

**WEIGHT**

Without brake	With brake
2.8 kg	3.2 kg

**BRAKE**

Supply voltage : 24V ±10%  
Static torque

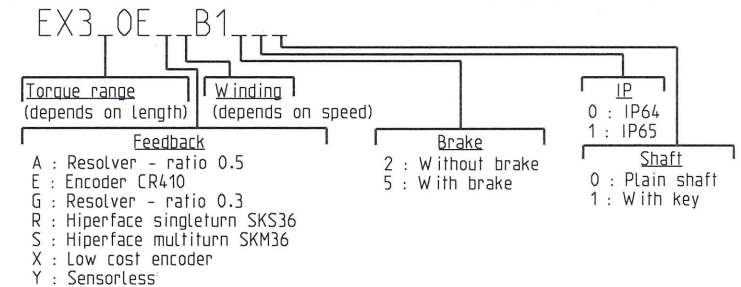
	EX310
20°C	2 Nm
100°C	1.8 Nm

**Ex**  
**IEC** **IECEx**  
Certification :  
INERIS 03ATEX0060X  
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"> <li>IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements.</li> <li>IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d".</li> </ul>	<ul style="list-style-type: none"> <li>IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements.</li> <li>IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d".</li> <li>IEC/EN 60079-31 : Explosive atmospheres. Part 31 : Equipment dust ignition protection by enclosure "1".</li> </ul>

**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)
without brake	L (mm)			225			
with brake	L (mm)			255			



CONNECTIONS VARIANT ON SHEET 2/2

Masse :

General tolerances  
DIN ISO 2768 mK

Dessine 11/09/09 OD Vise 07/08/11/2 SD

Modifications	C	AM 24108 22/04/13 SD	
	B	AM 23600 27/04/11 YG	E AM 24677 27/04/17 TD
	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**

Format A3

F E S G I  
x

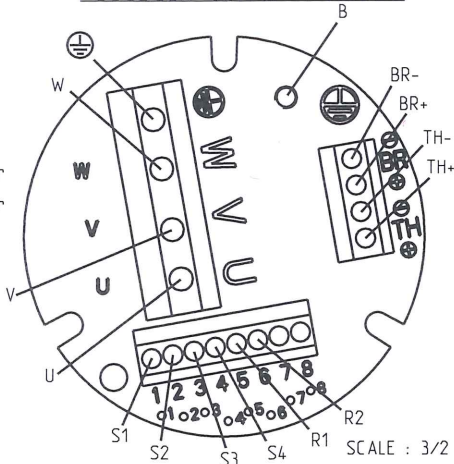
OUTLINE DRAWING

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



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

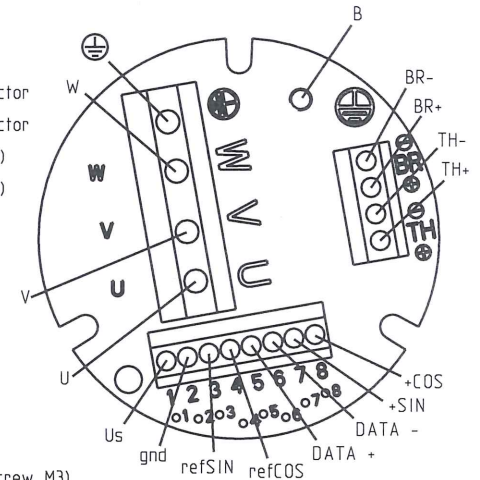
Rotar is rotating in clockwise viewed from shaft end view.



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)

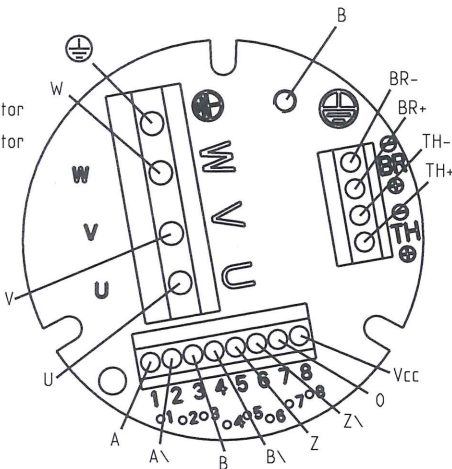


- 1 : Encoder Us
- 2 : Encoder gnd
- 3 : Encoder refSIN
- 4 : Encoder refCOS
- 5 : Encoder DATA +
- 6 : Encoder DATA -
- 7 : Encoder +SIN
- 8 : Encoder +COS
- B : Shield option (screw M3)

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)

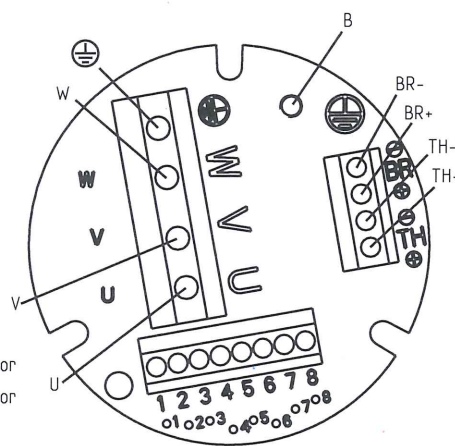


- 1 : A
- 2 : A~
- 3 : B
- 4 : B~
- 5 : Z
- 6 : Z~
- 7 : 0
- 8 : Vcc
- B : Shield option (screw M3)

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)



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	09/01/17/50	
Modifications	C	AM 24108	22/04/13	SD	
	B	AM 23600	27/04/11	YG	E AM 24677 27/04/17 TD
	A	AM 23304	10/12/09	SD	D AM 24578 22/07/16 SD

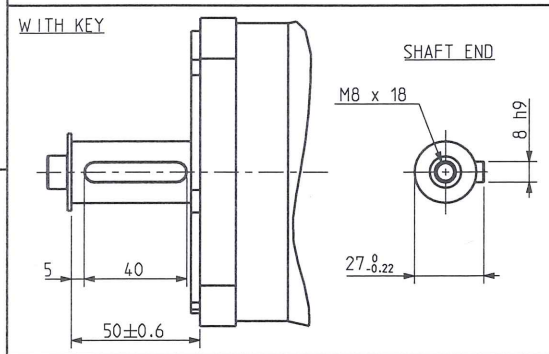
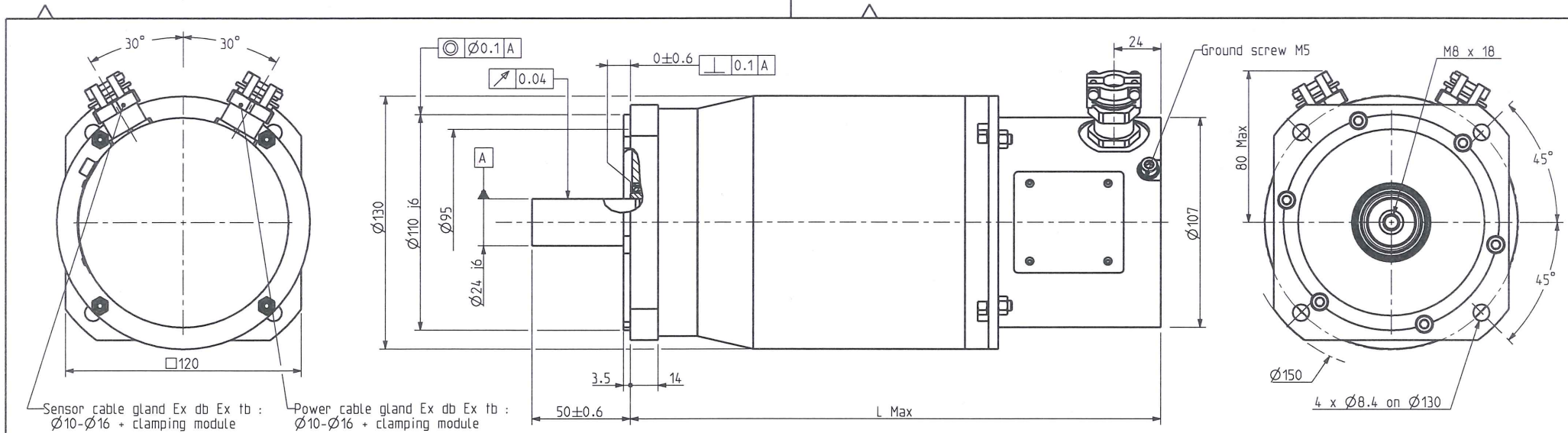
Echelle  
3:10



EX300

OUTLINE DRAWING

Format	F	E	S	G	I
A3	x				
344487					E



WEIGHT

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

BRAKE

Supply voltage : 24V ±10%  
Static torque

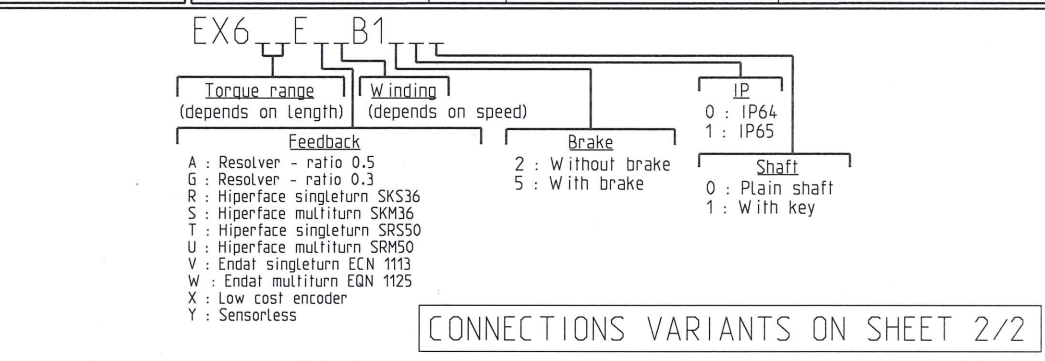
	EX620	EX630
20 °C	12 N.m	12 N.m
100 °C	8 N.m	8 N.m

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"> <li>IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements.</li> <li>IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d".</li> </ul>	<ul style="list-style-type: none"> <li>IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements.</li> <li>IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d".</li> <li>IEC/EN 60079-31 : Explosive atmospheres. Part 31 : Equipment dust ignition protection by enclosure "I".</li> </ul>

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	
	With brake L (mm)		300			330				350	
EX630	Without brake L (mm)		300			330				350	
	With brake L (mm)		325			355				375	



Masse :

General tolerances : DIN ISO 2768 mK

Dessine : 07/10/09 SD

Vise : 05/05/12 JB

Modifications : C AM 24229 03/12/13 AH, B AM 24108 22/04/13 SD, A AM 23304 10/12/09 SD

Modifications : D AM 24578 22/07/16 SD

Echelle : 1:2

Parker

4 Bd Eiffel. CS 40090  
21604 LONGVIC CEDEX

EX600

Format A3

F E S G I  
x

OUTLINE DRAWING

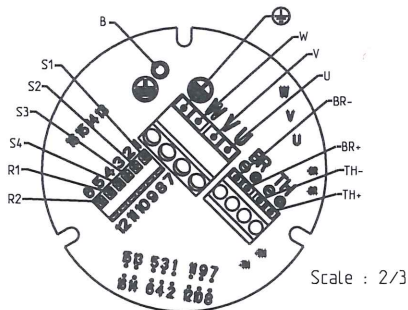
344550

Sheet : 1/2

E

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 -

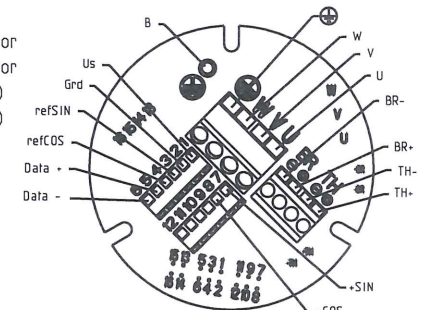
Rotor is rotating in clockwise viewed from shaft end view.



Certification :  
INERIS 04ATEX0032X  
INE 15.0060X

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

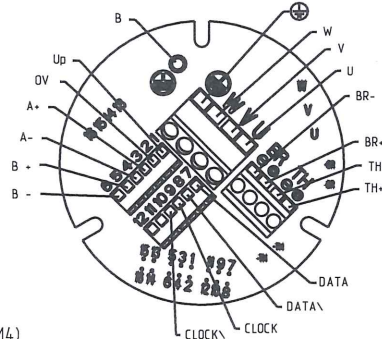
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- 1 : Encoder Us
- 2 : Encoder gnd
- 3 : Encoder refSIN
- 4 : Encoder refCOS
- 5 : Encoder Data +
- 6 : Encoder Data -
- 7 : Encoder + SIN
- 8 : Encoder + COS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



Scale : 2/3

Endat connection  
Feedback letter : V/W

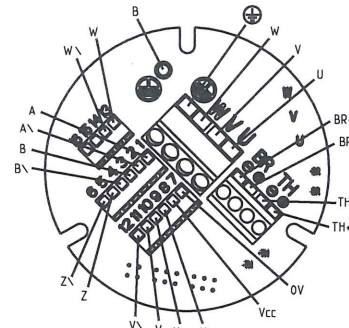
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- 1 : Encoder Up 5V ±5%
- 2 : Encoder OV
- 3 : Encoder A +
- 4 : Encoder A -
- 5 : Encoder B +
- 6 : Encoder B -
- 7 : Encoder DATA
- 8 : Encoder DATA\
- 9 :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



Scale : 2/3

Low cost encoder connection  
Feedback letter : X

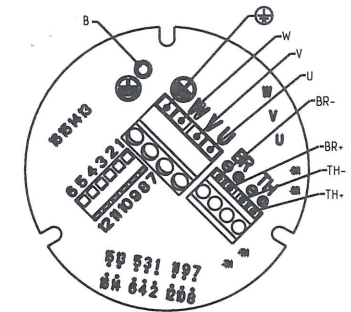
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)
- 1 : A 9 : U
- 2 : A\ 10 : U\
- 3 : B 11 : V
- 4 : B\ 12 : V\
- 5 : Z 13 : W
- 6 : Z\ 14 : W\
- 7 : 0
- 8 : Vcc
- B : Shield option (screw M4)
- ⊕ : Ground



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

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.

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.

Endat setting  
Feedback letter : V/W

Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 410.

Low cost encoder setting  
Feedback letter : X

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

Masse :

General tolerances  
DIN ISO 2768 mK

Dessine	07/10/09	SD	Vise	07/05/17	SD	SD
Modifications	C	AM 24229	03/12/13	AH		
	B	AM 24108	22/04/13	SD	E	AM 24677 27/04/17 TD
	A	AM 23304	10/12/09	SD	D	AM 24578 22/07/16 SD

Echelle  
1:2

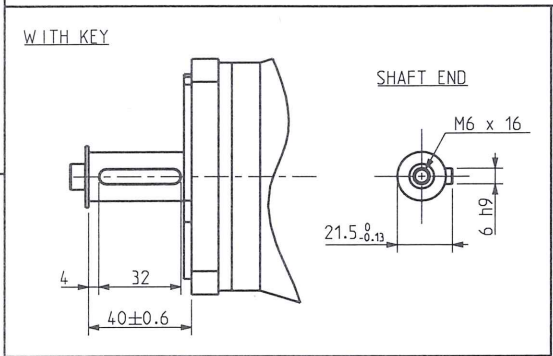
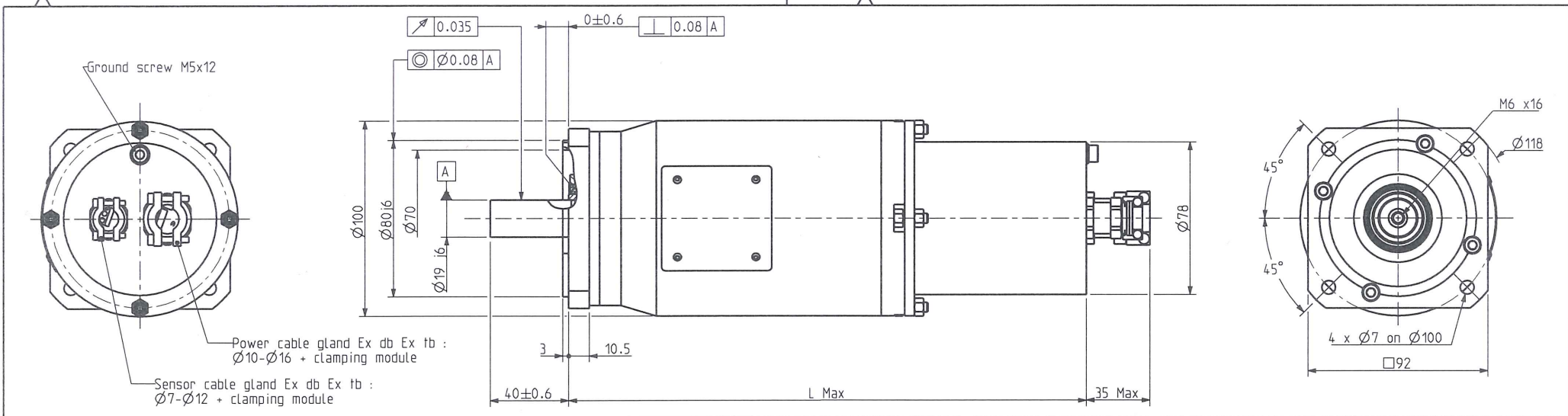


EX600

OUTLINE DRAWING

Format	F	E	S	G	I	
A3	x	x				
344550						E

Sheet : 2/2



WEIGHT

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

BRAKE

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

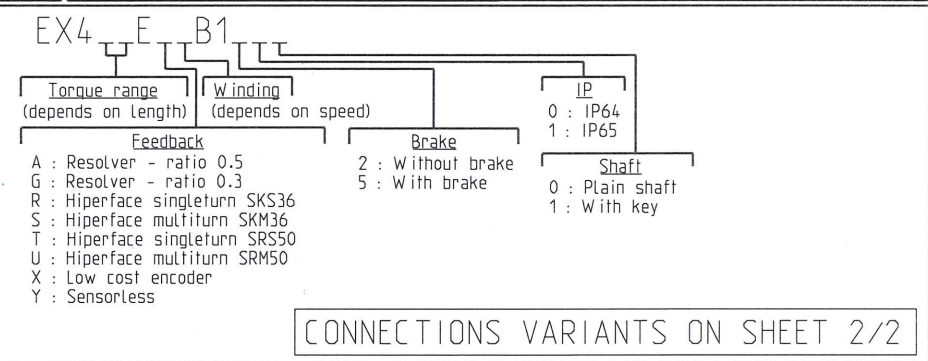
	EX420	EX430
20°C	5.5 N.m	5.5 N.m
100°C	4 N.m	4 N.m

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"> <li>IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements.</li> <li>IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d".</li> </ul>	<ul style="list-style-type: none"> <li>IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements.</li> <li>IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d".</li> <li>IEC/EN 60079-31 : Explosive atmospheres. Part 31 : Equipment dust ignition protection by enclosure "1".</li> </ul>

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



Masse :

General tolerances: DIN ISO 2768 mK

Dessine: 29/07/09 SD Vise: 05/05/17 JB

Modifications: C AM 24229 03/12/13 AH, B AM 24108 22/04/13 SD, A AM 23304 10/12/09 SD

Echelle: 1:2

Parker

EX400

4 Bd Eiffel. CS 40090  
21604 LONGVIC CEDEX

Format: A3

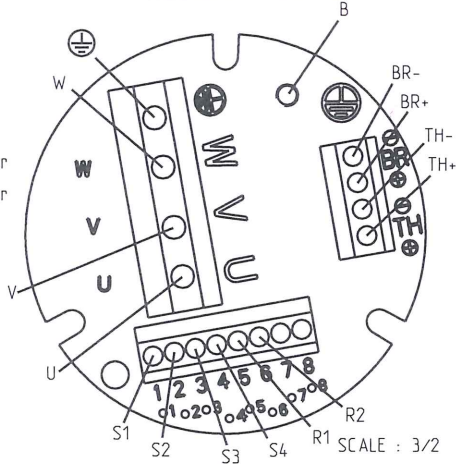
F x E S G I

344619

Sheet : 1/2

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 = Exitation +
⊕ : Ground	S3 = Cos -	S4 = Sin -	R2 = Exitation -

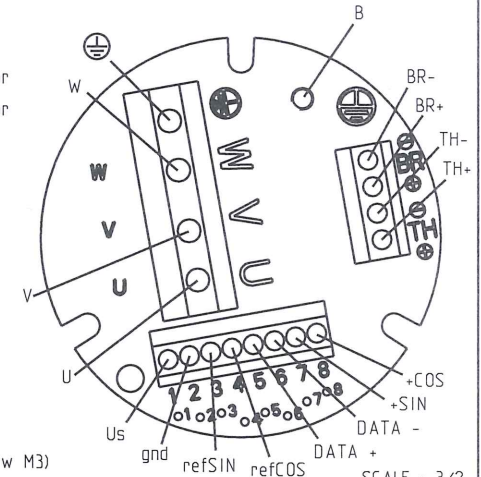
Rotor is rotating in clockwise viewed from shaft end view.



Certification :  
INERIS 04ATEX0097X  
INE 15.0060X

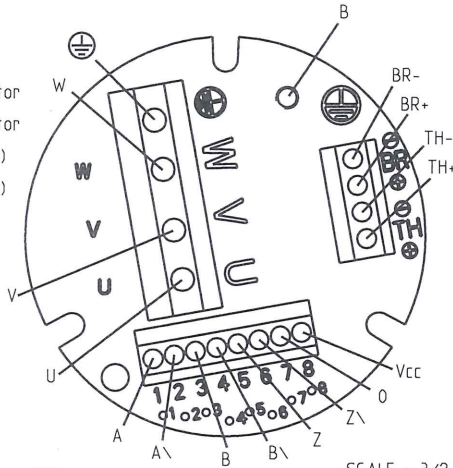
Hiperface connection  
Feedback letter : R/S/T/U

- 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

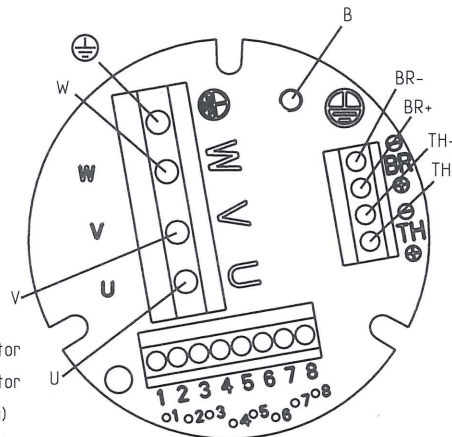
- U : Phase U
- V : Phase V
- W : Phase W
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake - (option)
- BR+ : Brake + (option)



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

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



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 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.

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.

Low cost encoder setting  
Feedback letter : X

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

Masse :

General tolerances  
DIN ISO 2768 mK

Dessine	29/07/09	SD	Vise	02/05/14	SD	SD
Modifications	C	AM 24229	03/12/13	AH		
	B	AM 24108	22/04/13	SD	E	AM 24677 27/04/17 TD
	A	AM 23304	10/12/09	SD	D	AM 24578 22/07/16 SD

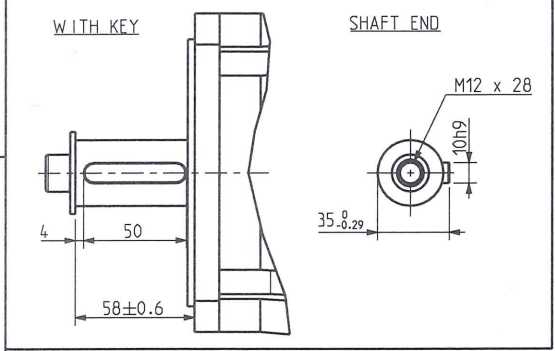
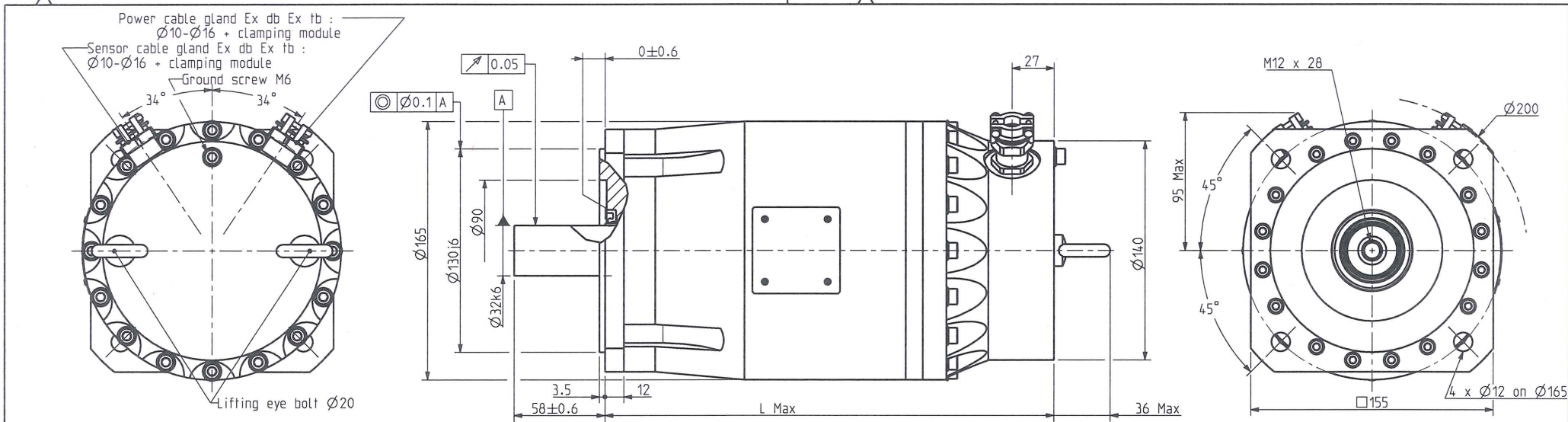
Echelle  
1:2



EX400

OUTLINE DRAWING

Format	F	E	S	G	I
A3	x				
344619					E



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  $\pm 10\%$   
 Static torque

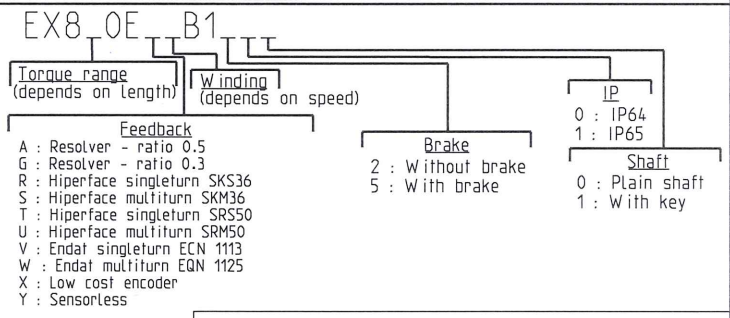
	EX820	EX840	EX860
20°C	36 Nm	36 Nm	36 Nm
100°C	32 Nm	32 Nm	32 Nm

Certification :  
 INERIS 05ATEX0061X  
 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"> <li>IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements.</li> <li>IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d".</li> </ul>	<ul style="list-style-type: none"> <li>IEC/EN 60079-0 : Explosive atmospheres. Part 0 : Equipment General requirements.</li> <li>IEC/EN 60079-1 : Explosive atmospheres. Part 1 : Equipment protection by flameproof enclosures "d".</li> <li>IEC/EN 60079-31 : Explosive atmospheres. Part 31 : Equipment dust ignition protection by enclosure "t".</li> </ul>

DIMENSIONS

	Feedback option (feedback letter)	Resolver ratio 0.5 (A)	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)
EX820	without brake	L (mm)	290		310			325		
	with brake	L (mm)	325		345			360		
EX840	without brake	L (mm)	350		370			385		
	with brake	L (mm)	385		405			420		
EX860	without brake	L (mm)	410		430			445		
	with brake	L (mm)	445		465			480		



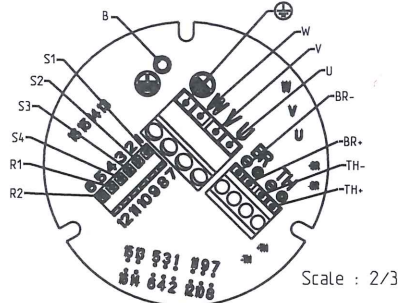
CONNECTIONS VARIANT ON SHEET 2/2

Sheet : 1/2

General tolerances DIN ISO 2768 mK	Dessine	14/09/09	OD	Vise	07/05/192		Echelle 2:5	4 Bd Eiffel. CS 40090 21604 LONGVIC CEDEX	EX800 OUTLINE DRAWING	Format	F	E	S	G	I	344664 D
	Modifications	C	AM 24607	26/06/16	SD					A3	x					
	A	AM 23304	10/12/09	SD	D	AM 24677				27/04/17	TD					

- 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

Resolver connection  
Feedback letter : A



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

Rotor is rotating in clockwise viewed from shaft end view.

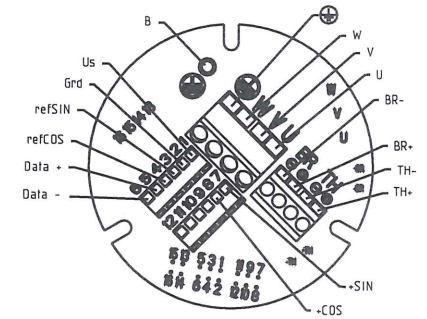


Certification :  
INERIS 05ATEX0061X  
INE 15.0060X

- U : Phase U
- V : Phase V
- W : Phase W

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

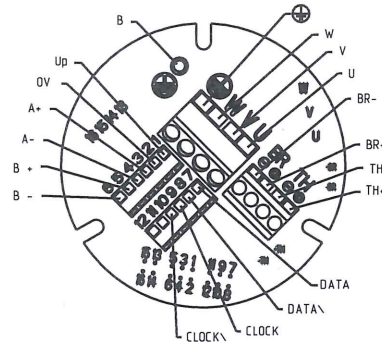
- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake- (option)
- BR+ : Brake+ (option)
- 1 : Encoder Us
- 2 : Encoder gnd
- 3 : Encoder refSIN
- 4 : Encoder refCOS
- 5 : Encoder DATA +
- 6 : Encoder DATA -
- 7 : Encoder +SIN
- 8 : Encoder +COS



Ground

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

Endat connection  
Feedback letter : V/W

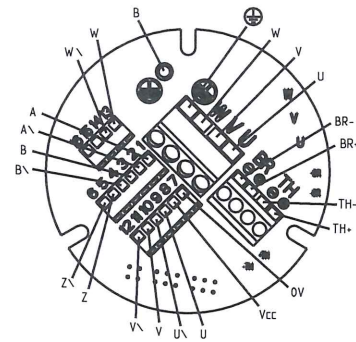


B : Shield option (screw M4)  
Ground

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

Low cost encoder connection  
Feedback letter : X

- 1 : A
- 2 : A\
- 3 : B
- 4 : B\
- 5 : Z
- 6 : Z\
- 7 : 0
- 8 : Vcc
- 9 : U
- 10 : U\
- 11 : V
- 12 : V\
- 13 : W
- 14 : W\

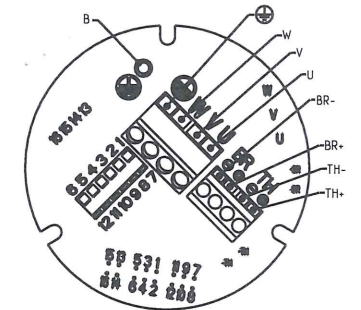


B : Shield option (screw M4)  
Ground

- U : Phase U
- V : Phase V
- W : Phase W

Sensorless connection  
Feedback letter : Y

- TH- : Thermic protector
- TH+ : Thermic protector
- BR- : Brake- (option)
- BR+ : Brake+ (option)



Ground

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 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.

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.

Endat setting  
Feedback letter : V/W  
Motor powered by direct current at the current nominal value (W+ and V-). Value in encoder memory is 410.

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

<p>General tolerances</p> <p>DIN ISO 2768 mK</p>	Dessine	14/09/09	OD	Vise	09/05/17 50	<p>Echelle</p> <p>2:5</p>	<p>4 Bd Eiffel, CS 40090 21604 LONGVIC CEDEX</p>	<p>EX800</p> <p>OUTLINE DRAWING</p>	Format	F	E	S	G	I	<p>344664</p> <p>D</p>
	Modifications	C	AM 24578	31/01/17	TD					A3	x	x			
	A	AM23304	10/12/09	SD					D	AM 24677	27/04/17	TD			