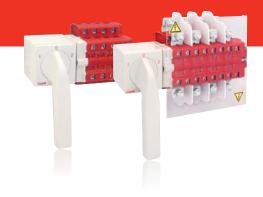


LD Changeover Switches











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Changeover switches



Company

Gave Electro is an international manufacturer of electrical control products and solutions with an extensive professional record since it was founded in 1944. It has developed technical capabilities on the low voltage breaking, control and protection fields acquiring strong reputation on its control equipment solutions.

Innovation

Innovative thinking is our philosophy. We create better more effective products and processes applying new ideas that benefit from our longstanding experience. A dedicated engineering team boosting your competitiveness.





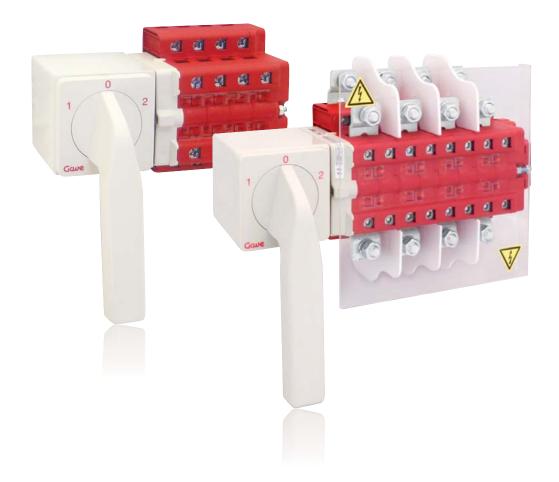
Quality & Service Commitment

Gave Electro follows a total quality management (TQM) system as an integrative philosophy of management for continuously improving the quality of products and processes. This system functions on the premise that the quality of products and processes is the responsibility of everyone who is involved with the creation or consumption of the products and involves management, workforce, suppliers, and even customers, in order to meet or exceed customer expectations.

Constant rigorous product testing is undertaken during all production process in order to guarantee proudct reliability and repeatability. Testing capabilities include:

- Electrical and mechanical endurance
- Ingress protection (IP) testing
- EMC reinforced testing
- Optical and thermal parts analysis
- Dielectric testing
- Flammability and ignitability (glow wire test)

We commit to service our customer by providing support in planning, installation, training, trouble shooting, maintenance, upgrading, and disposal of a product.



LD Changeover Switches

The **LD Changeover** product range are on load changeover switches equipped with front manual operation.

They provide transfer of sources or changeover of two low voltage circuits on load as well as safety disconnect isolation.

General characteristics

- Easy and quick DIN rail mounting.
- Compact integrated size.
- Integrated internal common link.
- Protected cable clamp connection IP20 (63 to 125A).
- Terminals with screen protection cover (160 to 250A).

- Auxiliary contacts directly shaft operated.
- Range of accessories.
- Electrical scheme flexibility.

According to standards

- IEC 60947-1
- IEC 60947-3





Enclosed changeover switches



General characteristics

- Bespoke for industrial environments with mechanical risk and dust hazard.
- Protection degree: IP65 / IK10.
- Polyester-expoxy powder coating colour grey 7032 textured.
- Locking system 3mm doublebar key.
- Metal hinges with quick release pins.
- Bottom removable gland plate with neoprene joint finished to match the enclosure.
- Two earthing points M6 x 15.

Technical data

| Description | | | 63A | 100A | 125A | 160A | 200A | 250A |
|-------------------|---|----------|---------|---------|---------|------|------|------|
| Thermal rating | | 70 | 100 | 125 | 160 | 200 | 250 | |
| Max. fuse protec | tion (gG-aM) | 80 | 125 | 125 | 160 | 200 | 250 | |
| Impulse voltage | | Uimp KV | 4 | 4 | 4 | 4 | 4 | 4 |
| Conditional shor | tcircuit current | Icc KA | 8 | 8 | 8 | - | - | - |
| Operating voltage | je | Ue V∼ | 690 | 690 | 690 | 690 | 690 | 690 |
| Insulating voltag | е | V~ | 690 | 690 | 690 | 690 | 690 | 690 |
| Insulating voltag | е | V | 600 | 600 | 600 | 600 | 600 | 600 |
| Operational ratin | ng | le A | 63 | 100 | 125 | 160 | 200 | 250 |
| | | | | | | | | |
| Wire section | Stranded | mm2 | 16 - 50 | 16 - 50 | 16 - 50 | 70 | 95 | 120 |
| Wife Section | Flexible | mm2 | 16 - 50 | 16 - 50 | 16 - 50 | 70 | 95 | 120 |
| | | AWG | 6 - 1 | 6 - 1 | 6 - 1 | - | - | - |
| Torque | | Nm | 3,5 | 3,5 | 3,5 | - | - | - |
| Connection scree | WS | | M8 | M8 | M8 | M8 | M8 | M8 |
| Terminal | | | | | | | | |
| | kW | 3 x 230V | 22 | 37 | 37 | 45 | 55 | 75 |
| AC 21 | Dummy kW | 3 x 400V | 37 | 55 | 75 | 90 | 110 | 132 |
| | cosØ >0,95 kW | 3 x 500V | 45 | 75 | 90 | 110 | 132 | 160 |
| | kW | 3 x 230V | 22 | 30 | 30 | 37 | 45 | 55 |
| AC 22 | Mixed load kW | 3 x 400V | 30 | 45 | 55 | 75 | 90 | 110 |
| | 0,65 <cosø <0,95="" kw<="" td=""><td>3 x 500V</td><td>37</td><td>55</td><td>75</td><td>90</td><td>110</td><td>132</td></cosø> | 3 x 500V | 37 | 55 | 75 | 90 | 110 | 132 |
| | kW | 3 x 230V | 15 | 18,5 | 18,5 | 30 | 38 | - |
| AC 23 | Motor load kW | 3 x 400V | 22 | 30 | 37 | 52 | 65 | - |
| | 0,45 <cosø <0,65="" kw<="" td=""><td>3 x 500V</td><td>30</td><td>37</td><td>45</td><td>65</td><td>80</td><td>-</td></cosø> | 3 x 500V | 30 | 37 | 45 | 65 | 80 | - |

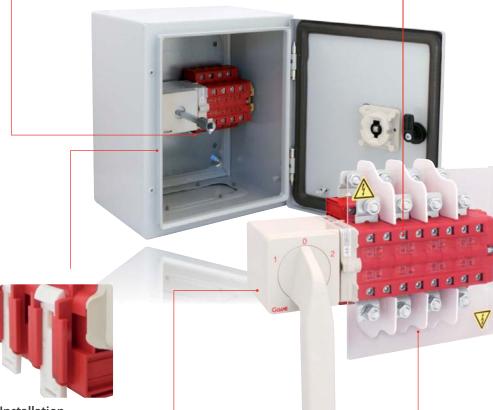
General characteristics



Integrated link Common link internally integrated saving installation time and avoiding missconnection.



IP20 Protection Complete range offers IP20 protection. Protected cable clamps on 63-125A and screen protection cover on 160-250A.



Auxiliary Contacts
Power contacts and
auxiliary signalling
contacts are all
directly operated on
the same shaft. No risk
of false indication.





Compact Size Integrating two circuits on each cell permits an extra compact size. Up to 40% space saving to conventional switches.



Easy connection
Easy to wire with two
levels of connection
that prove specially
smart on maintenance
operations.



Electrical Schemes

Electrical Scheme Flexibility

Technology based on cells offers great flexibility on electrical schemes.

We are able to build up on demand switches on typical applications such as **by-pass**, or **motor switches**,...

56x Changeover 1-0-2

| | | Contacto auxiliar | | | | | | | | |
|---|-------------|-------------------|---|---|----|----|----|----|---------|---------|
| | Esquema 563 | | | | | | | | | |
| | Esquema 562 | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | | 1.0 |
| | 0 | _ | 0 | | 0 | 0 | 0 | 0 | 17 | 19 |
| | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | o 18 | ° 20 |
| 1 | X | | X | | X | | X | | × | |
| 0 | | × | | | | | | | | |
| 2 | | X | | X | | X | | X | | - \ |

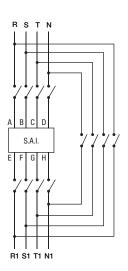
54x Changeover with overlapping I - I+II - II

| | Contacto auxiliar | | | | | | | | | |
|----|-------------------|---|-----|------|----------------|---------|--------------------|---------|------|---------|
| | Esquema 543 | | | | | | | | | |
| | | | Es | quei | na 5 | 542 | | | | |
| | 1 0 | 3 | 5 0 | 7 0 | 9 | 11 0 | 13 | 15 0 | 17 | 19 |
| | 2 | 4 | 6 | 8 | <u>→</u> 10 | 0 12 | ⊙ 14 | 16 | 0 18 | ° 20 |
| I | × | | × | | X | | X | | X | |
| + | × | X | X | X | X | X | X | X | × | × |
| II | | × | | × | | × | | X | | - 1 |

98x Changeover with by-pass

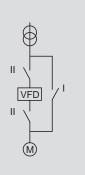
Uninterruptible power systems have become a widespread requirement when designing industrial and services facilities. Maintenance of these facilities is a real problem since they must operate 24/7 and can not risk nonservice associated costs. Gave LD series offer an ideal solution with bypass switches that isolate the UPS while guaranteeing supply continuity. LD bypass switches are characterized by their extremely compact size and easy wiring since all connecting bridges are integrated from origin. A stable OFF position assures all circuits safe disconnection.





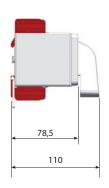
AC 23 On load switching

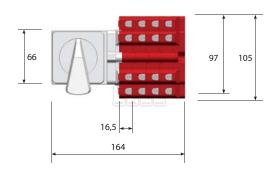
Modern production processes extensively use drive inverters for motor operation, these drives require maintenance processes that may involve production line downtimes. LD changeover switches are able to perform connect/disconnect operations under AC23 loads, therefore we can use LD bypass switches during inverter maintenance operations to isolate the inverter while guaranteeing energy supply to the production line.



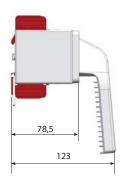
Dimensions

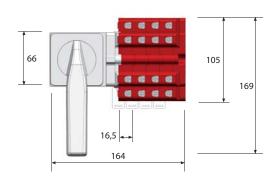
63A



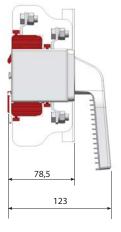


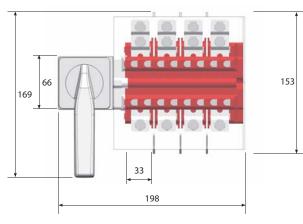
100A-125A



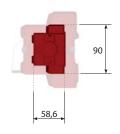


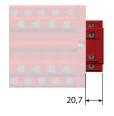
160A-200A-250A





Auxiliary contacts

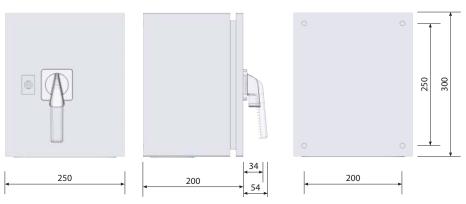




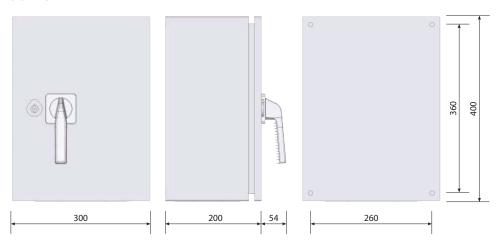


Enclosed changeover switches

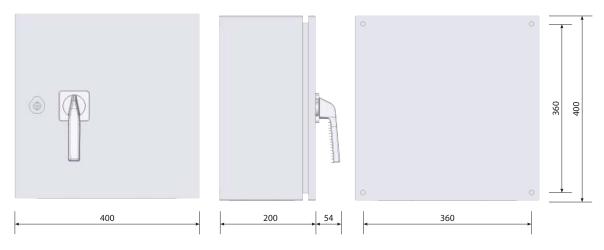
BOX E2



BOX E3



BOX E4



References



Changeover switches 1-0-2

| Poles | A.C. | Scheme | 63 A | 100 A | 125 A |
|-------|------|--------|-----------|-----------|-----------|
| 3 | | 562 | LD5626100 | LD5627100 | LD5629100 |
| 3 | • | 562 | LDA626100 | LDA627100 | LDA629100 |
| 4 | | 563 | LD5636100 | LD5637100 | LD5639100 |
| 4 | • | 563 | LDA636100 | LDA637100 | LDA639100 |

| Poles | A.C. | Scheme | 160A | 200A | 250A |
|-------|------|--------|-----------|-----------|-----------|
| 3 | | 562 | LD562A100 | LD562B100 | LD562C100 |
| 3 | • | 562 | LDA62A100 | LDA62B100 | LDA62C100 |
| 4 | | 563 | LD563A100 | LD563B100 | LD563C100 |
| 4 | • | 563 | LDA63A100 | LDA63B100 | LDA63C100 |

Changeover switches with overlapping I - I+II - II

| Poles | A.C. | Scheme | 63 A | 100 A | 125 A |
|-------|------|--------|-----------|-----------|-----------|
| 3 | | 542 | LD5426100 | LD5427100 | LD5429100 |
| 3 | • | 542 | LDA426100 | LDA427100 | LDA429100 |
| 4 | | 543 | LD5436100 | LD5437100 | LD5439100 |
| 4 | • | 543 | LDA436100 | LDA437100 | LDA439100 |

| Poles | A.C. | Scheme | 160A | 200A | 250A |
|-------|------|--------|-----------|-----------|-----------|
| 3 | | 542 | LD542A100 | LD542B100 | LD542C100 |
| 3 | • | 542 | LDA42A100 | LDA42B100 | LDA42C100 |
| 4 | | 543 | LD543A100 | LD543B100 | LD543C100 |
| 4 | • | 543 | LDA43A100 | LDA43B100 | LDA43C100 |

Changeover switches 1-0-2 with by-pass

| Poles | A.C. | Scheme | 63 A | 100 A | 125 A |
|-------|------|--------|-----------|-----------|-----------|
| 3+6 | | 983 | LD9836100 | LD9837100 | LD9839100 |
| 3+6 | • | 983 | LDA836100 | LDA837100 | LDA839100 |
| 4+8 | | 984 | LD9846100 | LD9847100 | LD9849100 |
| 4+8 | • | 984 | LDA846100 | LDA847100 | LDA849100 |

| Poles | A.C. | Scheme | 160A | 200A | 250A |
|-------|------|--------|-----------|-----------|-----------|
| 3 + 6 | | 983 | LD983A100 | LD983B100 | LD983C100 |
| 3+6 | • | 983 | LDA83A100 | LDA83B100 | LDA83C100 |
| 4+8 | | 984 | LD984A100 | LD984B100 | LD984C100 |
| 4+8 | • | 984 | LDA84A100 | LDA84B100 | LDA84C100 |





Enclosed 1-0-2 Changeover switches

| Poles | A.C. | Boc | Scheme | 63 A | 100 A | 125 A |
|-------|------|-----|--------|-----------|-----------|-----------|
| 3 | • | E2 | 562 | LDA626107 | LDA627107 | LDA629107 |
| 4 | • | E3 | 563 | LDA636107 | LDA637107 | LDA639107 |

| Poles | A.C. | Box | Scheme | 160A | 200A | 250A |
|-------|------|-----|--------|-----------|-----------|-----------|
| 3 | • | E3 | 562 | LDA62A107 | LDA62B107 | LDA62C107 |
| 4 | • | E4 | 563 | LDA63A107 | LDA63B107 | LDA63C107 |

Changeover switches with overlapping I - I+II - II

| Poles | A.C. | Box | Scheme | 63 A | 100 A | 125 A | |
|-------|------|-----|--------|-----------|-----------|-----------|--|
| 3 | • | E2 | 542 | LDA426107 | LDA427107 | LDA429107 | |
| 4 | • | E3 | 543 | LDA436107 | LDA437107 | LDA439107 | |

| Poles | A.C. | Box | Scheme | 160A | 200A | 250A LDA42C107 | |
|-------|------|-----|--------|-----------|-----------|--------------------------|--|
| 3 | • | E3 | 542 | LDA42A107 | LDA42B107 | | |
| 4 | • | E4 | 543 | LDA43A107 | LDA43B107 | LDA43C107 | |

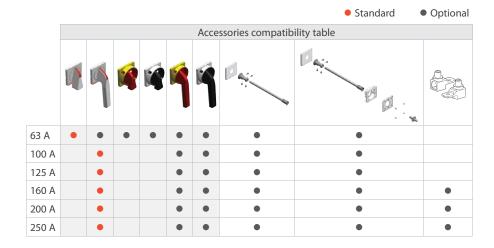
Changeover switches 1-0-2 with by-pass

| Poles | A.C. | Box | Scheme | 63 A | 100 A | 125 A |
|-------|------|-----|--------|-----------|-----------|-----------|
| 3+6 | • | E2 | 983 | LDA836107 | LDA837107 | LDA839107 |
| 4+8 | • | E3 | 984 | LDA846107 | LDA847107 | LDA849107 |

| Poles | A.C. | Box | Scheme | 160A | 200A | 250A |
|-------|------|-----|--------|-----------|-----------|-----------|
| 3+6 | • | E4 | 983 | LDA83A107 | LDA83B107 | LDA83C107 |
| 4+8 | • | E4 | 984 | LDA84A107 | LDA84B107 | LDA84C107 |

Changeover switches

Accessories





Padlockable Handles

| References | Colour | Handle | | |
|------------|--------------|--------|--|--|
| AK1200526 | red/yellow | Short | | |
| AK1200528 | red/yellow | Lever | | |
| AK1200146 | ■ black/grey | Short | | |
| AK1200148 | ■ black/grey | Lever | | |



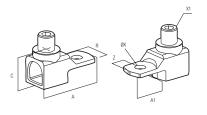
Protection Gasket IP65

| Reference | Description |
|-----------|-----------------------------|
| AK2240006 | IP65 gasket protection 8mm. |



Mounting kits

| References | Description | | | | |
|------------|--------------------------------|--|--|--|--|
| LK0800006 | Shaft 200 mm | | | | |
| LK1720006 | External handle with interlock | | | | |



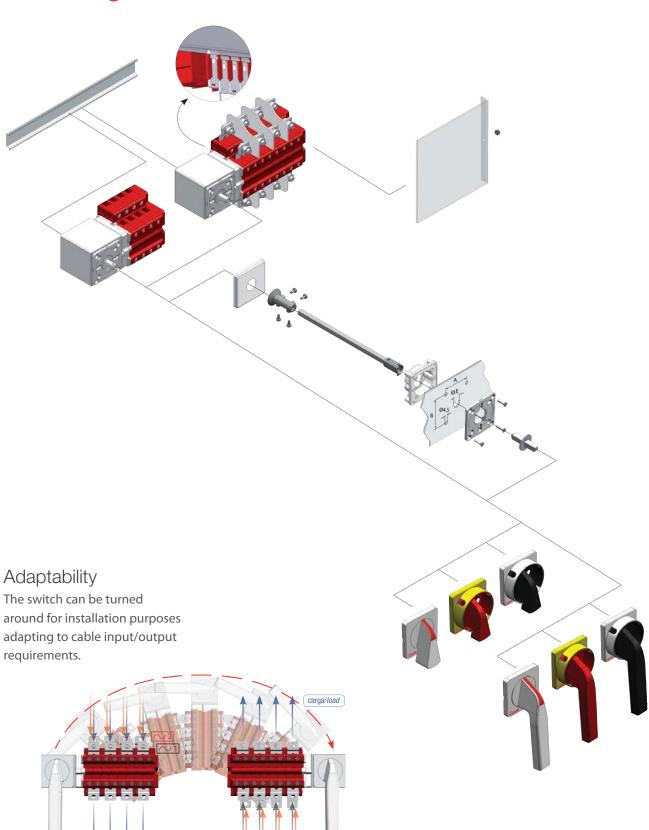
Cage terminals

| References | Rating | Α | A1 | С | R | ØX | X1 | Z | Poles |
|------------|--------|------|------|------|----|------|-----|----|-------|
| 5400 3016 | 160 | 47,5 | 22,5 | 25 | 20 | 8,5 | M12 | 10 | 3 P |
| 5400 4016 | 160 | 47,5 | 22,5 | 25 | 20 | 8,5 | M12 | 10 | 4 P |
| 5400 3025 | 200250 | 62 | 31,5 | 31,5 | 25 | 10,5 | M16 | 15 | 3 P |
| 5400 4025 | 200250 | 62 | 31,5 | 31,5 | 25 | 10,5 | M16 | 15 | 4 P |



Mounting Scheme

carga/load





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