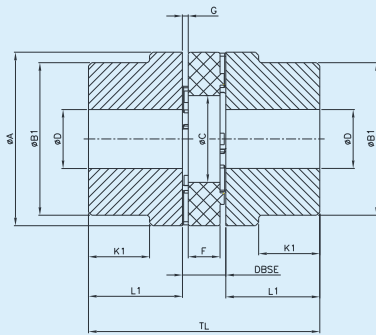


- All over machining - Inherently balanced
- No Lubrication, Maintenance free - Long life
- Compact design, High power to weight ratio
- Fail safe - Will perform even if spider fails
- Vibrations Damping, torsionally flexible
- Axial plug-in, easy to assemble

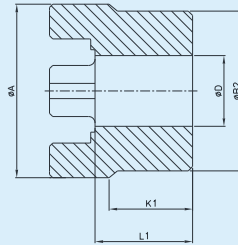
### RRJ Coupling



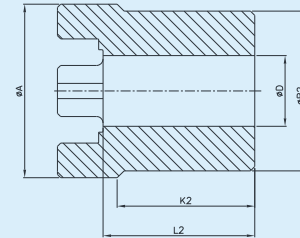
HUB TYPE I



HUB TYPE II



HUB TYPE III



### TECHNICAL DATA

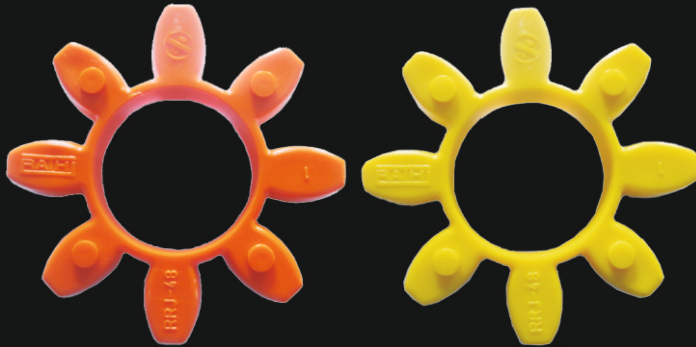
#### RRJ - ALUMINIMUM (AL)\*

Coupling Size	Coupling Type	kW @ 100 rpm		Torque Nm	Max. Speed RPM	Bore - Ø D			DIMENSIONS (mm)										# Assembly												
		Red	Yellow			PB	Min.	Max.	ØA	ØB1	ØB2	ØC	DBSE min.	F	L1	L2	G	TL	K1	K2	Weight (Kg.)	M.I. (Kg.m <sup>2</sup> )									
19	I	0.18	0.1	18	14000	0	6	19	41	32	-	18	16	12	25	-	2	66	20	-	0.11	2.3 X 10 <sup>-5</sup>									
	19						24	-		41	0.14										4.3 X 10 <sup>-5</sup>										
24	I	0.65	0.35	62	10600	0	9	56	40	-	27	18	14	30	-	2	78	24	-	0.24	9 X 10 <sup>-5</sup>										
	22						28		-	56										0.34	19 X 10 <sup>-5</sup>										
28	I	1.75	0.95	167	8500	0	10	66	48	-	30	20	15	35	-	2.5	90	28	-	0.39	20 X 10 <sup>-5</sup>										
	28						38		-	66										0.54	42 X 10 <sup>-5</sup>										
<b>RRJ- CAST IRON (CI)*</b>																															
38	I	3.47	1.9	332	7100	10	12	40	66	-	80	24	18	45	-	3	114	37	-	2.00	1.85 X 10 <sup>-3</sup>										
	II							48	-	78										38	24	18	-	70	164	-	62	3.60	3.72 X 10 <sup>-3</sup>		
	III							45	-	75										46	26	20	50	-	3	126	40	-	3.20	4.1 X 10 <sup>-3</sup>	
42	I	4.99	2.65	477	6000	12	14	55	95	-	94	46	26	20	50	-	3	126	40	-	3.80	5.9 X 10 <sup>-3</sup>									
	II							52	85	-											51	28	21	56	-	3.5	140	45	-	4.96	7.4 X 10 <sup>-3</sup>
	III							62	105	-											104	51	28	21	-	80	188	-	69	7.51	13.6 X 10 <sup>-3</sup>
48	I	5.49	3.1	524	5600	13	15	60	120	98	-	60	30	22	65	-	4	160	52	-	6.60	12.3 X 10 <sup>-3</sup>									
	II							74	-	118	60										30	22	-	90	210	-	77	10.20	23.7 X 10 <sup>-3</sup>		
	III							70	135	115	-										68	35	26	75	-	4.5	185	61	-	10.10	24.5 X 10 <sup>-3</sup>
55	I	7.27	4.1	694	4750	18	20	70	135	-	133	68	35	26	75	-	4.5	185	61	-	11.50	27.8 X 10 <sup>-3</sup>									
	II							80	-	100											235	-	86	15.00	36.3 X 10 <sup>-3</sup>						
	III							75	160	135											-	80	40	30	85	-	5	210	69	-	16.00
65	I	10.19	6.25	973	4250	20	22	95	160	-	158	80	40	30	85	-	5	210	69	-	18.20	61.4 X 10 <sup>-3</sup>									
	II							110	-	110											260	-	84	21.20	71.5 X 10 <sup>-3</sup>						
	III							97	200	160											-	100	45	34	100	-	5.5	245	81	-	27.50
75	I	20.73	12.8	1980	3550	28	30	110	200	-	198	100	45	34	100	-	5.5	245	81	-	36.30	182 X 10 <sup>-3</sup>									
	II							125	-	125											295	-	106	44.80	225 X 10 <sup>-3</sup>						
	III							97	200	160											-	100	45	34	-	125	295	-	106	44.80	225 X 10 <sup>-3</sup>
90	I	36.89	24	3523	2800	38	40	110	200	-	198	100	45	34	100	-	5.5	245	81	-	36.30	182 X 10 <sup>-3</sup>									
	II							125	-	125											295	-	106	44.80	225 X 10 <sup>-3</sup>						
	III							97	200	160											-	100	45	34	-	125	295	-	106	44.80	225 X 10 <sup>-3</sup>

# Weight & Moment of Inertia (M.I.) of coupling assembly refer to maximum finish bore without keyway.

\* Alternative hub material available on request - Steel (Sizes 19 to 90) , S. G. Iron (Sizes 38 to 90).

### SPIDER



#### TECHNICAL DATA - Polyurethane Spiders

Spider Size	Red (Std.)		Yellow	
	T <sub>nom</sub> (Nm)	T <sub>max</sub> (Nm)	T <sub>nom</sub> (Nm)	T <sub>max</sub> (Nm)
19	17	34	10	20
24	60	120	35	70
28	160	320	95	190
38	325	650	190	380
42	450	900	265	530
48	525	1050	310	620
55	685	1370	410	820
65	940	1880	625	1250
75	1920	3840	1280	2560
90	3600	7200	2400	4800
<b>Hardness</b>	95 Shore A		92 Shore A	
<b>Temperature</b>	- 40°C to 90°C			

#### Selection Procedure:

- Determine Application Nominal Torque (Nm)  
 $T_{nom} (Nm) = (kw \times 9550 / rpm)$
- Calculate application service factor using following charts - Total service factor (SF) will be  
 $SF = SF1 \times SF2 \times SF3$
- Calculate Application Maximum Torque (T<sub>max</sub>)  
 $T_{max} = T_{nom} \times SF (Nm)$
- Select the proper spider showing T<sub>nom</sub> greater than application nominal torque. Then select spider showing T<sub>max</sub> greater than application maximum torque. Select the higher of two.
- Ensure that application rpm and max. bore requirements are less than or equal to selected coupling max. rpm and max. bore size otherwise select next size coupling.

For SF1, SF2, SF3 refer chart.

#### SF1 - Application Service Factor

Driven Machine / Example	Electric Motors	Prime Motor	
		4 Cylinder or more	Less than 4 Cylinder
a. Uniform operation, no shocks.	1.5	2.0	2.5
b. Irregular operation, light shocks.	2.0	2.5	3.0
c. Irregular operation, medium shocks.	2.5	3.0	3.5
d. Irregular operation, heavy shocks.	3.0	3.5	4.0

#### SF2 - Application Service Factor for Temperature

Temperature Range °C	< 30°C	30°C - 70°C	> 70°C
SF2	1.0	1.5	2.0

#### SF3 - Application Service Factor for starting frequency

Starting frequency cycles / hour	< 100	100 - 500	> 500
SF3	1.0	1.5	2.0

#### MISALIGNMENT DATA

Size	19	24	28	38	42	48	55	65	75	90
Maximum axial displacement (mm)	1.6	1.8	2.0	2.2	2.3	3.0	3.0	3.5	3.5	4.5
Maximum radial misalignment (mm)	0.15	0.20	0.20	0.25	0.30	0.35	0.35	0.40	0.45	0.50
Maximum angular misalignment (Deg.)	0.80	0.80	0.80	0.90	0.90	1.0	1.0	1.0	1.1	1.1

ORDER SEQUENCE	Coupling Size	Hub Type (Driver / Driven)	Finish Bore (Driver / Driven)	Spider Type	Hub Material
<b>Example</b>	<b>RRJ-55</b>	<b>I / II</b>	<b>40 / 60</b>	<b>Red</b>	<b>CI</b>

• Coupling with std. Spider is supplied if not specified.

- All dimensions are in mm unless otherwise specified.
- For vertical installation contact RATHI.

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