ABB Group

Channels
- Distributors
- Direct sales
- EPCs
- OEMs
- System integrators
- Panel builders

Offering
- Products
- Systems
- Services and other

Customers
- Renewables
- Conv. generation
- Distribution
- O&G, Chemicals
- Automotive, 3C & Machinery
- Mining & Metals
- Other Industry
- Buildings
- Other T&I

Geography
- Europe
- USA
- Rest of Americas
- China
- Rest of AMEA

Revenues: ~$28 bn; Employees: ~110k

All data throughout the factsheet is presented based on management estimates for FY19 revenues

T&I: Transport and Infrastructure; Conv. generation: conventional power sources, such as fossil fuels, nuclear, hydro generation; Renewables: renewable power sources, such as wind, solar, biomass
**Electrification**

Leading portfolio of products, services and ABB Ability™ digital solutions

Electricity demand grows 2x faster than other energy sources

Digitalization accelerates demand for intelligent solutions

Urbanization and population growth

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Revenues: $12.7 bn
Employees: ~53k

Channels

- Distributors: 1
- Direct sales: 8
- EPCs: 9
- OEMs: 1
- System integrators: 23
- Panel builders: 52

Offering

- Products: 8
- Systems: 8
- Services and other: 84

Customers¹

- Renewables: 7
- Distribution: 10
- Conv. generation: 4
- O&G, Chemicals: 15
- F&B: 8
- Other Industry: 3
- Buildings: 20
- Data centers: 32
- Other T&I: 33

Geography

- Europe: 16
- Americas: 14
- Rest of Americas: 16
- China: 33
- Rest of AMEA: 29

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¹ Customers split excludes solar inverter business sold in February 2020
## Electrification

### Divisions

<table>
<thead>
<tr>
<th>Division</th>
<th>Market: ~$55 bn</th>
<th>Global #1 in Medium Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distribution Solutions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues: $4,250 – 4,750 mn</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Medium and low voltage control & protection products, systems & switchgear, automation & services

~30% through distributors; ~50% engineered to order products; majority of utility exposure in EL Business Area

<table>
<thead>
<tr>
<th>Division</th>
<th>Market: ~$40 bn</th>
<th>Global #2 in Low Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smart Power</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues: $2,750 – 3,250 mn</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Low voltage breakers & switches, enclosures, motor starter application, power protection, electric vehicle charging infrastructure & service

~50% through distributors; ~75% manufactured to order products; ~50% buildings and other transport & infrastructure

<table>
<thead>
<tr>
<th>Division</th>
<th>Market: ~$45 bn</th>
<th>Global #3, #1-2 in Distribution Enclosures and DIN-Rail Products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smart Buildings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues: $2,250 – 2,750 mn</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Miniature breakers, distribution enclosures, wiring accessories, building automation

~75% through distributors; mostly manufactured to order products; ~75% buildings and construction

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*Key competitors: Schneider Electric, Siemens, Eaton, Legrand*
# Electrification

## Divisions

### Installation Products
- **Market:** ~$25 bn
- **Global #2**
- **NAM1 #1**
- **Revenues:** $1,250 – 1,750 mn

Wire & cable management, termination, fittings & other accessories
~75% through distributors; mainly manufactured to order products; >75% in Americas

### Power Conversion
- **Market:** ~$5 bn
- **#4 DC Power Solutions**
- **Revenues:** $250 – 750 mn

Power conversion products including embedded power products, DC power solutions and services
~75% direct to service providers and OEMs; >75% to telecoms and data centers; >75% in Americas

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1 North America
Industrial Automation

Leading supplier of integrated automation solutions across process, electrical, motion and digital

Increasing demand for end-to-end integrated, connected solutions and advanced services
Increasing demand for applications to drive autonomous operations

Revenues: $6.3 bn
Employees: ~22k

Channels

- Distributors
- Direct sales
- EPCs
- OEMs
- System integrators

Offering

- Products
- Systems
- Services and other

Customers

- Conv. generation
- O&G
- Chemicals & refinery
- Mining, Metals, Pulp & Paper
- Other Industry
- Marine & Ports
- Other

Geography

- Europe
- USA
- Rest of Americas
- China
- Rest of AMEA

Approximate % of revenues
## Industrial Automation

### Divisions

<table>
<thead>
<tr>
<th>Division</th>
<th>Market: ~$70 bn</th>
<th>#1 in Conv. Power</th>
<th>#3-5 in OGC(^1)</th>
<th>Revenues: $1,750 – 2,250 mn</th>
<th>Integrated systems, control platforms, safety, service and digital solutions</th>
<th>~50% service; end-markets O&amp;G, chemicals &amp; refinery, conv. generation &amp; water</th>
</tr>
</thead>
</table>

| Division          | Market: ~$20 bn | #1-2 in Mining, Pulp & Paper, Alu | #3-5 in Cement, Metal | Revenues: $1,250 – 1,750 mn | Control platforms, mine hoists, gearless mill drives, QCS\(^2\), electromagnetic stirrers, high power rectifiers, service and digital | ~60% service; end-markets mining, metals, pulp & paper, F&B, data centers; ~40% in Americas |

| Division          | Market: ~$5 bn  | Global #1         | Revenues: $750 – 1,250 mn | Azipod propulsion, ship electrification and automation, port automation and electrification, digital | ~50% marine, ~15% ports, ~35% services to ship owners and terminal operators; geographically balanced | |

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**Key Competitors**

- SIEMENS
- Honeywell
- Schneider Electric
- Emerson
- Yokogawa
- 1 Oil & Gas, Chemicals
- 2 Quality Control Systems
Industrial Automation

Divisions

**Turbocharging**

- Market: <$2.5 bn
- Global #1

Low, medium and high speed turbochargers, service, digital solutions

~75% service; ~50% marine, remainder in O&G, conv. generation, traction; ~50% in Europe

**Measurement & Analytics**

- Market: ~$15 bn
- #1 in Analytical / Force Measurement
- #4-5 in Instrumentation

Field instrumentation, flow, analytical and force measurement, service

~25% service, mostly products to diverse industrial sector base; geographically balanced

Key competitors:

- Garrett
- Emerson
- Siemens
- KROHNE
- Yokogawa
Motion

Most comprehensive portfolio of drives, electric motors, generators and motion control with ABB Ability™ digital powertrain solutions

Revenues: $6.5 bn
Employees: ~20k

Market growth is driven by mega-trends such as growing population, urbanization and digitalization

This requires further automation of industrial processes, energy efficiency and electric mobility
Motion
Divisions

**Motors & Generators**
Revenues: $2,250 – 2,750 mn

*Market: ~$25 bn*  
*Global #1*

Comprehensive product portfolio of low, medium and high voltage electric motors and synchronous generators  
Majority direct to OEMs; all major industries and applications served; ~50% in North America

**Drive Products**
Revenues: $1,250 – 1,750 mn

*Market: ~$10 bn*  
*Global #1*

Comprehensive product portfolio of low voltage AC drives and soft starters  
Majority through channel partners; HVAC largest segment; all major industries and applications served; globally balanced, strength in China

**System Drives**
Revenues: $750 – 1,250 mn

*Market: ~$10 bn*  
*Global #1*

Low and medium voltage AC drives and modules, wind converters  
HPD\(^2\) and powertrain packages for process industry and high-power infrastructure applications, power conversion technology to renewable energy equipment OEMs

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June 10, 2020  
1 Oil & Gas, Chemicals  
2 High power drives
**Motion**

**Divisions**

<table>
<thead>
<tr>
<th>Service</th>
<th>Traction</th>
<th>Mechanical Power Transmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues: $750 – 1,250 mn</td>
<td>Revenues: &lt;$1,000 mn</td>
<td>Revenues: $250 – 750 mn</td>
</tr>
<tr>
<td><strong>Market:</strong> ~$5 bn Global #1</td>
<td><strong>Market:</strong> ~$10 bn Global #2</td>
<td><strong>Market:</strong> ~$15 bn Global #5 NAM¹ #2</td>
</tr>
</tbody>
</table>

Base services and spare parts, upgrades & replacements, smart solutions
Service activities varying depending on the product and application; significant regional differences in channels to market

Traction systems incl. converters and motors, battery energy storage systems, auxiliary converters
Customers are mainly rail OEMs, also bus OEMs and rail operators

Mounted bearings, enclosed gearing, conveyor components, power transmission components
Mainly through distributors; end-markets include mining, aggregates, cement, F&B, warehousing; >90% in Americas

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¹ North America

Key competitors:

- Local service providers
- Motion OEMs
- New entrants for smart solutions
Robotics & Discrete Automation

Broaderest portfolio of robotics and discrete automation, providing flexible automation solutions from individual machines to whole plants

Revenues: $3.3 bn
Employees: ~10k

Market growth driven by mega-trends of individualized consumers, labor shortage, digitalization and uncertainty

Resulting in need for automation solutions for increased productivity, highest flexibility, improved quality and maximum simplicity
Robotics & Discrete Automation

Divisions

Robotics

Revenues: $2,250 – 2,750 mn

Market: ~$55 bn
Global #2

Industrial robots, software, robotics solutions and systems, field services, spare parts, digital services
~75% direct sales; ~50% non-auto, early entry into logistics, healthcare; majority in Europe and AMEA

Machine Automation

Revenues: $750 – 1,250 mn

Market: ~$20 bn
Global #5
#2 in high-end segment

Solutions based on PLCs¹, IPCs², servo motion, industrial transport systems and vision, software
Mainly sales to machinery OEMs; end-markets e.g. packaging, metals, plastics and printing; ~75% in Europe

Key competitors

ABB
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¹ Programmable Logic Controllers
² Industrial PCs
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