

WEIGHT

Without brake	With brake
2.8 kg	3.2 kg

BRAKE

Supply voltage : 24V $\pm 10\%$
Static torque

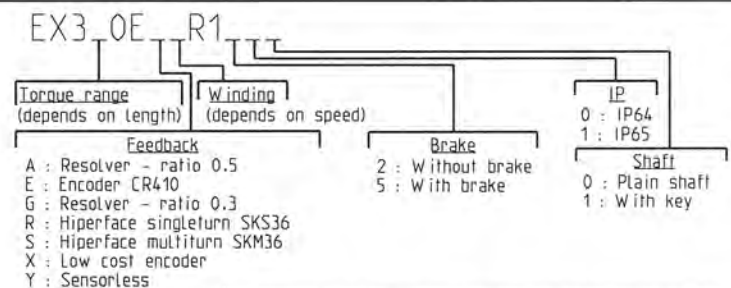
	EX310
20°C	2 Nm
100°C	1.8 Nm

EX
IEC IECEx
Certification :
INERIS 03ATEX0060X
INE 15.0060X

	IP64	IP65
Protection	II 2 G Ex db IIB T4 Gb IP64	II 2 GD Ex db IIB T4 Gb IP65 Ex tb IIIC T135°C Db IP65
Standards	<ul style="list-style-type: none"> IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements. IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d". 	<ul style="list-style-type: none"> IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements. IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d". IEC/EN 60079-31 : Explosive atmospheres. Part 31 : Equipment dust ignition protection by enclosure "1".

DIMENSIONS

Feedback option (feedback letter)	Resolver ratio 0.5 (A)	Encoder CR410 (E)	Resolver ratio 0.3 (G)	Hiperface SKS36 (R)	Hiperface SKM36 (S)	Low cost encoder (X)	Sensorless (Y)
EX310 without brake	L (mm)			225			
EX310 with brake	L (mm)			255			



CONNECTIONS VARIANT ON SHEET 2/2

Masse :

General tolerances : DIN ISO 2768 mK

Dessine : 11/09/09 OD Vise 22/04/16 57

Modifications :
C AM 24108 22/04/13 SD
B AM 23600 27/04/11 YG
A AM 23304 10/12/09 SD D AM 24578 22/07/16 SD

Echelle : 4:5

Parker
4 Bd Eiffel. CS 40090
21604 LONGVIC CEDEX

EX300
OUTLINE DRAWING

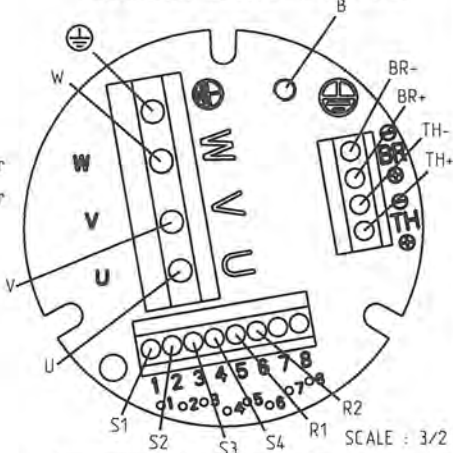
Format : A3
F E S G I
x

344487

Sheet : 1/2

Resolver and CR410 connection
Feedback letter : A/E/G

- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake- (option)
- BR+ : Brake+ (option)
- S1 : Resolver 1
- S2 : Resolver 2
- S3 : Resolver 3
- S4 : Resolver 4
- R1 : Resolver 5
- R2 : Resolver 6
- B : Shield option (screw M3)
- ⊕ : Ground



S1 = Cos -	S2 = Sin -	R1 = Excitation +
S3 = Cos +	S4 = Sin +	R2 = Excitation -

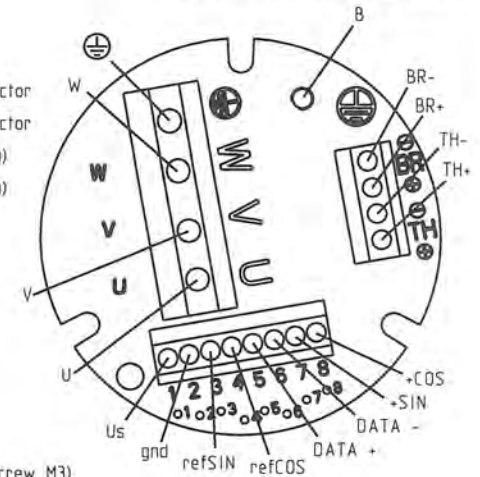
Rotor is rotating in clockwise viewed from shaft end view.



Certification :
INERIS 03ATEX0060X
INE 15.0060X

Hiperface connection
Feedback letter : R/S

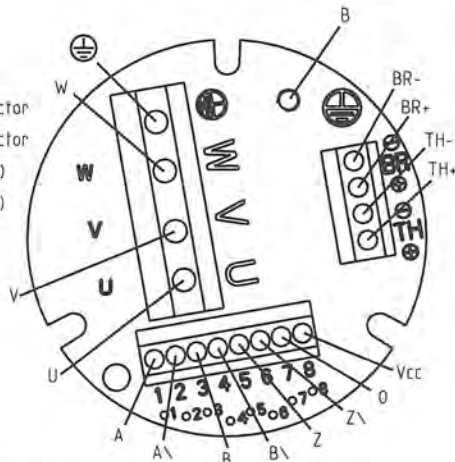
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake- (option)
- BR+ : Brake+ (option)
- 1 : Encoder Us
- 2 : Encoder gnd
- 3 : Encoder refSIN
- 4 : Encoder refCOS
- 5 : Encoder DATA +
- 6 : Encoder DATA -
- 7 : Encoder +SIN
- 8 : Encoder +COS
- B : Shield option (screw M3)
- ⊕ : Ground



SCALE : 3/2

Low cost encoder connection
Feedback letter : X

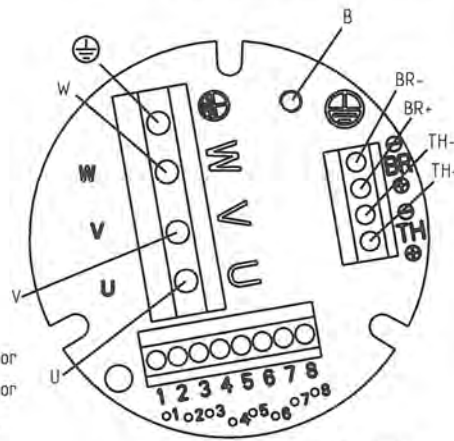
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake- (option)
- BR+ : Brake+ (option)
- 1 : A
- 2 : A\
- 3 : B
- 4 : B\
- 5 : Z
- 6 : Z\
- 7 : 0
- 8 : Vcc
- B : Shield option (screw M3)
- ⊕ : Ground



SCALE : 3/2

Sensorless connection
Feedback letter : Y

- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake- (option)
- BR+ : Brake+ (option)
- B : Shield option (screw M3)
- ⊕ : Ground



SCALE : 3/2

ENCODER SETTINGS

Resolver setting
Feedback letter : A/E/G
Motor powered by direct current at the current nominal value (W+ and V-). The shift is 90° electrical.

Hiperface SKS/SKM setting
Feedback letter : R/S
Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 205.

Low cost encoder setting
Feedback letter : X
Engine driven clockwise shaft end side. Switching signal V is in phase with FEM UV.

Sheet : 2/2

Masse :

General tolerances
DIN ISO 2768 mK

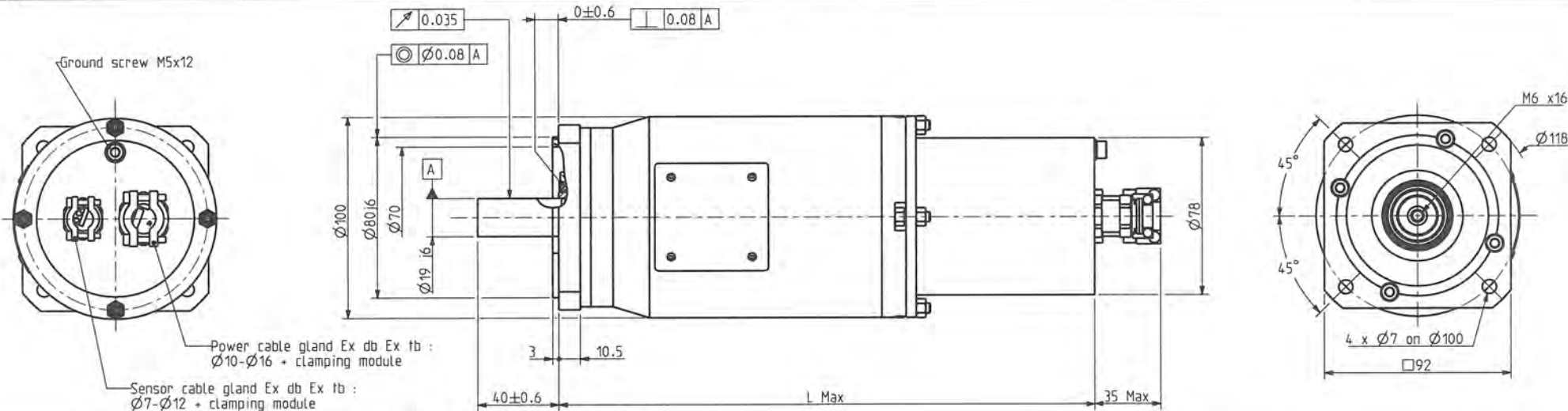
Dessine	11/09/09	OD	Vise	22/07/16	SD	DS
Modifications	C	AM 24108 22/04/13	SD			
	B	AM 23600 27/04/11	YG			
	A	AM 23304 10/12/09	SD	D	AM 24578 22/07/16	SD

Echelle
3:10

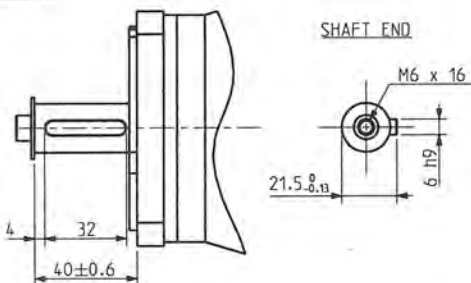


EX300
OUTLINE DRAWING

Format	F	E	S	G	I
A3	x				
344487					D



WITH KEY



WEIGHT

Motor	Without brake	With brake
EX420	7 Kg	8 Kg
EX430	8 Kg	9 Kg

BRAKE

Supply voltage : 24V $\pm 10\%$
Static torque

	EX420	EX430
20°C	5.5 N.m	5.5 N.m
100°C	4 N.m	4 N.m

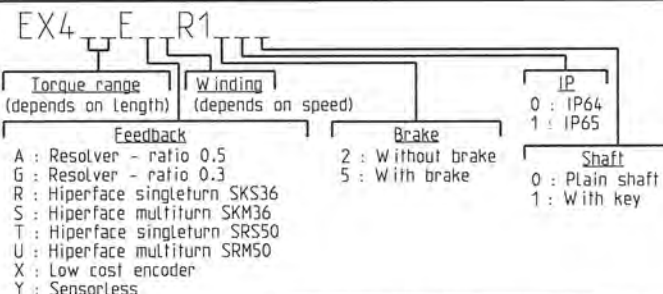


Certification :
INERIS 04ATEX0097X
INE 15.0060X

IP Motor	IP64	IP65
Protection	II 2 G Ex db IIB T4 Gb IP64	II 2 GD Ex db IIB T4 Gb IP65 Ex tb IIIC T135°C Db IP65
Standards	<ul style="list-style-type: none"> IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements. IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d". 	<ul style="list-style-type: none"> IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements. IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d". IEC/EN 60079-31 : Explosive atmospheres. Part 31 : Equipment dust ignition protection by enclosure "T".

DIMENSIONS

	Feedback options (feedback letter)	Resolver ratio 0.5 (A)	Resolver ratio 0.3 (G)	Low cost encoder (X)	Sensorless (Y)	Hiperface SKS36 (R)	Hiperface SKM36 (S)	Hiperface SRS50 (T)	Hiperface SRM50 (U)
EX420	Without brake	L (mm)			265		285		305
	With brake	L (mm)			290		310		330
EX430	Without brake	L (mm)			290		310		330
	With brake	L (mm)			315		335		355



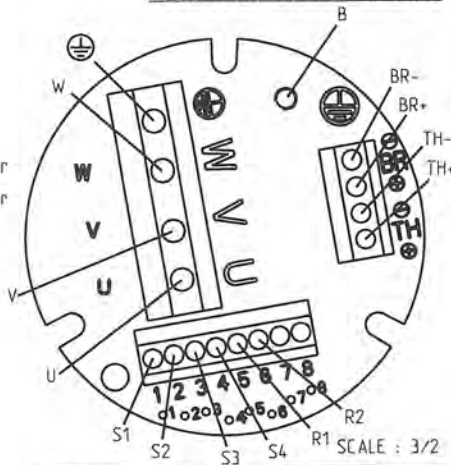
CONNECTIONS VARIANTS ON SHEET 2/2

Sheet : 1/2

Masse :	General tolerances DIN ISO 2768 mK	Dessine C AM 24229 03/12/13 AH B AM 24108 22/04/13 SD A AM 23304 10/12/09 SD	29/07/09	SD	Vise 22/07/16 SD	Echelle 1:2	Parker 4 Bd Eiffel. CS 40090 21604 LONGVIC CEDEX	EX400	Format A3	F x	E	S	G	I	D
									OUTLINE DRAWING		344619				

Resolver connection
Feedback letter : A/G

- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- S1 : Resolver 1
- S2 : Resolver 2
- S3 : Resolver 3
- S4 : Resolver 4
- R1 : Resolver 5
- R2 : Resolver 6



B : Shield option (screw M3)	S1 = Cos -	S2 = Sin -	R1 = Excitation +
⊕ : Ground	S3 = Cos +	S4 = Sin +	R2 = Excitation -

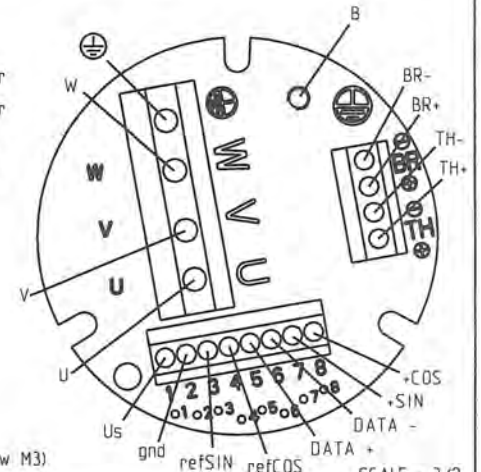
Rotor is rotating in clockwise viewed from shaft end view.



Certification :
INERIS 04ATEX0097X
INE 15.0060X

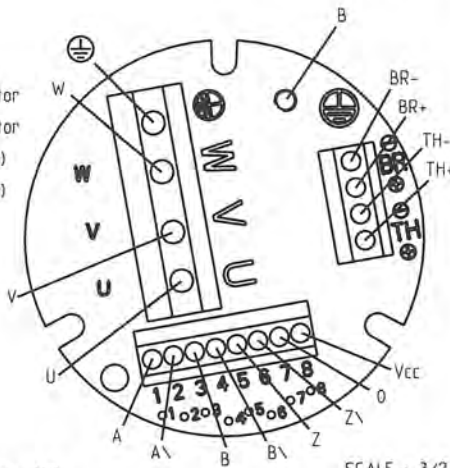
Hiperface connection
Feedback letter : R/S/T/U

- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- 1 : Encoder Us
- 2 : Encoder gnd
- 3 : Encoder refSIN
- 4 : Encoder refCOS
- 5 : Encoder Data +
- 6 : Encoder Data -
- 7 : Encoder +SIN
- 8 : Encoder +COS
- B : Shield option (screw M3)
- ⊕ : Ground



Low cost encoder connection
Feedback letter : X

- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)

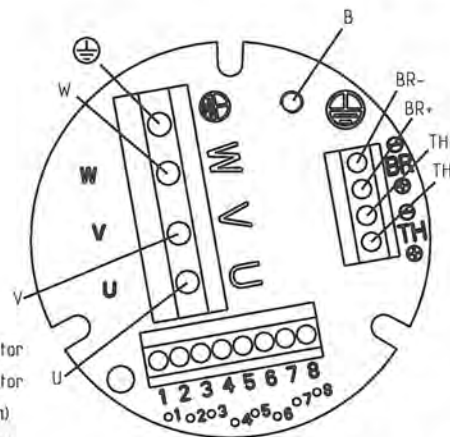


- 1 : A
- 2 : A\
- 3 : B
- 4 : B\
- 5 : Z
- 6 : Z\
- 7 : 0
- 8 : Vcc
- B : Shield option (screw M3)
- ⊕ : Ground

SCALE : 3/2

Sensorless connection
Feedback letter : Y

- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- B : Shield option (screw M3)
- ⊕ : Ground



Scale : 3/2

ENCODER SETTINGS

Resolver setting
Feedback letter : A/G

Motor powered by direct current at the current nominal value (W+ and V-). The shift is 90° electrical.

Hiperface SRS/SRM setting
Feedback letter : T/U

Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 1638.

Hiperface SKS/SKM setting
Feedback letter : R/S

Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 205.

Low cost encoder setting
Feedback letter : X

Engine driven clockwise shaft end side. Switching signal V is in phase with FEM UV.

Sheet : 2/2

Masse :

General tolerances
DIN ISO 2768 mK

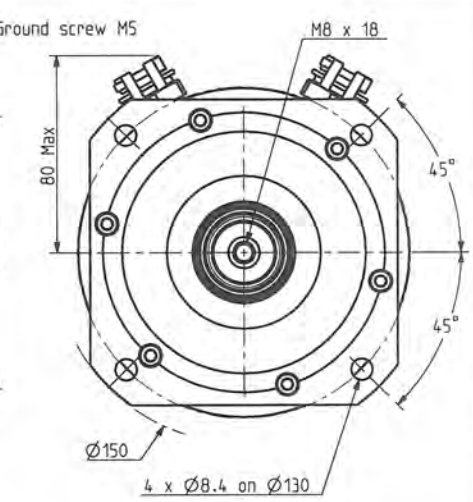
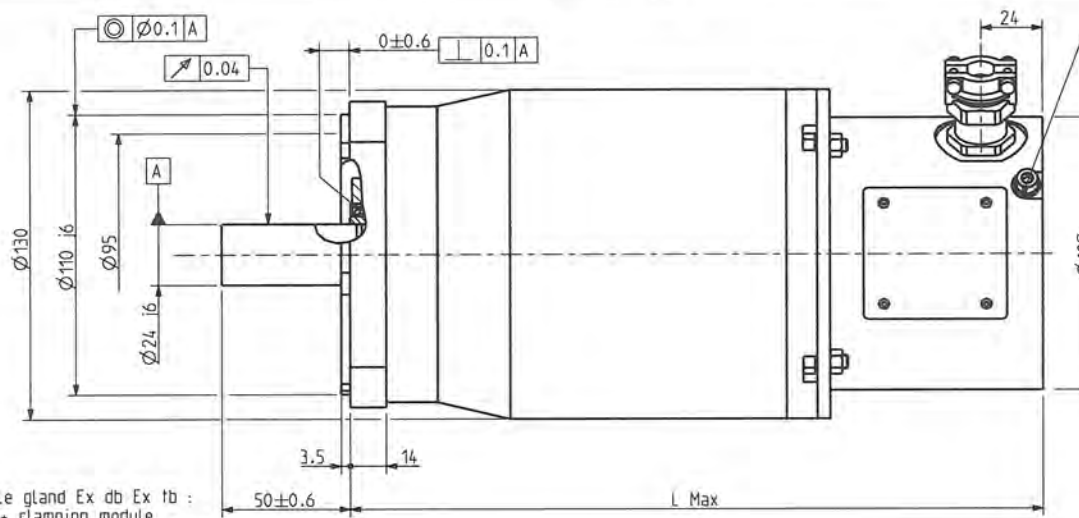
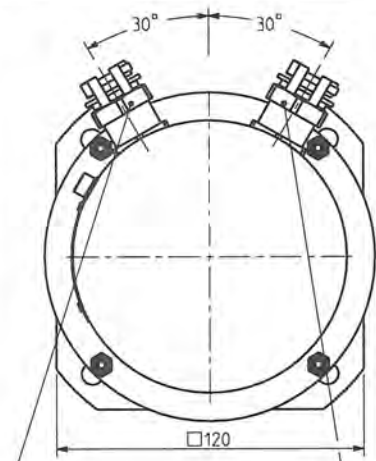
Dessine	29/07/09	SD	Visé	22/07/16 SD
Modifications	C AM 24229 03/12/13 AH			
	B AM 24108 22/04/13 SD			
	A AM 23304 10/12/09 SD			D AM 24578 22/07/16 SD

Echelle
1:2

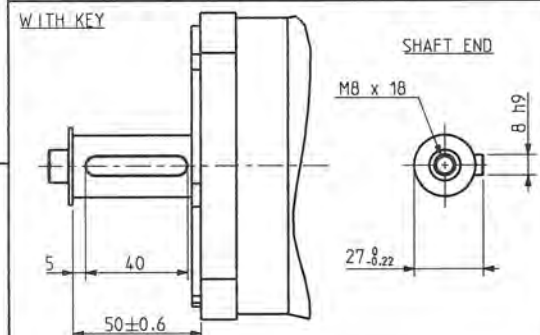


EX400
OUTLINE DRAWING

Format	F	E	S	G	I
A3	x				
344619					D



Sensor cable gland Ex db Ex tb : $\varnothing 10\text{-}\varnothing 16$ + clamping module
 Power cable gland Ex db Ex tb : $\varnothing 10\text{-}\varnothing 16$ + clamping module



WEIGHT

Motor	Without brake	With brake
EX620	10 Kg	11 Kg
EX630	12.5 Kg	13.5 Kg

BRAKE

Supply voltage : 24V $\pm 10\%$
 Static torque

	EX620	EX630
20 °C	12 N.m	12 N.m
100 °C	8 N.m	8 N.m

EX

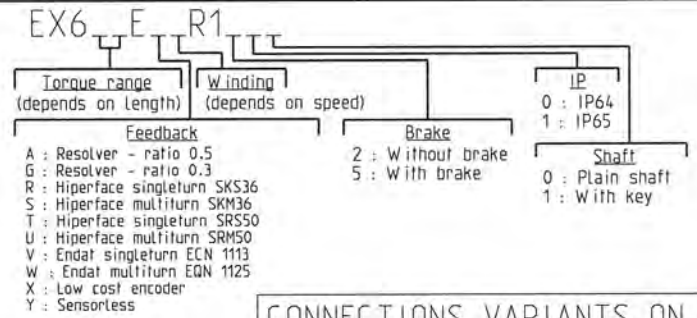
IEC IECEx

Certification :
 INERIS 04ATEX0032X
 INE 15.0060X

IP Motor	IP64	IP65
Protection	II 2 G Ex db IIB T4 Gb IP64	II 2 GD Ex db IIB T4 Gb IP65 Ex tb IIIC T135°C Db IP65
Standards	<ul style="list-style-type: none"> IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements. IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d". 	<ul style="list-style-type: none"> IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements. IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d". IEC/EN 60079-31 : Explosive atmospheres. Part 31 : Equipment dust ignition protection by enclosure "1".

DIMENSIONS

	Feedback options (feedback letter)	Resolver ratio 0.5 (A)	Resolver ratio 0.3 (G)	Low cost encoder (X)	Sensorless (Y)	Hiperface SKS36 (R)	Hiperface SKM36 (S)	Hiperface SRS50 (T)	Hiperface SRM50 (U)	Endat ECN 1113 (V)	Endat EQN 1125 (W)
EX620	Without brake	L (mm)		275		305		325		325	
	With brake	L (mm)		300		330		350		350	
EX630	Without brake	L (mm)		300		330		350		350	
	With brake	L (mm)		325		355		375		375	



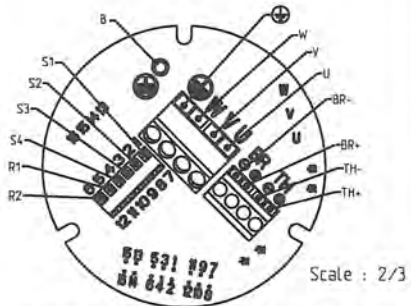
CONNECTIONS VARIANTS ON SHEET 2/2

Sheet : 1/2

Masse :	General tolerances DIN ISO 2768 mK	Dessine 07/10/09 SD Vise 22/04/16 SD	Echelle 1:2	Parker 4 Bd Eiffel, CS 40090 21604 LONGVIC CEDEX	EX600	Format A3	F E S G I X	344550	D
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Resolver connection
Feedback letter : A/G

- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- S1 : Resolver 1
- S2 : Resolver 2
- S3 : Resolver 3
- S4 : Resolver 4
- R1 : Resolver 5
- R2 : Resolver 6
- B : Shield option (screw M4)
- ⊕ : Ground



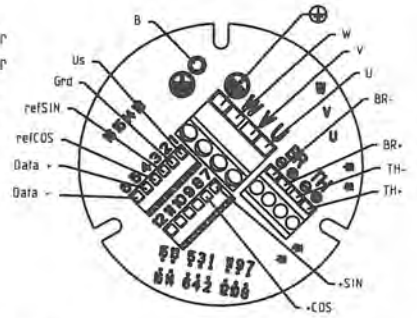
S1 = Cos -	S2 = Sin -	R1 = Excitation +
S3 = Cos +	S4 = Sin +	R2 = Excitation -

Rotor is rotating in clockwise viewed from shaft end view.



Hiperface connection
Feedback letter : R/S/T/U

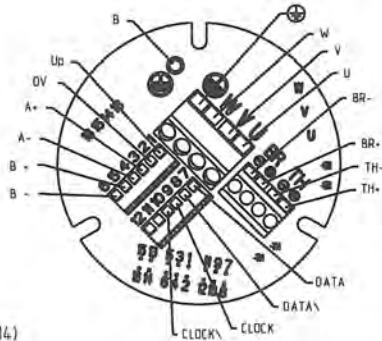
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- 1 : Encoder Us
- 2 : Encoder gnd
- 3 : Encoder refSIN
- 4 : Encoder refCOS
- 5 : Encoder Data +
- 6 : Encoder Data -
- 7 : Encoder + SIN
- 8 : Encoder + COS
- B : Shield option (screw M4)
- ⊕ : Ground



Scale : 2/3

Endat connection
Feedback letter : V/W

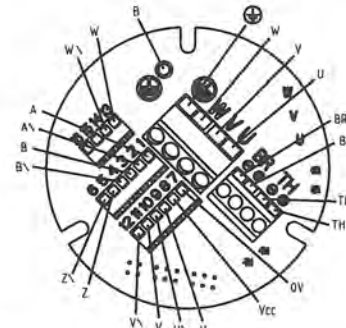
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- 1 : Encoder Up 5V ±5%
- 2 : Encoder OV
- 3 : Encoder A +
- 4 : Encoder A -
- 5 : Encoder B +
- 6 : Encoder B -
- 7 : Encoder DATA
- 8 : Encoder DATA
- 9 : Encoder CLOCK
- 10 : Encoder CLOCKS
- B : Shield option (screw M4)
- ⊕ : Ground



Scale : 2/3

Low cost encoder connection
Feedback letter : X

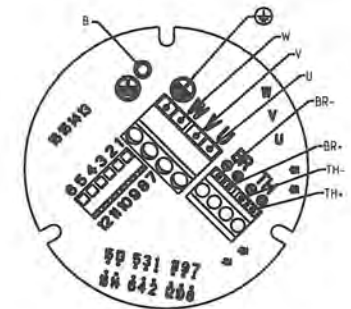
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- 1 : A 9 : U
- 2 : A\ 10 : U\
- 3 : B 11 : V
- 4 : B\ 12 : V\
- 5 : Z 13 : W
- 6 : Z\ 14 : W\
- 7 : 0
- 8 : Vcc
- B : Shield option (screw M4)
- ⊕ : Ground



Scale : 2/3

Sensorless connection
Feedback letter : Y

- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- B : Shield option (screw M4)
- ⊕ : Ground



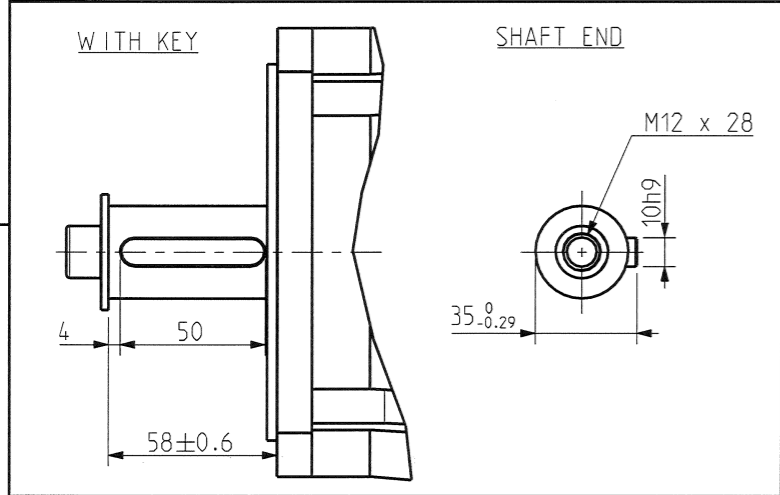
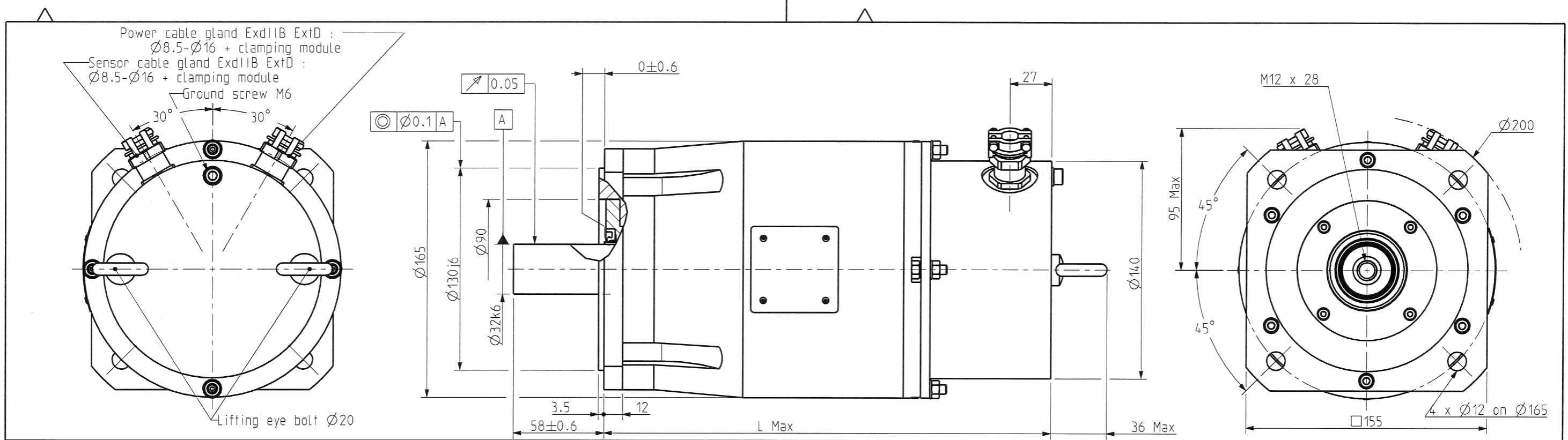
Scale : 2/3

ENCODER SETTINGS

Resolver setting Feedback letter : A/G	Hiperface SKS/SKM setting Feedback letter : R/S	Hiperface SRS/SRM setting Feedback letter : T/U	Endat setting Feedback letter : V/W	Low cost encoder setting Feedback letter : X
Motor powered by direct current at the current nominal value (W+ and V-). The shift is 90° electrical.	Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 205.	Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 1638.	Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 410.	Engine driven clockwise shaft end side. Switching signal V is in phase with FEM UV.

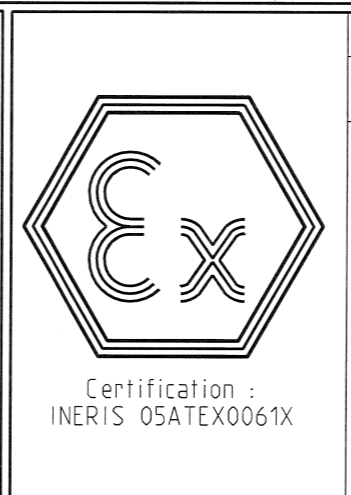
Sheet : 2/2

Masse :	General tolerances DIN ISO 2768 mK	Dessine	07/10/09	SD	Vise	24/02/16 SD	Echelle 1:2	Parker 4 Bd Eiffel, CS 40090 21604 LONGVIC CEDEX	EX600	Format	F	E	S	G	I
		Modifications	C	AM 24229 03/12/13 AH							A3	x	x		
			B	AM 24108 22/04/13 SD					OUTLINE DRAWING						
			A	AM 23304 10/12/09 SD	D	AM 24578 22/07/16 SD				344550					D



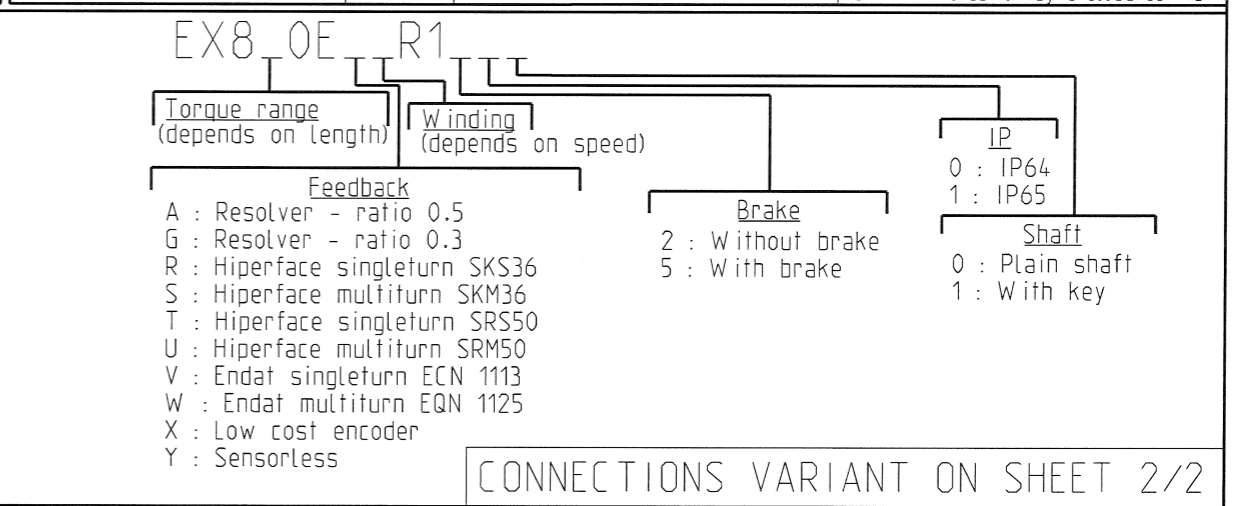
WEIGHT		
Motor	Without brake	With brake
EX820	22 kg	25 kg
EX840	28 kg	31 kg
EX860	38 kg	41 kg

BRAKE			
Supply voltage : 24V ±10%			
Static torque			
	EX820	EX840	EX860
20°C	36 Nm	36 Nm	36 Nm
100°C	32 Nm	32 Nm	32 Nm



IP Motor	IP64	IP65
Protection	II 2 G Ex d II B T4 IP64	II 2 GD Ex d II B T4 IP65 Ex tD A21 IP65 T135°C
Standards	<ul style="list-style-type: none"> EN 60079-0 : Electrical apparatus for explosive gas atmospheres. Part 0 : General requirements. EN 60079-1 : Electrical apparatus for explosive gas atmospheres. Part 1 : Flameproof enclosures "d". 	<ul style="list-style-type: none"> EN 60079-0 : Electrical apparatus for explosive gas atmospheres. Part 0 : General requirements. EN 60079-1 : Electrical apparatus for explosive gas atmospheres. Part 1 : Flameproof enclosures "d". EN 61241-0 : Electrical apparatus for use in the presence of combustible dust. Part 0 : General requirements. EN 61241-1 : Electrical apparatus for use in the presence of combustible dust. Part 1 : Protection by enclosures "tD".

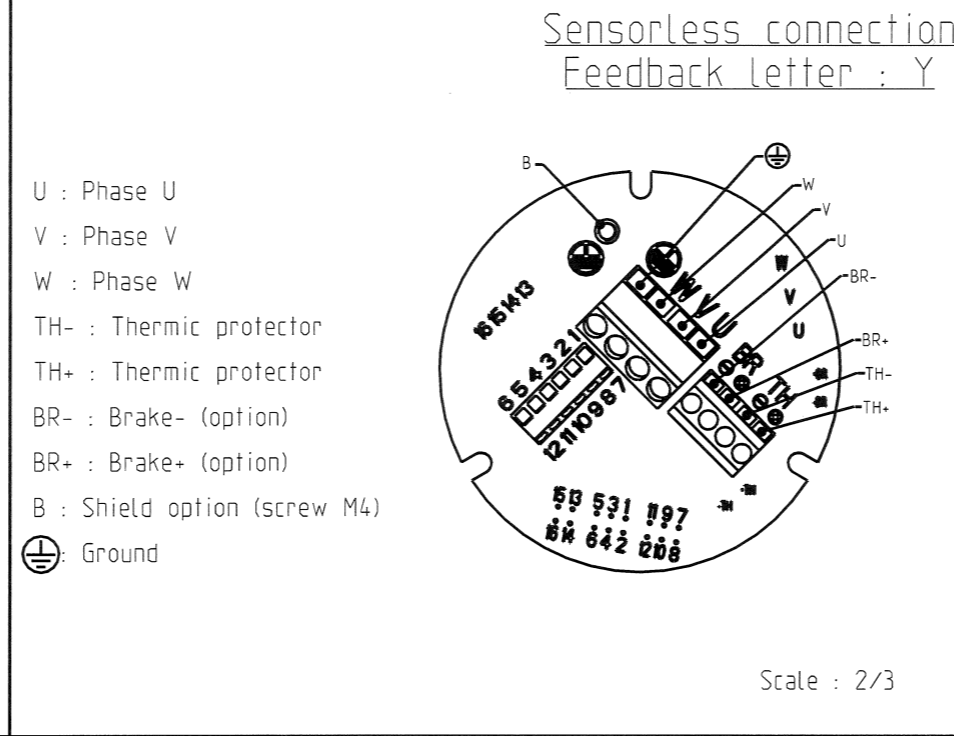
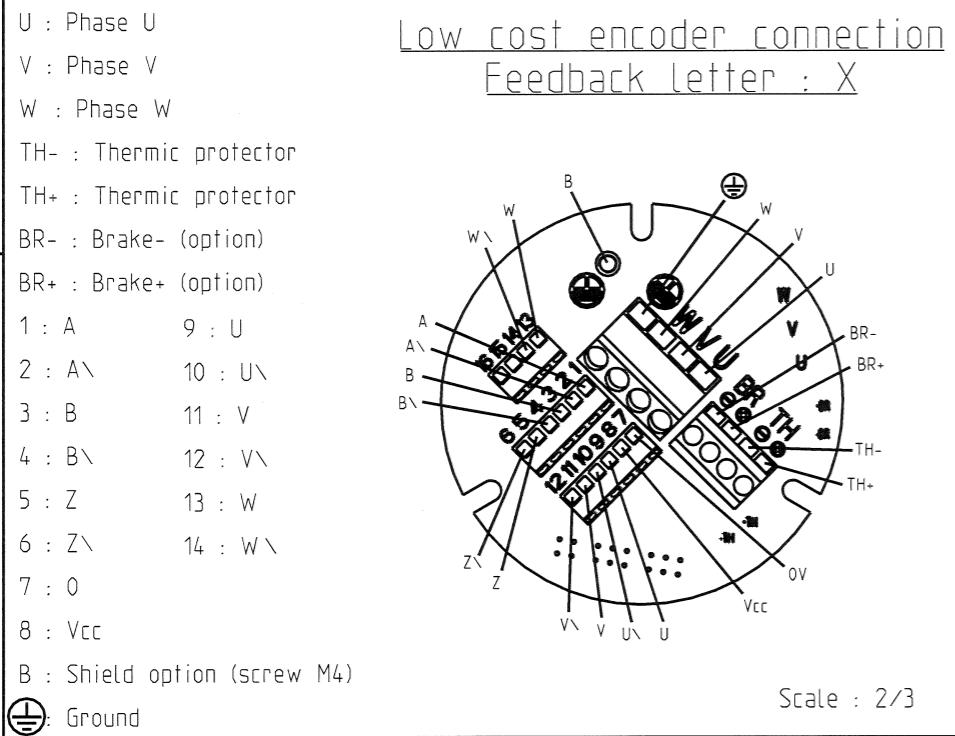
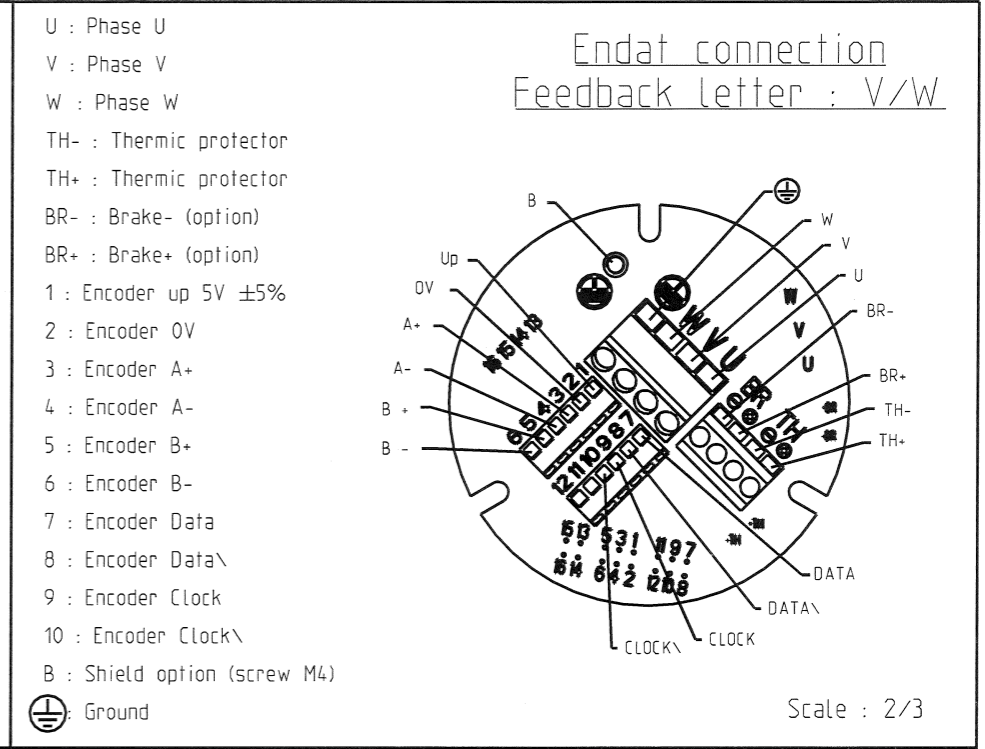
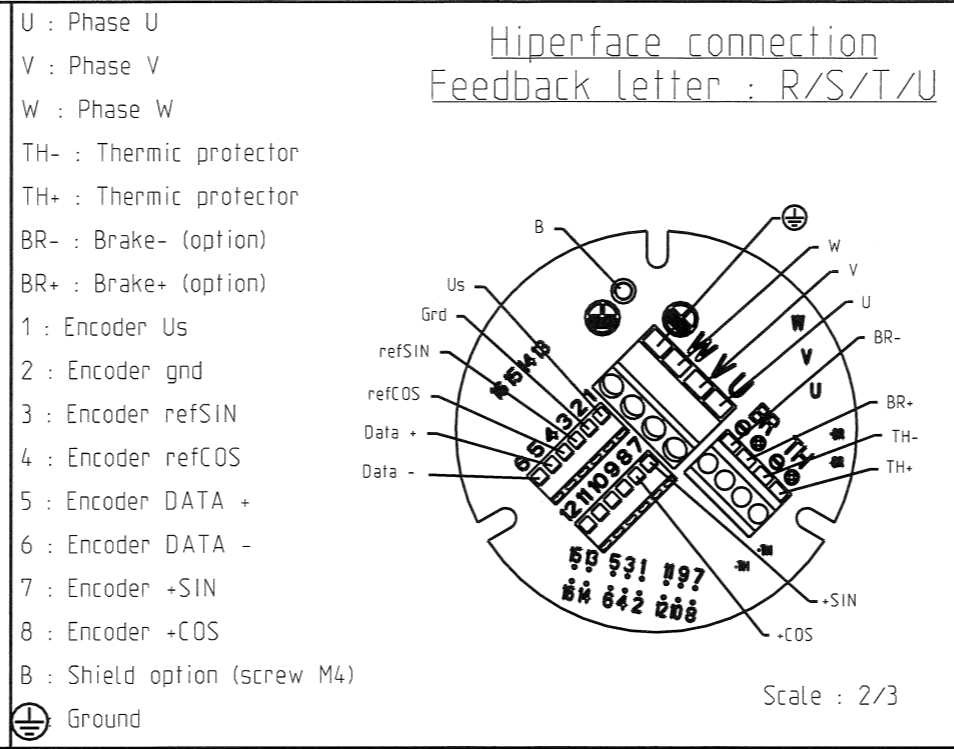
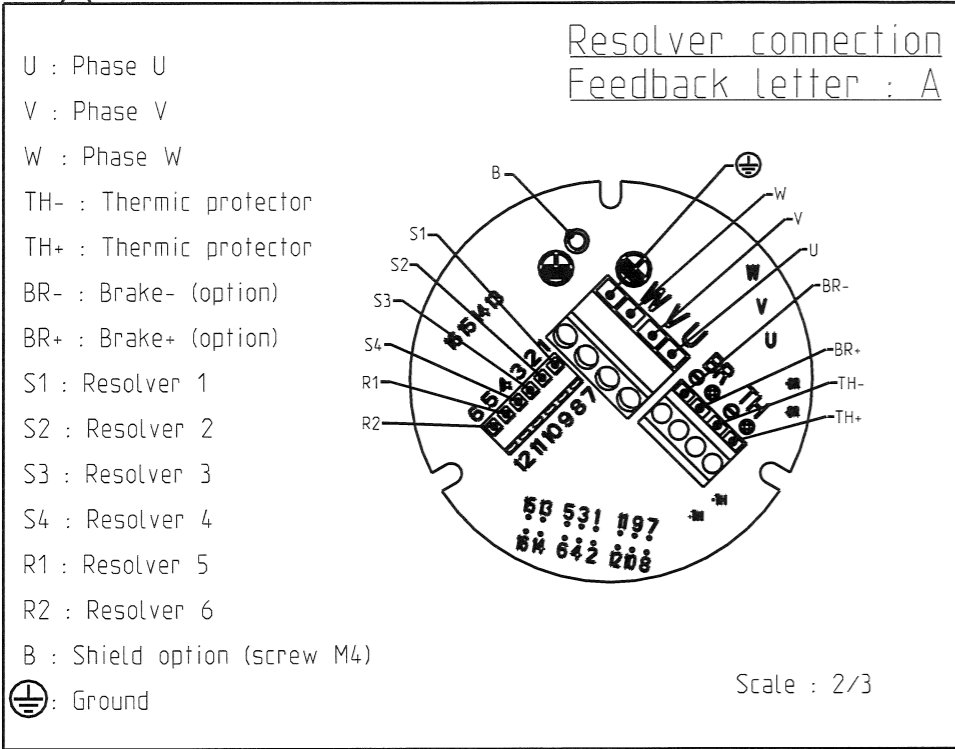
DIMENSIONS										
	Feedback option (feedback letter)	Resolver ratio 0.5 (A)	Low cost encoder (X)	Sensorless (Y)	Hiperface SKS (R)	Hiperface SKM36 (S)	Hiperface SRS50 (T)	Hiperface SRM50 (U)	Endat ECN 1113 (V)	Endat EQN 1125 (W)
EX820	without brake	L (mm)	290		310		325		325	
	with brake	L (mm)	325		345		360		360	
EX840	without brake	L (mm)	350		370		385		385	
	with brake	L (mm)	385		405		420		420	
EX860	without brake	L (mm)	410		430		445		445	
	with brake	L (mm)	445		465		480		480	



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	DIN ISO 2768 mK	Modifications	B	AM 24108 22/04/13 SD											A3	x	
		A	AM23304 - 10/12/09 SD										344664				B

CONNECTIONS VARIANT ON SHEET 2/2

Sheet : 1/2



ENCODER SETTINGS				
<p><u>Resolver setting</u> Feedback letter : A</p> <p>Motor powered by direct current at the current nominal value (W+ and V-). The shift is 90° electrical.</p>	<p><u>Hiperface SKS/SKM setting</u> Feedback letter : R/S</p> <p>Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 205.</p>	<p><u>Hiperface SRS/SRM setting</u> Feedback letter : T/U</p> <p>Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 1638.</p>	<p><u>Endat setting</u> Feedback letter : V/W</p> <p>Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 410.</p>	<p><u>Low cost encoder setting</u> Feedback letter : X</p> <p>Engine driven clockwise shaft end side. Switching signal V is in phase with FEM UV.</p>

Sheet : 2/2											
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		Modifications B AM 24108 22/04/13 SD A AM23304 - 10/12/09 SD				344664					B