

Cross Safeguard Overload Clutches



CS Standard Series Clutches

The standard series of clutches are available in 8 sizes offering three modes of operation, simple overload, synchronous overload, and safelift, and in 7 sizes of the total dis-engagement design. All are available with three methods of supporting drive sprockets, pulleys, or gears, to provide flexibility in application design.

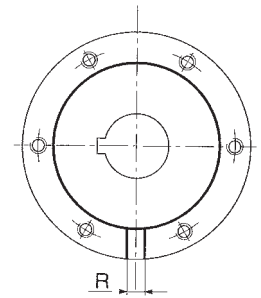
Type A - allows simple connection of a driven gear with its own bearing support.

Type B - has an integral needle roller bearing providing full support of driven gear.

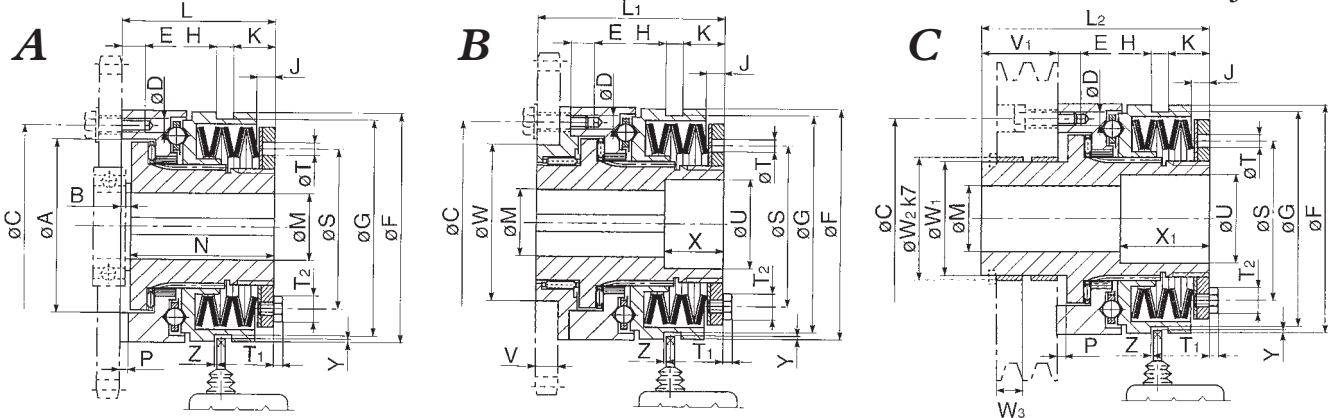
Type C - has extended inner race to mount larger pulleys with plain bearings.

Up to Four torque ranges are available on each size of clutch, controlled by selection of the actuating spring set, providing a wide range of torque capacities to select from.

Inertias are provided for each half of the clutch in dis-engaged condition, the hub inertia incorporating all items that revolve free with the hub, and the flange inertia all those items that stay with the flange connection.



View from Driven Gear End of Clutches



CS Standard Series - Technical Capacities

Models* A, B & C	Torque Range according to Spring Selection					Max. Speed			Bore Size		Weight kg			Hub Inertia kgcm ²			Flange Inertia kgcm ²		
	S Nm	M Nm	L Nm	U Nm	R Nm	S/M rpm	L/U rpm	'R' rpm	min mm	max mm	Type A	Type B	Type C	Type A	Type B	Type C	Type A	Type B	Type C
CSF20	2.5-5.0	5-10	10-20	20-40		3300	1800		7	20	0.5	0.7	0.6	1.0	1.1	1.1	0.9	1.2	0.9
CSY20	5-10	10-20	20-40			1000	500												
CSL20	5-10	10-20	20-40			4000	3000												
CSF25	6-12	12.3	25-55	55-100		2900	1450		10	25	1.5	2.0	1.8	6.7	7.0	7.2	6.2	9.1	6.2
CSY25	12-25	25-50	50-100			950	450												
CSL25	12-25	25-50	50-100			3900	2900												
CSZ25	12-25	25-50	50-100			5000	5000												
CSF35	12-25	25-50	50-120	120-200		2400	1200		14	35	2.9	3.2	3.0	19.0	20.5	21.4	14.9	18.2	14.9
CSY35	25-50	50-100	100-200			800	400												
CSL35	25-50	50-100	100-200			3300	2400												
CSZ35	25-50	50-100	100-200			4000	4000												
CSF45	25-50	50-100	100-250	250-400		2000	1000		18	45	5.0	6.0	5.8	51.7	54.1	57.0	38.0	48.4	38.0
CSY45	50-100	100-200	200-400			650	300												
CSL45	50-100	100-200	200-400			2800	2000												
CSZ45	50-100	100-200	200-400			3500	3500												
CSF55(R)	50-100	100-200	200-500	500-800	800-2000	1600	850	90											
CSY55(R)	100-200	200-400	400-800		800-2000	550	250	90											
CSL55(R)	100-200	200-400	400-800		800-2000	2300	1600	700	24	55	9.8	11.8	11.5	163	171	177	100	143	100
CSZ55	100-200	200-400	400-800			3000	3000												
CSF65(R)	85-200	170-500	300-1000	700-1800	1200-3400	1400	700	70											
CSY65(R)	170-400	350-900	700-1800		1200-3400	400	150	70											
CSL65(R)	170-400	350-900	700-1800		1200-3400	1800	1400	600	30	70*	16.0	20.0	19.0	416	428	439	235	310	235
CSZ65	170-400	350-900	700-1800			2300	2300												
CSF80(R)	180-480	360-960	720-1950	1600-3300	2900-5800	1200	600	40											
CSY80(R)	300-750	600-1500	1200-3000		2900-5800	150	80	40											
CSL80(R)	300-750	600-1500	1200-3000		2900-5800	1500	1000	400	40	80	21.0	26.0	25.5	769	789	825	396	547	396
CSZ80	300-750	600-1500	1200-3000			1600	1600												
CSF100(R)	250-520	500-1050	1000-2100	2000-3600	3000-8200	950	480	30											
CSY100(R)	550-110	1100-2200	2200-4400		3000-8200	100	50	30											
CSL100(R)	550-110	1100-2200	2200-4400		3000-8200	1300	800	300	50	110*	37.0	44.0	45.0	1968	2030	2109	969	1238	969
CSZ100	550-110	1100-2200	2200-4400			1400	1400												

*For clutch Part No. for ordering refer to page 27.

CS Standard Series Dimensions

Models CSF/CSY and CSL/CSZ	Dimensions mm																								
	Ag7	B	C	D	E	F	G	H	J	K	L	L ₁	L ₂	N	P	R	U	V	V ₁	W _{h6}	W ₁	X	X ₁	Y	Z
20	41.0	4.0	48	6xM5	6.5	55	50	9	3.0	7.5	38.5	51.5	66	35.0	3.1	6	21	8	27.5	38	28	15	25.5	2	0.1
25	60.0	4.0	70	6xM5	8.0	82	73	9	6.0	11.5	52.0	70.0	83	48.0	3.1	6	26	10	33.0	50	38	20	35.0	2	0.1
35	78.0	5.0	89	6xM6	10.0	100	91	9	6.0	12.0	61.0	78.0	100	56.0	3.6	8	36	12	39.0	60	52	25	45.0	2	0.1
45	90.5	5.0	105	6xM8	12.0	120	112	10	8.5	21.0	78.0	96.0	125	72.0	4.1	10	46	12	47.0	80	65	30	59.0	2	0.1
55	105.0	6.5	125	6xM10	15.0	146	140	9	11.0	27.0	100.0	124.5	153	93.5	4.1	12	56	16	52.5	100	78	30	60.0	2	0.1
65	120.5	6.5	155	6xM12	17.0	176	170	9	12.0	33.0	113.5	140.0	171	107.0	4.6	14	66	18	57.5	120	90	30	60.0	2	0.1
80(not CS-Z)	136.0	7.0	160	6xM12	20.0	200	190	9	14.0	39	119	150	183	112.0	5.3	16	82	20	64	130	108	25	55.0	2	0.1
CSZ 80	136.0	7.0	160	6xM12	20.0	200	190	9	29.0	53	134	165	198	127.0	5.3	16	82	20	64	130	108	40	70.0	2	0.1
100(not CS-Z)	168.0	8.0	200	6xM16	25.0	240	230	9	15.0	46	141	175	213	133.0	5.8	18	111	25	72	160	135	35	70.0	2	0.1
CSZ 100	168.0	8.0	200	6xM15	25.0	240	230	9	33.0	64	159	193	231	151.0	5.8	18	111	25	72	160	135	53	88.0	2	0.1

For Limit Switch location and operation refer to page 29. Always use limit switch for long service life.