

# TCB Series - Optimization of Performance and Cost



## Performance Data

TCB series planetary reducer has modular design compact structure with high reliability and efficiency. It is a perfect optimization of both performance and cost.

TCB090		One Stage												Two Stage												
Speed Ratio	i	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	100						
Nominal Output Torque	$T_1$	Nm	100	110	150	140	135	120	-	100	100	110	150	140	135	120	150	140	135	120	100					
Emergency Stop Torque	$T_2$	Nm	$T_1 \times 3$												$T_1 \times 3$											
Nominal Input Speed	$S_1$	rpm	3000												3000											
Maximum Input Speed	$S_2$	rpm	6000												6000											
Maximum Output Torque	$T_d$	Nm	$T_1 \times 3 \times 60\%$												$T_1 \times 3 \times 60\%$											
Maximum Radial Force	$F_r$	N	3250												3250											
Maximum Axial Force	$F_a$	N	1625												1625											
Torsional Rigidity	-	Nm/arcmin	14												14											
Efficiency	$\eta$	%	$\geq 97$												$\geq 94$											
Service Life	-	h	20000												20000											
Noise	-	dB	$\leq 60$												60											
Weight	-	Kg	3.5												5.1											
Backlash	P0		-												-											
	P1	arcmin	$\leq 3$												$\leq 5$											
	P2		$\leq 5$												$\leq 7$											
Operating Temperature	-	$^{\circ}\text{C}$	-20~90												-20~90											
Lubrication	-		Synthetic Grease												Synthetic grease											
Protection Class	-		IP65												IP65											
Mounting Position	-		Any Direction												Any Direction											
Moment of Inertia	J	kg.cm <sup>2</sup>	0.61	0.48	0.47	0.45	0.45	0.44	-	0.44					0.47						0.44					

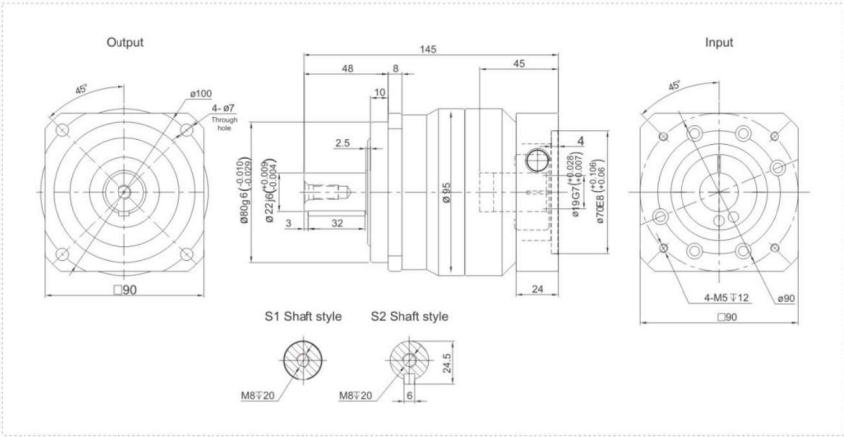
**Notes:**

- Speed ratio ( $i = \text{Sin}/\text{Sout}$ )
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm,  $i=10$

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

## TCB090 Series

### TCB090 One Stage



### TCB090 Two Stage

