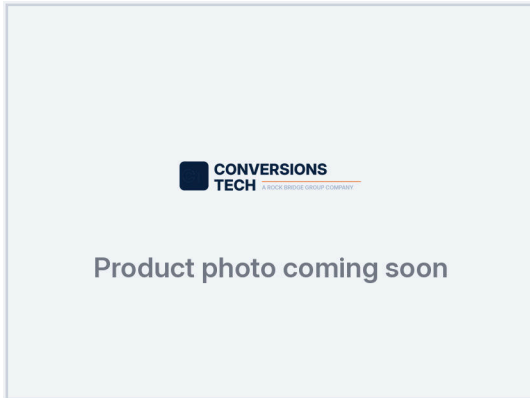
Rated voltage	AC 220 V $\pm 10\%$ · AC 380 V $\pm 10\%$	Rated current	100 A
Poles	2P, 4P	Power source	Utility / PV-to-Utility
Mechanism · control	PC type · Auto / Manual	Standard	EN IEC 60947-1, 60947-6

CT-Q3

Dual Power Automatic Transfer Switch

FOR Small hybrid & off-grid system builders

WHERE Compact source changeover 6–63 A



Product photo coming soon

APPLICATION & SELECTION

Compact 6–63 A ATS for PV/generator-to-utility service in small hybrid systems, rated AC-31B for non-inductive/resistive switching. 5 kA short-circuit rating with 8 kV impulse withstand and 690 V insulation class.

WHY CT Interlocked transfer capability at pricing that makes backup power viable on projects where legacy-brand ATS gear killed the budget.

TECHNICAL SPECIFICATIONS

Rated voltage	AC 220 V / AC 110 V	Rated current	6 – 63 A
Poles	2P, 4P	Short-circuit (I _q) · Uimp	5 kA · 8 kV
Insulation (Ui)	690 V	Usage category	AC-31B · PV / Generator-to-Utility

CT-NS-63

AC Dual Power Manual Transfer Switch

FOR Electricians needing simple, positive changeover

WHERE Manual source selection with center-OFF to 40 A



APPLICATION & SELECTION

Manual 1-0-2 changeover to 40 A with a true center-OFF: both sources are physically broken in the middle position, so there is no state in which backfeed is possible. Fast-clip mounting on EN 60715 35 mm rail, padlockable toggle for lockout-tagout, 1–4 pole for single- and three-phase service.

WHY CT Interlocked transfer capability at pricing that makes backup power viable on projects where legacy-brand ATS gear killed the budget.

TECHNICAL SPECIFICATIONS

Rated voltage	240 / 415 V~	Rated current	16 / 20 / 25 / 32 / 40 A
Contact form	1-0-2	Poles	1P, 2P, 3P, 4P
Frequency	50 / 60 Hz	Mounting	35 mm DIN rail (EN 60715), fast-clip · IP20

CT-NS-125

AC Dual Power Manual Transfer Switch

FOR Commercial electricians

WHERE Manual sub-main source selection to 125 A



APPLICATION & SELECTION

Manual 1-0-2 changeover to 125 A for sub-main source selection. Positive center-OFF break isolates both sources during maintenance; 1-4 pole configurations for single- and three-phase service.

WHY CT Interlocked transfer capability at pricing that makes backup power viable on projects where legacy-brand ATS gear killed the budget.

TECHNICAL SPECIFICATIONS

Rated voltage	240 / 415 V~	Rated current	63 / 80 / 100 / 125 A
Contact form	1-0-2	Poles	1P, 2P, 3P, 4P
Frequency	50 / 60 Hz	Mounting	35 mm DIN rail (EN 60715), fast-clip · IP20

CT-SP1

Digital Voltage & Current Protector

FOR Installers on unstable grids · pump & HVAC protection

WHERE Ahead of compressors, pumps, sensitive loads



APPLICATION & SELECTION

Programmable digital voltage/current protector and load manager. Disconnects on over/under-voltage outside the AC 180–250 V window, with 16 daily ON/OFF schedule programs at 1-minute resolution — protects compressors, pumps, and sensitive electronics on unstable supplies.

WHY CT Interlocked transfer capability at pricing that makes backup power viable on projects where legacy-brand ATS gear killed the budget.

TECHNICAL SPECIFICATIONS

Voltage rating	AC 220 V 50/60 Hz · DC 24/48 V	Adjustable limits	AC 180 – 250 V
Load capacity	Resistive 30 A / lagging 20 A @ 220 VAC	ON/OFF programs	16 ON & 16 OFF, 1-min resolution
Display	LCD, count-down to 99 h 59 m 59 s	Contact	1 changeover switch

WHERE IT INSTALLS

05 | DC Isolation & PV Safety

DC isolator switches, rapid-shutdown equipment, and module-level power electronics for code-compliant disconnection and firefighter safety. Modular designs to 1500 V DC with <3 ms switching via energy-storage spring mechanisms and self-cleaning contacts, fully loaded from -40 °C to +70 °C.

- Lockable DC isolators at the array and inverter
- Visible-break AC isolation beside the inverter
- Firefighter rapid shutdown at the array boundary
- Module-level optimizers

IN THIS SECTION CT-JB-250 · CT-IS-40 · CT-IS-40MD · CT-F1 · CT-RSD150 · CT-OPT

All products UL listed

DC isolator switches, rapid-shutdown equipment, and module-level power electronics for code-compliant disconnection and firefighter safety. Modular designs to 1500 V DC with <3 ms switching via energy-storage spring mechanisms and self-cleaning contacts, fully loaded from -40 °C to +70 °C.

THE CT ADVANTAGE

- <3 ms spring-assisted switching independent of the operator
- Lockable, IP66, -40 to +70 °C full-load rated
- Rapid shutdown, isolators & optimizers from one source

IN THIS SECTION

CT-JB-250	Enclosed DC Moulded Case Circuit Breaker	CT-F1	AC Isolation Switch
CT-IS-40 / CT-IS-40A	DIN Rail DC Isolator Switch	CT-RSD150	Firefighter Rapid Shutdown Switch
CT-IS-40MD	External Waterproof DC Isolator Switch	CT-OPT-600 / 700 / 800	PV Power Optimizer

DC ISOLATOR — POLE STACKING & MECHANISM DETAIL

CT-IS series · IEC/EN 60947-3 · UL 508I

SERIES POLE MODULES → SYSTEM VOLTAGE

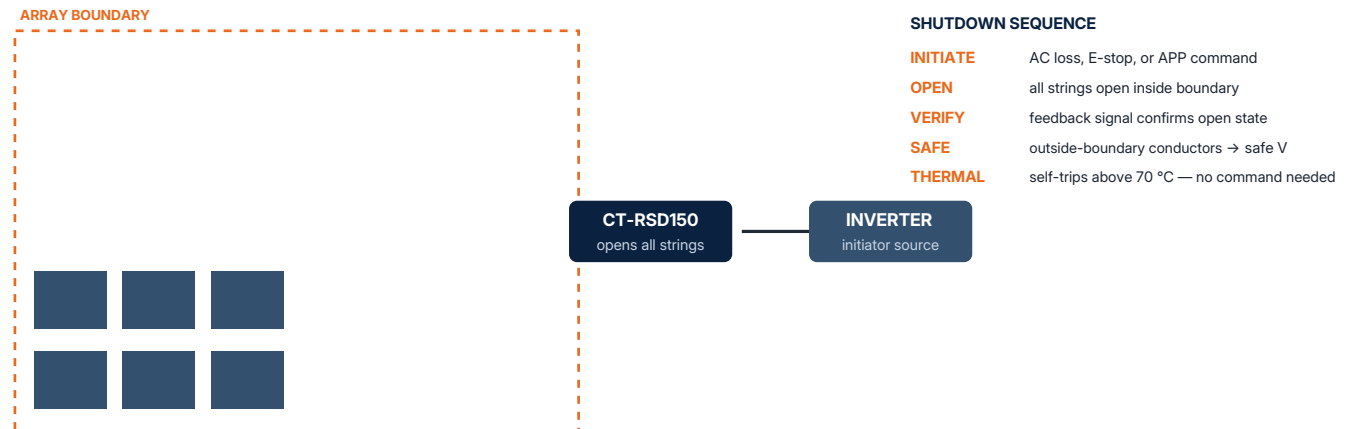
2 modules	≤ 600 V DC	residential strings
4 modules	≤ 1000 V DC	commercial strings
6 modules	≤ 1200 V DC	high-voltage commercial
8–10 modules	1500 V insulation class	utility applications

WHY THE MECHANISM MATTERS

- <3 MS BREAK**
energy-storage spring — arc time independent of how slowly the operator turns the knob
- SELF-CLEANING**
contact wipe scrubs oxide each cycle; resistance stays low across 10,000+ operations
- FULL-LOAD AMBIENT**
-40 to +70 °C at rated current — no derating tables to check
- LOCKABLE**
padlock the knob OFF for lockout-tagout without accessory kits

RAPID SHUTDOWN — SYSTEM LAYOUT & SEQUENCE

CT-RSD150 · array-level, 1–10 strings



One CT-RSD150 covers up to 10 strings — module-level premium solutions price per panel; this prices per array.

CT-JB-250

Enclosed DC Moulded Case Circuit Breaker

FOR Battery & off-grid installers wanting bolt-on disconnect

WHERE Battery bank mains, inverter DC input, recombiner output



APPLICATION & SELECTION

Factory-assembled 250 A / 600 V DC moulded-case breaker in an IP66 polycarbonate enclosure — a ready-to-mount DC mains disconnect for battery banks, inverter DC inputs, and PV recombiner outputs. External rotary handle operates the breaker with the door closed.

WHY CT Safety and isolation gear tested to the same IEC/EN/UL regimes as the market leaders — at prices that let you spec it everywhere, not just where forced.

TECHNICAL SPECIFICATIONS

Rated voltage	600 V DC	Rated current (In)	250 A
Poles	2P	Enclosure	IP66 plastic box · breaker IP40
Box dimensions	276 × 154 × 145 mm (L×W×H)	Application	Battery banks, PV mains disconnect

CT-IS-40 / CT-IS-40A

DIN Rail DC Isolator Switch

FOR Combiner builders · panel shops

WHERE DIN positions inside string boxes to 1200 V DC



APPLICATION & SELECTION

DIN-rail DC isolator for combiner and distribution boxes to 1200 V DC operating (1500 V insulation). Energy-storage spring mechanism makes and breaks in under 3 ms independent of handle speed, and self-cleaning contacts hold resistance low over life. Modular 2–10 pole stacks build system voltage.

WHY CT Sub-3 ms spring-assisted break and the same IEC/EN 60947-3 + UL 508I test regime as the market leaders — without the leader's margin.

TECHNICAL SPECIFICATIONS

Insulation voltage (Ui)	1500 V DC	Operating voltage (Ue)	600 – 1200 V DC
Rated current (Ie)	9 – 32 A	Switching time	< 3 ms, energy-storage spring
Contacts	Self-cleaning, extended service life	Mounting	DIN rail, for combiner/electric boxes

ORDERING CODE CT-IS-40 – [Modules] 2–10 pole modules build 600–1200 V DC

Example: CT-IS-40-4M = 4-module stack for 1000 V DC service

CT-IS-40MD

External Waterproof DC Isolator Switch

FOR Installers needing code disconnects at the array

WHERE Array edge, inverter DC side, exposed outdoor mounting



APPLICATION & SELECTION

Enclosed IP66 rotary DC isolator for external mounting at the array or inverter. Padlockable knob satisfies lockout-tagout; identical <3 ms spring-assisted switching as the DIN version. Full-load rated across -40 °C to +70 °C ambient.

WHY CT IP66, lockable, 1500 V insulation class — spec-for-spec against premium isolators at roughly the price of their plastic economy lines.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP66	Insulation voltage (Ui)	1500 V DC
Operating voltage (Ue)	600 – 1200 V DC	Rated current (Ie)	9 – 32 A
Switching time	< 3 ms	Safety	Lockable knob prevents misoperation

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

440-1200 32 A DC Isolator Switch, PV rated

SECTION 05 QUICK SELECT — WHO USES WHAT

CT-JB-250	Battery & off-grid installers wanting bolt-on discon	Battery bank mains, inverter DC input, recombine
CT-IS-40 / CT-IS-40A	Combiner builders · panel shops	DIN positions inside string boxes to 1200 V DC
CT-IS-40MD	Installers needing code disconnects at the array	Array edge, inverter DC side, exposed outdoor mo
CT-F1	AC-side installers · inspectors love the visible bre	Adjacent to inverter AC output, outdoor rated
CT-RSD150	Installers meeting rapid-shutdown requirements	Array boundary, 1–10 strings, initiator-controll
CT-OPT-600 / 700 / 800	Installers fighting shading, mismatch & complex roof	Module-level, behind each panel, open-rack IP68

CT-F1

AC Isolation Switch

FOR AC-side installers · inspectors love the visible break

WHERE Adjacent to inverter AC output, outdoor rated

APPLICATION & SELECTION

Enclosed AC isolation switch for inverter AC-output disconnection, 20–63 A at 250–440 V. IP66 UV-stabilized enclosure with top and bottom conduit entries and lockable handle — the visible AC disconnect adjacent to the inverter.



WHY CT Safety and isolation gear tested to the same IEC/EN/UL regimes as the market leaders — at prices that let you spec it everywhere, not just where forced.

TECHNICAL SPECIFICATIONS

Enclosure rating	IP66, UV resistant	Insulation voltage (Ui)	1000 V
Operating voltage (Ue)	250 – 440 V	Rated current (Ie)	20 – 63 A
Conduit entries	Top and bottom	Safety	Lockable knob prevents misoperation

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

440-0032	32 A AC Isolator, 440 V
440-0040	40 A AC Isolator, 440 V
440-0063	63 A AC Isolator, 440 V
440-0080	80 A AC Isolator, 440 V

SECTION 05 QUICK SELECT — WHO USES WHAT

CT-JB-250	Battery & off-grid installers wanting bolt-on discon	Battery bank mains, inverter DC input, recombine
CT-IS-40 / CT-IS-40A	Combiner builders · panel shops	DIN positions inside string boxes to 1200 V DC
CT-IS-40MD	Installers needing code disconnects at the array	Array edge, inverter DC side, exposed outdoor mo
CT-F1	AC-side installers · inspectors love the visible bre	Adjacent to inverter AC output, outdoor rated
CT-RSD150	Installers meeting rapid-shutdown requirements	Array boundary, 1–10 strings, initiator-controll
CT-OPT-600 / 700 / 800	Installers fighting shading, mismatch & complex roof	Module-level, behind each panel, open-rack IP68

CT-RSD150

Firefighter Rapid Shutdown Switch

FOR Installers meeting rapid-shutdown requirements

WHERE Array boundary, 1–10 strings, initiator-controlled



APPLICATION & SELECTION

Array-level rapid shutdown for firefighter safety on 1–10 strings to 1500 V / 40 A. Initiation drops conductors outside the array boundary to a safe voltage; APP remote control and shutdown feedback confirm state, and the unit self-trips above 70 °C. 10,000-cycle mechanical endurance.

WHY CT Ten-string capacity with APP control and feedback in one unit — premium module-level solutions cost per panel; this costs per array.

TECHNICAL SPECIFICATIONS

String capacity	1 – 10 strings	Ratings	Up to 40 A · up to 1500 V
Enclosure	IP65, anti-UV	Control	APP remote + shutdown feedback signal
Thermal safety	Auto shutdown above 70 °C	Endurance	10,000 mechanical life cycles

CT-OPT-600 / 700 / 800

PV Power Optimizer

FOR Installers fighting shading, mismatch & complex roofs

WHERE Module-level, behind each panel, open-rack IP68



APPLICATION & SELECTION

Module-level DC optimizers performing per-module MPPT to recover mismatch, shading, and soiling losses. 99.5% peak efficiency, IP68 for open-rack mounting, and integral overcurrent protection. Three frames cover 600/700/800 W-class modules.

WHY CT Safety and isolation gear tested to the same IEC/EN/UL regimes as the market leaders — at prices that let you spec it everywhere, not just where forced.

TECHNICAL SPECIFICATIONS

Max I/O current	DC 15 A / 24 A / 21 A	MPPT range	8–55 V / 8–55 V / 14–60 V
Max output voltage	DC 42 V / 42 V / 60 V	Max efficiency	99.5%
Overcurrent protection	DC 18 A / 23 A / 23 A	Environment	IP68 · –40 °C to +85 °C

WHERE IT INSTALLS

06 | MC4 Solar Connectors

MC4-compatible PV connectors, inline protection connectors, and branch adapters to 1500 V DC. PC/PA6 housings, UL94-V0 flame class, IP67 sealing, tin-plated copper contacts, and -40 °C to +125 °C operating range for 2.5–6 mm² (14–10 AWG) conductors.



- String wiring under the modules, clipped to the rail
- Extensions, repairs and home runs
- Inline string fusing and parallel branches
- Custom MC4 jumpers cut and assembled to order in Oxnard, CA

IN THIS SECTION CT-MC4-1000 · 1500 · S · D · F · CT-T2-T6 · CT-Y2/Y3/Y4

All products UL listed

MC4-compatible PV connectors, inline protection connectors, and branch adapters to 1500 V DC. PC/PA6 housings, UL94-V0 flame class, IP67 sealing, tin-plated copper contacts, and -40 °C to +125 °C operating range for 2.5–6 mm² (14–10 AWG) conductors.

THE CT ADVANTAGE

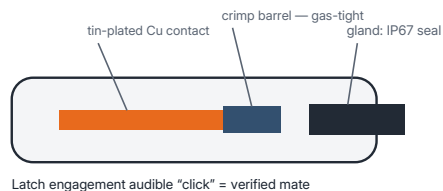
- 1000 V & 1500 V, standard/slim/diode/fused — all IP67
- Tin-plated copper contacts, UL94-V0, -40 to +125 °C
- Matched tooling guarantees the crimp the rating assumes

IN THIS SECTION

CT-MC4-1000	Solar DC Panel Connector — 1000 V	CT-MC4-F	MC4 Connector with Inline PV Fuse
CT-MC4-1500	Solar DC Panel Connector — 1500 V	CT-T2 – CT-T6	Panel Branch Connector — T Series
CT-MC4-S	Solar DC Panel Connector — Slim	CT-Y2 / CT-Y3 / CT-Y4	Panel Branch Connector — Y Series
CT-MC4-D	MC4 Connector with Bypass Diode		

MC4 TERMINATION — CROSS-SECTION & QUALITY GATES

the crimp IS the rating



FIVE QUALITY GATES — EVERY TERMINATION

- 1 STRIP** CT-ST-6 · jacket + insulation to length, zero nicked strands
- 2 CRIMP** CT-CR-3/5 full-cycle ratchet · pull-test ≥ 310 N
- 3 SEAT** pin clicks home · tug-check retention
- 4 TORQUE** gland via CT-S spanner · pliers destroy the seal
- 5 MATE** same-pattern connectors only · never cross-brand

Field failures trace to three causes: nicked strands, partial crimps, plier-crushed glands. The CT tool system engineers all three out.



APPLICATION String wiring: MC4 leads mated under the modules and clipped to the rail

CT-MC4-1000

Solar DC Panel Connector — 1000 V

FOR Every installer's van stock — ≤1000 V work

WHERE String wiring, extensions, repairs on 1000 V arrays

APPLICATION & SELECTION

Field-installable MC4-compatible connector pair for 1000 V DC string wiring. Tin-plated copper crimp contacts and IP67 sealing; accepts 2.5–6 mm² (14–10 AWG) PV wire. Assemble with the CT-CR series crimper and CT-S spanners for full rated performance.



WHY CT Connector-to-crimper-to-spanner as one validated system from one vendor — eliminating the cross-mating risk of mixed-brand connector fields.

TECHNICAL SPECIFICATIONS

Rated voltage	1000 V DC	Housing	PC / PA6 · UL94-V0
Sealing	IP67	Conductor range	Φ 2.5 – 6 mm ²
Contacts	Tin-plated copper	Standard	IEC 60068-2-52

ORDERING CODE CT-MC4-1000 – [M/F/PAIR]

Example: CT-MC4-1000-PAIR = male + female set (store SKU 4904-1000)

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

4904-1000 MC4 Connector 1000 V, pair

SECTION 06 QUICK SELECT — WHO USES WHAT

CT-MC4-1000	Every installer's van stock — ≤1000 V work	String wiring, extensions, repairs on 1000 V arr
CT-MC4-1500	Commercial & utility crews · 1500 V O&M stock	String wiring and home runs on 1500 V arrays
CT-MC4-S	Installers routing through tight rails & channels	Low-clearance module gaps and cable channels
CT-MC4-D	Designers paralleling strings without combiner diode	Inline at string parallel points
CT-MC4-F	2–4 string installs skipping a fused combiner	Inline in the home run at the array
CT-T2 – CT-T6	Installers paralleling multiple strings at the edge	Array-edge parallel points, 2–6 strings
CT-Y2 / CT-Y3 / CT-Y4	Small-array & panel-level parallel installs	Panel-level parallel points to 1000 V

CT-MC4-1500

Solar DC Panel Connector — 1500 V

FOR Commercial & utility crews · 1500 V O&M stock

WHERE String wiring and home runs on 1500 V arrays



APPLICATION & SELECTION

1500 V DC MC4 Evo2-pattern connector for utility-scale strings. Verified low-resistance crimp interface at 30 A continuous; UL94-V0 housing and -40 °C to +125 °C service. Stocked in pairs and singles for 10–12 AWG and 6–8 AWG conductors — see SKUs below.

WHY CT MC4 Evo2-pattern geometry, UL94-V0, IP67 — validated in our own crimp pull-tests — stocked in every conductor class for same-week shipping.

TECHNICAL SPECIFICATIONS

Rated voltage	1500 V DC	Housing	PC / PA6 · UL94-V0
Sealing	IP67	Conductor range	Ø 2.5 – 6 mm ²
Contacts	Tin-plated copper	Standard	IEC 60068-2-52

STOCKED CONFIGURATIONS

STORE SKU	CONFIGURATION	CONDUCTOR	RATING
4904-1500	Male + Female pair	10 – 12 AWG	1500 V · 30 A
4904-1500-M / -F	Single M / F	10 – 12 AWG	1500 V · 30 A
4908-1500	Male + Female pair (UL)	8 AWG	1500 V · 30 A
4908-1500-M / -F	Single M / F	6 – 8 AWG	1500 V · 30 A

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

4904-1500	MC4 Evo2 1500 V pair, 10–12 AWG
4904-1500-M / -F	Male / Female singles, 10–12 AWG
4908-1500	MC4 Evo2 1500 V UL pair, 8 AWG
4908-1500-M / -F	Male / Female singles, 6–8 AWG

SECTION 06 QUICK SELECT — WHO USES WHAT

CT-MC4-1000	Every installer's van stock — ≤1000 V work	String wiring, extensions, repairs on 1000 V arr
CT-MC4-1500	Commercial & utility crews · 1500 V O&M stock	String wiring and home runs on 1500 V arrays
CT-MC4-S	Installers routing through tight rails & channels	Low-clearance module gaps and cable channels

CT-MC4-S

Solar DC Panel Connector — Slim

FOR Installers routing through tight rails & channels

WHERE Low-clearance module gaps and cable channels



APPLICATION & SELECTION

Slim-profile MC4-compatible connector, roughly 20% smaller in body diameter than the standard housing, for module gaps under 20 mm and inside rail channels where standard couplers bind. Same tin-plated contact system, 30 A rating, and IP67 sealing at 1000/1500 V DC — no derating for the smaller body.

WHY CT Connector-to-crimper-to-spanner as one validated system from one vendor — eliminating the cross-mating risk of mixed-brand connector fields.

TECHNICAL SPECIFICATIONS

Rated voltage	1000 / 1500 V DC	Housing	PC / PA6 · UL94-V0
Sealing	IP67	Conductor range	Φ 2.5 – 6 mm ²
Contacts	Tin-plated copper	Standard	IEC 60068-2-52

CT-MC4-D

MC4 Connector with Bypass Diode

FOR Designers paralleling strings without combiner diodes

WHERE Inline at string parallel points



APPLICATION & SELECTION

Inline MC4 connector with an integrated blocking diode — stops reverse current from feeding a shaded or faulted string in parallel architectures, protecting modules without a combiner diode plate. 10/15/20 A at 1500 V DC, IP67. Budget ~0.4–0.7 V forward drop per diode when calculating string voltage.

WHY CT Connector-to-crimper-to-spanner as one validated system from one vendor — eliminating the cross-mating risk of mixed-brand connector fields.

TECHNICAL SPECIFICATIONS

Current ratings	10 / 15 / 20 A	Rated voltage	1500 V DC
Housing	PC / PA6 · IP67	Conductor range	Φ 2.5 – 6 mm ²
Function	Inline blocking / bypass diode	Standard	IEC 60068-2-52

CT-MC4-F

MC4 Connector with Inline PV Fuse

FOR 2–4 string installs skipping a fused combiner

WHERE Inline in the home run at the array



APPLICATION & SELECTION

Inline MC4 fuse connector placing gPV string protection directly in the homerun — the fastest route to code-compliant string fusing on 2–4 string arrays without a fused combiner. 10–30 A elements at 1000/1500 V; both voltage classes stocked online.

WHY CT Code-compliant string fusing for the price of a connector — the cheapest path to protection on small arrays, full stop.

TECHNICAL SPECIFICATIONS

Current ratings	10 / 15 / 20 / 30 A	Rated voltage	1000 / 1500 V DC
Housing	PC / PA6 · IP67	Conductor range	Φ 2.5 – 6 mm ²
Function	String-level overcurrent protection	Standard	IEC 60068-2-52

ORDERING CODE CT-MC4-F – [V] [In] V = 1000/1500 In = 10/15/20/30 A

Example: CT-MC4-F-1500-30 = 1500 V · 30 A inline fuse connector

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

4904-1530 MC4 Fuse Connector, 1500 V

4904-1020 MC4 Fuse Connector, 1000 V / 20 A

SECTION 06 QUICK SELECT — WHO USES WHAT

CT-MC4-1000	Every installer's van stock — ≤1000 V work	String wiring, extensions, repairs on 1000 V arr
CT-MC4-1500	Commercial & utility crews · 1500 V O&M stock	String wiring and home runs on 1500 V arrays
CT-MC4-S	Installers routing through tight rails & channels	Low-clearance module gaps and cable channels
CT-MC4-D	Designers paralleling strings without combiner diode	Inline at string parallel points
CT-MC4-F	2–4 string installs skipping a fused combiner	Inline in the home run at the array
CT-T2 – CT-T6	Installers paralleling multiple strings at the edge	Array-edge parallel points, 2–6 strings
CT-Y2 / CT-Y3 / CT-Y4	Small-array & panel-level parallel installs	Panel-level parallel points to 1000 V

CT-T2 – CT-T6

Panel Branch Connector — T Series

FOR Installers paralleling multiple strings at the edge

WHERE Array-edge parallel points, 2–6 strings



APPLICATION & SELECTION

T-format branch connectors paralleling 2–6 strings at the array edge — one molded body replaces up to five discrete couplers and their ten potential leak points. Rated 600 V (UL) / 1000 V (TUV), IP67 at every joint, 2.5–6 mm² conductors. Verify combined current against downstream conductor and fuse ratings before paralleling.

WHY CT Connector-to-crimper-to-spanner as one validated system from one vendor — eliminating the cross-mating risk of mixed-brand connector fields.

TECHNICAL SPECIFICATIONS

Configurations	2 / 3 / 4 / 5 / 6 branch	Rated voltage	1000 V (TUV) · 600 V (UL)
Housing	PC / PA6 · IP67	Conductor range	Φ 2.5 – 6 mm ²
Contacts	Tin-plated copper	Standard	IEC 60068-2-52

CT-Y2 / CT-Y3 / CT-Y4

Panel Branch Connector — Y Series

FOR Small-array & panel-level parallel installs

WHERE Panel-level parallel points to 1000 V



APPLICATION & SELECTION

Y-format 2-, 3-, and 4-to-1 parallel adapters for small arrays and panel-level paralleling at 1000 V DC. Verify combined Isc remains below module series-fuse and downstream conductor ratings when paralleling without fuses.

WHY CT Connector-to-crimper-to-spanner as one validated system from one vendor — eliminating the cross-mating risk of mixed-brand connector fields.

TECHNICAL SPECIFICATIONS

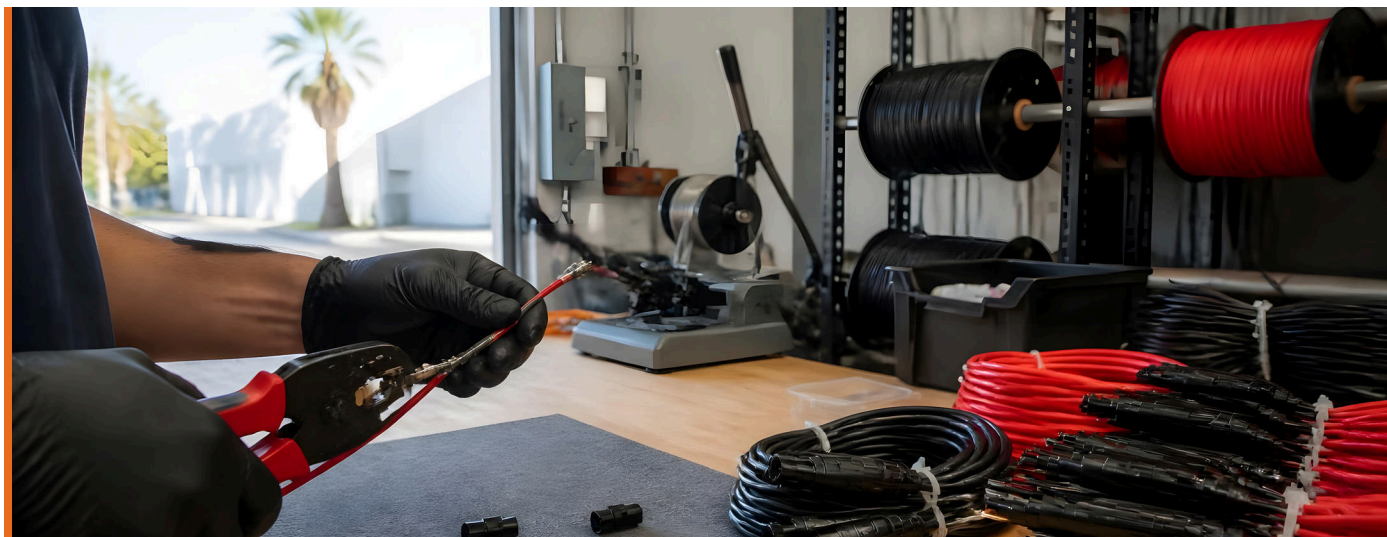
Configurations	2-to-1 / 3-to-1 / 4-to-1 parallel	Rated voltage	1000 V DC
Housing	PC / PA6 · IP67	Conductor range	Φ 2.5 – 6 mm ²
Contacts	Tin-plated copper	Standard	IEC 60068-2-52

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

4904-442 Y-Branch 2-to-1 Parallel Adapter

Custom MC4 jumpers & PV leads

Cut, crimped and pull-tested to order in Oxnard, CA

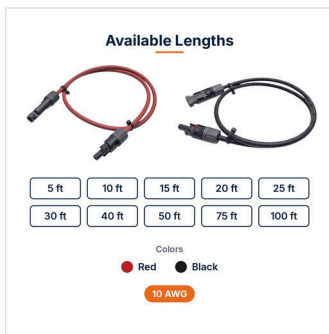


Every custom jumper and lead is built to your length in our Oxnard, CA shop: we cut US-made, UL 4703 PV wire with a bare copper conductor, crimp the MC4 contacts with matched tooling, assemble the connectors and pull-test each end before it ships. Male MC4 on one end and female on the other, so the jumper drops in between a module lead and a combiner, disconnect, rapid shutdown device or inverter. Orders placed before 2 PM PT ship the same day.

- Any length: jumpers 5–200 ft, home runs 25–250 ft, lug leads 1–50 ft
- 12, 10, 8 and 6 AWG PV wire, red or black jacket
- 1500 V DC, 30 A MC4 connectors, IP67
- MC4 both ends, MC4 to stripped end, or compression lugs both ends
- All products UL listed; UL 4703 PV wire



Custom MC4 jumper, 10 AWG



Lengths and colors



Male vs female MC4



PV lead with compression lugs

ORDER ONLINE · CUSTOM BUILDS AT [CONVERSIONTECH.COM](https://conversiontech.com)

4904-CUSTOM	Custom MC4 jumper cable, 10 AWG bare copper PV wire, 1500 V DC, 5–200 ft
4904-12-CUSTOM	Custom MC4 jumper cable, 12 AWG copper PV wire, 1500 V DC, 5–100 ft
4904-LEAD	Custom MC4 to bare wire lead, 10 AWG, male or female MC4, 5–100 ft
4904-HR	PV home run cable, 10 AWG, MC4 to stripped end, 25–250 ft
4908-CUSTOM / 4906-CUSTOM	Custom PV wire lead, 8 AWG / 6 AWG, compression lugs both ends, 1–50 ft

WHERE IT INSTALLS

07 | EV Charging

OCPP-compliant AC and DC EV charging equipment from portable 3.5 kW units to 480 kW DC fast-charging stations. Dynamic load balancing, PEN fault detection, built-in Type B RCD leakage protection, solar-PV compatibility, and connector options for CCS1, CCS2, and GB/T.

- Home garages and portable Level 2
- Workplace, retail and fleet parking
- Solar carports with load management
- DC fast charging corridors to 480 kW

IN THIS SECTION CT-AC-3.5/7P · CT-AC-7/11/22 · CT-AC-X · CT-DC-30-480 · CT-DC-60-160

All products UL listed

OCPP-compliant AC and DC EV charging equipment from portable 3.5 kW units to 480 kW DC fast-charging stations. Dynamic load balancing, PEN fault detection, built-in Type B RCD leakage protection, solar-PV compatibility, and connector options for CCS1, CCS2, and GB/T.

THE CT ADVANTAGE

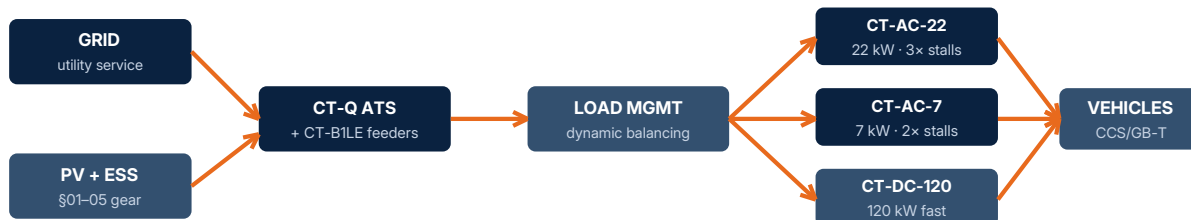
- 3.5 kW portable to 480 kW DC corridor from one vendor
- OCPP 1.6J, dynamic load balancing, Type B RCD standard
- CCS1 / CCS2 / GB/T connector options on every model

IN THIS SECTION

CT-AC-3.5 / CT-AC-7P	Portable AC Charging Station	CT-DC-30 – 480	DC Fast Charging Station — All-in-One
CT-AC-7 / 11 / 22	AC Charging Station — Wall / Pillar (IP54)	CT-DC-60 – 160	DC Fast Charging Station
CT-AC-7 / 11 / 22 X	AC Charging Station — Wall / Pillar (IP65)		

EV CHARGING SITE ARCHITECTURE — PV-COUPLED WITH LOAD MANAGEMENT

OCPP 1.6J



Load management shares site capacity across all stalls in real time — install more plugs on the same service, defer the transformer upgrade.

Solar-coupled mode prioritizes PV self-consumption · Type B RCD + PEN fault detection in every unit · OCPP connects any back office.



APPLICATION Solar carport with pedestal AC chargers and DC fast chargers fed from underground

CT-AC-3.5 / CT-AC-7P

Portable AC Charging Station

FOR EV owners · fleet drivers · installers upselling

WHERE Garage receptacle or on the road, in-vehicle stowage



APPLICATION & SELECTION

Portable Level-2 charging from a 220 V receptacle with selectable 8–32 A charge current for load-limited circuits. IP65 body stows in the vehicle; in-cable control box provides PEN fault and leakage protection.

WHY CT Open-protocol OCPP charging without the tier-one EVSE price premium — from portable units to 480 kW corridors.

TECHNICAL SPECIFICATIONS

Output	3.5 kW / 7 kW · 220 V AC	Current settings	8 / 10 / 13 / 16 / 32 A
Enclosure	PC + ABS · IP65	Frequency	50 or 60 Hz
Cable length	5 m	Connectors	CCS1 / CCS2 / GB/T

SECTION 07 QUICK SELECT — WHO USES WHAT

CT-AC-3.5 / CT-AC-7P

EV owners · fleet drivers · installers upselling

Garage receptacle or on the road, in-vehicle sto

CT-AC-7 / 11 / 22

EV infrastructure installers · property managers

Sheltered/indoor parking, wall or pillar mount

CT-AC-7 / 11 / 22 X

Installers on exposed sites · fleet yards

Fully exposed outdoor parking, wall or pillar mo

CT-DC-30 – 480

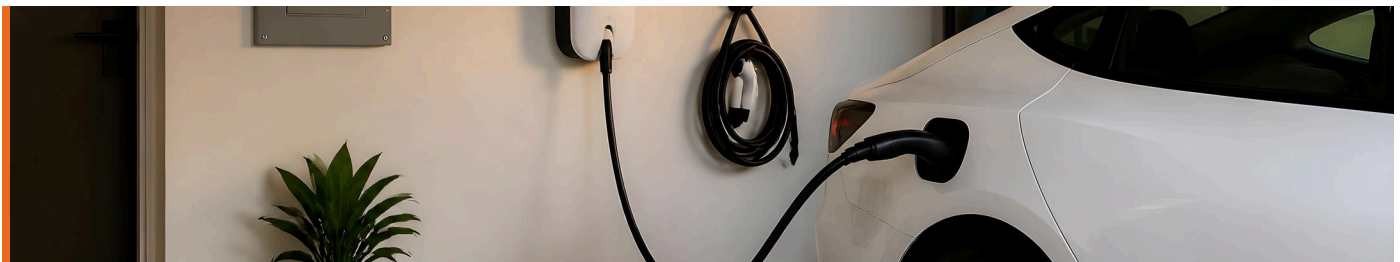
CPOs · fleet operators · site developers

Depots, retail lots, highway corridors — floor s

CT-DC-60 – 160

Retail & workplace charging developers

Customer and employee parking, floor standing



APPLICATION Wall-mounted Level 2 charger on a conduit feed, portable charger stowed beside it

CT-AC-7 / 11 / 22

AC Charging Station — Wall / Pillar (IP54)

FOR EV infrastructure installers · property managers

WHERE Sheltered/indoor parking, wall or pillar mount

APPLICATION & SELECTION

Wall- or pillar-mount AC charging at 7/11/22 kW with OCPP 1.6J back-office connectivity, dynamic load balancing, and built-in Type B RCD. IP54 body for sheltered and indoor parking.



WHY CT OCPP, load balancing, and Type B RCD standard — features the premium EVSE brands tier into their top SKUs — at entry-level pricing.

TECHNICAL SPECIFICATIONS

Output	7 / 11 / 22 kW · same as input	Input voltage	AC 230 V / AC 400 V
Current	16 A / 32 A	Enclosure	IP54
Cable length	5 m	Connectors	CCS1 / CCS2 / GB/T

OUTPUT CONFIGURATION

RATING	SUPPLY	CURRENT	PHASES
7 kW	AC 230 V	32 A	1-phase
11 kW	AC 400 V	16 A	3-phase
22 kW	AC 400 V	32 A	3-phase

ORDERING CODE CT-AC – [kW] [IP] [Connector] kW = 7/11/22 IP = 54/65 Conn = CCS1/CCS2/GBT

Example: CT-AC-22-65-CCS1 = 22 kW · IP65 · CCS1, 5 m cable

SECTION 07 QUICK SELECT — WHO USES WHAT

CT-AC-3.5 / CT-AC-7P

EV owners · fleet drivers · installers upselling

Garage receptacle or on the road, in-vehicle sto

CT-AC-7 / 11 / 22

EV infrastructure installers · property managers

Sheltered/indoor parking, wall or pillar mount

CT-AC-7 / 11 / 22 X

Installers on exposed sites · fleet yards

Fully exposed outdoor parking, wall or pillar mo

CT-DC-30 – 480

CPOs · fleet operators · site developers

Depots, retail lots, highway corridors — floor s

CT-DC-60 – 160

Retail & workplace charging developers

Customer and employee parking, floor standing

CT-AC-7 / 11 / 22 X

AC Charging Station — Wall / Pillar (IP65)

FOR Installers on exposed sites · fleet yards

WHERE Fully exposed outdoor parking, wall or pillar mount



APPLICATION & SELECTION

The IP65 variant of the CT-AC wall series for fully exposed outdoor installation — car parks, fleet yards, and roadside. Same OCPP, load-balancing, and Type B RCD feature set.

WHY CT Open-protocol OCPP charging without the tier-one EVSE price premium — from portable units to 480 kW corridors.

TECHNICAL SPECIFICATIONS

Output	7 / 11 / 22 kW · same as input	Input voltage	AC 230 V / AC 400 V
Current	16 A / 32 A	Enclosure	IP65
Cable length	5 m	Connectors	CCS1 / CCS2 / GB/T

SECTION 07 QUICK SELECT — WHO USES WHAT

CT-AC-3.5 / CT-AC-7P

EV owners · fleet drivers · installers upselling

Garage receptacle or on the road, in-vehicle storage

CT-AC-7 / 11 / 22

EV infrastructure installers · property managers

Sheltered/indoor parking, wall or pillar mount

CT-AC-7 / 11 / 22 X

Installers on exposed sites · fleet yards

Fully exposed outdoor parking, wall or pillar mount

CT-DC-30 – 480

CPOs · fleet operators · site developers

Depots, retail lots, highway corridors — floor standing

CT-DC-60 – 160

Retail & workplace charging developers

Customer and employee parking, floor standing



APPLICATION IP65 pillar-mount AC chargers in an exposed fleet yard

CT-DC-30 – 480

DC Fast Charging Station — All-in-One

FOR CPOs · fleet operators · site developers

WHERE Depots, retail lots, highway corridors — floor standing



APPLICATION & SELECTION

All-in-one DC fast charging from 30–480 kW with dual dispensers, 150–1000 V output window covering 400 V and 800 V vehicle architectures, and OCPP fleet management. Floor-standing IP54 cabinet with forced-air thermal management.

WHY CT Direct-sourced DC fast charging at a capex per kW the tier-one charging brands cannot approach — same CCS/OCPP interoperability.

TECHNICAL SPECIFICATIONS

Output power	30 – 480 kW	Input voltage	AC 380 V ± 20%
Output voltage	DC 150 – 750 / 1000 V	Output current	80 / 125 / 200 / 250 A
Installation	Floor-standing · IP54	Connectors	CCS1 / CCS2 / GB/T · 5 m cable

POWER STAGE SELECTION

RATING	OUTPUT CURRENT	OUTPUT VOLTAGE	VEHICLES SERVED
30 – 60 kW	80 – 125 A	150 – 750 V	Urban top-up, fleet depot
120 – 240 kW	200 A	150 – 1000 V	Retail, workplace DC
360 – 480 kW	250 A	150 – 1000 V	Highway corridor, HD fleet

SECTION 07 QUICK SELECT — WHO USES WHAT

CT-AC-3.5 / CT-AC-7P

EV owners · fleet drivers · installers upselling

Garage receptacle or on the road, in-vehicle sto

CT-AC-7 / 11 / 22

EV infrastructure installers · property managers

Sheltered/indoor parking, wall or pillar mount

CT-AC-7 / 11 / 22 X

Installers on exposed sites · fleet yards

Fully exposed outdoor parking, wall or pillar mo

CT-DC-30 – 480

CPOs · fleet operators · site developers

Depots, retail lots, highway corridors — floor s

CT-DC-60 – 160

Retail & workplace charging developers

Customer and employee parking, floor standing

CT-DC-60 – 160

DC Fast Charging Station

FOR Retail & workplace charging developers

WHERE Customer and employee parking, floor standing



APPLICATION & SELECTION

Mid-power DC fast charging family (60/80/120/160 kW) for retail, workplace, and highway duty. 150–1000 V output; CCS1/CCS2/GB/T dispenser options with 5 m liquid- or air-cooled cables per rating.

WHY CT Open-protocol OCPP charging without the tier-one EVSE price premium — from portable units to 480 kW corridors.

TECHNICAL SPECIFICATIONS

Output power	60 / 80 / 120 / 160 kW	Input voltage	AC 380 V $\pm$ 20%
Output voltage	DC 150 – 1000 V	Output current	125 / 200 / 250 A
Installation	Floor-standing · IP54	Connectors	CCS1 / CCS2 / GB/T · 5 m cable

SECTION 07 QUICK SELECT — WHO USES WHAT

CT-AC-3.5 / CT-AC-7P

EV owners · fleet drivers · installers upselling

Garage receptacle or on the road, in-vehicle storage

CT-AC-7 / 11 / 22

EV infrastructure installers · property managers

Sheltered/indoor parking, wall or pillar mount

CT-AC-7 / 11 / 22 X

Installers on exposed sites · fleet yards

Fully exposed outdoor parking, wall or pillar mount

CT-DC-30 – 480

CPOs · fleet operators · site developers

Depots, retail lots, highway corridors — floor standing

CT-DC-60 – 160

Retail & workplace charging developers

Customer and employee parking, floor standing



APPLICATION Floor-standing DC fast chargers on protected islands in a retail lot

WHERE IT INSTALLS

08 | PV Cable, Tools & Installation

Field-installation essentials: UV-rated PV wire, connector assembly kits, MC4 spanners, and ratcheting crimp and strip tools sized for 2.5–6.0 mm² (AWG 14–10) solar conductors.

- PV wire by the meter and on spools
- Ratcheting crimpers, strippers and spanners
- One-case crew termination kits
- Custom jumpers and leads, cut to order in Oxnard, CA

IN THIS SECTION CT-PV-CBL · CT-KIT-PV · CT-S1/S2/S3 · CT-CR-3/5 · CT-ST-6

All products UL listed

Field-installation essentials: UV-rated PV wire, connector assembly kits, MC4 spanners, and ratcheting crimp and strip tools sized for 2.5–6.0 mm² (AWG 14–10) solar conductors.

THE CT ADVANTAGE

- Per-meter cable, no reel minimums, ships fast
- Ratcheting full-cycle tools — no partial crimps possible
- One kit SKU outfits a new crew completely

IN THIS SECTION

CT-PV-CBL

PV Cable — 2.5 / 4 / 6 / 10 mm²

CT-CR-3 / CT-CR-5

PV Crimping Tools

CT-KIT-PV

Photovoltaic Connector Tool Kit

CT-ST-6

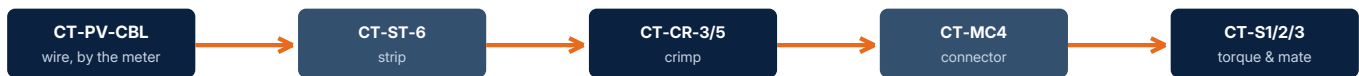
PV Wire Stripping Tool

CT-S1 / CT-S2 / CT-S3

MC4 Assembly Spanner Sets

THE CT TERMINATION SYSTEM — TOOLS, WIRE & CONNECTORS QUALIFIED TOGETHER

one vendor · one warranty chain



Pull-test ≥ 310 N · contact resistance verified · IP67 gland integrity · UL94-V0 housings · -40 to +125 °C

Mixed-brand terminations void connector listings and create hot spots. Buying the chain from one catalog closes every gap — and every item ships from stock.



APPLICATION Crimp, strip and mate: the CT termination system on the bench

CT-PV-CBL

PV Cable — 2.5 / 4 / 6 / 10 mm²

FOR Every crew truck — sold by the meter online

WHERE String wiring, home runs, battery links, jumpers



APPLICATION & SELECTION

PV1-F single-core tinned-copper solar cable with XLPE/XLPO insulation, UV/ozone rated for 25-year exposed service. Double-insulated construction for Class II wiring; sizes 2.5–10 mm² in red and black. Sold by the meter online.

WHY CT Per-meter online ordering with no reel minimums — buy exactly the run you need, shipped fast.

TECHNICAL SPECIFICATIONS

Sizes	2.5 / 4 / 6 / 10 mm ²	Construction	Single-core tinned copper
Insulation	XLPE / XLPO, UV & ozone resistant	Rating	Up to 30 A (2.5 mm ²) · PV1-F type
Colors	Red / Black	Application	String wiring, home runs, jumpers

CONDUCTOR SIZING REFERENCE

SIZE	AWG EQUIV.	AMPACITY (REF.)	TYPICAL USE
2.5 mm ²	14 AWG	30 A	Module leads, short strings
4 mm ²	12 AWG	44 A	String wiring, standard home runs
6 mm ²	10 AWG	57 A	Long home runs, paralleled strings
10 mm ²	8 AWG	76 A	Combiner outputs, battery links

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

PV1-F 2.5	PV1-F 2.5 mm ² XLPE Solar Cable, per meter
4903-003 / 4904-003	3 ft MC4 Jumper, 10 AWG, Red / Black

SECTION 08 QUICK SELECT — WHO USES WHAT

CT-PV-CBL	Every crew truck — sold by the meter online	String wiring, home runs, battery links, jumpers
CT-KIT-PV	New crews · van-stock standardization	One case = full termination capability on site
CT-S1 / CT-S2 / CT-S3	Every installer touching MC4 connectors	Tool pouch — assembly & release without damage
CT-CR-3 / CT-CR-5	Crews building their own string wiring	Bench and rooftop crimping, 2.5–6.0 mm ²
CT-ST-6	Crews prepping PV wire for termination	Bench and rooftop wire prep, 2.5–6.0 mm ²

CT-KIT-PV

Photovoltaic Connector Tool Kit

FOR New crews · van-stock standardization

WHERE One case = full termination capability on site



APPLICATION & SELECTION

Complete field termination kit: ratcheting crimper with MC4 dies, assembly spanners, connector stock, and spare contact pins in a fitted case — everything required to build code-quality string wiring on site.

WHY CT Everything in the premium brand's tool program, one case, one SKU, one fraction of the price.

TECHNICAL SPECIFICATIONS

Contents	Crimper, spanners, connectors, dies	Conductor range	2.5 – 6.0 mm ² (AWG 10–14)
Case	Fitted carry case	Spare parts	Inner core pins in accessory bag
Application	Complete field termination kit	Grade	Professional / installer

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

CT_Solar_Tool_Kit Solar Panel MC4 Connector Tool Kit

CT-S1 / CT-S2 / CT-S3

MC4 Assembly Spanner Sets

FOR Every installer touching MC4 connectors

WHERE Tool pouch — assembly & release without damage



APPLICATION & SELECTION

Connector-specific assembly spanners for tightening gland nuts to specification and releasing locking tabs without housing damage. Using pliers on MC4 glands is the leading cause of field IP failures — spec one spanner set per crew.

WHY CT Professional-grade field tooling priced so every crew carries the right tool — because the right tool is the cheapest warranty policy.

TECHNICAL SPECIFICATIONS

CT-S1	For 1500 V MC4 connectors	CT-S2	For 1000 V MC4 connectors
CT-S3	Universal 1000 V wrench pair	Function	Tighten / release locking rings
Material	Reinforced polymer	Application	Assembly & disassembly without damage

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

MC4_Spanner Spanner Wrench Tool for MC4 Connectors

CT-CR-3 / CT-CR-5

PV Crimping Tools

FOR Crews building their own string wiring

WHERE Bench and rooftop crimping, 2.5–6.0 mm²



APPLICATION & SELECTION

Full-cycle ratcheting crimpers with MC4 pin-profile dies for 2.5–6.0 mm² conductors. The ratchet prevents release before full crimp depth, guaranteeing gas-tight terminations that pass pull-test and thermal-cycle requirements.

WHY CT Professional-grade field tooling priced so every crew carries the right tool — because the right tool is the cheapest warranty policy.

TECHNICAL SPECIFICATIONS

Conductor range	2.5 – 6.0 mm ² (AWG 10–14)	Mechanism	Ratcheting, full-cycle
Dies	MC4 pin profile	Ergonomics	Cushioned grips
Application	Solar site installation	Grade	Professional / installer

ORDER ONLINE — IN-STOCK SKUs AT WWW.CONVERSIONSTECH.COM

4904-2000 Crimping Tool for Solar Connectors

CT-ST-6

PV Wire Stripping Tool

FOR Crews prepping PV wire for termination

WHERE Bench and rooftop wire prep, 2.5–6.0 mm²



APPLICATION & SELECTION

Precision stripping tool for PV wire double insulation, 2.5–6.0 mm². Hardened replaceable blades strip jacket and insulation to crimp-length without nicking strands — nicked strands are the second leading cause of connector hot spots.

WHY CT Professional-grade field tooling priced so every crew carries the right tool — because the right tool is the cheapest warranty policy.

TECHNICAL SPECIFICATIONS

Conductor range	2.5 – 6.0 mm ² (AWG 10–14)	Function	Precision jacket & insulation strip
Blades	Hardened, replaceable	Ergonomics	Spring return, cushioned grips
Application	Solar site installation	Grade	Professional / installer

Where CT-31 installs

From a single residential equipment wall to a 1500 V utility block, the same CT protection, isolation and connectivity line covers every point on the DC and AC path. Four typical installations:



Residential: rooftop array, conduit to the equipment wall, battery and EV charger



Commercial roof: steel combiners on a strut frame, bottom cable entry



Utility 1500 V: pile-mounted combiners and messenger-wire string harnesses



EV: solar carport with AC and DC fast chargers

Ordering & support

WEB	conversionstech.com: live stock, pricing and spec sheets
EMAIL	cs@conversionstech.com: quotes, BOMs and order status
PHONE	(307) 206-0534
LOCATION	Oxnard, CA (custom MC4 jumpers and leads are built here)
MAIL	41 S. Wake Forest Ave. #3129, Ventura CA 93003

HOW TO ORDER

- Stocked items marked "ORDER ONLINE" carry live store SKUs: order 24/7 at conversionstech.com.
- Configured items: build the part number with the ORDERING CODE bar on the product page and send it to cs@conversionstech.com.
- Custom MC4 jumpers, home runs and lug leads are cut and assembled to order in Oxnard, CA (see page 52).
- Contractor, Distributor and Wholesale pricing tiers with net terms for qualified accounts: conversionstech.com/pages/wholesale.
- Cross-reference service: send any competitor part number for a CT equivalent and quote.
- All products UL listed.

THE CONVERSIONS TECH CATALOG LIBRARY

CT-26	Electrical Hardware Catalog, 2026 Edition
CT-27	Wire Mesh Cable Tray Systems
CT-30	Conduit, Fittings & Support Systems
CT-31	Solar & PV Power Distribution (this catalog)
CT-40	Rack & Enclosure Catalog
T&D	Transmission & Distribution Hardware

Download the full library: conversionstech.com/pages/catalogs





Solar & PV Power Distribution Catalog · CT-31 · 2026 Edition

All products UL listed · Custom MC4 jumpers and leads cut and assembled to order in Oxnard, CA

conversionstech.com

cs@conversionstech.com

(307) 206-0534

Conversions Tech · Oxnard, CA

Mail: 41 S. Wake Forest Ave. #3129, Ventura CA 93003