ABB Group

REVENUES: ~$28 BN; EMPLOYEES: ~110K

All data throughout the factsheet is presented based on management estimates for FY19 revenues and market estimates | 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; 3C: computer, communication and consumer electronics
### ABB Group

#### Business areas

<table>
<thead>
<tr>
<th>Revenues¹</th>
<th>Operational EBITA²</th>
<th>Employees³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrification</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Industrial Automation</td>
<td>44</td>
<td>43</td>
</tr>
<tr>
<td>Motion</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>Robotics &amp; Discrete Automation</td>
<td>22</td>
<td>19</td>
</tr>
</tbody>
</table>

¹ % of FY19 third party revenues excl. Corporate and Other  
² % of FY19 operational EBITA excl. Corporate and Other, for definition of this measure and a reconciliation of non-GAAP measures, see the “Supplemental reconciliations and definitions” section of “Financial Information” under “Quarterly results and annual reports” on our website at www.abb.com/investorrelations  
³ % of FY19 employees excl. Corporate and Other
Leading portfolio of products, services and ABB Ability™ digital solutions enabling safe, smart and sustainable electrification

- Electricity demand grows 2x faster than other energy sources
- Digitalization accelerates demand for intelligent solutions
- Urbanization and population growth

Channels

<table>
<thead>
<tr>
<th>Distributors</th>
<th>Direct sales</th>
<th>EPCs</th>
<th>OEMs</th>
<th>System integrators</th>
<th>Panel builders</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>84</td>
<td>84</td>
<td>84</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Offering

<table>
<thead>
<tr>
<th>Products</th>
<th>Systems</th>
<th>Services and other</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Customers

- Renewables: 16
- Distribution, Conv. generation: 32
- O&G, Chemicals: 8
- F&B: 3
- Other Industry: 14
- Buildings: 8
- Data centers: 10
- Other T&I: 20

Geography

- Europe: 33
- USA: 16
- Rest of Americas: 33
- China: 1
- Rest of AMEA: 8

Revenues: $12.7 bn
Employees: ~53k

1. Customers split excludes solar inverter business sold in February 2020

Digitalization accelerates demand for intelligent solutions
Urbanization and population growth
Electrification Divisions

**Distribution Solutions**

- **Revenues:** $4,250–4,750 mn
- **Market:** ~$55 bn
- **Global #1 in Medium Voltage**

- 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

**Smart Power**

- **Revenues:** $2,750–3,250 mn
- **Market:** ~$40 bn
- **Global #2 in Low Voltage**

- 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

**Smart Buildings**

- **Revenues:** $2,250–2,750 mn
- **Market:** ~$45 bn
- **Global #3, #1–2 in Distribution Enclosures and DIN-Rail Products**

- Miniature breakers, distribution enclosures, wiring accessories, building automation
- ~75% through distributors; mostly manufactured to order products; ~75% buildings and construction
Electrification
Divisions

Installation Products

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

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

Power Conversion

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

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

¹ North America

Key competitors

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 towards 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

Approximation, % of revenues

1. Process Automation effective January 1, 2021
Industrial Automation
Divisions

Energy Industries

Revenues: $1,750–2,250 mn

Market: ~$25 bn
#1 Conv. Power
#3-5 in OGC

Integrated solutions, control platforms, safety, service & digital solutions
~50% service; end-markets O&G, chemicals & refinery, conv. generation & water

Process Industries

Revenues: $1,250–1,750 mn

Market: ~$15 bn
#1-2 Mining
#1 Pulp & Paper

Control platforms, mine hoists, Gearless Mill Drives, Quality Control Systems, digital
~60% service; end-markets mining, metals, pulp & paper, F&B, data centers; ~40% in Americas

Marine & Ports

Revenues: $750–1,250 mn

Market: ~$5 bn
#1 Electrical Propulsion
#1 Terminal Automation

Azipod propulsion, ship and port electrification & automation, digital
~50% marine, ~15% ports, ~35% services to ship owners and terminal operators; geographically balanced

Key competitors

1. Oil & Gas, Chemicals
Industrial Automation Divisions

*Turbocharging*

- Revenues: $750–1,250 mn
- Market: <$2.5 bn
- #1 Low and Medium Speed segments
- Low, medium and high speed turbochargers, service, digital solutions
- ~70% service; marine 45%, powerplant 35%, others: 20%; ~55% in Europe

*Measurement & Analytics*

- Revenues: $750–1,250 mn
- Market: ~$10 bn
- #1 Analytical, Force
- #3–5 Instrumentation
- Field instrumentation, flow, analytical and force measurement, service
- ~20% service, mostly products to diverse industrial sector base; geographically balanced

Key competitors:

- Garrett
- Wabtec
- Emerson
- Siemens
- KROHNE
- Endress+Hauser
- Thermo Fisher Scientific
- Yokogawa
Most comprehensive portfolio of drives, electric motors, generators, power transmission and motion control with ABB Ability™ digital powertrain solutions

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

Revenues: $6.5 bn
Employees: ~20k

Channels

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

Offering

- Products
- Services and other

Customers

- Renewables
- Conv. generation
- O&G, Chemical
- Mining, Metals
- F&B, Pharma
- Other industry
- Buildings
- Rail
- Other T&I

Geography

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

Approximation, % of revenues
### Motion Divisions

#### Drive Products
- 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
- Revenues: $1,250–1,750 mn
- Market: ~$10 bn Global #1

#### System Drives
- Low and medium voltage AC drives and modules, wind converters
- HPD\(^1\) and powertrain packages for process industry and high-power infrastructure applications, power conversion technology to renewable energy equipment OEMs
- Revenues: $750–1,250 mn
- Market: ~$10 bn Global #1

#### Service
- 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
- Revenues: $750–1,250 mn
- Market: ~$5 bn Global #1

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1. High power drives
Motion Divisions

**Traction**

Revenues: <$1,000 mn

Market: ~$10 bn
Global #2

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

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**IEC LV Motors**

Revenues: $750–1,250 mn

Market: ~$10 bn
Global #2

Comprehensive portfolio of low voltage motors for any industry and application, compliant with all major markets globally
Standard and customized motors available direct to OEMs, Channel Partners/Distributors in EU and globally

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**Large Motors and Generators**

Revenues: $250–750 mn

Market: ~$10 bn
Global #2

Comprehensive product portfolio of large AC motors and generators
Serving all major industries and applications, mainly through OEMs, both on local and global basis

---

Key competitors:

- Ingeteam
- MEDCOM
- Mitsubishi Electric
- WEG
- Siemens
- WOLONG
- Nidec

1. New divisional structure effective January 1, 2021
**Motion Divisions**

**NEMA Motors**
- Revenues: $750–1,250 mn
- Market: ~$5 bn
- Global #1

Comprehensive product portfolio of low voltage electric motors
Majority direct to OEMs; all major industries and applications served; ~ 90% in NAM²

**Mechanical Power Transmission**
- Revenues: $250–750 mn
- Market: ~$15 bn
- Global #5
- NAM² #2

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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Key Competitors:
- WEG
- SIEMENS
- REGAL
- SKF
- SEW
- REXNORD

1. New divisional structure effective January 1, 2021
2. North America
Robotics & Discrete Automation

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

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

Channels

<table>
<thead>
<tr>
<th>Channel</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributors</td>
<td>17</td>
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<tr>
<td>Direct sales</td>
<td>2</td>
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<tr>
<td>OEMs</td>
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</tr>
<tr>
<td>System integrators</td>
<td>57</td>
</tr>
</tbody>
</table>

Offering

<table>
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<th>Value</th>
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</thead>
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<td>Products</td>
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<td>Systems</td>
<td>30</td>
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<tr>
<td>Services and other</td>
<td>55</td>
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</table>

Customers

<table>
<thead>
<tr>
<th>Customer Type</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Auto OEM</td>
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<td>Auto Tier 1</td>
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<td>Electronics</td>
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<td>General Industry</td>
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<tr>
<td>CSSR^1</td>
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<tr>
<td>Machine Automation</td>
<td>7</td>
</tr>
</tbody>
</table>

Geography

<table>
<thead>
<tr>
<th>Geography</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>51</td>
</tr>
<tr>
<td>USA</td>
<td>9</td>
</tr>
<tr>
<td>Rest of Americas</td>
<td>10</td>
</tr>
<tr>
<td>China</td>
<td>5</td>
</tr>
<tr>
<td>Rest of AMEA</td>
<td>25</td>
</tr>
</tbody>
</table>
Robotics & Discrete Automation

Robotics

Revenues: $2,250–2,750 mn

Market: ~$55 bn
Global #2

Robots, robotics application cells and smart systems, field services, spare parts, digital services and software

~75% direct sales; ~70% non-auto OEM, 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 PLCs, IPCs, 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

1. Programmable Logic Controllers
2. Industrial PCs

FANUC KUKA YASKAWA SIEMENS TERADYNE BECKHOFF

1. Programmable Logic Controllers
2. Industrial PCs
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