ELECTROMAGNETIC CLUTCHES

CS(33G/35G/31G) – Datasheet
BEARING-MOUNTED TYPE

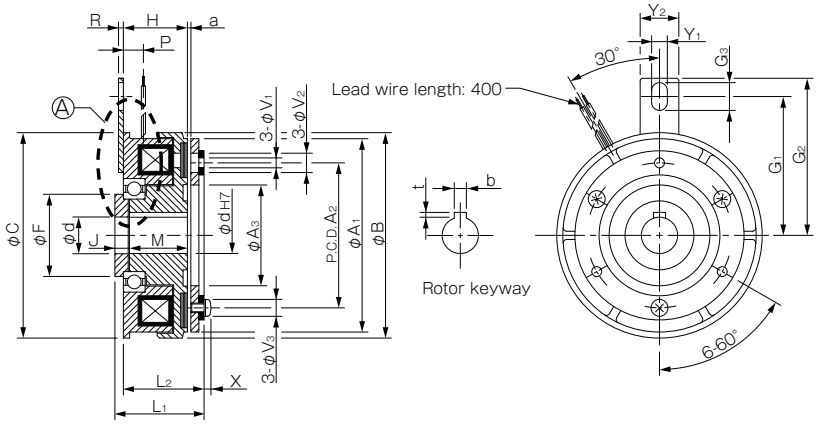
Specifications

Model	Size	Dynamic friction torque T_d [N·m]	Static friction torque T_s [N·m]	Coil [at 20 ℃]				Heat resistance class	Lead wire		Max. rotation speed [min^{-1}]	Rotating part moment of inertia J		Total work performed until readjustment of the air gap E_T [J]	Armature pull-in time t_a [s]	Torque build-up time t_p [s]	Torque decrease time t_d [s]	Mass [kg]
				Voltage [V]	Wattage [W]	Current [A]	Resistance [Ω]		UL style	Size		Rotor [kg·m^2]	Armature [kg·m^2]					
CS-06-33G													4.23×10^{-5}					0.50
CS-06-35G	06	5	5.5	DC24	11	0.46	52	B	UL3398	AWG22	3000	7.35×10^{-5}	1.05×10^{-4}	36×10^6	0.020	0.041	0.020	0.70
CS-06-31G													6.03×10^{-5}					0.54
CS-08-33G													1.18×10^{-4}					0.87
CS-08-35G	08	10	11	DC24	15	0.63	38	B	UL3398	AWG18	3000	2.24×10^{-4}	3.00×10^{-4}	60×10^6	0.023	0.051	0.030	1.23
CS-08-31G													1.71×10^{-4}					0.95
CS-10-33G													4.78×10^{-4}					1.57
CS-10-35G	10	20	22	DC24	20	0.83	29	B	UL3398	AWG18	3000	6.78×10^{-4}	9.45×10^{-4}	130×10^6	0.025	0.063	0.050	2.18
CS-10-31G													6.63×10^{-4}					1.73
CS-12-33G													1.31×10^{-3}					2.89
CS-12-35G	12	40	45	DC24	25	1.04	23	B	UL3398	AWG18	2000	2.14×10^{-3}	2.75×10^{-3}	250×10^6	0.040	0.115	0.065	3.93
CS-12-31G													1.81×10^{-3}					3.18
CS-16-33G													4.80×10^{-3}					5.3
CS-16-35G	16	80	90	DC24	35	1.46	16	B	UL3398	AWG18	2000	6.30×10^{-3}	9.05×10^{-3}	470×10^6	0.050	0.160	0.085	7.1
CS-16-31G													6.35×10^{-3}					5.6
CS-20-33G	20	160	175	DC24	45	1.88	13	B	UL3398	AWG16	1500	1.93×10^{-2}	1.37×10^{-2}	10×10^8	0.090	0.250	0.130	9.8
CS-25-33G	25	320	350	DC24	72	3.00	8	B	UL3398	AWG16	1500	4.48×10^{-2}	3.58×10^{-2}	20×10^8	0.155	0.335	0.210	17.5

• The dynamic friction torque, T_d, is measured at a relative speed of 100 min^{-1}.
• The moment of inertia of a rotating body and mass are specified for the maximum bore diameter.

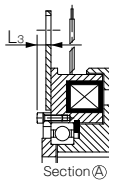
Dimensions (CS-□-33G)

For direct mounting



Unit [mm]

Size	Shaft bore dimensions				
	d H7	Models compliant with JIS standards		Models compliant with the old JIS standards	
		b P9	t	b E9	t
06	12	4 $^{-0.012}_{-0.042}$	1.5 $^{+0.5}_{0}$	4 $^{+0.050}_{+0.020}$	1.5 $^{+0.5}_{0}$
08	15	5 $^{-0.012}_{-0.042}$	2 $^{+0.5}_{0}$	5 $^{+0.050}_{+0.020}$	2 $^{+0.5}_{0}$
10	20	6 $^{-0.012}_{-0.042}$	2.5 $^{+0.5}_{0}$	5 $^{+0.050}_{+0.020}$	2 $^{+0.5}_{0}$
12	25	8 $^{-0.015}_{-0.051}$	3 $^{+0.5}_{0}$	7 $^{+0.061}_{+0.025}$	3 $^{+0.5}_{0}$
16	30	8 $^{-0.015}_{-0.051}$	3 $^{+0.5}_{0}$	7 $^{+0.061}_{+0.025}$	3 $^{+0.5}_{0}$
20	40	12 $^{-0.018}_{-0.061}$	3 $^{+0.5}_{0}$	10 $^{+0.061}_{+0.025}$	3.5 $^{+0.5}_{0}$
25	50	14 $^{-0.018}_{-0.061}$	3.5 $^{+0.5}_{0}$	12 $^{+0.075}_{+0.032}$	3.5 $^{+0.5}_{0}$



Size	L3
20	9
25	6

• On sizes 20 and 25, the head of the bolt for pressing down the bearing will stick out. See the above dimensions.

Unit [mm]

Size	Radial direction dimensions														Axial direction dimensions								
	A_1	A_2	A_3	B	C	F	G_1	G_2	G_3	V_1	V_2	V_3	Y_1	Y_2	H	L_1	L_2	M	J	P	R	X	a
06	63	46	34.5	67.5	67.5	24	42.5	50	9.5	3-3.1	3-6.3	3-5.5	4.5	14	24	31	28	22	5	7.3	2	2.5	0.2 ±0.05
08	80	60	41.7	85	85	34	57.5	65	11.5	3-4.1	3-8	3-7	6.5	16	26.5	34.5	31	24	6	8.3	2	2.85	0.2 ±0.05
10	100	76	51.5	106	106	40	62.5	70	11.5	3-5.1	3-11	3-9	6.5	16	30	39.6	36.1	27	6.5	9	2	3.3	0.2 ±0.05
12	125	95	61.5	133	133	45	77.5	85	11.5	3-6.1	3-12	3-11	6.5	16	33.5	44.5	40.5	30	7.5	9.3	2	3.3	0.3 $^{+0.05}_{-0.1}$
16	160	120	79.5	169	169	58	100	112	18.5	3-8.2	3-15	3-14	8.5	25	37.5	50.5	46.5	34	7.5	11.7	3.2	3.5	0.3 $^{+0.05}_{-0.1}$
20	200	158	99.5	212.5	212	75	125	138	18.5	3-10.2	3-18	3-16.2	8.5	25	44	60.4	55.4	40	9	13.4	3	4.9	0.5 $^{0}_{-0.2}$
25	250	210	124.5	264	250	100	155	173	24	4-12.2	4-22	4-20	12	30	51	68.9	65.9	47	9	16	6	5.5	0.5 $^{0}_{-0.2}$

How to Place an Order

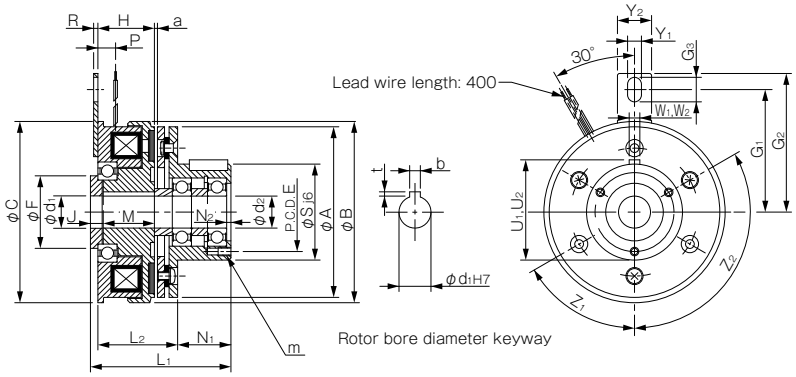
CS-06-33G 24V 12DIN

Size
Rotor bore diameter (dimensional symbol d)
Keyway standards DIN: Compliant with JIS standards P9
JIS: Compliant with the old JIS standards (class 2) E9

MIKI PULLEY EUROPE AG
www.mikipulley.de
Rheinweg 5, CH-8200 Schaffhausen, Tel: +41 52 625 24 24
Bauhofstraße 12, D-63762 Großostheim, Tel: +49 6026 999 610

Dimensions (CS-□-35G)

For through-shafts



Unit [mm]

Size	Shaft bore dimensions					
	d_1 H7	d2	Models compliant with JIS standards		Models compliant with the old JIS standards	
			b P9	t	b E9	t
06	12	12	4 $^{-0.012}_{-0.042}$	1.5 $^{+0.5}_{0}$	4 $^{+0.050}_{+0.020}$	1.5 $^{+0.5}_{0}$
08	15	15	5 $^{-0.012}_{-0.042}$	2 $^{+0.5}_{0}$	5 $^{+0.050}_{+0.020}$	2 $^{+0.5}_{0}$
10	20	20	6 $^{-0.012}_{-0.042}$	2.5 $^{+0.5}_{0}$	5 $^{+0.050}_{+0.020}$	2 $^{+0.5}_{0}$
12	25	25	8 $^{-0.015}_{-0.051}$	3 $^{+0.5}_{0}$	7 $^{+0.061}_{+0.025}$	3 $^{+0.5}_{0}$
16	30	30	8 $^{-0.015}_{-0.051}$	3 $^{+0.5}_{0}$	7 $^{+0.061}_{+0.025}$	3 $^{+0.5}_{0}$

Unit [mm]

Size	Radial direction dimensions													Axial direction dimensions											
	A	B	C	E	F	G_1	G_2	G_3	S	Y_1	Y_2	Z_1	Z_2	H	L_1	L_2	M	N_1	N_2	P	R	U_1	W_1	U_2	W_2	a	m
06	63	67.5	67.5	33	24	42.5	50	9.5	38	4.5	14	3-120°	0°	24	54.5	31.5	22	20	2	7.3	2	39.5	4	39.5	4	0.2 ±0.05	3-M4 × 0.7, length: 4
08	80	85	85	37	34	57.5	65	11.5	45	6.5	16	3-120°	0°	26.5	63.5	35	24	25	2	8.3	2	47	5	47	5	0.2 ±0.05	3-M4 × 0.7, length: 6
10	100	106	106	47	40	62.5	70	11.5	55	6.5	16	4-90°	45°	30	74.6	41.1	27	30	3	9	2	57	5	57.5	6	0.2 ±0.05	4-M4 × 0.7, length: 8
12	125	133	133	52	45	77.5	85	11.5	64	6.5	16	4-90°	45°	33.5	90.5	46.5	30	40	2.2	9.3	2	67	7	67	8	0.3 $^{+0.05}_{-0.1}$	4-M4 × 0.7, length: 8
16	160	169	169	62	58	100	112	18.5	75	8.5	25	6-60°	30°	37.5	107.5	53.5	34	50	3	11.7	3.2	78	7	78	8	0.3 $^{+0.05}_{-0.1}$	6-M5 × 0.8, length: 8

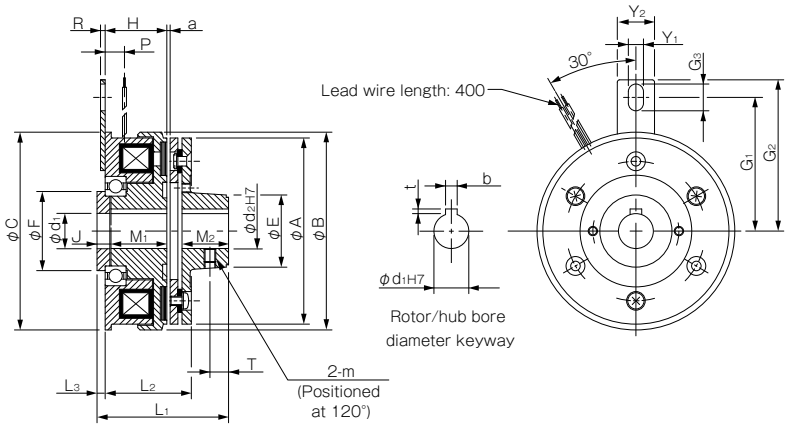
How to Place an Order

CS-06-35G 24V R12DIN A12JIS

- Size: 06
- Rotor bore diameter (dimensional symbol): R12
- Keyway standards DIN: Compliant with JIS standards P9
  JIS: Compliant with the old JIS standards (class 2) E9: DIN
- Armature bore diameter (dimensional symbol d2): A12
- Armature type-5 keyway standards: JIS
  Dimensional symbol U_2, W_2: DIN: Compliant with JIS standards P9
  Dimensional symbol U_1, W_1: JIS: Compliant with the old JIS standards (class 2) E9

Dimensions (CS-□-31G)

For butt shafts



Unit [mm]

Size	Shaft bore dimensions					
	d_1 H7	d_2 H7	Models compliant with JIS standards		Models compliant with the old JIS standards	
			b P9	t	b E9	t
06	12	12	4 $^{-0.012}_{-0.042}$	1.5 $^{+0.5}_{0}$	4 $^{+0.050}_{+0.020}$	1.5 $^{+0.5}_{0}$
08	15	15	5 $^{-0.012}_{-0.042}$	2 $^{+0.5}_{0}$	5 $^{+0.050}_{+0.020}$	2 $^{+0.5}_{0}$
10	20	20	6 $^{-0.012}_{-0.042}$	2.5 $^{+0.5}_{0}$	5 $^{+0.050}_{+0.020}$	2 $^{+0.5}_{0}$
12	25	25	8 $^{-0.015}_{-0.051}$	3 $^{+0.5}_{0}$	7 $^{+0.061}_{+0.025}$	3 $^{+0.5}_{0}$
16	30	30	8 $^{-0.015}_{-0.051}$	3 $^{+0.5}_{0}$	7 $^{+0.061}_{+0.025}$	3 $^{+0.5}_{0}$

Unit [mm]

Size	Radial direction dimensions											Axial direction dimensions										
	A_1	B	C	E	F	G_1	G_2	G_3	Y_1	Y_2	m	H	L_1	L_2	L_3	M_1	M_2	J	P	R	T	a
06	63	67.5	67.5	26	24	42.5	50	9.5	4.5	14	M4	24	46	31.5	3	22	15	5	7.3	2	6	0.2 ±0.05
08	80	85	85	31	34	57.5	65	11.5	6.5	16	M5	26.5	54.5	35.	3.5	24	20	6	8.3	2	8	0.2 ±0.05
10	100	106	106	41	40	62.5	70	11.5	6.5	16	M5	30	64.6	41.1	3.5	27	25	6.5	9	2	10	0.2 ±0.05
12	125	133	133	49	45	77.5	85	11.5	6.5	16	M6	33.5	74.5	46.5	4	30	30	7.5	9.3	2	12	0.3 $^{+0.05}_{-0.1}$
16	160	169	169	65	58	100	112	18.5	8.5	25	M8	37.5	88.5	53.5	4	34	38	7.5	11.7	3.2	15	0.3 $^{+0.05}_{-0.1}$

How to Place an Order

CS-06-31G 24V R12DIN A12DIN

- Size: 06
- Rotor bore diameter (dimensional symbol d1): R12
- Keyway standards DIN: Compliant with JIS standards E9
  JIS: Compliant with the old JIS standards (class 2) E9: DIN
- Armature bore diameter (dimensional symbol d2): A12
- Keyway standards DIN: Compliant with JIS standards P9
  JIS: Compliant with the old JIS standards (class 2) E9

MIKI PULLEY EUROPE AG

Rheinweg 5, CH-8200 Schaffhausen, Tel: +41 52 625 24 24
Bauhofstraße 12, D-63762 Großostheim, Tel: +49 6026 999 610

www.mikipulley.de