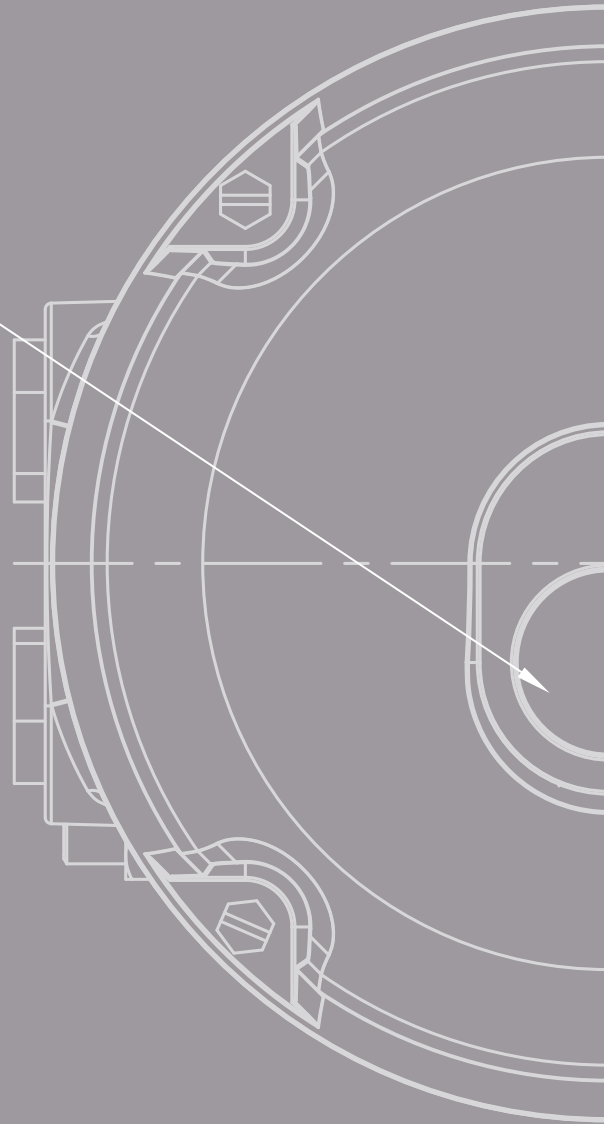


LABEL



BERNARD[®]
CONTROLS



TEC01-033_C+P_GRP_rev6E

//////// Invest in Confidence //////////////////////////////////////

New

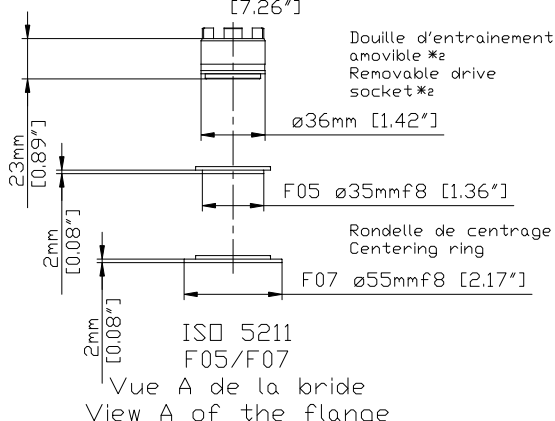
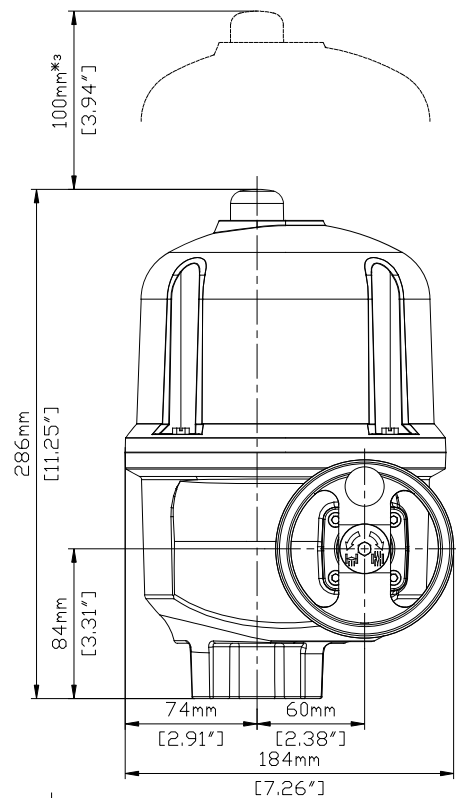
Weatherproof Quarter-turn Actuators
Servomoteurs Quart de tour Etanches

AQ RANGE / GAMME AQ

TECHNICAL DATA / DONNÉES TECHNIQUES

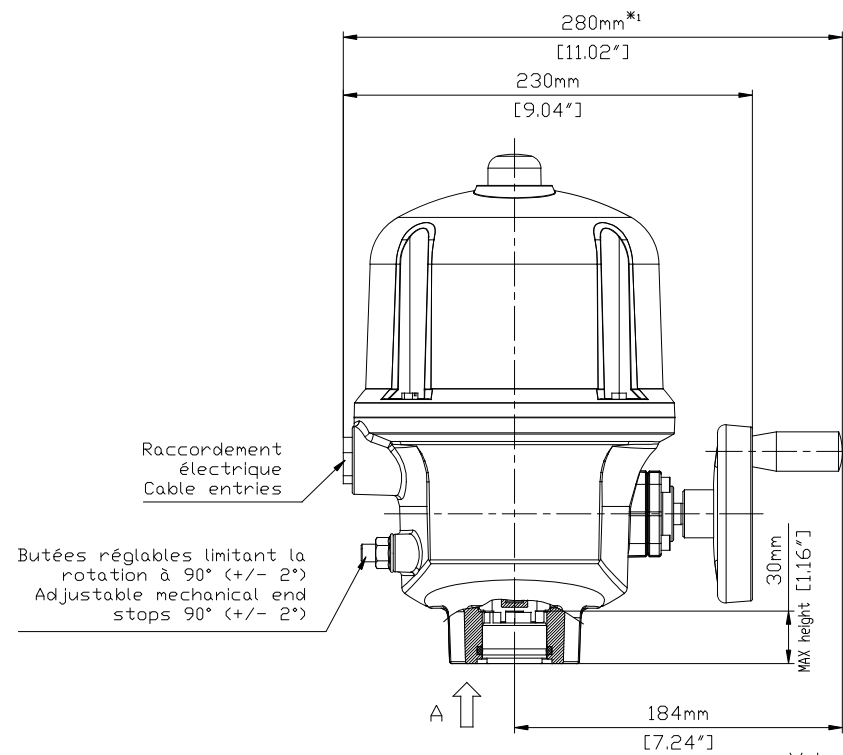
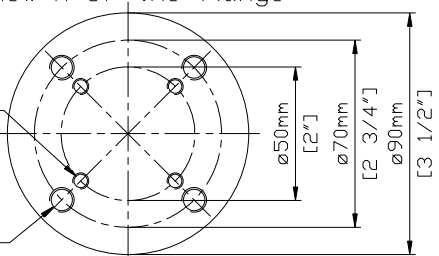
AQ SWITCH Specifications

GENERAL	Description	All AQ actuators include motor with thermal protection, gear case, emergency handwheel, travel limit switches, torque switches (for torque >150Nm), output drive with removable socket and anti- condensation heater.
	Torque range	50 to 500 N.m
	Duty Classification	Adapted to process requirements: <ul style="list-style-type: none"> On-Off: Class A actuators complying with EN15714-2 Inching/Positioning: Class B actuators complying with EN15714-2
ENCLOSURE - PROTECTION	Casing	<ul style="list-style-type: none"> Aluminium casting Cover fastened by captive and stainless screws
	External Protection	<ul style="list-style-type: none"> Type: Epoxy powder coating as standard Protection: C3 according to ISO 12944 Color: Black & Champagne Other colors and finishes, please consult us
	Weatherproofness	IP68 / NEMA 4X as standard
	Ambient temperature range	<ul style="list-style-type: none"> -20...+60°C / -4 ... +140°F -40°C (-40°F) as an option Other temperatures, please consult us
MOTOR	Motor technology	<ul style="list-style-type: none"> 3-phase or single-phase asynchronous motor, Class F insulation with integral thermal overload protection. DC motors with 2-wire connection available for some references
	Motor duty rating	<ul style="list-style-type: none"> On/Off operation (complying with EN15714-2 Class A) and Inching/ Positioning (complying with EN15714-2 Class B): S4-30% motor duty rating. Up to 360 starts per hour at peak of operation. S4-50% as an option. BC Modulating Class III (complying with EN15714- 2 Class C): S4-50% motor duty rating. Up to 1 200 starts per hour at peak of operation.
MECHANICAL SPECIFICATIONS	Gear design	Actuator is mechanically self-locking
	Manual emergency operation	Manual override handwheel Automatic declutch
	Output flange	Actuator flanges comply with ISO 5211
	Lubrication	The actuators are lubricated for the product lifetime and do not require any special service.
ELECTRICAL SPECIFICATIONS	Power supply	The actuators can operate on a wide variety of power supplies: <ul style="list-style-type: none"> 3-phase, single-phase or DC 50 or 60 Hz ...
	Terminal compartment	Screw-type terminals for controls and power supply. Internal earth grounding post.
	Conduit entries	2 x M20 as standard (or 2 x 3/4")
POSITION & TORQUE SENSORS	Travel limit systems	<ul style="list-style-type: none"> Limit switches actuated by adjustable camblock 2 SPDT switches as standard (Open and Close) + 2 auxiliary switches (for signaling)
	Torque limiting system	<ul style="list-style-type: none"> Torque limitation available from AQ25 The torque limiting system is calibrated at the factory 2 switches as standard (1 in opening and 1 in closing); SPDT; 250VAC-5Amax (resistive load) Adjustable torque from 40 to 100% of max torque (intrusive setting)
	Position Transmitter (option)	POSITION TRANSMITTER OPTION: <ul style="list-style-type: none"> 2 wires for 4-20mA Position Transmitter POT 1000Ω
CONTROLS	Visual position indication	Mechanical position indicator
SETTINGS	Actuator on valve settings	Easy and quick setting of position and torque camblocks with a standard screwdriver
	Application for mobile device	BERNARD CONTROLS new mobile application is available as standard. BERNARD CONTROLS mobile interface allows the user to: <ul style="list-style-type: none"> Access to the documentation relative to the selected actuator (enter the Serial number) or scan the QR code on the nameplate of the actuator Access to BERNARD CONTROLS contact information according to the area concerned
CONFORMITY TO EC	Compliance with EC Directives	AQ actuators comply with: <ul style="list-style-type: none"> directive 2004/108/EC Electromagnetic compatibility directive 2006/95/EC Low voltage <ul style="list-style-type: none"> the following harmonised standards: EN 61000- 6-4: Generic emissions standard for industrial environments; EN 61000- 6-2: Generic immunity standard for industrial environments; EN 60034-1: Rotating electrical machines; EN 60529: Degrees of protection provided by enclosures (IP ratings code)



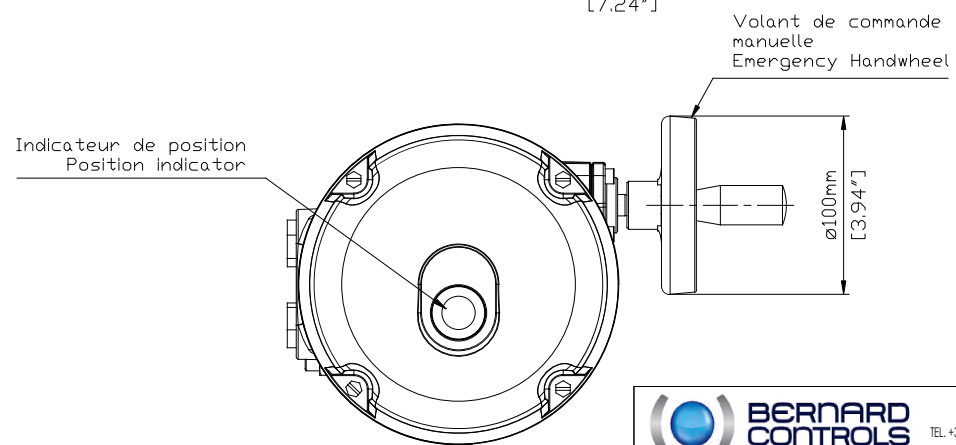
F05 = 4 x M6mm
Prof./Depth:10mm

F07 = 4 x M8mm
Prof./Depth:15mm



Raccordement électrique
Cable entries

Butées réglables limitant la rotation à 90° (+/- 2°)
Adjustable mechanical end stops 90° (+/- 2°)



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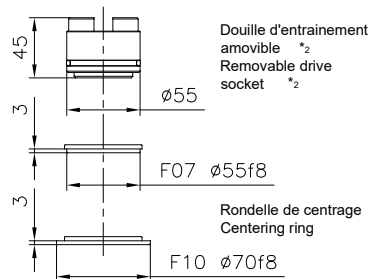
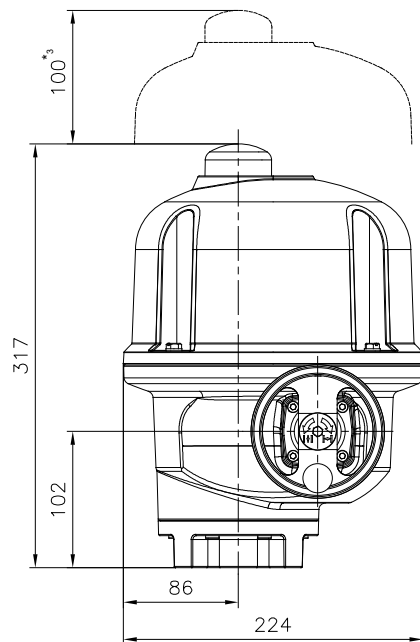
Encombrement / External Dimensions

AQ5 | AQ10 | AQ15
Étanche/Weatherproof

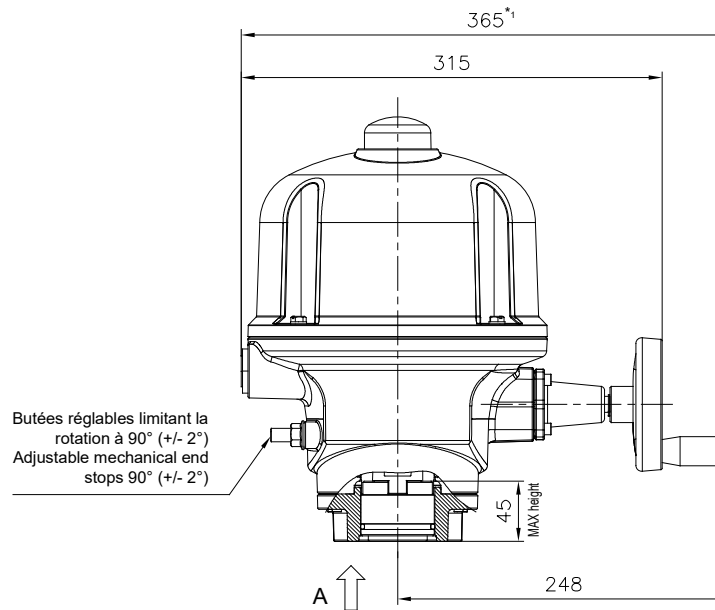
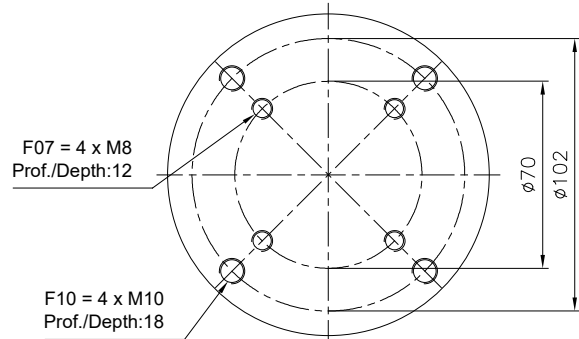
None
Switch
Switch

NOTA: Plan non contractuel/No contractual Draft *1 - L'actionneur est représenté dans sa taille maximale. The actuator is represented in its maximale size. *2 - Représentation de la douille en position fermée. Representation of the socket in closed position. *3 - Côte de démontage/Dimension to allow for disassembly			Masse/Weight: 10kg 22lbs Unités/Units: mm inch
Vitesse/Speed: ALL rpm	Forme/Form: SOCKET	Bride/Flange: F05F07	
Dessiné par: K.Xin 19/07/17	Vérifié par: F.Han	Approuvé par: R.Guillaume 21/07/17	

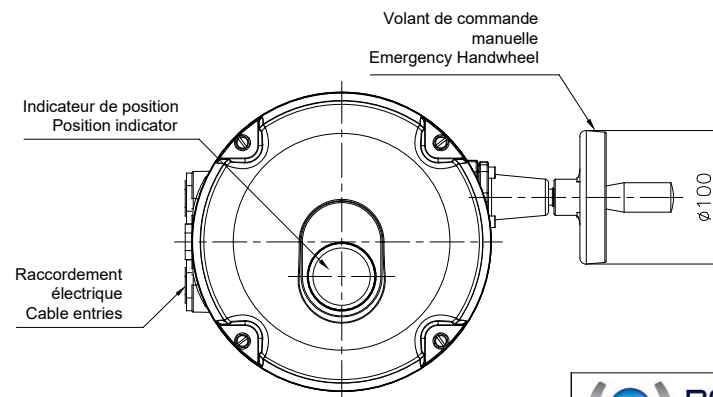
Echelle/Scale:	Planche/Sheet:	Modification:	Ind./Rev.:
1/3 - 1/2	1/1	CD_01500_0	A



ISO 5211
F07/F10
Vue A de la bride
View A of the flange



Butées réglables limitant la rotation à 90° (+/- 2°)
Adjustable mechanical end stops 90° (+/- 2°)



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NOTA: Plan non contractuel/No contractual Draft

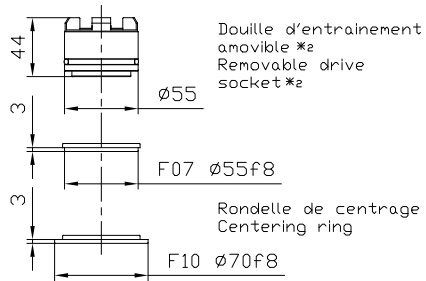
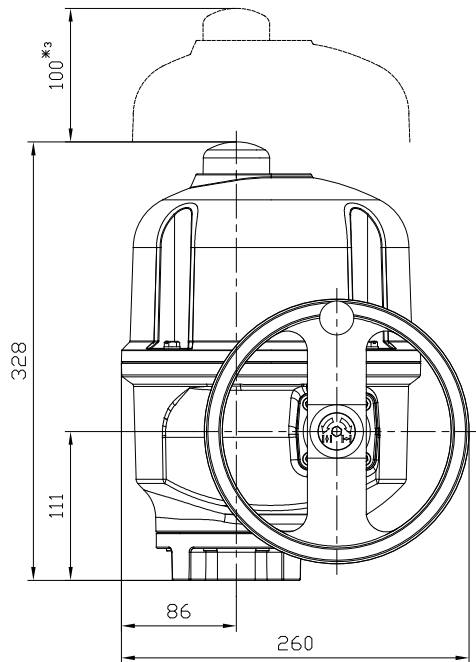
- *1 - L'actionneur est représenté dans sa taille maximale.
The actuator is represented in its maximale size.
- *2 - Représentation de la douille en position fermée.
Representation of the socket in closed position.
- *3 - Côte de démontage/Dimension to allow for disassembly

Vitesse/Speed: ALL rpm	Forme/Form: SOCKET	Bride/Flange: F07F10
Dessiné par: F.Han 24/04/17	Vérifié par: R.Guillaume	Approuvé par: R.Guillaume 25/04/17

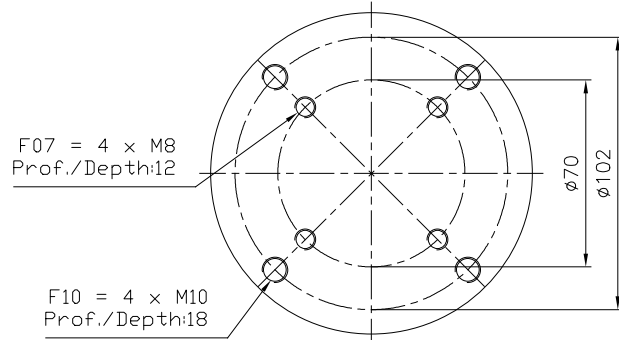
Masse/Weight: 13 kg
Unités/Units: mm



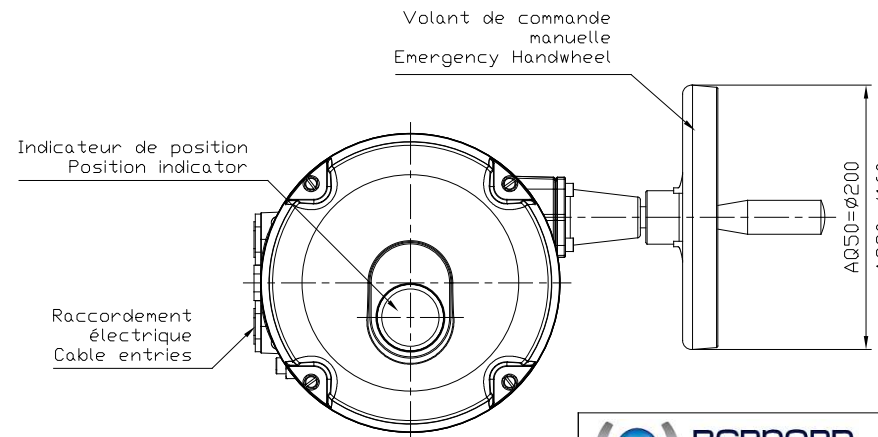
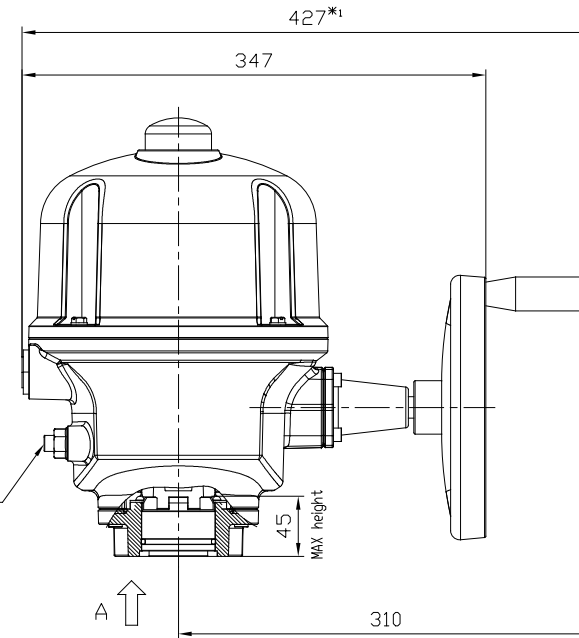
Encombrement / External Dimensions	
AQ25	
Etanche/Weatherproof	
None	
Switch	
Switch	
Echelle/Scale: 1/4 - 1/2	Planche/Sheet: 1/1
CD_01502	Modification: Ind./Rev.: B



ISD 5211
F07/F10
Vue A de la bride
View A of the flange



Butées réglables limitant la rotation à 90° (+/- 2°)
Adjustable mechanical end stops 90° (+/- 2°)



NOTA: Plan non contractuel/No contractual Draft

- *1 - L'actionneur est représenté dans sa taille maximale.
The actuator is represented in its maximale size.
- *2 - Représentation de la douille en position fermée.
Representation of the socket in closed position.
- *3 - Côte de démontage/Dimension to allow for disassembly

Vitesse/Speed: ALL rpm	Forme/Form: SOCKET	Bride/Flange: F07F10
Dessiné par: G.Liu 06/08/19	Vérifié par: J.Jin	Approuvé par: F.Han 06/08/19

Masse/Weight: 15 kg
Unités/Units: mm



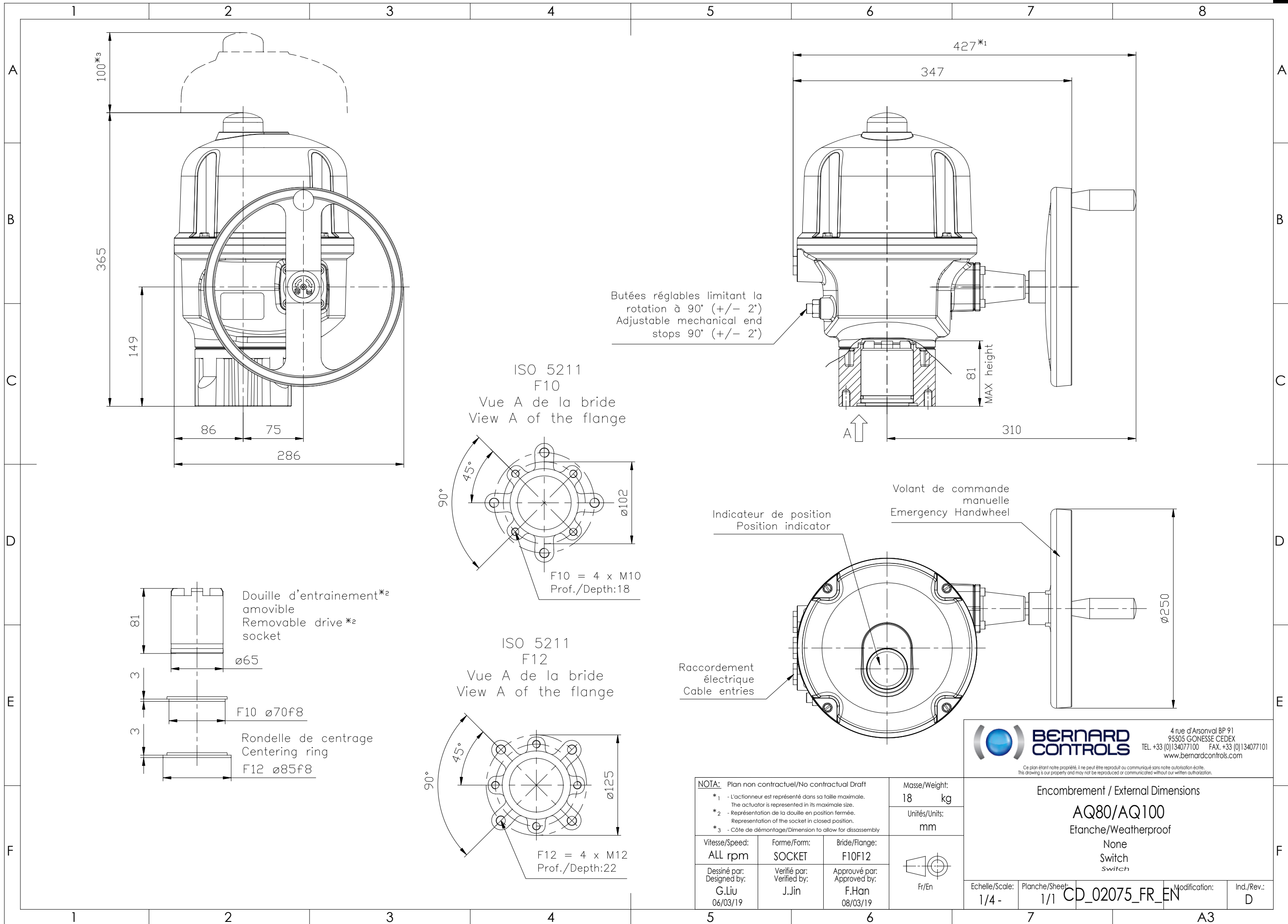
Fr/En

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Encombrement / External Dimensions
AQ30 | AQ50
Etanche/Weatherproof
None
Switch
Switch

Echelle/Scale: 1/4 - 1/2	Planche/Sheet: 1/1	CD_01504	Modification:	Ind./Rev.: C
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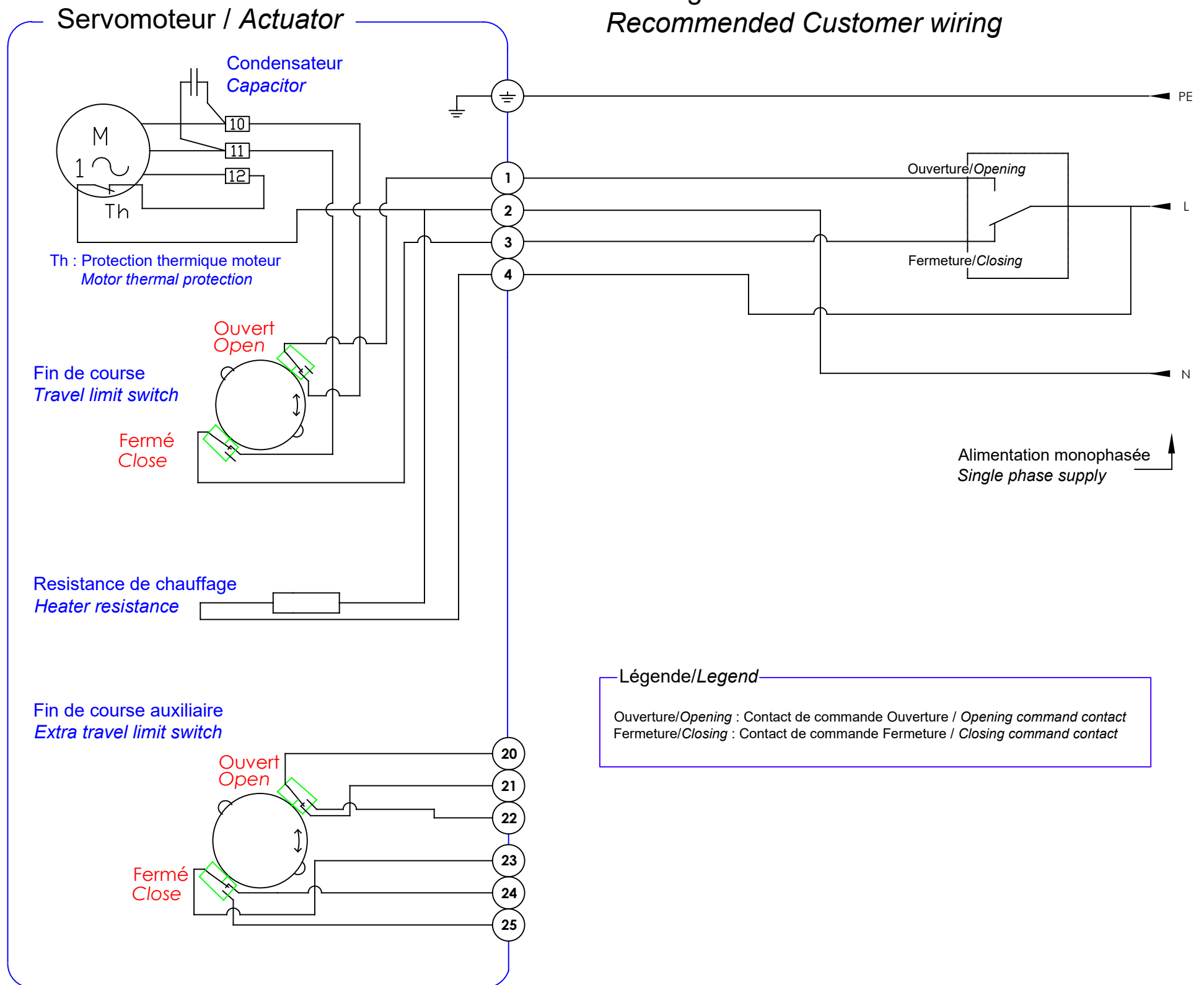
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NOTA: Plan non contractuel/No contractual Draft			Masse/Weight: 18 kg
* ₁ - L'actuateur est représenté dans sa taille maximale. The actuator is represented in its maximale size.			Unités/Units: mm
* ₂ - Représentation de la douille en position fermée. Representation of the socket in closed position.			
* ₃ - Côte de démontage/Dimension to allow for disassembly			
Vitesse/Speed: ALL rpm	Forme/Form: SOCKET	Bride/Flange: F10F12	
Dessiné par: G.Liu 06/03/19	Verifié par: J.Jin	Approuvé par: F.Han 08/03/19	

Encombrement / External Dimensions			
AQ80/AQ100			
Etanche/Weatherproof			
None			
Switch			
Switch			
Echelle/Scale: 1/4 -	Planche/Sheet: 1/1	CD_02075_FR_EN	Modification:
			Ind./Rev.: D

Câblage Client Recommandé / Recommended Customer wiring



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AQ-5-10-15 MONOPHASE PRECABLE
SINGLE PHASE AQ-5-10-15 PREWIRED

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Projet/Project:

Etude/Study:

Modification:
DM_20372

Dessiné par:
Designed by:

Vérifié par:
Checked by:

Approuvé/Approved
PROTO

Approuvé/Approved
PROD

G.Hou
02/12/20

F.Han
03/12/20

->

->

A.Le Gall
23/12/20

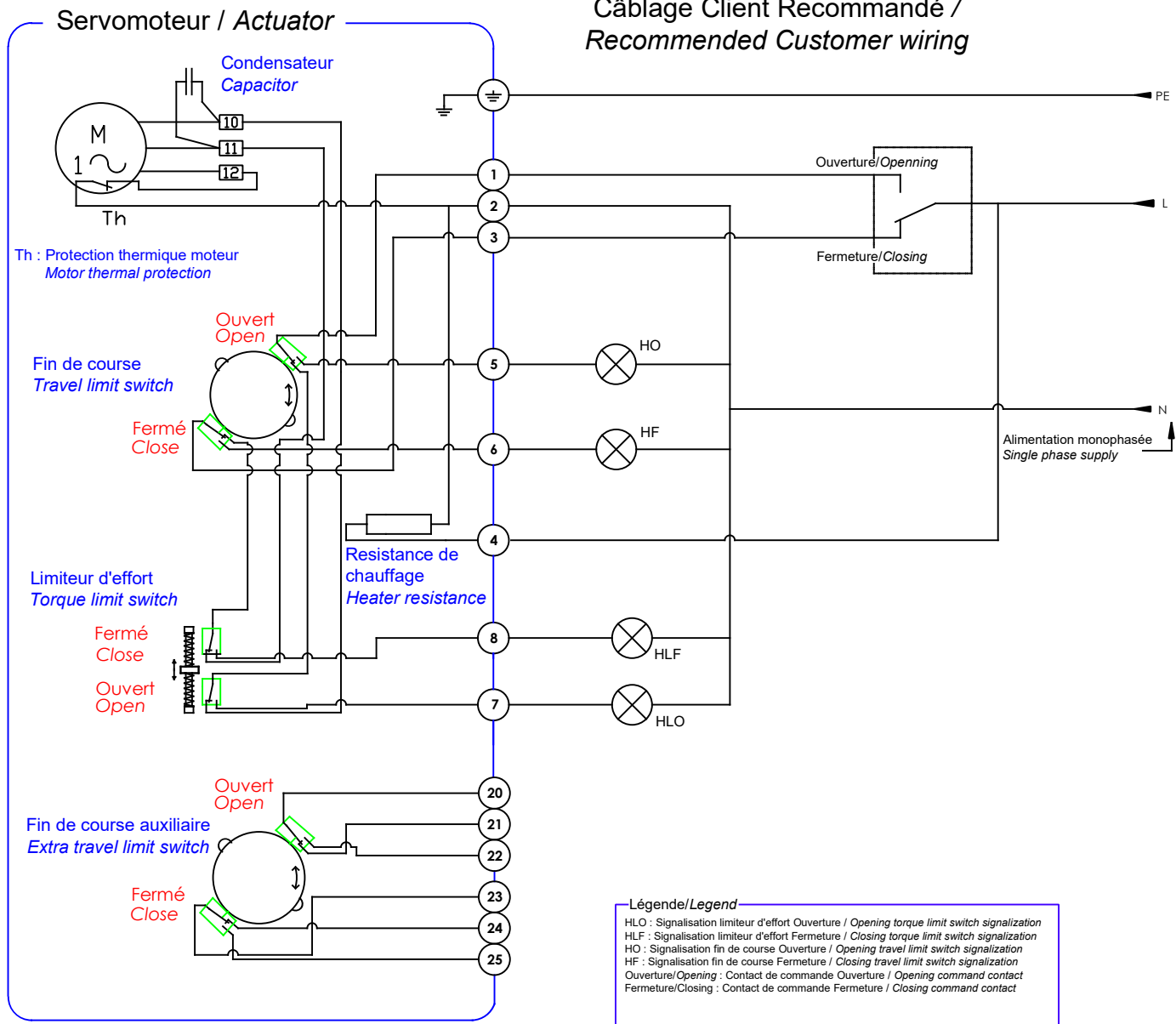
WD_500057_FR_EN

Planche/Sheet:

Ind./Rev.:

B

Câblage Client Recommandé / Recommended Customer wiring



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AQ25-30-50 MONOPHASE PRECABLE
SINGLE PHASE AQ25-30-50 PREWIRED

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Projet/Project: 15M24		Etude/Study:		Modification:		
Dessiné par: Designed by: G.Hou 18/07/17	Vérifié par: Checked by: F.Han 18/07/17	Validé par: Validated by: RGuillaume 19/07/17	Approuvé/Approved PROTO -> ->	Approuvé/Approved PROD RGuillaume 19/07/17	WD_500061_FREN	
					Planche/Sheet:	Ind./Rev.: A