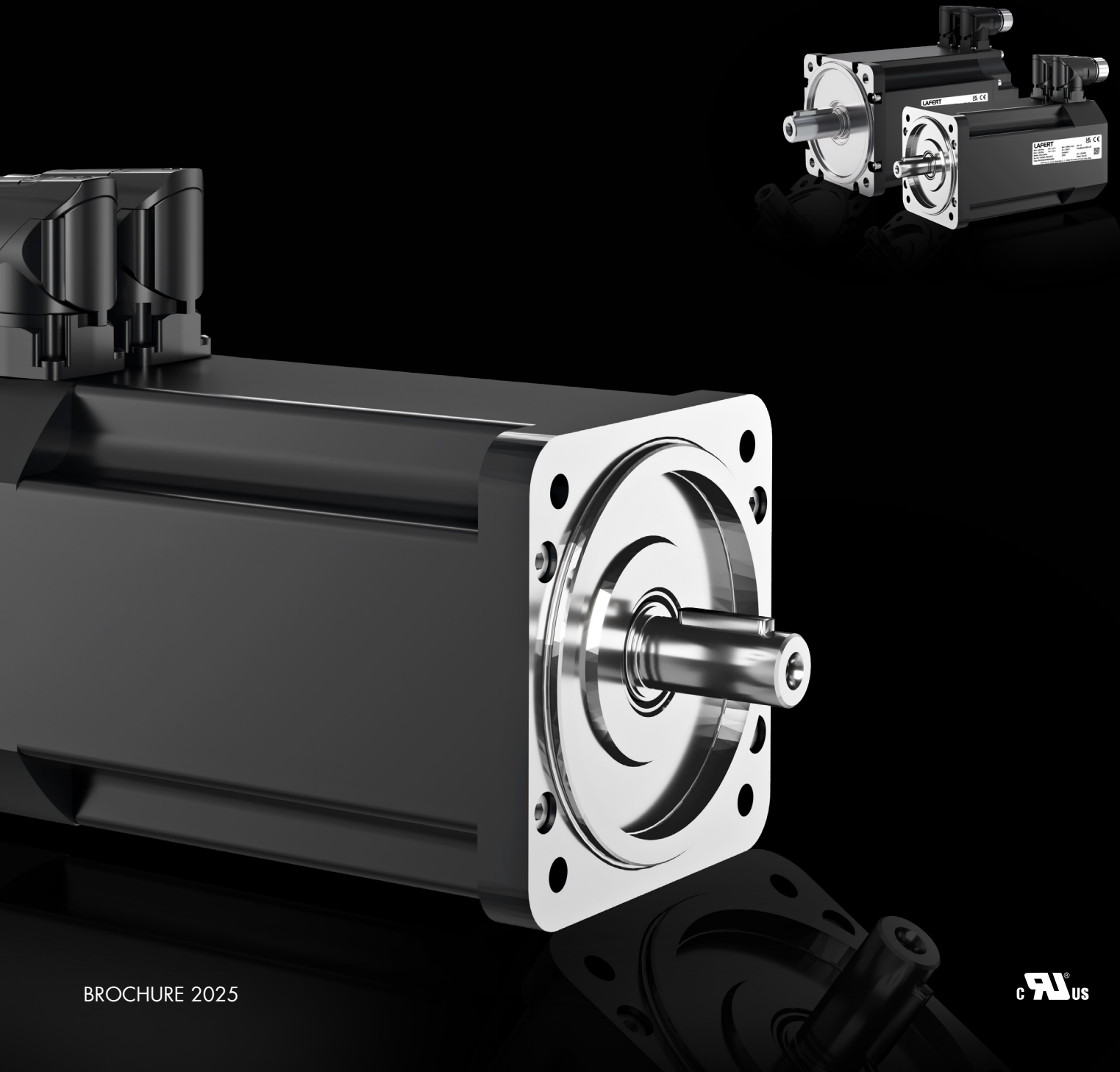


PREFERRED SERVO MOTORS

MOTOR RANGE AVAILABLE
WITH SHORTER DELIVERY TIME



MOTOR TYPE CODES USED*

MOTOR SIZE	
Type	Stall torque (Nm)
B28.D5Q	0.5
B28.01Q	1
B36.E2Q	1.2
B36.F4Q	2.4
B56.F6Q	2.6
B56.G5Q	3.5
B63.04Q	4
B63.06Q	6
B63.08Q	8
B71.12Q	12.5
B71.20Q	20
B71.32Q	32
B10.28J	28
B10.42J	42

FEEDBACK	
05	Resolver 2 poles
SICK ENCODER	
KM	Hiperface SKM36 (Multi-turn)
LA***	Hiperface DSL EEM37 17Bit SIL 2 (Multi-turn)
LG***	Hiperface DSL EKM36 18Bit (Multi-turn)
0S	Incremental CKS36 1024ppr
FS	Incremental CKS36 2048ppr
HS	Incremental CKS36 4096ppr
Other Sick Encoders Hiperface Single-turn available on request	

RATED VOLTAGE AND CONNECTION TYPE	
H7	400V turnable connectors

x	aa	bb	c	d	e	f	g	hh	i	l	mm
---	----	----	---	---	---	---	---	----	---	---	----

RATED SPEED **	
6	6000 rpm
3	3000 rpm

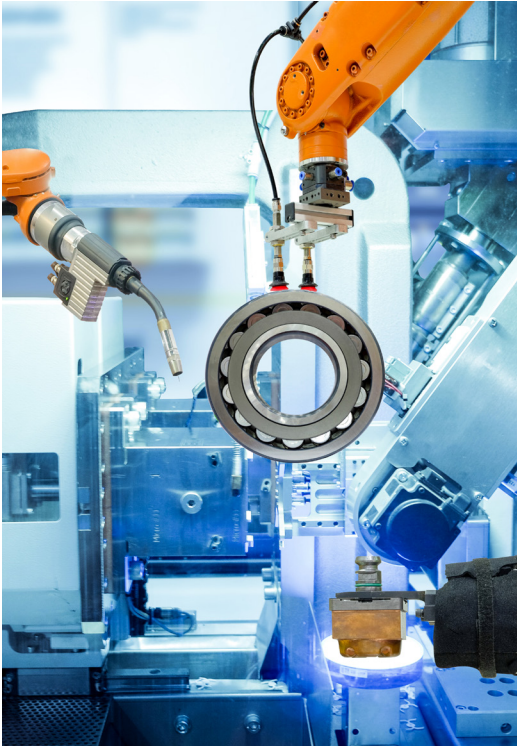
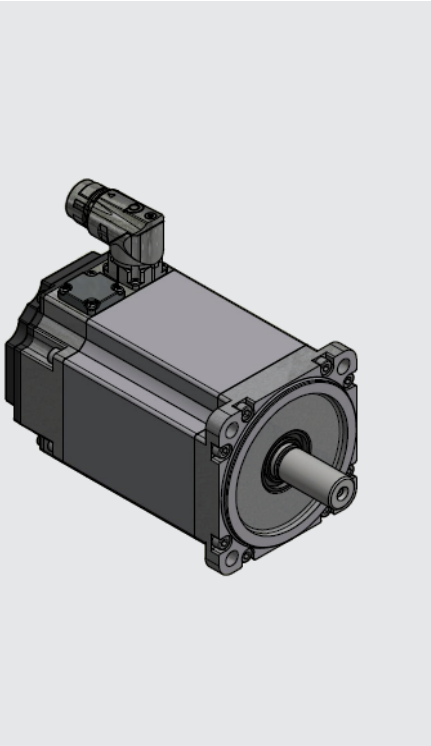
BRAKE AND SHAFT EXTENSION	
A	without brake, keyed shaft
B	with brake, keyed shaft
D	without brake, smooth shaft
E	with brake, smooth shaft

OTHER OPTIONS	
0000	motor with resolver and PTO thermal protection
00PM	motor with Sick encoder and AM-LPTC600 thermal protection

eg:

B	28	D5	Q	6	H	7	A	05	0	0	00
---	----	----	---	---	---	---	---	----	---	---	----

Notes:
(*) This table refers to Preferred motor range only. For information about full range of Lafert servo motors, please refer to full catalogue.
(**) B28Q and B36Q rated speed 6000rpm. B56Q, B63Q, B71Q, B10J rated speed 3000rpm
(***) Motor with DSL encoder is equipped with one single connector (as showed in the figure below).

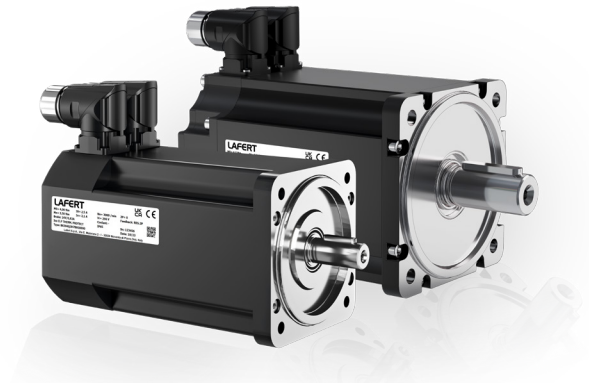


PREFERRED MOTOR RANGE

- Shorter delivery time
- 392 different configurations available
- Easy motor selection
 - 6 motor series
 - Flange size: 58-70-91.3-100-142-190 mm
 - 14 motor torques
 - Torque range: 0.5Nm to 42Nm
 - With or without holding brake
 - Shaft exit: keyed or smooth
 - Feedback options:
 - Resolver
 - Incremental Encoder
 - Hiperface
 - Hiperface DSL

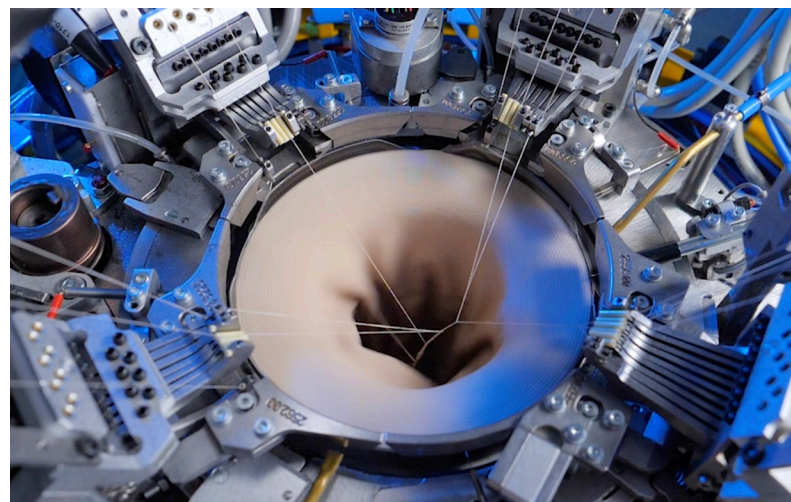
For specific motors' availability and exact delivery time, please write us at ism.info@shi-g.com or at your usual contact.

For information about the full range of Brushless Servo Motors, please refer to complete Lafert Servo Motors catalogue

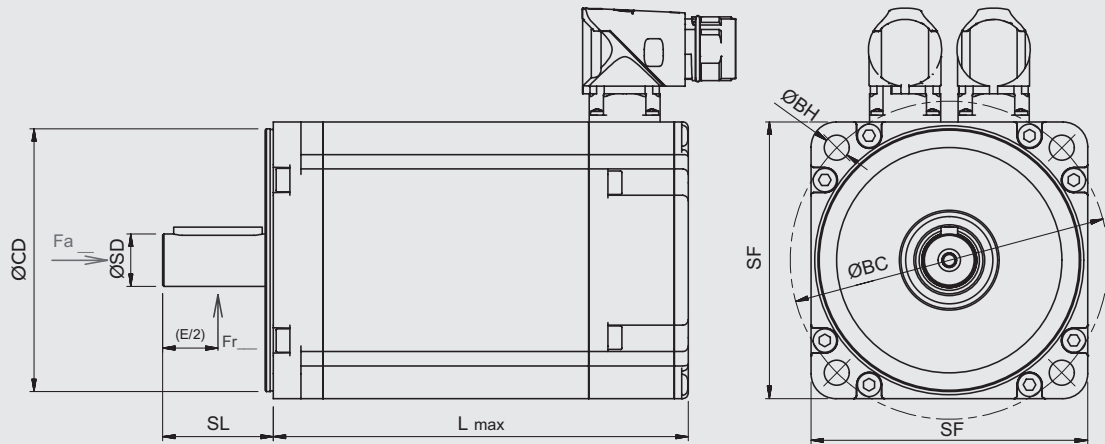


PERFORMANCE DATA

Type	Stall torque ($\Delta t=105^{\circ}\text{C}$) M_o Nm	Rated speed n rpm	Output rated speed P_n W	Rated torque ($\Delta t=105^{\circ}\text{C}$) M_n Nm	Peak torque M_{pk} Nm	Maximum speed n_{max} rpm	Moment of inertia J 10^{-4} kgm^2	Thermal time constant T_{th} min	Thermal protection threshold ϑ_{max} $^{\circ}\text{C}$	Voltage constant k_e Vs	Torque constant k_t Nm/A	Resistance phase to phase (20°C) R_w Ω	Inductance phase to phase L_w mH	B.E.M.F. at rated speed E_n Vrms	Stall current I_o Arms	Rated current I_n Arms	Power Connector Size
B28.D5Q	0.5	6000	295	0.47	2	6600	0.13	34	140	0.42	0.73	38.9	55.9	264	0.69	0.65	1
B28.01Q	1	6000	584	0.93	4	6600	0.25	38	140	0.42	0.73	12.5	17.9	264	1.37	1.28	1
B36.E2Q	1.2	6000	628	1	4.2	6600	0.44	32	140	0.42	0.73	9.04	17.4	264	1.6	1.4	1
B36.F4Q	2.4	6000	1225	2	8.5	6600	1.05	36	140	0.42	0.73	3.75	9	264	3.3	2.7	1
B56.F6Q	2.6	3000	0.8	2.5	10	6600	0.88	34	140	0.94	1.63	15.9	73.7	296	1.6	1.5	1
B56.G5Q	3.5	3000	1.0	3.1	14	6600	1.09	36	140	0.94	1.63	10.7	54.7	296	2.1	1.9	1
B63.04Q	4	3000	1.1	3.5	12	6600	1.87	25	140	0.94	1.63	5.4	36.5	296	2.5	2.1	1
B63.06Q	6	3000	1.6	5.25	18	6600	2.67	30	140	0.94	1.63	3.5	24	296	3.7	3.2	1
B63.08Q	8	3000	2.4	7.5	24	6600	3.47	30	140	0.94	1.63	2.5	21.8	296	4.9	4.6	1
B71.12Q	12.5	3000	3.6	11.6	41.4	6600	8.2	40	140	0.94	1.63	1.13	12.5	296	7.7	7.1	1
B71.20Q	20	3000	5.5	17.5	69	6600	13.1	46	140	0.94	1.63	0.65	6.3	296	12.3	10.7	1
B71.32Q	32	3000	6.8	21.8	124.2	6600	23	52	140	0.94	1.63	0.31	3.9	296	19.7	13.4	1
B10.28J	28	3000	6.9	22	108	4000	46	37	140	0.94	1.63	0.4	6.3	296	17.2	13.5	1
B10.42J	42	3000	10.2	32.5	180	4000	74	46	140	0.94	1.63	0.22	3.9	296	25.8	19.9	1



MECHANICAL DATA



Type	Torque [Nm]	Lenght with RESOLVER (L)		Lenght with ENCODER (L)		Square flange SF [mm]	Centring diameter ø - CD [mm]	Bolt circle diameter ø - BC [mm]	Bolt hole diameter ø - BH [mm]	Shaft diameter x lenght ø - SD x SL [mm]
		Without Brake	With Brake	Without Brake	With Brake					
B28.D5Q	0.5	98.5	128.5	114.5	144.5	58	40j6 x 2.5	63	5.5	9j6 x 20
B28.01Q	1	122.5	152.5	138.5	168.5					
B36.E2Q	1.2	127	162	138	173	70	60j6 x 2.5	75	5.8	11j6 x 23 14j6 x 30
B36.F4Q	2.4	167	198	180	211					
B56.F6Q	2.6	145	180	154	189	91.3	80j6 x 3	100	6.5	14j6 x 30
B56.G5Q	3.5	160	195	169	204					
B63.04Q	4	150	182	161	193	100	95j6 x 3	115	9	19k6 x 40
B63.06Q	6	170	203	181	214					
B63.08Q	8	194	226	205	237					
B71.12Q	12.5	198	228	209	239	142	130j6 x 3.5	165	12.5	24k6 x 50 24k6 x 50 28k6 x 58
B71.20Q	20	248	273	259	284					
B71.32Q	32	360	402	360	402					
B10.28J	28	218	248	218	248	190	180j6 x 4	215	15	32k6 x 58
B10.42J	42	263	293	263	293					

Series B28Q is manufactured with degree of protection IP65 except for the A-side flange.
Series B36, B56, B63, B71, B100 are fully designed in accordance with degree of protection IP65.

BRAKE DATA

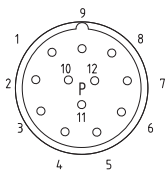
	Symbol	B28Q	B36Q	B56Q	B63Q	B71Q [12-20Nm]	B71Q [32Nm]	B100J	Unit
Holding torque 100°C	Mrb	2.1	3.2	3.5	8	15	33	60	Nm
Voltage	Urb	24	24	24	24	24	24	24	Vdc ± 10%
Resistance	Rbr	70.6	53.2	53.2	29	24	24	28.3	Ohm
Electical Power	Pbr	8.2	10.8	10.8	19.9	24	24	20.4	W
Current	Ibr	0.34	0.45	0.45	0.83	1.0	1.0	0.85	Adc
Additional* rotor inertia	Jbr	0.12	0.38	0.38	0.69	1.66	9.5	32	Kgcm ²
Opening (release) time	to max	30	60	60	55	50	110	155	ms
Closing (fall in) time	tc max	15	10	10	38	30	70	65	ms

* Additional values are related to the motor data when the brake is mounted to the motor of the respective size; these values differ from the other data in unmounted condition.

ELECTRICAL DESIGN

CONNECTION RESOLVER

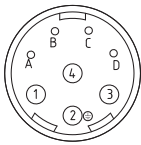
Signal connector



Pin	Signal
1	S2
2	S1
3	S3
4	N.c.
5	N.c.
6	S4
7	R1
8	N.c.
9	PTO
10	PTO
11	R2
12	N.c.

Power connector

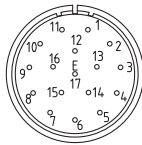
Size 1



Pin Size 1	Signal
1	Phase U
3	Phase V
4	Phase W
2 ⊕	Motor Case
A	N.c.
B	N.c.
C	+24V Brake (Option)
D	0V Brake (Option)

CONNECTION ENCODER INCREMENTAL

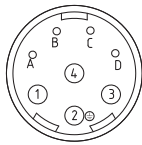
Signal connector



Pin	Signal
1	HALL V
2	HALL V-
3	Z
4	Z-
5	HALL U
6	HALL U-
7	B
8	B-
9	A
10	A-
11	+5V
12	HALL W
13	HALL W-
14	Thermal protection
15	Thermal protection
16	0V
17	Shield

Power connector

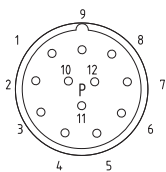
Size 1



Pin Size 1	Signal
1	Phase U
3	Phase V
4	Phase W
2 ⊕	Motor Case
A	N.c.
B	N.c.
C	+24V Brake (Option)
D	0V Brake (Option)

CONNECTION ENCODER HIPERFACE

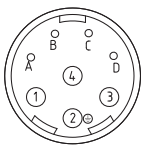
Signal connector



Pin	Signal
1	Us (7-12 V)
2	GND
3	Ref Sin
4	Ref Cos
5	Data+
6	Data-
7	+ Sin
8	+ Cos
9	Thermal protection
10	Thermal protection
11	N.c.
12	N.c.

Power connector

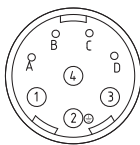
Size 1



Pin Size 1	Signal
1	Phase U
3	Phase V
4	Phase W
2 ⊕	Motor Case
A	N.c.
B	N.c.
C	+24V Brake (Option)
D	0V Brake (Option)

CONNECTION ENCODER HIPERFACE DSL

Size 1

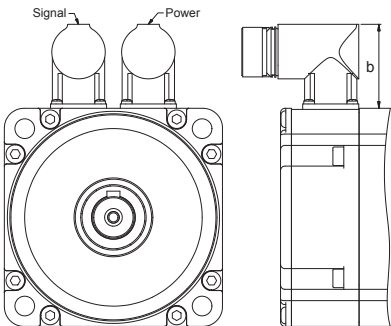
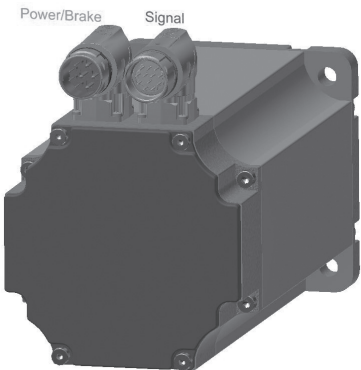


Pin Size 1	Signal
1	Phase U
3	Phase V
4	Phase W
2 ⊕	Encoder Shield
A	HDLSL +
B	HDLSL -
C	+24V Brake (Option)
D	0V Brake (Option)

CONNECTION 7

Power and signal connectors 90° angled turnable, anchored to the aluminium frame.

Type	B28	B36	B56	B63	B71	B100
Distances referred to the connector in (mm)						
b	47	42	42	42	42	42





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