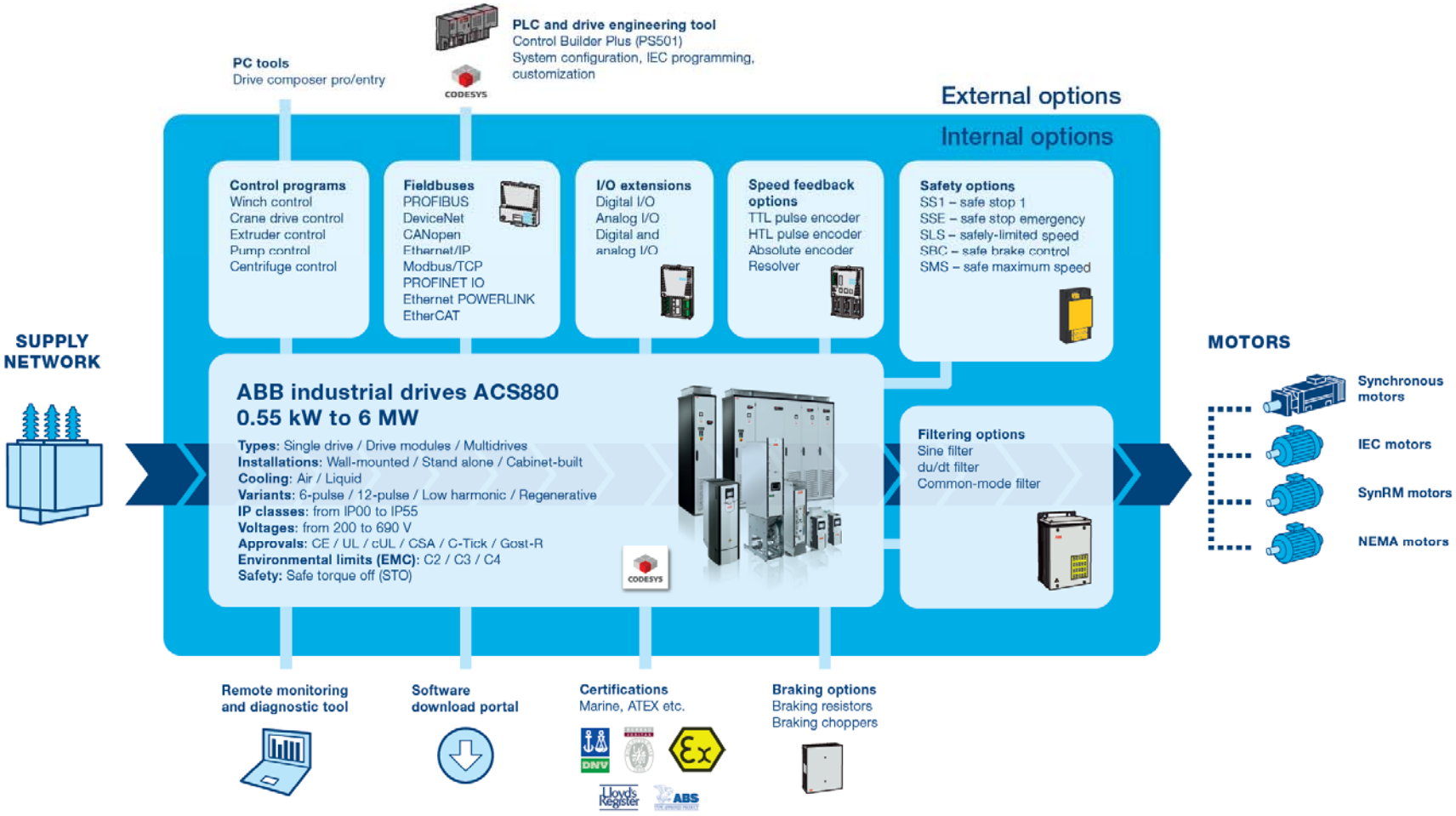




# ABB Industrial drives ACS880 benefits

# ACS880 industrial drives

## Simplifying your world without limiting your possibilities



# ACS880 customer benefits

## Motor control performance



### What we have kept from ACS800

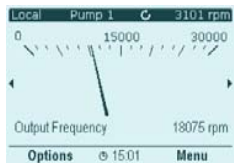
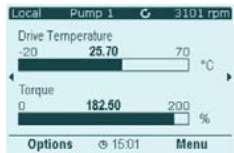
- Superior DTC speed and torque control, open and closed loop

### ACS880 benefits

- Faster reference chain
- Higher switching frequency, supporting high speed motors up to 500 Hz ( as standard)
- One drive and one Firmware for various motors (IM, PM, SynRM)
- Absolute encoder and resolver support

# ACS880 customer benefits

## Man machine interface (HMI)



### What we have kept from ACS800

- DDCS connection via fibre optic connection for control – backward compatibility

### ACS880 benefits

- **New benchmark for user friendliness**
- Assistant control panel
  - Context sensitive help key
  - Assistant
  - Most languages available
- PC tool Drive composer Entry level
  - USB connection
- Harmonized parameters
- PC tool Drive composer pro
  - Control diagrams
- Ethernet connection

# ACS880 customer benefits

## Size and cost optimization to improve competitiveness



### What we have kept from ACS800

- Everything – built-in, easy installation
  - Choke for harmonic filtering
  - EMC filters ( option)
  - Brake chopper
  - I/O extension modules
  - Fieldbus communication modules
- Dimensions of R8i modules

### ACS880 benefits

- Significant size reduction with ACS880 modules and cabinet built drives
- Much more competitive pricing in low power
- Wall mounted power range extended from 160 kW to 250 kW
- Design supports easy replacement of ACS800 modules

# ACS880 industrial drives

## Example: 200 and 250 kW single drives



- One-third of the volume
- ACS800
  - 2024 x 347 x 622 mm
- ACS880
  - 955 x 380 x 413 mm

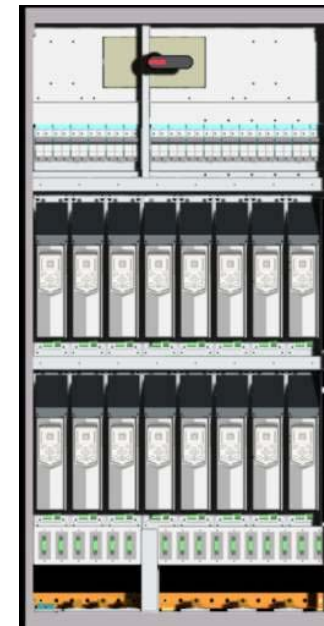
# ACS880 industrial drives

## Example: Multidrives 16 x 7,5 kW inverter units

ACS800  
Cabinet width 2400 mm  
(6 x 400 mm cabinets)



ACS880  
Cabinet width 1000 mm



- 58%

# ACS880 customer benefits

## Functional safety



### What we have kept from ACS800

- STO functionality

### ACS880 benefits

- STO as embedded standard feature
- Internal safety functions module FSO -11 (SS1, SBC, SLS,.. )
  - Emergency stops and POUS implemented with FSO in cabinet drives
- Drive Composer (one tool) used for safety function configuration
- Functional safety calculation design tool - to calculate safety level by user



# ACS880 customer benefits

## Versatile flexibility and universal connectivity



### What we have kept from ACS800

### ACS880 benefits



- Several extension slots for I/O, fieldbus, speed feedback and safety option
- Support for all the major fieldbuses
- Extensive parameter programmability
- Possibility of remote monitoring

- Drive application programming with CODESYS
  - Same engineering and programming tool - Automation builder - as AC500 PLC
- PC tool connection over USB or Ethernet

# ACS880 customer benefits

## Programmability and application programs



### What we have kept from ACS800

- User macros
- Adaptive programming\*
- Reuse of existing application programs (like crane, winch, winder)

\* Coming in 2014

### ACS880 benefits

- Advanced programming using standard IEC languages with Automation builder (programming and configuration tool)

# ACS880 customer benefits

## Reliability, service and maintenance



### What we have kept from ACS800

- Global service network
- Service and life-cycle plans
- Robust industrial design

### ACS880 benefits

- Memory unit for easy drive replacement and configuration ( Parameter and Firmware )
- Drive Support Package
  - One Click diagnosis file with pc-tool
- Higher reliability due to
  - Coated boards as standard
  - Reliability testing
- Additional service counter functions

# ACS880 customer benefits

## ACS880-07 single drive document generation



Document Headers


Project Name  
BSA France

Terminal 3  
USB3

Revision  
A

ABB Reference Number  
6214421



Cust. Doc. No. FX7652771		Prepared 3.5.2012	Sami Mäki-Korte	Title ACS880-07-0430A-3	
Customer BSA Oy		Approved		SINGLEDRIIVE	
France		Project BSA France		 ABB Drives	
Pasi Vartiainen		Terminal 3			
ABB Ref. No. 6214421-010		Cust Ref. No. 887283553		USB3	
1	2	3	4	5	6

- Create your own customized documents fast and easy.
- Include customer and project information
- Generate documents already in the offering phase
- Available document types:
  - Dimensional drawings
  - Circuit diagrams
  - Layout drawings
  - Spare parts

# ACS880 - Main arguments

## Simplifying your world without limiting your possibilities

- New benchmark for user friendliness
- Superior DTC speed and torque control, open and closed loop as enhanced version
- Functional safety as standard
- Size and cost optimization to improve competitiveness
- Advanced programming with standard IEC languages
- Versatile flexibility and universal connectivity
- Ready made application programs
- Reliability, service and maintenance

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for a better world™

