



Low voltage AC drives

ABB general purpose drives ACS580 replaces ACS550 Replacement guide

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ABB general purpose drives ACS550

Using the replacement guide

Important notice

This replacement guide is intended for limited distribution to ABB's technical partners and customers who are replacing the ACS550 drive with the ACS580 general purpose drive. ABB has prepared this document to aid sales associates, authorized channel partners and customers in the replacement. Every attempt has been made to ensure the accuracy of the information.

All installation and electrical work should be carried out by a trained professional. ABB takes no responsibility for any damages or other liability whatsoever (including any consequential damages, even if ABB or an ABB representative had advised of the possibility of such damages) resulting from the use or selection of this document for any information, apparatus, method, process, or similar item disclosed in this document. Specification is subject to change without notice.

This guide will help you to replace the ACS550 drive with the ACS580 general purpose drive. Follow the steps outlined in this guide to find the optimal replacement product and to speed up the replacement process.

Step 1: sizing of the drive and selecting options

Compare power range, mounting methods and dimensions to select the correct ACS580 product against the ACS550 drive.

Step 2: wiring and parameter setup

Compare electrical data and basic parameter range for optimal replacement. Use the replacement manual to help on commissioning.



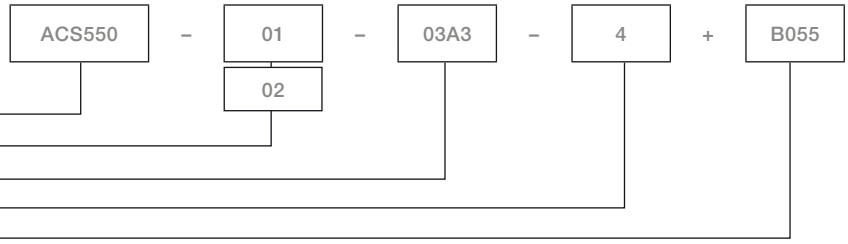
ABB general purpose drives ACS580

Selection and sizing of the drive

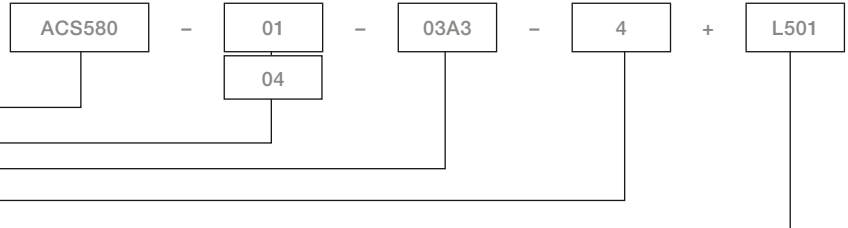
Type designation

1. Start with identifying type designation of your ACS550 drive.
2. Compare the motor's power and current rating from the ratings table below. More detailed ratings tables are on pages 6 and 7.
3. Compare the options on the next page.

ACS550



ACS580



ACS550

| Nominal current (A) I_{2N} | Power (kW) P_N | Type designation | Frame size |
|---------------------------------|---------------------|------------------|----------------------------|
| - | - | - | - |
| 3.3 | 1.1 | ACS550-01-03A3-4 | R1 |
| 4.1 | 1.5 | ACS550-01-04A1-4 | |
| 5.4 | 2.2 | ACS550-01-05A4-4 | |
| 6.9 | 3 | ACS550-01-06A9-4 | |
| 8.8 | 4 | ACS550-01-08A8-4 | |
| 11.9 | 5.5 | ACS550-01-012A-4 | |
| 15.4 | 7.5 | ACS550-01-015A-4 | R2 |
| 23 | 11 | ACS550-01-023A-4 | |
| 31 | 15 | ACS550-01-031A-4 | R3 |
| 38 | 18.5 | ACS550-01-038A-4 | |
| 45 | 22 | ACS550-01-045A-4 | |
| 59 | 30 | ACS550-01-059A-4 | R4 |
| 72 | 37 | ACS550-01-072A-4 | |
| 87 | 45 | ACS550-01-087A-4 | |
| 125 | 55 | ACS550-01-125A-4 | R5 |
| 157 | 75 | ACS550-01-157A-4 | R6 |
| 180 | 90 | ACS550-01-180A-4 | |
| 205 | 110 | ACS550-01-195A-4 | |
| 246 | 132 | ACS550-01-246A-4 | |
| 290 | 160 | ACS550-01-290A-4 | |
| 368 | 200 | ACS550-01-368A-4 | |
| 486 | 250 | ACS550-02-486A-4 | R8 (free-standing unit) |
| 526 | 280 | ACS550-02-526A-4 | |
| 602 | 315 | ACS550-02-602A-4 | |
| 645 | 355 | ACS550-02-645A-4 | |

Note! In ACS550 I_N is with 110% overloadability.

ACS550 Nominal ratings

| | |
|----------|---|
| I_{2N} | Continuous rms current. 10% overload is allowed for 1 minute in 10 minutes. |
| P_N | Typical motor power in 400 V at normal use. |

The ratings apply up to +40 °C. From 40 to 50 °C with derating.

ACS580

| Frame size | Type designation | Power (kW) P_N | Nominal current (A) I_N |
|------------|------------------|---------------------|------------------------------|
| R0 | ACS580-01-02A6-4 | 0.75 | 2.6 |
| | ACS580-01-03A3-4 | 1.1 | 3.3 |
| | ACS580-01-04A0-4 | 1.5 | 4 |
| | ACS580-01-05A6-4 | 2.2 | 5.6 |
| R1 | ACS580-01-07A2-4 | 3 | 7.2 |
| | ACS580-01-09A4-4 | 4 | 9.4 |
| | ACS580-01-12A6-4 | 5.5 | 12.6 |
| R2 | ACS580-01-017A-4 | 7.5 | 17 |
| | ACS580-01-025A-4 | 11 | 25 |
| R3 | ACS580-01-032A-4 | 15 | 32 |
| | ACS580-01-038A-4 | 18.5 | 38 |
| | ACS580-01-045A-4 | 22 | 45 |
| R4 | ACS580-01-062A-4 | 30 | 62 |
| | ACS580-01-073A-4 | 37 | 73 |
| R5 | ACS580-01-088A-4 | 45 | 88 |
| | ACS580-01-106A-4 | 55 | 106 |
| R6 | ACS580-01-145A-4 | 75 | 145 |
| R7 | ACS580-01-169A-4 | 90 | 169 |
| | ACS580-01-206A-4 | 110 | 206 |
| R8 | ACS580-01-246A-4 | 132 | 246 |
| | ACS580-01-293A-4 | 160 | 293 |
| R9 | ACS580-01-363A-4 | 200 | 363 |
| | ACS580-01-430A-4 | 250 | 430 |
| R10 | ACS580-04-505A-4 | 250 | 505 |
| | ACS580-04-585A-4 | 315 | 585 |
| | ACS580-04-650A-4 | 355 | 650 |
| R11 | ACS580-04-725A-4 | 400 | 725 |
| | ACS580-04-820A-4 | 450 | 820 |
| | ACS580-04-880A-4 | 500 | 880 |

Note! In ACS580 I_N is without overloadability.

ACS580 Nominal ratings

| | |
|-------|---|
| I_N | Rated current available continuously without overloadability at 40 °C (frames R0 to R3 up to +50 °C). |
| P_N | Typical motor power with no overload. |

The ratings apply for the frames R0 to R3 up to +50 °C and the frames R4 to R9 up to +40 °C in enclosed IP class 21. The ratings apply for the frames R10 to R11 up to +40 °C in enclosed IP00/IP20. For derating at higher altitudes, temperatures, switching frequencies or enclosure classes, see the HW manuals, document codes: 3AXD50000018826 and 3AXD50000015497.

Options



ACS550-01

| Option name | Description | Available options and code |
|-----------------------------|---|----------------------------|
| Degree of protection | | |
| | IP54 | B055 |
| Control panel | | |
| ACS-CP-A | Assistant control panel | – |
| ACS-CP-C | Basic control panel | J404 |
| – | No control panel | 0J400 |
| ACS/H-CP-EXT | Panel mounting kit | x |
| ACS/H-CP-EXT-IP66 | Panel mounting kit IP66 | x |
| OPMP-01 | Panel holder mounting kit | x |
| – | – | – |
| I/O options | | |
| OREL-01 | Relay output extension | L511 |
| – | – | – |
| OHDI-01 | 115/230 V digital input 6 x DI | x |
| Control option | | |
| OTAC-01 | Encoder | x |
| Fieldbus | | |
| RCAN-01 | CANopen® | K457 |
| RCNA-01 | ControlNet™ | K462 |
| RDNA-01 | DeviceNet™ | K451 |
| RECA-01 | EtherCAT® | x |
| RETA-01 | EtherNet/IP™ | K466 |
| RLON-01 | LonWorks® | K452 |
| RETA-01/-02 | Modbus TCP | K466/K467 |
| RPBA-01 | PROFIBUS DP | K454 |
| RETA-02 | PROFINET IO | K467 |
| REPL-02 | PowerLink | x |
| Tools | | |
| MFDT-01 | FlashDrop | x |
| DriveWindow Light | DriveWindow Light and USB serial adapters | x |
| Remote monitoring | | |
| SREA-01 | Ethernet adapter | x |

ACS580-01

| Replacement | Description | Option name |
|-------------|---|--|
| B056 | IP55 | |
| J400 | Assistant control panel | ACS-AP-S |
| J404 | Basic control panel | ACS-BP-S |
| J424 | Blank control panel cover | CDUM-01 |
| x | Control panel mounting platform (surface) IP65 | DPMP-02 |
| x | Control panel mounting platform (surface) IP65 | DPMP-02 |
| x | Door mounting kit for the panel (contains both DPMP-02 and CDPI-01) | DPMP-EXT |
| K450 | Panel bus adapter | CDPI-01 |
| L501 | External 24 V AC/DC 2 x RO and 1 x DO | CMOD-01 |
| L523 | External 24 V and isolated PTC interface | CMOD-02 |
| L512 | 115/230 V digital input 6 x DI and 2 x RO | CHDI-01 |
| – | No encoder support | – |
| K457 | CANopen® | FCAN-01 |
| K462 | ControlNet™ | FCNA-01 |
| K451 | DeviceNet™ | FDNA-01 |
| K469 | EtherCAT® | FECA-01 |
| K473/K475 | EtherNet/IP™/Two port | FENA-11/-21 |
| – | No LonWorks® support | – |
| K473/K475 | Modbus TCP/Two port | FENA-11/-21 |
| K454 | PROFIBUS DP | FPBA-01 |
| K473/K475 | PROFINET IO/Two port | FENA-11/-21 |
| K470 | PowerLink | FEPL-02 |
| K458 | Modbus RTU | FSCA-01 |
| x | Cold configurator adapter | CCA-01 |
| x | Drive composer entry | Download free from www.abb.com/drives DCPT-01 |
| x | Drive composer Pro | |
| x | 2 x panel bus interface, max 64 drives, 2 x ethernet interface, SD memory card, USB for WLAN/3G | NETA-21 |

x = ordering with separate material code

Power and current range

Pump and fan duty power

| ACS550 | | ACS580 | |
|-------------------------|------------|------------|------------|
| Frame size | P_N (kW) | P_N (kW) | Frame size |
| – | – | 0.75 | |
| R1 | 1.1 | 1.1 | R0 |
| | 1.5 | 1.5 | |
| | 2.2 | 2.2 | |
| | 3 | 3 | R1 |
| | 4 | 4 | |
| R2 | 5.5 | 5.5 | |
| | 7.5 | 7.5 | R2 |
| R3 | 11 | 11 | |
| | 15 | 15 | R2 |
| R4 | 18.5 | 18.5 | R3 |
| | 22 | 22 | |
| R5 | 30 | 30 | R4 |
| | 37 | 37 | |
| R6 | 45 | 45 | R5 |
| | 55 | 55 | |
| R8 (free-standing unit) | 75 | 75 | R6 |
| | 90 | 90 | R7 |
| | 110 | 110 | |
| | 132 | 132 | R8 |
| | 160 | 160 | |
| R8 (free-standing unit) | 200 | 200 | R9 |
| | 250 | 250 | |
| | 280 | 250 | R10 |
| | 315 | 315 | |
| – | – | 400 | R11 |
| | – | 450 | |
| | – | 500 | |

Continuous (100%) current

| ACS550 nominal | | ACS580 nominal* | |
|----------------|-------------------------|-----------------|------------|
| Frame size | I_{2N} (A) | I_N (A) | Frame size |
| – | – | 2.6 | |
| R1 | 3.3 | 3.3 | R0 |
| | 4.1 | 4 | |
| | 5.4 | 5.6 | |
| | 6.9 | 7.2 | R1 |
| | 8.8 | 9.4 | |
| | 11.9 | 12.6 | |
| R2 | 15.4 | 17 | R2 |
| | 23 | 25 | |
| R3 | 31 | 32 | R3 |
| | 38 | 38 | |
| | 45 | 45 | |
| R4 | 59 | 62 | R4 |
| | 72 | 73 | |
| R5 | 87 | 88 | R5 |
| | 125 | 106 | |
| R6 | 157 | 145 | R6 |
| | 180 | 169 | R7 |
| | 205 | 206 | |
| | 246 | 246 | R8 |
| | 290 | 293 | |
| | R8 (free-standing unit) | 368 | 363 |
| 486 | | 430 | |
| 526 | | 505 | R10 |
| 602 | | 585 | |
| – | – | 725 | R11 |
| | – | 820 | |
| | – | 880 | |

Light-overload (110%) continuous current

| ACS550 nominal | | ACS580 Light-overload | |
|-------------------------|--------------|-----------------------|------------|
| Frame size | I_{2N} (A) | I_{LD} (A) | Frame size |
| – | – | 2.5 | |
| R1 | 3.3 | 3.1 | R0 |
| | 4.1 | 3.8 | |
| | 5.4 | 5.3 | |
| | 6.9 | 6.8 | R1 |
| | 8.8 | 8.9 | |
| | 11.9 | 12 | |
| R2 | 15.4 | 16.2 | R2 |
| | 23 | 23.8 | |
| R3 | 31 | 30.4 | R3 |
| | 38 | 36.1 | |
| | 45 | 42.8 | |
| R4 | 59 | 58 | R4 |
| | 72 | 68.4 | |
| R5 | 87 | 82.7 | R5 |
| | 125 | 100 | |
| R6 | 157 | 138 | R6 |
| | 180 | 161 | R7 |
| | 205 | 196 | |
| | 246 | 234 | R8 |
| | 290 | 278 | |
| R8 (free-standing unit) | 368 | 345 | R9 |
| | 486 | 400 | |
| | 526 | 485 | R10 |
| | 602 | 575 | |
| – | – | 715 | R11 |
| | – | 810 | |
| | – | 865 | |

*Note that 580 nominal current is continuous without overloadability

Comparison table

| Current definition | ACS550 | ACS580 |
|-----------------------|-----------|----------|
| 100% continuous | – | I_N |
| 110% for 1 min/10 min | I_{2N} | I_{LD} |
| 150% for 1 min/10 min | I_{2hd} | I_{Hd} |

Definitions table

ACS550 Nominal ratings

P_N Typical motor power in 400 V at normal use.

Light-overload use ratings

I_{2N} Continuous rms current. 110% is allowed one minute in 10 minutes.

The ratings apply up to +40 °C. From 40 to 50 °C with derating.

ACS580 Nominal ratings

P_N Typical motor power in no-overload use.

I_N Rated current available continuously without overloadability at 40 °C (frames R0 to R3 up to +50 °C).

Light-overload use ratings

P_{LD} Typical motor power in light-overload use.

I_{LD} Continuous current allowing 110% I_{LD} for 1 min/10 min at 40 °C (frames R0 to R3 up to +50 °C).

The ratings apply for the frames R0 to R3 up to +50 °C and the frames R4 to R9 up to +40 °C in enclosed IP class 21. The ratings apply for the frames R10 to R11 up to +40 °C in enclosed IP00/IP20.

For derating at higher altitudes, temperatures, switching frequencies or enclosure classes, see the HW manuals, document codes: 3AXD50000018826 and 3AXD50000015497.

Power and current range

Heavy-duty power

| ACS550 | | ACS580 | |
|-------------------------|---------------|---------------|------------|
| Frame size | P_{HD} (kW) | P_{HD} (kW) | Frame size |
| – | – | 0.55 | |
| R1 | 0.75 | 0.75 | R0 |
| | 1.1 | 1.1 | |
| | 1.5 | 1.5 | |
| | 2.2 | 2.2 | R1 |
| | 3 | 3 | |
| R2 | 4 | 4 | |
| | 5.5 | 5.5 | R2 |
| R3 | 7.5 | 7.5 | |
| | 11 | 11 | R3 |
| R4 | 15 | 15 | |
| | 18.5 | 18.5 | R3 |
| | 22 | 22 | |
| R5 | 30 | 30 | R4 |
| | 37 | 37 | |
| R6 | 45 | 45 | R5 |
| | 55 | 55 | R6 |
| R6 | 75 | 75 | R7 |
| | 90 | 90 | |
| | 110 | 110 | R8 |
| | 132 | 132 | |
| R8 (free-standing unit) | 160 | 160 | R9 |
| | 200 | 200 | |
| | 250 | 200 | R10 |
| | 280 | 250 | |
| – | – | 315 | |
| | – | 355 | R11 |
| | – | 400 | |

Heavy-duty (150%) continuous current

| ACS550 | | ACS580 | |
|-------------------------|---------------|--------------|------------|
| Frame size | I_{2HD} (A) | I_{HD} (A) | Frame size |
| – | – | 1.8 | |
| R1 | 2.4 | 2.6 | R0 |
| | 3.3 | 3.3 | |
| | 4.1 | 4 | |
| | 5.4 | 5.6 | R1 |
| | 6.9 | 7.2 | |
| | 8.8 | 9.4 | |
| R2 | 11.9 | 12.6 | R2 |
| | 15.4 | 17 | |
| R3 | 23 | 24.6 | |
| | 31 | 31.6 | R3 |
| | 38 | 37.7 | |
| R4 | 44 | 44.6 | R4 |
| | 59 | 61 | |
| | 72 | 72 | R5 |
| R5 | 96 | 87 | |
| | 124 | 105 | R6 |
| R6 | 156 | 145 | R7 |
| | 162 | 169 | |
| | 192 | 206 | R8 |
| | 246 | 246* | |
| R8 (free-standing unit) | 302 | 293 | R9 |
| | 414 | 363** | |
| | 477 | 361 | R10 |
| – | – | 566 | |
| | – | 625 | R11 |
| | – | 725*** | |

Comparison table

| Current definition | ACS550 | ACS580 |
|-----------------------|-----------|----------|
| 100% continuous | – | I_N |
| 110% for 1 min/10 min | I_{2N} | I_{Ld} |
| 150% for 1 min/10 min | I_{2hd} | I_{Hd} |

Definitions table

ACS550 Heavy-duty use ratings

| | |
|-----------|---|
| I_{2hd} | Continuous rms current. 150% is allowed one minute in 10 minutes. |
| P_{Hd} | Typical motor power in 400 V heavy-duty use. |

The ratings apply up to +40 °C. From 40 to 50 °C with derating.

ACS580 Heavy-duty use ratings

| | |
|----------|---|
| P_{Hd} | Typical motor power in heavy-duty use. |
| I_{Hd} | Continuous current allowing 150% I_{Ld} for 1 minute every 10 minutes at 40 °C. * Continuous current allowing 130% I_{Ld} for 1 minute every 10 minutes at 40 °C. ** Continuous current allowing 125% I_{Ld} for 1 minute every 10 minutes at 40 °C. *** Continuous current allowing 140% I_{Ld} for 1 minute every 10 minutes at 40 °C. |

The ratings apply for the frames R0 to R3 up to +50 °C and the frames R4 to R9 up to +40 °C in enclosed IP class 21.

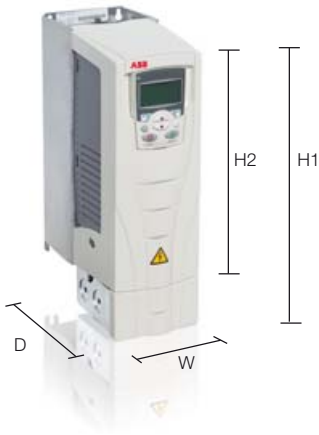
The ratings apply for the frames R10 to R11 up to +40 °C in enclosed IP00/IP20.

For derating at higher altitudes, temperatures, switching frequencies or enclosure classes, see the HW manuals, document codes: 3AXD50000018826 and 3AXD50000015497.

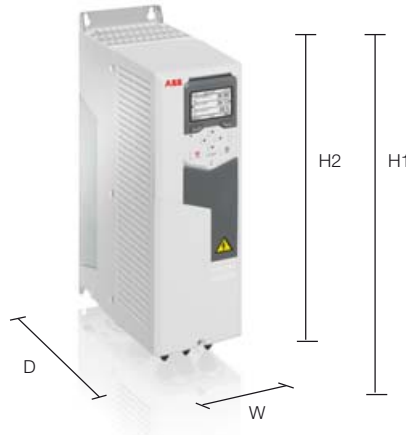
Dimensions

H1 = Front height with glandbox
H2 = Front height without glandbox

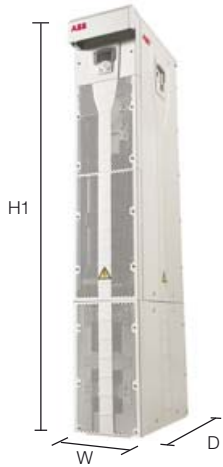
ACS550-01
Wall-mounted drives up to 160 kW



ACS580-01
Wall-mounted drives up to 250 kW



ACS550-02
Free-standing drives from 160 kW up to 355 kW



ACS580-01
Wall-mounted frame R9 drives up to 250 kW



ACS580-04
Drive modules frame R10 and R11 from 250 kW up to 500 kW



OR

| | ACS550 R8 | ACS580 R9 | ACS580 R10 | ACS580 R11 |
|---------------|---------------|-------------------------------|---------------|---------------|
| Height | 2024 mm | 955 mm (680 without glandbox) | 1462 mm | 1662 mm |
| Width | 347 mm | 380 mm | 345 mm | 345 mm |
| Depth | 617 mm | 418 mm | 529 mm | 529 mm |
| Power | 200 to 355 kW | 200 to 250 kW | 250 to 355 kW | 400 to 500 kW |

Notice! Wall-mounted ACS580-01 drives must have a 20 cm clearing under the device itself in order to ensure enough air flow for the cooling. The length of supply or motor cables might be a limiting factor.

Customers and users with ACS550-2 R8 frame up to 355 kW now have the opportunity to replace their free-standing unit either with a wall-mounted ACS580-01 R9 frame up to 250 kW or drive module ACS580-04 R10 or R11 frame up to 500 kW.

Dimensions

IP21 protection class

| Wall-mounted ACS550 - IP21 (380 to 480 V) | | | | | |
|---|---------|--------|--------|--------|-------------------------|
| H1 (mm) | H2 (mm) | W (mm) | D (mm) | P (kW) | Frame size |
| – | – | – | – | 0.75 | – |
| 369 | 315 | 125 | 212 | 1.1 | R1 |
| | | | | 1.5 | |
| | | | | 2.2 | |
| | | | | 3 | |
| | | | | 4 | |
| | | | | 5.5 | |
| 469 | 415 | 125 | 222 | 7.5 | R2 |
| | | | | 11 | |
| 583 | 478 | 203 | 231 | 15 | R3 |
| | | | | 18.5 | |
| | | | | 22 | |
| 689 | 583 | 203 | 262 | 30 | R4 |
| | | | | 37 | |
| | | | | 45 | |
| 736 | 578 | 265 | 286 | 55 | R5 |
| 888 | 698 | 302 | 400 | 75 | R6 |
| | | | | 90 | |
| | | | | 110 | |
| | | | | 132 | |
| 981 | | | | 160 | |
| 2024 | 2024 | 347 | 617 | 200 | R8 (Free standing unit) |
| | | | | 250 | |

H1 = Front height with glandbox, H2 = Front height without glandbox

| Wall-mounted ACS580 - IP21 (380, 400, 415 V) | | | | | |
|--|--------|---------|---------|--------|--------|
| Frame size | P (kW) | H1 (mm) | H2 (mm) | W (mm) | D (mm) |
| R0 | 0.75 | 303 | 303 | 125 | 210 |
| | 1.1 | | | | |
| | 1.5 | | | | |
| | 2.2 | | | | |
| R1 | 3 | 303 | 303 | 125 | 223 |
| | 4 | | | | |
| | 5.5 | | | | |
| R2 | 7.5 | 394 | 394 | 125 | 227 |
| | 11 | | | | |
| R3 | 15 | 454 | 454 | 203 | 228 |
| | 18.5 | | | | |
| | 22 | | | | |
| R4 | 30 | 600 | 600 | 203 | 257 |
| | 37 | | | | |
| R5 | 45 | 732 | 596 | 203 | 295 |
| | 55 | | | | |
| R6 | 75 | 726 | 549 | 252 | 369 |
| R7 | 90 | 880 | 601 | 284 | 370 |
| | 110 | | | | |
| R8 | 132 | 965 | 677 | 300 | 393 |
| | 160 | | | | |
| R9 | 200 | 955 | 680 | 380 | 418 |
| | 250 | | | | |

IP54/55 protection class

| Wall-mounted IP54 ACS550 | | | | |
|--------------------------|--------|--------|--------|------------|
| H (mm) | W (mm) | D (mm) | P (kW) | Frame size |
| – | – | – | 0.75 | – |
| 461 | 222 | 234 | 1.1 | R1 |
| | | | 1.5 | |
| | | | 2.2 | |
| | | | 3 | |
| | | | 4 | |
| | | | 5.5 | |
| 561 | 222 | 245 | 7.5 | R2 |
| | | | 11 | |
| 629 | 267 | 254 | 15 | R3 |
| | | | 18.5 | |
| | | | 22 | |
| 760 | 267 | 284 | 30 | R4 |
| | | | 37 | |
| | | | 45 | |
| 775 | 369 | 309 | 55 | R5 |
| 924 | 410 | 423 | 75 | R6 |
| | | | 90 | |
| | | | 110 | |
| | | | 132 | |
| | | | 160 | |
| 1119 | | | | |

| Wall-mounted IP55 ACS580 | | | | |
|--------------------------|--------|--------|--------|--------|
| Frame size | P (kW) | H (mm) | W (mm) | D (mm) |
| R0 | 0.75 | 303 | 125 | 222 |
| | 1.1 | | | |
| | 1.5 | | | |
| | 2.2 | | | |
| R1 | 3 | 303 | 125 | 233 |
| | 4 | | | |
| | 5.5 | | | |
| R2 | 7.5 | 394 | 125 | 239 |
| | 11 | | | |
| R3 | 15 | 454 | 203 | 237 |
| | 18.5 | | | |
| | 22 | | | |
| R4 | 30 | 600 | 203 | 265 |
| | 37 | | | |
| R5 | 45 | 732 | 203 | 320 |
| | 55 | | | |
| R6 | 75 | 726 | 252 | 380 |
| R7 | 90 | 880 | 284 | 381 |
| | 110 | | | |
| R8 | 132 | 965 | 300 | 452 |
| | 160 | | | |

Mounting

Mounting holes

Mounting holes W1 (mm)

| ACS550 IP21/IP54 | | ACS580 IP21/IP55 | |
|------------------|-----|------------------|----|
| - | - | 98 | R0 |
| R1 | 98 | 98 | R1 |
| R2 | 98 | 98 | R2 |
| R3 | 160 | 160 | R3 |
| R4 | 160 | 160 | R4 |
| R5 | 238 | 160 | R5 |
| R6 | 263 | 213 | R6 |
| | | 245 | R7 |
| | | 263 | R8 |
| - | - | 345 | R9 |



Mounting holes

Mounting holes W2 (mm)

| ACS550 IP21/IP54 | | ACS580 IP21/IP55 | |
|------------------|-----------------|------------------|----|
| - | - | No second holes | R0 |
| R1 | No second holes | No second holes | R1 |
| R2 | No second holes | No second holes | R2 |
| R3 | 98 | 98* | R3 |
| R4 | 98 | 98 | R4 |
| R5 | No second holes | 98 | R5 |
| | | 160 | R6 |
| R6 | No second holes | 160 | R7 |
| | | 214 | R8 |
| - | - | 200 | R9 |

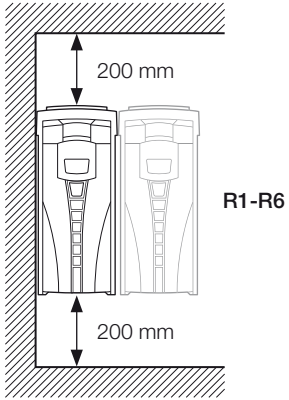
Mounting holes H1 (mm)

| ACS550 IP21/IP54 | | ACS580 IP21/IP55 | |
|------------------|-----|------------------|----|
| - | - | 317 | R0 |
| R1 | 318 | 317 | R1 |
| R2 | 418 | 417 | R2 |
| R3 | 473 | 473 | R3 |
| R4 | 578 | 619 | R4 |
| R5 | 588 | 581 | R5 |
| | | 531 | R6 |
| R6 | 675 | 583 | R7 |
| | | 658 | R8 |
| - | - | 658 | R9 |

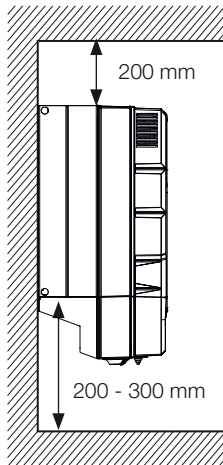
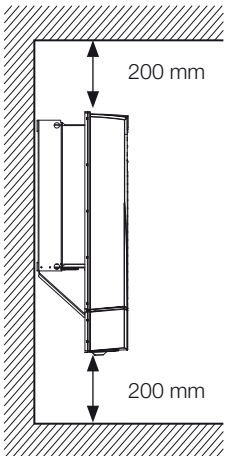
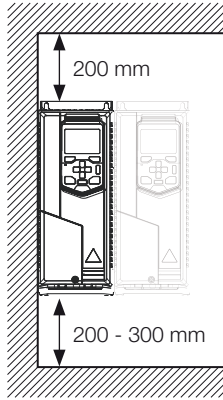
*Second holes only applicable to IP55.

Free space requirements

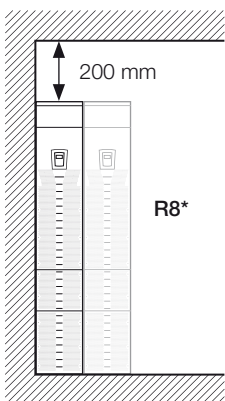
Wall-mounted ACS550-01
IP21/54



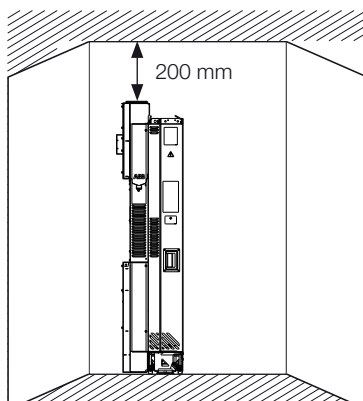
Wall-mounted ACS580-01
IP21/55



Free-standing ACS550-02
IP21



ACS580-04
IP00/IP20



* R8 is a free-standing unit.

Glandbox and installation height

Low installation sites and box installations

Due to compact size of the smaller frame sizes on ACS580 the cable clamping is done inside the drive instead of inside the glandbox as on ACS550. The required free space has remained the same on frames up to R3. Larger frames do however use the familiar glandbox design for cable clamping and require 300 mm free space below.

When replacing ACS550 with ACS580 you should consider the cabling since the absence of glandbox in ACS580 frames R3 and smaller may require you to lower the mounting points if the cable does not have sufficient stretch. Frames R6 and

larger must have 300 mm free space below the drive – measured from the fan which is higher than the free space requirement on ACS550. This might require use of longer cables.

Horizontal cabling

Also notice that while ACS550 has multiple inlets on the bottom and on the sides of glandbox ACS580 has only five inlets which are located solely under the drive. This needs to be taken into account when ACS580 is fitted to replace ACS550.

Cables

Maximum cable size (mm²)

| ACS550 | | ACS580 | | |
|------------|----------|--------|----------|------------|
| Frame size | Stranded | Solid | Stranded | Frame size |
| – | – | 6 | 4 | R0 |
| R1 | 10 | 6 | 4 | R1 |
| R2 | 10 | 16 | 16 | R2 |
| R3 | 25 | 35 | 25 | R3 |
| R4 | 50 | – | 50 | R4 |
| R5 | 70 | – | 70 | R5 |
| R6 | 240 | – | 150 | R6 |
| | | – | 240 | R7 |
| | | – | 2×150 | R8 |
| | | – | 2×240 | R9 |

Maximum size diameter (AWG)

| ACS550 | | ACS580 | |
|------------|----------|-----------|------------|
| Frame size | Stranded | Stranded | Frame size |
| – | – | 10 | R0 |
| R1 | 8 | 10 | R1 |
| R2 | 8 | 6 | R2 |
| R3 | 3 | 2 | R3 |
| R4 | 1/0 | 1 | R4 |
| R5 | 2/0 | 1/0 | R5 |
| R6 | 350 MCM | 300 MCM | R6 |
| | | 400 MCM | R7 |
| | | 2×300 MCM | R8 |
| | | 2×400 MCM | R9 |

Maximum heat dissipation

| ACS550 | | |
|------------------|--------------------------|-------------------------|
| Type designation | Max heat dissipation (W) | Frame size |
| – | – | – |
| ACS550-01-03A3-4 | 40 | R1 |
| ACS550-01-04A1-4 | 52 | |
| ACS550-01-05A4-4 | 73 | |
| ACS550-01-06A9-4 | 97 | |
| ACS550-01-08A8-4 | 127 | |
| ACS550-01-012A-4 | 172 | |
| ACS550-01-015A-4 | 232 | R2 |
| ACS550-01-023A-4 | 337 | |
| ACS550-01-031A-4 | 457 | R3 |
| ACS550-01-038A-4 | 562 | |
| ACS550-01-045A-4 | 667 | |
| ACS550-01-059A-4 | 907 | R4 |
| ACS550-01-072A-4 | 1120 | |
| ACS550-01-087A-4 | 1440 | |
| ACS550-01-125A-4 | 1940 | R5 |
| ACS550-01-157A-4 | 2310 | R6 |
| ACS550-01-180A-4 | 2810 | |
| ACS550-01-195A-4 | 3050 | |
| ACS550-01-246A-4 | 3260 | |
| ACS550-01-290A-4 | 3850 | |
| ACS550-02-368A-4 | 6850 | |
| ACS550-02-486A-4 | 7850 | R8 (Free-standing unit) |

Maximum heat dissipation

| ACS580 | | |
|------------|--------------------------|------------------|
| Frame size | Max heat dissipation (W) | Type designation |
| R0 | 45 | ACS580-01-02A6-4 |
| | 55 | ACS580-01-03A3-4 |
| | 66 | ACS580-01-04A0-4 |
| | 84 | ACS580-01-05A6-4 |
| R1 | 106 | ACS580-01-07A6-4 |
| | 133 | ACS580-01-09A4-4 |
| | 174 | ACS580-01-12A6-4 |
| R2 | 228 | ACS580-01-017A-4 |
| | 322 | ACS580-01-025A-4 |
| R3 | 430 | ACS580-01-032A-4 |
| | 525 | ACS580-01-038A-4 |
| R4 | 619 | ACS580-01-045A-4 |
| | 835 | ACS580-01-062A-4 |
| R5 | 1024 | ACS580-01-073A-4 |
| | 1240 | ACS580-01-088A-4 |
| R6 | 1510 | ACS580-01-106A-4 |
| | 1476 | ACS580-01-145A-4 |
| R7 | 1976 | ACS580-01-169A-4 |
| | 2346 | ACS580-01-206A-4 |
| R8 | 3336 | ACS580-01-246A-4 |
| | 3936 | ACS580-01-293A-4 |
| R9 | 4836 | ACS580-01-363A-4 |
| | 6036 | ACS580-01-430A-4 |

Braking resistors

ACS550

Minimum braking resistor values and maximum values to get P_N and P_{HD} at braking

| Type designation ACS550-x1- | Nominal use braking P (kW) | Resistor R_{min} (Ω) | Resistor R_{max} (Ω) |
|---|---------------------------------|------------------------------------|------------------------------------|
| 3-phase $U_N = 380, 400, 415, 440, 480$ V | | | |
| 03A3-4 | 1.1 | 120 | 641 |
| 04A1-4 | 1.5 | 120 | 470 |
| 05A4-4 | 2.2 | 120 | 320 |
| 06A9-4 | 3 | 80 | 235 |
| 08A8-4 | 4 | 80 | 192 |
| 012A-4 | 5.5 | 80 | 128 |
| 015A-4 | 7.5 | 63 | 94 |
| 023A-4 | 11 | 63 | 63* |

* Would be 61 Ohm, but 63 Ohm is the minimum resistance allowed.

ACS580

The table shows minimum and maximum resistor values for the maximum braking power

| Type designation ACS580-01- | Resistor R_{min} (Ω) | Resistor R_{max} (Ω) | $P_{br,max}$ (kW) |
|---|------------------------------------|------------------------------------|-------------------|
| 3-phase $U_N = 400$ or 480 V (380 to 415 V, 440 to 480 V) | | | |
| 02A6-4 | 54 | 690 | 0.6 |
| 03A3-4 | 54 | 465 | 0.9 |
| 04A0-4 | 54 | 313 | 1.3 |
| 05A6-4 | 54 | 223 | 1.9 |
| 07A2-4 | 54 | 153 | 2.6 |
| 09A4-4 | 54 | 112 | 3.5 |
| 12A6-4 | 54 | 83 | 4.9 |
| 017A-4 | 32 | 60 | 6.8 |
| 025A-4 | 23 | 42 | 10 |
| 032A-4 | 16 | 29 | 14 |
| 038A-4 | 11 | 21 | 17 |
| 045A-4 | 11 | 17 | 20 |

Common values of brake resistors for both ranges

ACS550 Braking power

| Type designation ACS550-x1- | Frame size | Normal use P_N (kW) | Heavy-duty use P_{HD} (kW) |
|--------------------------------|------------|---|---------------------------------|
| - | - | - | - |
| 03A3-4 | R1 | 1.1 | 0.75 |
| 04A1-4 | | 1.5 | 1.1 |
| 05A4-4 | | 2.2 | 1.5 |
| 06A9-4 | | 3 | 2.2 |
| 08A8-4 | | 4 | 3 |
| 012A-4 | | 5.5 | 4 |
| 015A-4 | | 7.5 | 5.5 |
| 023A-4 | R2 | 11 | 7.5 |
| 031A-4 | R3 | External chopper used, not compatible with ACS580's internal chopper. | |
| 038A-4 | | | |
| 045A-4 | | | |

Compatibility

| Braking resistor Compatibility |
|---|
| New resistor required |
| Use existing resistor if $R < 582$ |
| Use existing resistor if $R < 392$ |
| Use existing resistor if $R < 279$ |
| Use existing resistor if $R < 191$ |
| Use existing resistor if $R < 140$ |
| Use existing resistor if $R < 104$ |
| New resistor required e.g. CBR-V 560 D HT 406 39R |
| New resistor required e.g. CBR-V 560 D HT 406 39R |
| New resistor required e.g. CBT-H 560 D HT 406 19R |
| New resistor required e.g. CBT-H 760 D HT 406 16R |
| New resistor required e.g. CBT-H 760 D HT 406 16R |

ACS580 Braking power

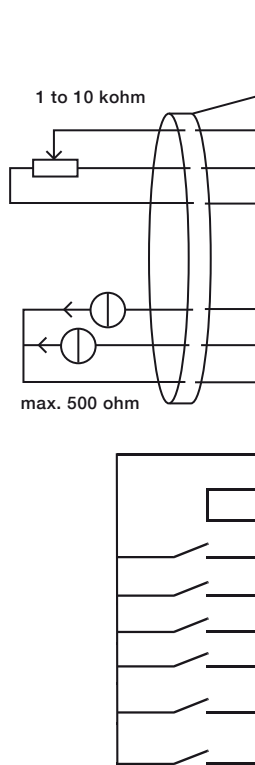
| P_{BRmax} (kW) | Frame size | Type designation ACS580-01- |
|------------------|------------|--------------------------------|
| 0.6 | R0 | 02A6-4 |
| 0.9 | | 03A3-4 |
| 1.4 | | 04A0-4 |
| 2.0 | | 05A6-4 |
| 2.9 | R1 | 07A2-4 |
| 3.9 | | 09A4-4 |
| 5.3 | | 12A6-4 |
| 7.3 | R2 | 017A-4 |
| 10 | | 025A-4 |
| 15 | R3 | 032A-4 |
| 20 | | 038A-4 |
| 25 | | 045A-4 |

ACS580

For larger frame sizes (R4 to R11) see HW manual, document codes: 3AXD50000018826 and 3AXD50000015497.

Electrical data

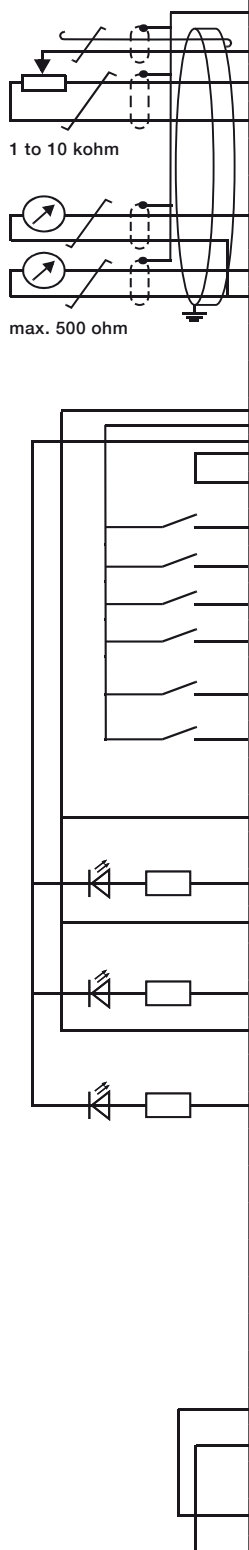
ACS550 I/O terminals

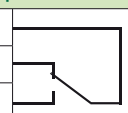
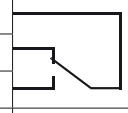
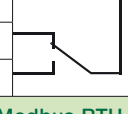


| Terminal | Meaning | Default macro connections |
|--|---------|---|
| X Reference voltage and analog inputs and outputs | | |
| 1 | SCR | Signal cable shield (screen) |
| 2 | AI1 | External frequency reference 1: 0 to 10 V |
| 3 | AGND | Analog input circuit common |
| 4 | +10 V | Output reference voltage 10 V DC |
| 5 | AI2 | Not used |
| 6 | AGND | Analog input circuit common |
| 7 | AO1 | Output frequency: 0 to 20 mA |
| 8 | AO2 | Output current: 0 to 20 mA |
| 9 | AGND | Analog output circuit common |
| X2 & X3 Aux. voltage output and programmable digital inputs | | |
| 10 | +24 V | Auxiliary voltage output +24 V DC |
| 11 | GND | Auxiliary voltage output common |
| 12 | DCOM | Digital input common for all |
| 13 | DI1 | Start/Stop: Activate to start |
| 14 | DI2 | Fwd/Rev: Activate to reverse rotation direction |
| 15 | DI3 | Constant speed selection |
| 16 | DI4 | Constant speed selection |
| 17 | DI5 | Ramp pair selection: Activate to select second acc/dec ramp pair |
| 18 | DI6 | Not used |
| X6, X7, X8 Relay outputs | | |
| 19 | RO1C | Relay output 1, programmable Default operation: Ready => 19 connected to 21 |
| 20 | RO1A | |
| 21 | RO1B | |
| 22 | RO2C | Relay output 2, programmable Default operation: Running => 22 connected to 24 |
| 23 | RO2A | |
| 24 | RO2B | |
| 25 | RO3C | Relay output 3, programmable Default operation: Fault (-1) => 25 connected to 27 (Fault => 25 connected to 26) |
| 26 | RO3A | |
| 27 | RO3B | |
| X1 EIA-485 Modbus RTU | | |
| 28 | SCR | Not used |
| 29 | B+ | Built-in Modbus RTU fieldbus interface |
| 30 | A- | |
| 31 | AGND | |
| 32 | SCR | Not used |

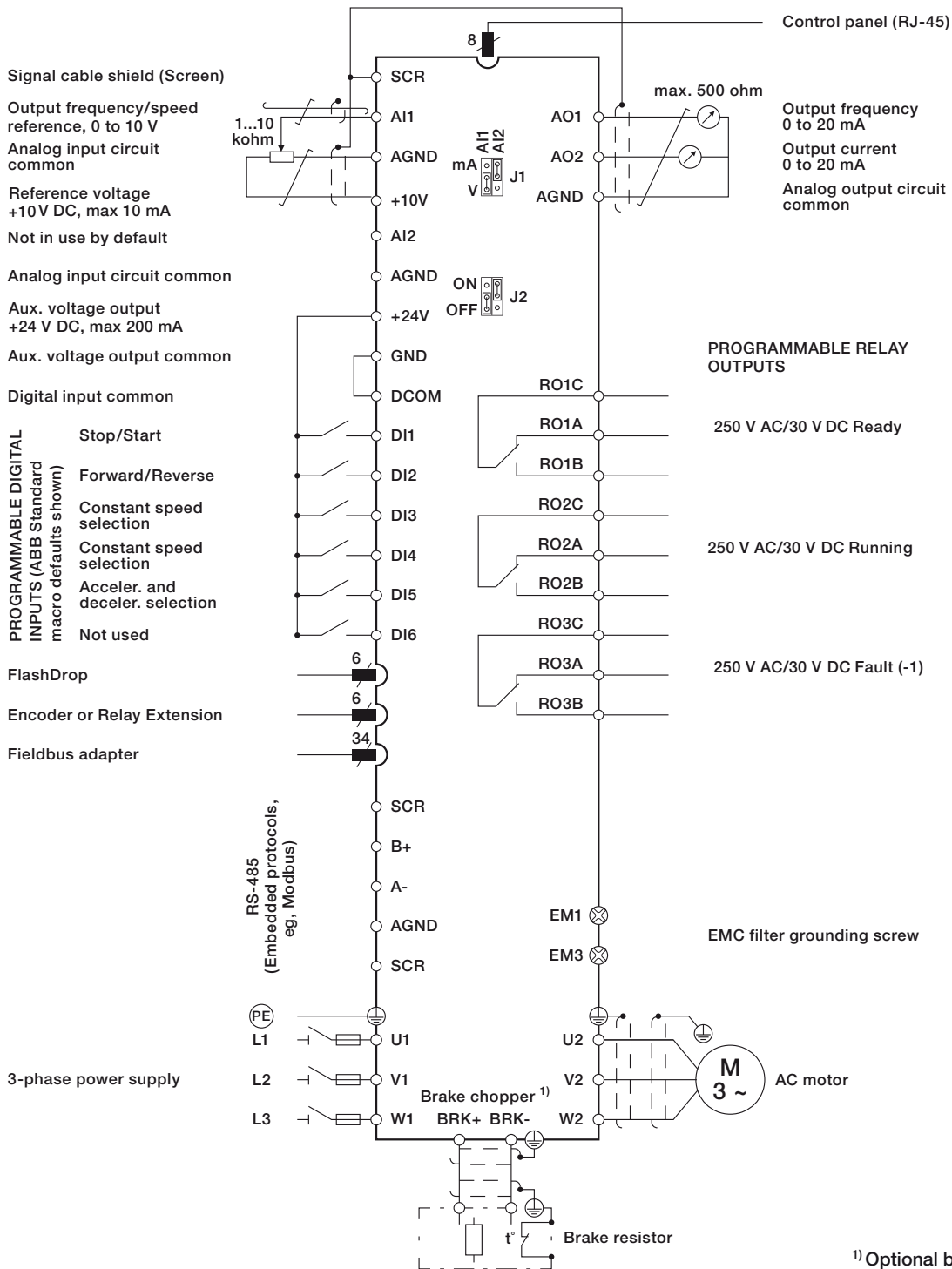
Electrical data

ACS580 I/O terminals



| Terminal | Meaning | Default macro connections |
|--|---------|---|
| S1 | AI1 U/I | Voltage/Current selection for analog input |
| S2 | AI2 U/I | Voltage/Current selection for analog input |
| XI Reference voltage and analog inputs and outputs | | |
| 1 | SCR | Signal cable shield (screen) |
| 2 | AI1 | External frequency reference 1: 0 to 10 V |
| 3 | AGND | Analog input circuit common |
| 4 | +10 V | Output reference voltage 10 V DC |
| 5 | AI2 | Not used |
| 6 | AGND | Analog input circuit common |
| 7 | AO1 | Output frequency: 0 to 20 mA |
| 8 | AO2 | Output current: 0 to 20 mA |
| 9 | AGND | Analog output circuit common |
| S3 | AO1 I/U | Voltage/Current selection for analog output |
| X2 & X3 Aux. voltage output and programmable digital inputs | | |
| 10 | +24 V | Auxiliary voltage output +24 V DC |
| 11 | DGND | Auxiliary voltage output common |
| 12 | DCOM | Digital input common for all DI |
| 13 | DI1 | Start/Stop: Activate to start |
| 14 | DI2 | Fwd/Rev: Activate to reverse rotation direction |
| 15 | DI3 | Constant speed selection |
| 16 | DI4 | Constant speed selection |
| 17 | DI5 | Ramp pair selection: Activate to select second pair |
| 18 | DI6 | Not used |
| X6, X7, X8 Relay outputs | | |
| 19 | RO1C |  Ready 250 V AC/30 V DC 2 A |
| 20 | RO1A | |
| 21 | RO1B | |
| 22 | RO2C |  Running 250 V AC/30 V DC 2 A |
| 23 | RO2A | |
| 24 | RO2B | |
| 25 | RO3C |  Fault (-1) 250 V AC/30 V DC 2 A |
| 26 | RO3A | |
| 27 | RO3B | |
| X5 EIA-485 Modbus RTU | | |
| 29 | B+ | Built-in Modbus RTU fieldbus interface |
| 30 | A- | |
| 31 | DGND | |
| S4 | TERM | Serial data link termination switch |
| S5 | BIAS | Serial data link bias resistors switch |
| X4 Safe torque off | | |
| 34 | OUT1 | Safe torque off. Both circuits must be closed for the drive to start. The circuits are closed with jumper wires in the standard delivery. |
| 35 | OUT2 | |
| 36 | SGND | |
| 37 | IN1 | |
| 38 | IN2 | |
| X10 24 V AC/DC | | |
| 40 | 24 V | AC/DC-in. Ext. 24 V AC/DC input to power up the control unit when the main supply is disconnected [R6...R11 frame size only] |
| 41 | 24 V | AC/DC+in. [R6...R11 frame size only] |

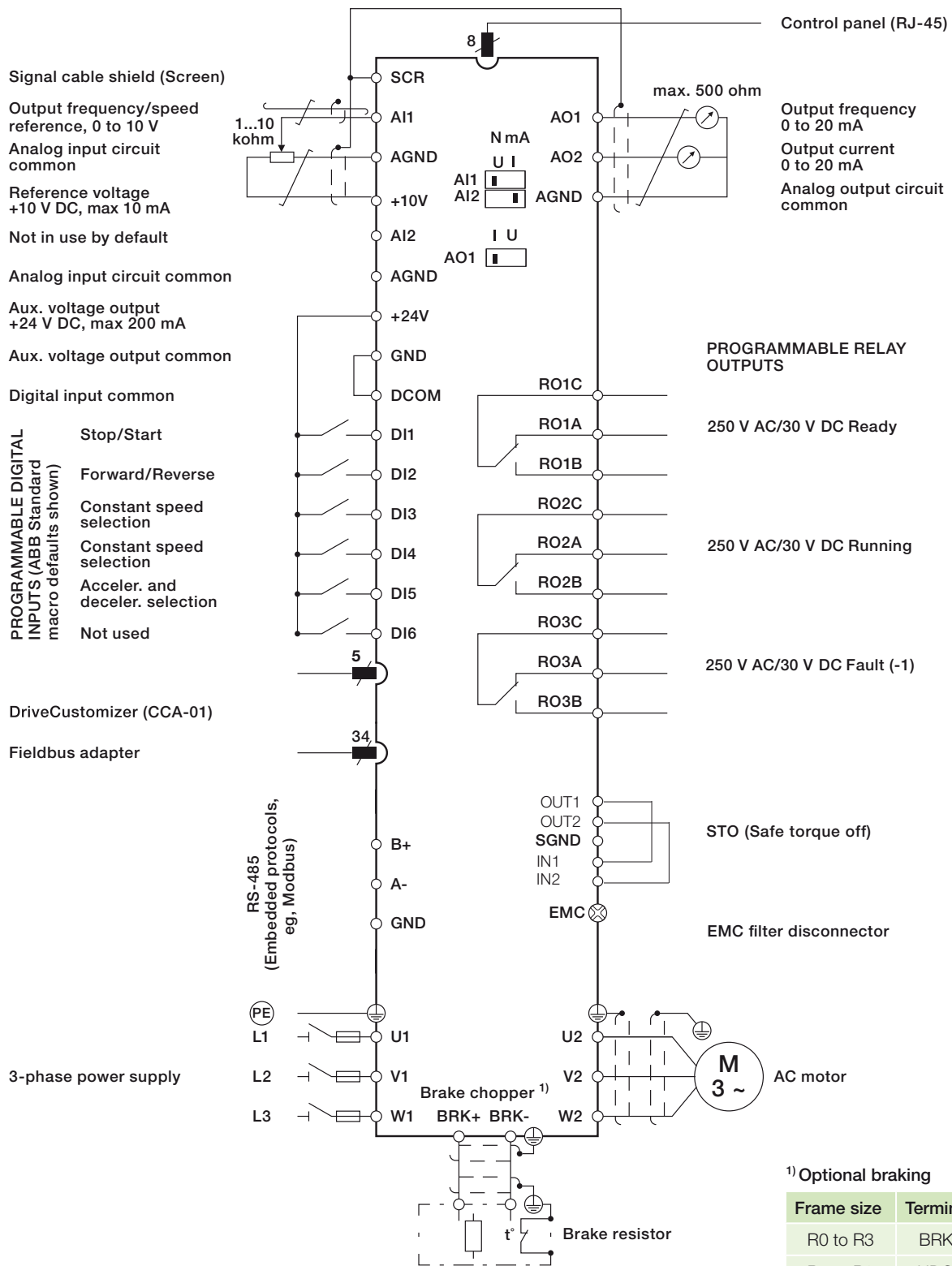
Default macro ACS550



¹⁾ Optional braking

| Frame size | Terminal labels |
|------------|-----------------|
| R1 to R2 | BRK+, BRK- |
| R3 to R8 | UDC+, UDC- |

Default macro ACS580



Parameter groups

ACS580

| | | |
|----|------------------------------|--|
| 01 | Actual values | Basic signals for monitoring the drive. |
| 03 | Input references | Values of references received from various sources. |
| 04 | Warnings and faults | Information on warnings and faults that occurred last. |
| 05 | Diagnostics | Various run-time-type counters and measurements related to drive maintenance. |
| 06 | Control and status words | Drive control and status words. |
| 07 | System info | Drive hardware and firmware information. |
| 10 | Standard DI, RO | Configuration of digital inputs and relay outputs. |
| 11 | Standard DIO, FI, FO | Configuration of the frequency input. |
| 12 | Standard AI | Configuration of standard analog inputs. |
| 13 | Standard AO | Configuration of standard analog outputs. |
| - | - | - |
| 15 | I/O extension module | Configuration of the I/O extension module installed in slot 2. |
| - | - | - |
| 19 | Operation mode | Selection of local and external control location sources and operating modes. |
| 20 | Start/stop /direction | Start/stop/direction and run/start/jog enable signal source selection; positive/negative reference enable signal source selection. |
| 21 | Start/stop mode | Start and stop modes; emergency stop mode and signal source selection; DC magnetization settings. |
| 22 | Speed reference selection | Speed reference selection; motor potentiometer settings. |
| 23 | Speed reference ramp | Speed reference ramp settings (programming of the acceleration and deceleration rates for the drive). |
| 24 | Speed reference conditioning | Speed error calculation; speed error window control configuration; speed error step. |
| 25 | Speed control | Speed controller settings. |

ACS550

| | | |
|----|-------------------|--|
| 01 | OPERATING DATA | This group contains drive operating data, including actual signals. The drive sets the values for actual signals, based on measurements or calculations. |
| 03 | FB ACTUAL SIGNALS | This group monitors fieldbus communications. |
| 04 | FAULT HISTORY | This group stores a recent history of the faults reported by the drive. |
| - | - | - |
| - | - | - |
| - | - | - |
| 10 | START/STOP/ DIR | <ul style="list-style-type: none"> – defines external sources (EXT1 and EXT2) for commands that enable start, stop and direction changes – locks direction or enables direction control. |
| 11 | REFERENCE SELECT | <ul style="list-style-type: none"> – how the drive selects between command sources – characteristics and sources for REF1 and REF2. |
| 12 | CONSTANT SPEEDS | This group defines a set of constant speeds. |
| 13 | ANALOG INPUTS | This group defines the limits and the filtering for analog inputs. |
| 14 | RELAY OUTPUTS | This group defines the condition that activates each of the relay outputs. |
| 15 | ANALOG OUTPUTS | This group defines the drive's analog (current signal) outputs. |
| 16 | SYSTEM CONTROLS | This group defines a variety of system level locks, resets and enables. |
| - | - | - |
| 20 | LIMITS | This group defines minimum and maximum limits to follow in driving the motor – speed, frequency, current, torque, etc. |
| 21 | START/ STOP | This group defines how the motor starts and stops. The ACS550 supports several start and stop modes. |
| 22 | ACCEL/ DECEL | This group defines ramps that control the rate of acceleration and deceleration. You define these ramps as a pair, one for acceleration and one for deceleration. You can define two pairs of ramps and use a digital input to select one or the other pair. |
| 23 | SPEED CONTROL | This group defines variables used for speed control operation. |
| 24 | TORQUE CONTROL | This group defines variables used for torque control operation. |
| 25 | CRITICAL SPEEDS | This group defines up to three critical speeds or ranges of speeds that are to be avoided due, for example, to mechanical resonance problems at certain speeds. |

Parameter groups

ACS580

| | | |
|----|-----------------------------|---|
| 26 | Torque reference chain | Settings for the torque reference chain. |
| 28 | Frequency reference chain | Settings for the frequency reference chain. |
| - | - | - |
| 30 | Limits | Drive operation limits. |
| 31 | Fault functions | Configuration of external events; selection of behavior of the drive upon fault situations. |
| 32 | Supervision | Configuration of signal supervision functions 1...6. |
| - | - | - |
| 34 | Timed functions | Configuration of the timed functions. |
| 35 | Motor thermal protection | Motor thermal protection settings such as temperature measurement configuration, load curve definition and motor fan control configuration. |
| 36 | Load analyzer | Peak value and amplitude logger settings. |
| 37 | User load curve | Settings for user load curve. |
| 40 | Process PID set 1 | Parameter values for process PID control. |
| 41 | Process PID set 2 | A second set of parameter values for process PID control. |
| - | - | - |
| 43 | Brake chopper | Settings for the internal brake chopper. |
| 44 | Mechanical brake control | Configuration of mechanical brake control. |
| 45 | Energy efficiency | Settings for the energy saving calculators. |
| 46 | Monitoring/scaling settings | Speed supervision settings; actual signal filtering; general scaling settings. |
| 47 | Data storage | Data storage parameters that can be written to and read from using other parameters' source and target settings. |
| 49 | Panel port communication | Communication settings for the control panel port on the drive. |
| 50 | Fieldbus adapter (FBA) | Fieldbus communication configuration. |
| 51 | FBA A settings | Fieldbus adapter A configuration. |

ACS550

| | | |
|----|------------------|---|
| 26 | MOTOR CONTROL | This group defines variables used for motor control. |
| - | - | - |
| 29 | MAINTENANCE TRIG | This group contains usage levels and trigger points. When usage reaches the set trigger point, a notice displayed on the control panel signals that maintenance is due. |
| 30 | FAULT FUNCTIONS | This group defines situations that the drive should recognize as potential faults and defines how the drive should respond if the fault is detected. |
| 31 | AUTOMATIC RESET | This group defines conditions for automatic resets. |
| 32 | SUPERVISION | This group defines supervision for up to three signals from Group 01: OPERATING DATA. |
| 33 | INFORMATION | This group provides access to information about the drive's current programs: versions and test date. |
| 34 | PANEL DISPLAY | This group defines the content for control panel display (middle area), when the control panel is in the Output mode. |
| 35 | MOTOR TEMP MEAS | This group defines the detection and reporting for a particular potential fault – motor overheating, as detected by a temperature sensor. |
| 36 | TIMED FUNCTIONS | This group defines the timed functions. |
| 37 | USER LOAD CURVE | This group defines supervision of user adjustable load curves (motor torque as a function of frequency). The curve is defined by five points. |
| 40 | PROCESS PID SET1 | This group defines a set of parameters used with the Process PID (PID1) controller. |
| 41 | PROCESS PID SET2 | Parameters of this group belong to PID parameter set 2. |
| 42 | EXT/TRIM PID | This group defines the parameters used for the second PID controller (PID2), which is used for the External/Trimming PID. |
| - | - | - |
| - | - | - |
| 45 | ENERGY SAVING | This group defines the setup of calculation and optimization of energy savings. |
| - | - | - |
| - | - | - |
| - | - | - |
| 50 | ENCODER | This group defines the setup for encoder use. |
| 51 | EXT COMM MODULE | This group defines setup variables for a fieldbus adapter (FBA) communication module. |

Parameter groups

ACS580

| | | |
|----|--------------------------------|--|
| 52 | FBA A data in | Selection of data to be transferred from drive to fieldbus controller through fieldbus adapter A. |
| 53 | FBA A data out | Selection of data to be transferred from fieldbus controller to drive through fieldbus adapter A. |
| 58 | Embedded fieldbus | Configuration of the embedded fieldbus (EFB) interface. |
| - | - | - |
| 71 | External PID1 | Configuration of external PID. |
| 76 | PFC configuration | PFC (Pump and fan control) and Autochange configuration parameters. See also section Pump and fan control (PFC) on page 114. |
| 77 | PFC maintenance and monitoring | PFC (Pump and fan control) and Autochange configuration parameters. See also section Pump and fan control (PFC) on page 114. |
| - | - | - |
| 95 | HW configuration | Various hardware-related settings. |
| 96 | System | Language selection; access levels; macro selection; parameter save and restore; control unit reboot; user parameter sets; unit election. |
| 97 | Motor control | Switching frequency; slip gain; voltage reserve; flux braking; anti-cogging (signal injection); IR compensation. |
| 98 | User motor parameters | Motor values supplied by the user that are used in the motor model. |
| 99 | Motor data | Motor configuration settings. |

ACS550

| | | |
|----|---------------|---|
| 52 | PANEL COMM | This group defines the communication settings for the control panel port on the drive. |
| 53 | EFB PROTOCOL | This group defines set-up variables used for an embedded fieldbus (EFB) communication protocol. |
| - | - | - |
| 64 | LOAD ANALYZER | This group defines the load analyzer, which can be used for analyzing the customer's process and sizing the drive and the motor. |
| - | - | - |
| - | - | - |
| - | - | - |
| 81 | PFC CONTROL | This group defines a Pump-Fan Control (PFC) mode of operation. |
| - | - | - |
| - | - | - |
| - | - | - |
| 98 | OPTIONS | This group configures for options, in particular, enabling serial communication with the drive. |
| 99 | START-UP DATA | This group defines special startup data required to: <ul style="list-style-type: none"> - set up the drive - enter motor information. |

Commissioning ACS580 after ACS550 replacement

All information regarding the control of your application should be gathered from the ACS550 prior the actual replacement.

At the first startup of your new ACS580 you should have the following information from your old ACS550 at hand to complete the first start assistant:

- are you using international or imperial units (meters or feet)
- what are the units you want to use (kilowatts or horsepower)
- date and time
- name of the drive (if any) so that the new drive can be identified in a larger system, for example in panel bus daisy chain
- the nominal values of the motor

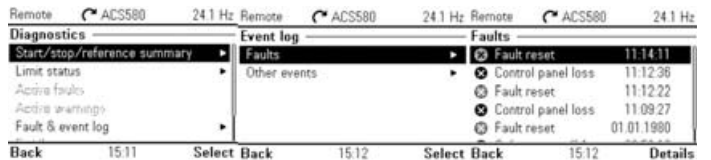
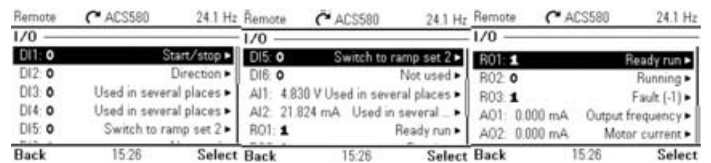
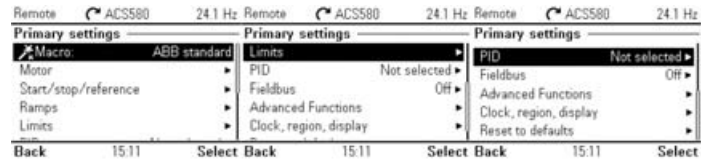
All other information is setup afterwards (still needs to be known beforehand):

Checklist

- where is the reference coming to
- where is the start/stop (and direction change) coming from and coming to
- are there any other control or reference sources
- are there any digital commands which change ramp times etc.
- how relays are configured
- which fieldbuses or extensions are used and how they are configured
- is emergency stop configured
- is the drive running in scalar or vector mode

Primary settings menu

The Primary settings menu on the ACS580 simplifies the use of the drive and holds in all the most important settings so the user can avoid using the full parameter list.



User can see all the relevant information from the Primary settings menu, such as motor nominal values, control location and references, ramps, limits and fieldbus settings as well as clock, region and display settings.

If problem occurs, user can define the terminal's logic from the I/O menu for diagnostics and troubleshooting.

The Diagnostics menu summarizes valuable information from the drive and if something is limiting the drive's operation. Other information, such as summary from start, stop, direction and reference location, as well as log of faults and events is shown as well.

Contact us

www.abb.com/drives
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3AUA0000172684 REV B EN 10.2.2016