

RACK-MOUNT STATIC TRANSFER SWITCH

DCC-4-R

Rack-mount static transfer switch with a hot-swappable electronic module and maintenance bypass.
 10 to 60 A three phase, or single phase up to 100 A.

CURRENT RATING

10–60 A

three phase; 10–100 A single phase

VOLTAGE

100–480 V

three or single phase, 50 or 60 Hz

TRANSFER TIME

¼ cycle

as fast as, per phase: 4.2 ms at 60 Hz

SWITCHED POLES

2, 3 or 4

4-pole transfers the neutral



KEY FEATURES

- As fast as ¼ cycle per phase, break-before-make, with an automatic Vt-proportional delay out of phase
- Hot-swappable electronic module: MTTR under 2 minutes
- 3-position make-before-break maintenance bypass, with input isolation switches
- 2U, 19 in rack
- Three phase 3-pole or 4-pole, or single phase 2-pole, at all standard voltages, 50 Hz or 60 Hz
- Bi-color LED mimic or color touchscreen
- Ethernet with HTTP, SNMP and Modbus TCP/IP; 5 dry status contacts and 2 transfer control inputs
- 100% continuous duty at 104 °F (40 °C)
- ETL listed to UL 1008S

RATINGS

	THREE PHASE	SINGLE PHASE
Current ratings	10, 20, 30, 40, 50, 60 A	10, 20, 30, 40, 50, 60, 70, 80, 90, 100 A
Voltages	3-pole: 480, 415, 400, 240, 220, 208, 200 V 4-pole: 480/277, 415/240, 400/230, 208/120, 200/115 V	2-pole: 240, 230, 220, 208, 200, 120, 100 V
Switched poles	3 or 4-pole	2-pole
Frequency	50 Hz or 60 Hz	50 Hz or 60 Hz
Transfer	As fast as ¼ cycle	As fast as ¼ cycle

TRANSFER

Transfer type	Break-before-make, zero-current transfer by thyristors (SCRs)
In-phase transfer time	As fast as ¼ cycle per phase (4.2 ms @ 60 Hz, 5 ms @ 50 Hz)
Out-of-phase transfer	Automatic Vt proportional delay, up to 12 ms, 0° to 180°
Detection	Digital, < 1 ms
MTBF	> 800,000 hours; MTTR < 2 minutes

BYPASS AND ISOLATION

Maintenance bypass	Hot-swappable electronic module (cradle) with 3-position, make-before-break rotary bypass switch to either source
Isolation	Input isolation switches, one on each source

CONTROLS AND MONITORING

Display	Bi-color LED mimic or color touchscreen
Front-panel controls	Preferred supply selection, source transfer selection and alarm cancel buttons
Control inputs	2 wet transfer control inputs
Status contacts	5 dry change-over status contacts, Form C
Communications	Ethernet: HTTP, SNMP, Modbus TCP/IP

CONNECTIONS

Input termination	Terminal blocks
Output termination	Terminal blocks

MECHANICAL

Rack height	2U, 19 in rack. Use a rack shelf and cable strain relief where the unit weight exceeds the two-post mounting capacity of the rack.
Dimensions H × W × D	3.5 × 19.0 × 18.1 in (88 × 483 × 460 mm)
Weight	35 lb (16 kg)
Enclosure	NEMA 1
Cooling	Redundant fans

ENVIRONMENT

Operating temperature	32–104 °F (0–40 °C)
Humidity	5–95% non-condensing at 104 °F (40 °C)

PERFORMANCE

Loading	0–100% continuous at 104 °F (40 °C) ambient
Overload at 104 °F (40 °C)	200% 30 s; 230% 1 s; 400% 0.1 s; 2 kA 1 cycle
Fault current setting	350% peak, with load-fault transfer inhibit

PROTECTION

Short-circuit rating (bracing)	10 kA with upstream Class J fuses
Internal protection	Internal semiconductor fuses

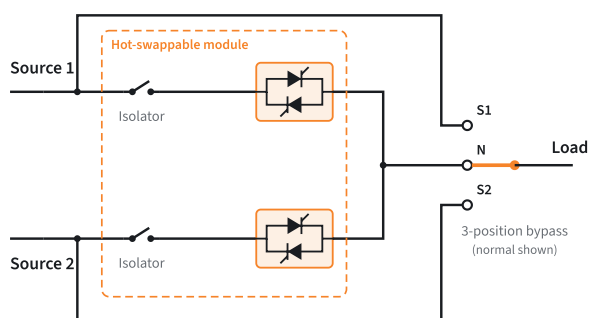
POWER QUALITY

Power factor	No practical limit
Maximum THDv	10% maximum source voltage distortion
Crest factor	3.5 : 1

COMPLIANCE

Regulatory approvals	ETL listed to UL 1008S
Standard warranty	12 months from start-up or 18 months from shipment, whichever is sooner

ONE-LINE DIAGRAM



Input isolators and SCRs are in the hot-swappable electronic module. The 3-position make-before-break bypass switch (S1, normal, S2) is in the chassis. Shown as a one-line; 2, 3, 4-pole builds switch every pole shown.

DIMENSIONS



Outline for planning only. Request the dimensioned drawing for mounting and clearances.

MODEL NUMBER **D4-ES-PPP-FVVVAAA-I** e.g. D4-R2-3P4-6480060-M

D4	DCC-4 base model	ES	Enclosure and sub-model: R2 rack, R4 rack (higher current), W2 wall, W4 wall (higher current), SK free standing
PPP	Phase and poles: 1P2 single phase 2-pole, 1P3 split phase (on request), 3P3 three phase 3-pole, 3P4 three phase 4-pole	F	Frequency: 6 = 60 Hz, 5 = 50 Hz
VVV	Voltage, e.g. 480	AAA	Current, e.g. 060 = 60 A
I	Interface: M bi-color LED mimic, T color touchscreen		

Specifications are subject to change without notice. For wire sizes, drawings and installation details, contact TwinSource engineering. DS-DCC4R Rev A, October 2026.