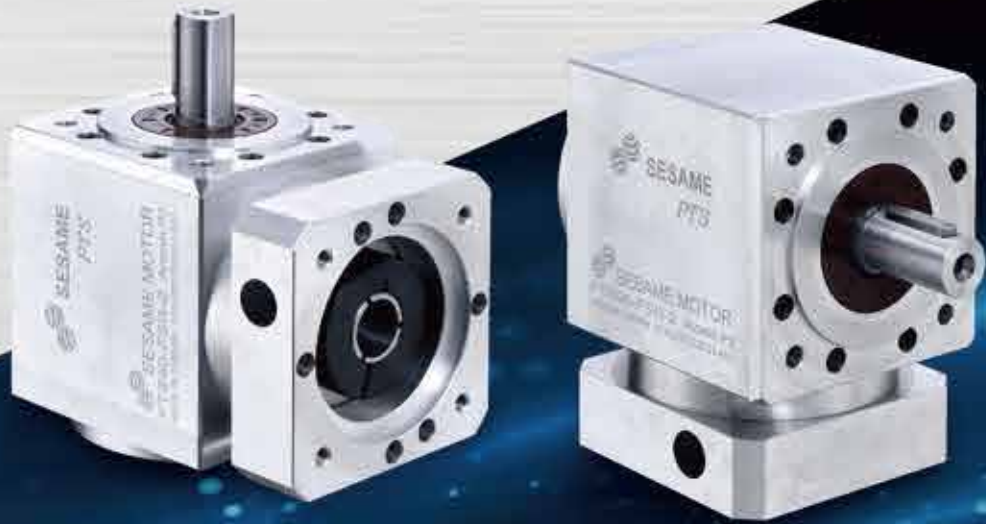




Spiral Bevel Gearbox

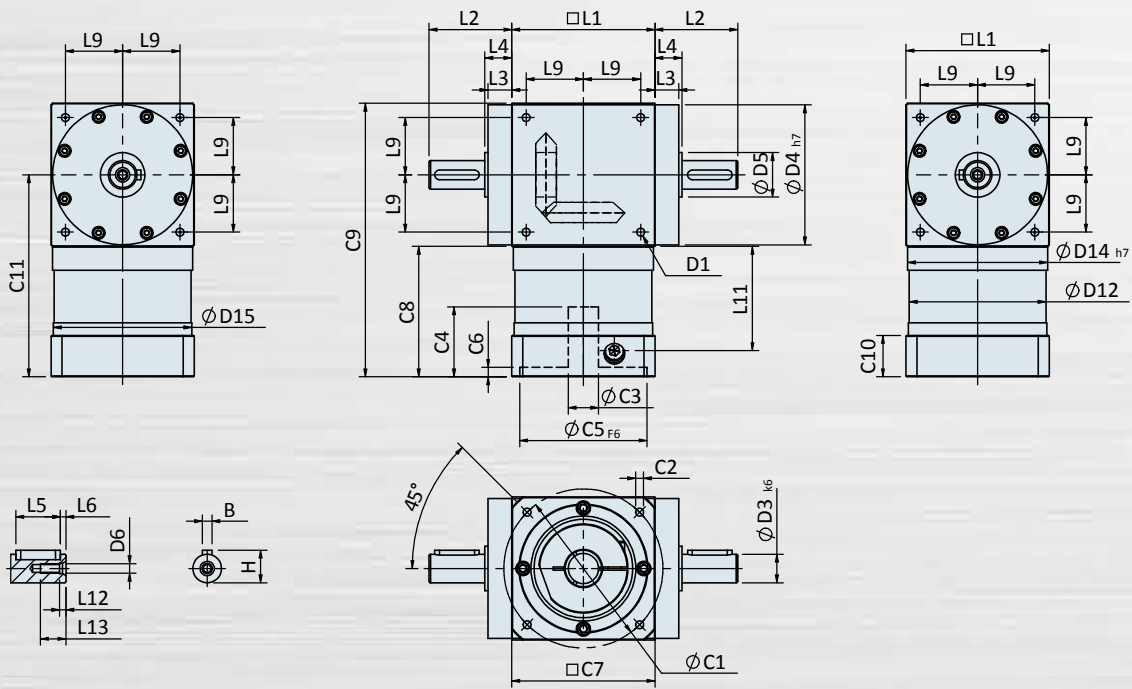
PT series



PT  
SERIES



# PT-FS Single Stage Dimensions



## Specifications

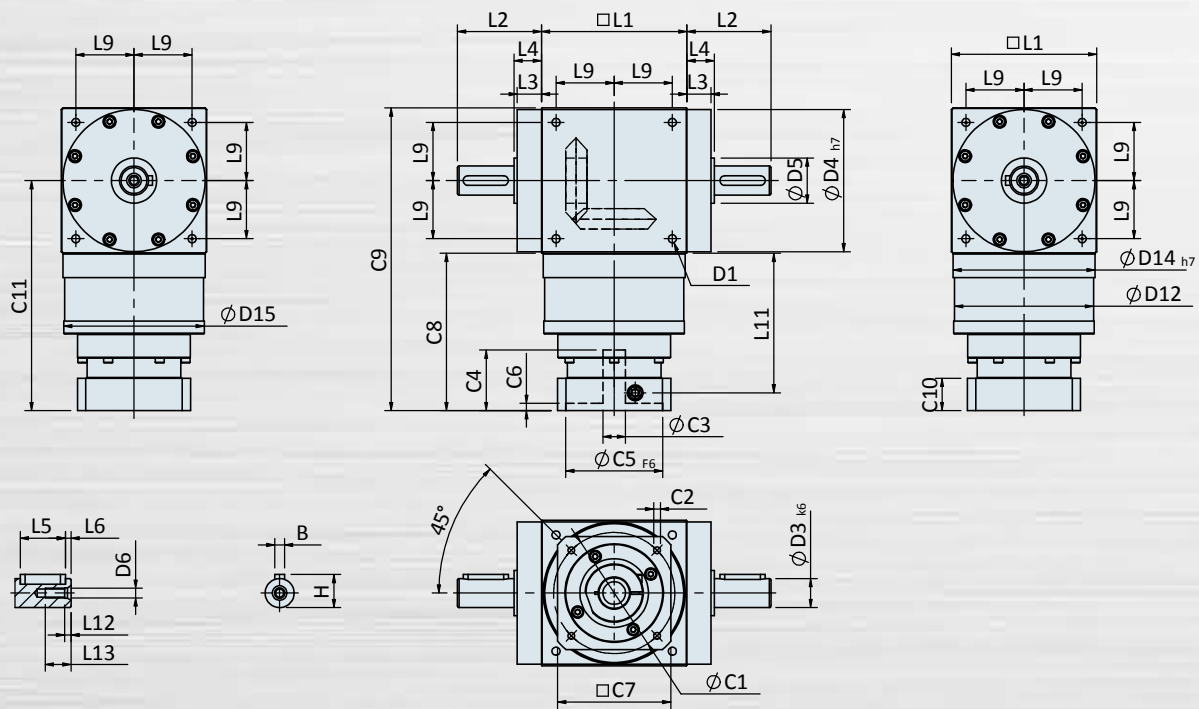
Unit: mm

Dimensions	PT60-FS	PT75-FS	PT90-FS	PT110-FS	PT140-FS	PT170-FS	PT210-FS
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3k6	13	-	18	22	32	40	-
D4h7	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	60	-	86	106	104	128	-
D14h7	60.2	-	88	108	135	165	-
D15	41.8	-	87	107	103	127	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	24.75	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	38.2	-	65.5	77	86.4	94.1	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
C1 <sup>1</sup>	46	-	100	100	130	165	-
C2 <sup>1</sup>	M4x0.7P	-	M6x1.0P	M6x1.0P	M8x1.25P	M10x1.5P	-
C3 <sup>1</sup>	≤11/≤14/≤19	-	≤19/≤24	≤24	≤32	≤38	-
C4 <sup>1</sup>	33	-	44	47	55.1	67	-
C5 <sup>1</sup>	30	-	80	80	110	130	-
C6 <sup>1</sup> F6	4	-	6	5	5	6	-
C7 <sup>1</sup>	42.6	-	90	90	115	140	-
C8 <sup>1</sup>	47.2	-	82	93	106	118	-
C9 <sup>1</sup>	108	-	172	203	246	288	-
C10 <sup>1</sup>	18.5	-	26	23	27	35	-
C11 <sup>1</sup>	77.6	-	127	148	176	203	-
B	5	-	6	6	10	12	-
H	15	-	20.5	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.

# PT-FS Double Stage Dimensions



## Specifications

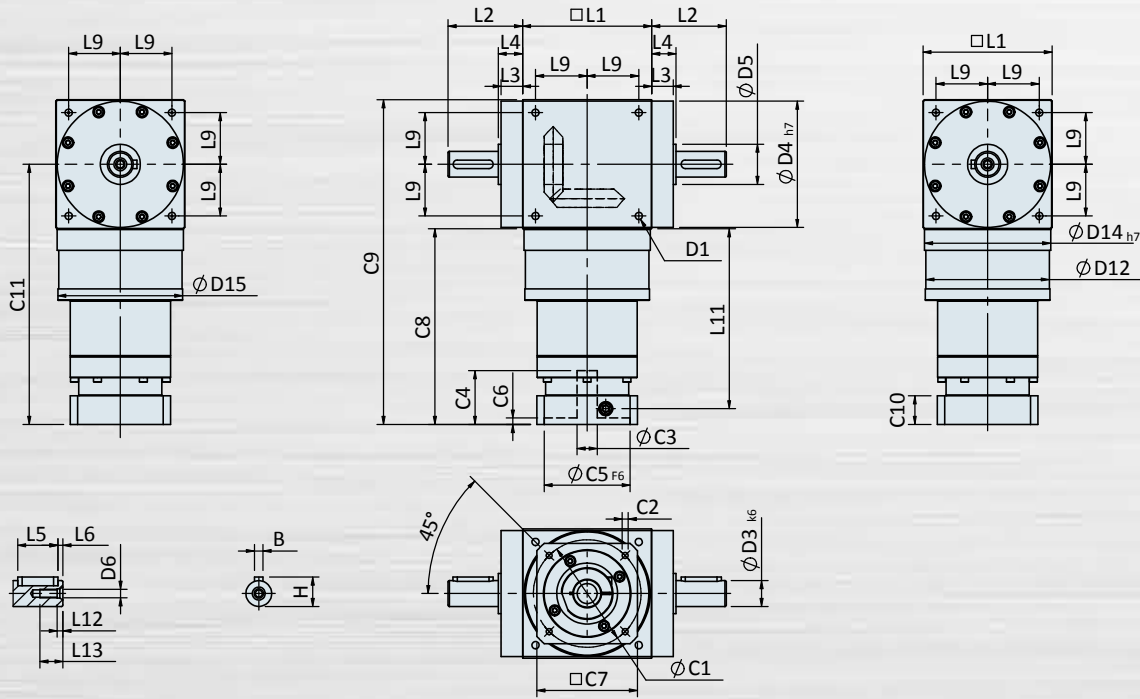
Unit: mm

Dimensions	PT60-FS	PT75-FS	PT90-FS	PT110-FS	PT140-FS	PT170-FS	PT210-FS
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3 <sub>k6</sub>	13	-	18	22	32	40	-
D4 <sub>h7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	59.8	-	86	106	104	128	-
D14 <sub>h7</sub>	60.2	-	88	108	135	165	-
D15	60	-	87	107	103	127	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	24.75	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	63.7	-	86.4	104.8	120.8	114.8	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
C1 <sup>1</sup>	46	-	70	90	90	90	-
C2 <sup>1</sup>	M4x0.7P	-	M5x0.8P	M6x1.0P	M6x1.0P	M6x1.0P	-
C3 <sup>1</sup>	≤8/≤11	-	≤14/≤19	≤24	≤24	≤24	-
C4 <sup>1</sup>	28.6	-	37.5	48.2	48.2	48.2	-
C5 <sup>1</sup> F6	30	-	50	70	70	70	-
C6 <sup>1</sup>	4.1	-	4.5	6	6	6	-
C7 <sup>1</sup>	42	-	60	90	90	90	-
C8 <sup>1</sup>	73.3	-	97.4	119.5	135.5	129.5	-
C9 <sup>1</sup>	134.1	-	187.4	229.5	275.5	299.5	-
C10 <sup>1</sup>	17	-	20	26	26	26	-
C11 <sup>1</sup>	103.7	-	142.4	174.5	205.5	214.5	-
B	5	-	6	6	10	12	-
H	15	-	20.5	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.

# PT-FS Triple Stage Dimensions.



## Specifications

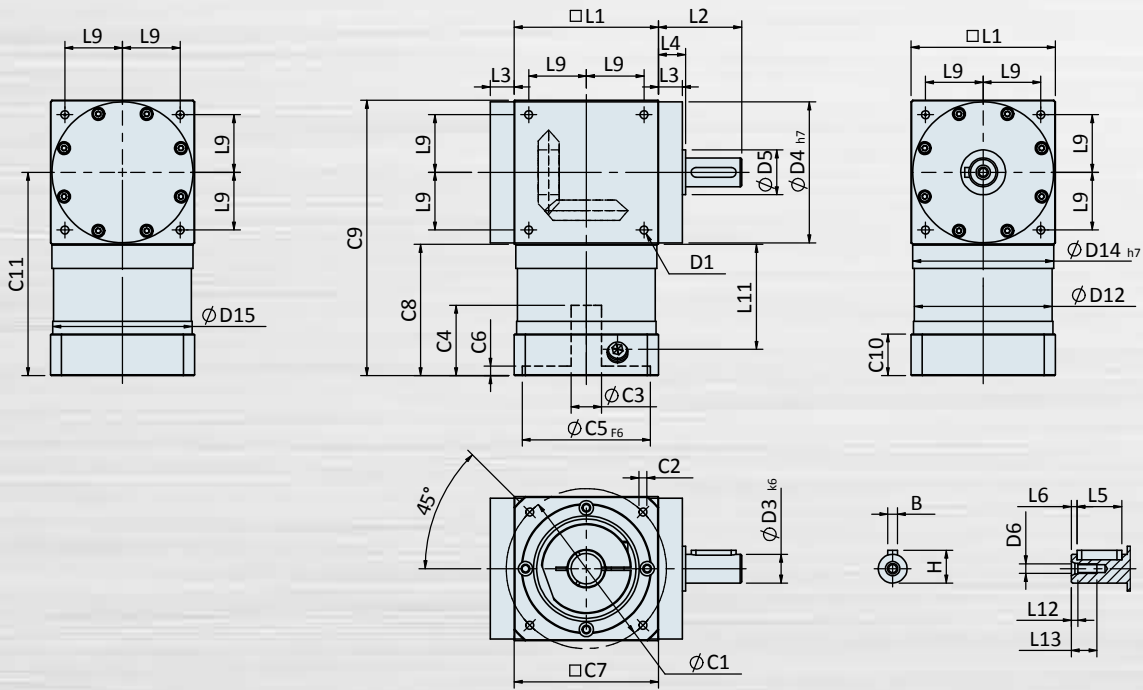
Unit: mm

Dimensions	PT60-FS	PT75-FS	PT90-FS	PT110-FS	PT140-FS	PT170-FS	PT210-FS
D1	-	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3 <sub>k6</sub>	-	-	18	22	32	40	-
D4 <sub>h7</sub>	-	-	88	108	135	165	-
D5	-	-	28	33	47	55	-
D6	-	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	-	-	86	106	104	128	-
D14 <sub>h7</sub>	-	-	88	108	135	165	-
D15	-	-	87	107	103	127	-
L1	-	-	90	110	140	170	-
L2	-	-	52	57	67	77	-
L3	-	-	15	15	15	15	-
L4	-	-	17	17	17	17	-
L5	-	-	28	32	45	50	-
L6	-	-	3.5	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	-	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	-	-	86.4	149.8	165.8	159.8	-
L12	-	-	4	4.5	6	6	-
L13	-	-	16	20.5	30	36	-
C1 <sup>1</sup>	-	-	70	90	90	90	-
C2 <sup>1</sup>	-	-	M5x0.8P	M6x1.0P	M6x1.0P	M6x1.0P	-
C3 <sup>1</sup>	-	-	≤14/≤19	≤24	≤24	≤24	-
C4 <sup>1</sup>	-	-	37.5	48.2	48.2	48.2	-
C5 <sup>1</sup> <sub>F6</sub>	-	-	50	70	70	70	-
C6 <sup>1</sup>	-	-	4.5	6	6	6	-
C7 <sup>1</sup>	-	-	60	90	90	90	-
C8 <sup>1</sup>	-	-	97.4	164.5	180.5	174.5	-
C9 <sup>1</sup>	-	-	187.4	274.5	320.5	344.5	-
C10 <sup>1</sup>	-	-	20	26	26	26	-
C11 <sup>1</sup>	-	-	142.4	219.5	250.5	259.5	-
B	-	-	6	6	10	12	-
H	-	-	20.5	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

\* Specification subject to change without notice.

# PT-FSR Single Stage Dimensions



## Specifications

Unit: mm

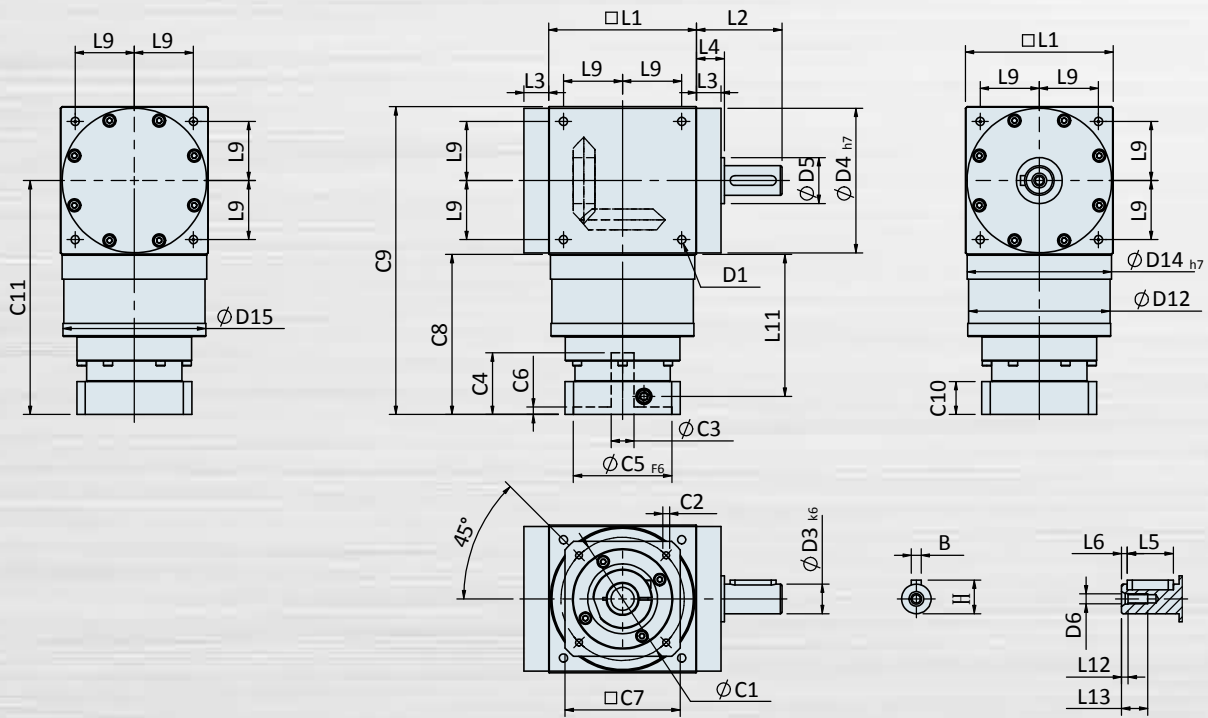
Dimensions	PT60-FSR	PT75-FSR	PT90-FSR	PT110-FSR	PT140-FSR	PT170-FSR	PT210-FSR
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3 <sub>k6</sub>	13	-	18	22	32	40	-
D4 <sub>h7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	60	-	86	106	104	128	-
D14 <sub>h7</sub>	60.2	-	88	108	135	165	-
D15	41.8	-	87	107	103	127	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	24.75	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	38.2	-	65.5	77	86.4	94.1	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
C1 <sup>1</sup>	46	-	100	100	130	165	-
C2 <sup>1</sup>	M4x0.7P	-	M6x1.0P	M6x1.0P	M8x1.25P	M10x1.5P	-
C3 <sup>1</sup>	≤11/≤14/≤19	-	≤19/≤24	≤24	≤32	≤38	-
C4 <sup>1</sup>	33	-	44	47	55.1	67	-
C5 <sup>1</sup> F6	30	-	80	80	110	130	-
C6 <sup>1</sup>	4	-	6	5	5	6	-
C7 <sup>1</sup>	42.6	-	90	90	115	140	-
C8 <sup>1</sup>	47.2	-	82	93	106	118	-
C9 <sup>1</sup>	108	-	172	203	246	288	-
C10 <sup>1</sup>	18.5	-	26	23	27	35	-
C11 <sup>1</sup>	77.6	-	127	148	176	203	-
B	5	-	6	6	10	12	-
H	15	-	20.5	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.



# PT-FSR Double Stage Dimensions



## Specifications

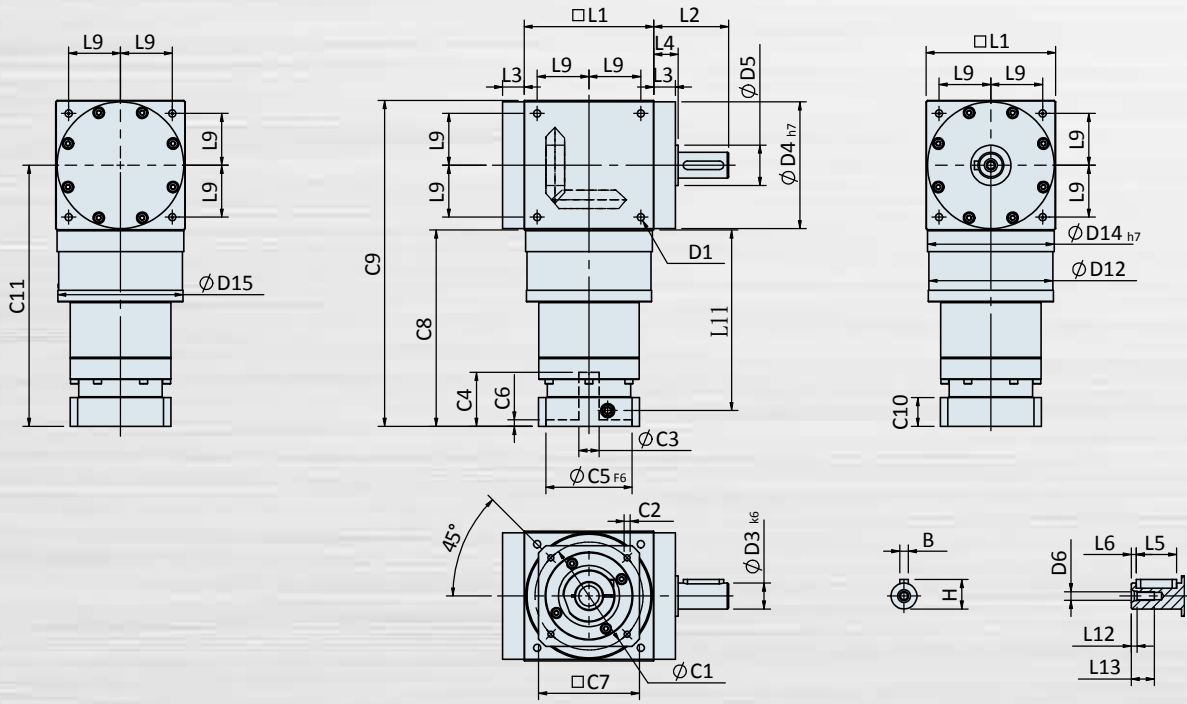
Unit: mm

Dimensions	PT60-FSR	PT75-FSR	PT90-FSR	PT110-FSR	PT140-FSR	PT170-FSR	PT210-FSR
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3 <sub>k6</sub>	13	-	18	22	32	40	-
D4 <sub>h7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	59.8	-	86	106	104	128	-
D14 <sub>h7</sub>	60.2	-	88	108	135	165	-
D15	60	-	87	107	103	127	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	24.75	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	63.7	-	86.4	104.8	120.8	114.8	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
C1 <sup>1</sup>	46	-	70	90	90	90	-
C2 <sup>1</sup>	M4x0.7P	-	M5x0.8P	M6x1.0P	M6x1.0P	M6x1.0P	-
C3 <sup>1</sup>	≤8/≤11	-	≤14/≤19	≤24	≤24	≤24	-
C4 <sup>1</sup>	28.6	-	37.5	48.2	48.2	48.2	-
C5 <sup>1</sup> F6	30	-	50	70	70	70	-
C6 <sup>1</sup>	4.1	-	4.5	6	6	6	-
C7 <sup>1</sup>	42	-	60	90	90	90	-
C8 <sup>1</sup>	73.3	-	97.4	119.5	135.5	129.5	-
C9 <sup>1</sup>	134.1	-	187.4	229.5	275.5	299.5	-
C10 <sup>1</sup>	17	-	20	26	26	26	-
C11 <sup>1</sup>	103.7	-	142.4	174.5	205.5	214.5	-
B	5	-	6	6	10	12	-
H	15	-	20.5	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.

# PT-FSR Triple Stage Dimensions



## Specifications

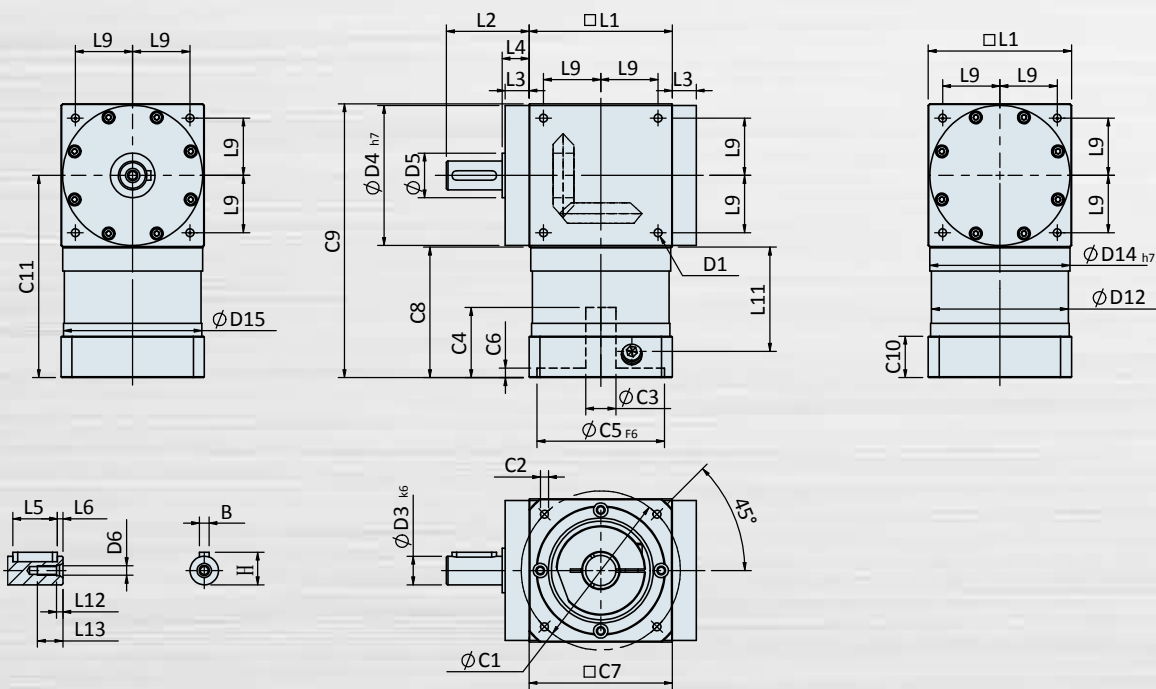
Unit: mm

Dimensions	PT60-FSR	PT75-FSR	PT90-FSR	PT110-FSR	PT140-FSR	PT170-FSR	PT210-FSR
D1	-	-	-	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3 <sub>k6</sub>	-	-	-	22	32	40	-
D4 <sub>h7</sub>	-	-	-	108	135	165	-
D5	-	-	-	33	47	55	-
D6	-	-	-	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	-	-	-	106	104	128	-
D14 <sub>h7</sub>	-	-	-	108	135	165	-
D15	-	-	-	107	103	127	-
L1	-	-	-	110	140	170	-
L2	-	-	-	57	67	77	-
L3	-	-	-	15	15	15	-
L4	-	-	-	17	17	17	-
L5	-	-	-	32	45	50	-
L6	-	-	-	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	-	-	-	44	55	67	-
L10	-	-	-	-	-	-	-
L11	-	-	-	149.8	165.8	159.8	-
L12	-	-	-	4.5	6	6	-
L13	-	-	-	20.5	30	36	-
C1 <sup>1</sup>	-	-	-	90	90	90	-
C2 <sup>1</sup>	-	-	-	M6x1.0P	M6x1.0P	M6x1.0P	-
C3 <sup>1</sup>	-	-	-	≤24	≤24	≤24	-
C4 <sup>1</sup>	-	-	-	48.2	48.2	48.2	-
C5 <sup>1</sup>	-	-	-	70	70	70	-
C6 <sup>1</sup> F6	-	-	-	6	6	6	-
C7 <sup>1</sup>	-	-	-	90	90	90	-
C8 <sup>1</sup>	-	-	-	164.5	180.5	174.5	-
C9 <sup>1</sup>	-	-	-	274.5	320.5	344.5	-
C10 <sup>1</sup>	-	-	-	26	26	26	-
C11 <sup>1</sup>	-	-	-	219.5	250.5	259.5	-
B	-	-	-	6	10	12	-
H	-	-	-	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.

# PT-FSL Single Stage Dimensions



## Specifications

Unit: mm

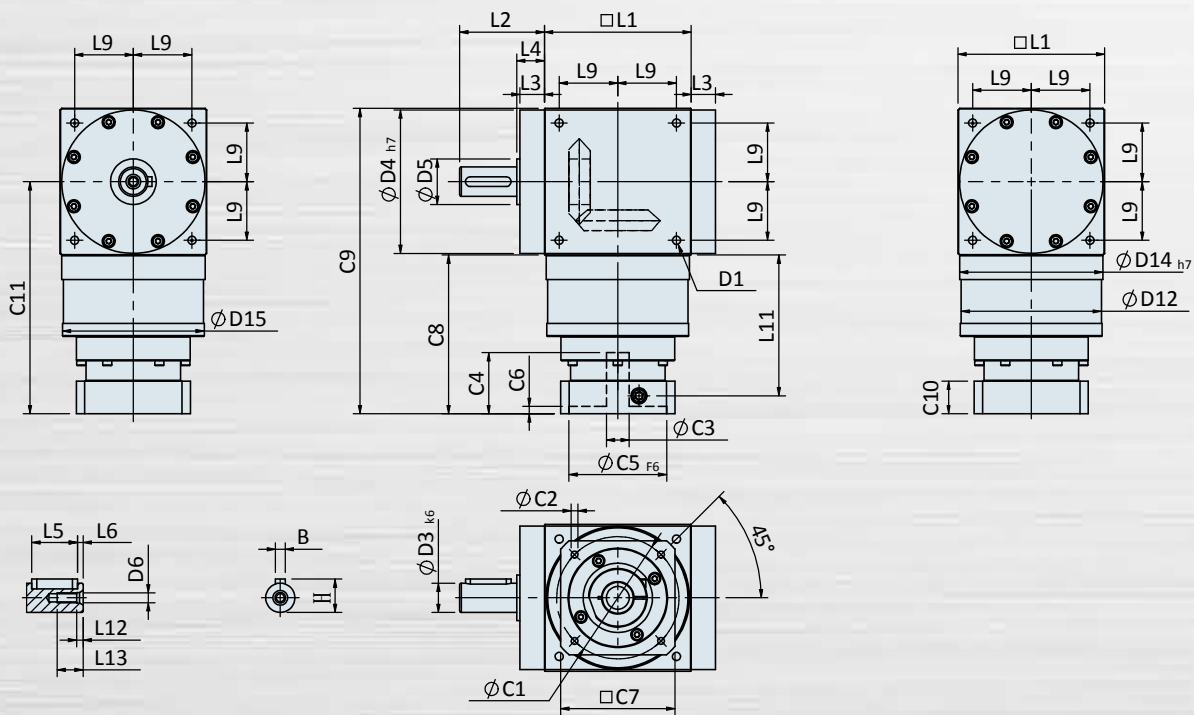
Dimensions	PT60-FSL	PT75-FSL	PT90-FSL	PT110-FSL	PT140-FSL	PT170-FSL	PT210-FSL
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3 <sub>k6</sub>	13	-	18	22	32	40	-
D4 <sub>h7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	60	-	86	106	104	128	-
D14 <sub>h7</sub>	60.2	-	88	108	135	165	-
D15	41.8	-	87	107	103	127	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	24.75	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	38.2	-	65.5	77	86.4	94.1	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
C1 <sup>1</sup>	46	-	100	100	130	165	-
C2 <sup>1</sup>	M4x0.7P	-	M6x1.0P	M6x1.0P	M8x1.25P	M10x1.5P	-
C3 <sup>1</sup>	≤11/≤14/≤19	-	≤19/≤24	≤24	≤32	≤38	-
C4 <sup>1</sup>	33	-	44	47	55.1	67	-
C5 <sup>1</sup> F6	30	-	80	80	110	130	-
C6 <sup>1</sup>	4	-	6	5	5	6	-
C7 <sup>1</sup>	42.6	-	90	90	115	140	-
C8 <sup>1</sup>	47.2	-	82	93	106	118	-
C9 <sup>1</sup>	108	-	172	203	246	288	-
C10 <sup>1</sup>	18.5	-	26	23	27	35	-
C11 <sup>1</sup>	77.6	-	127	148	176	203	-
B	5	-	6	6	10	12	-
H	15	-	20.5	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.



# PT-FSL Double Stage Dimensions



## Specifications

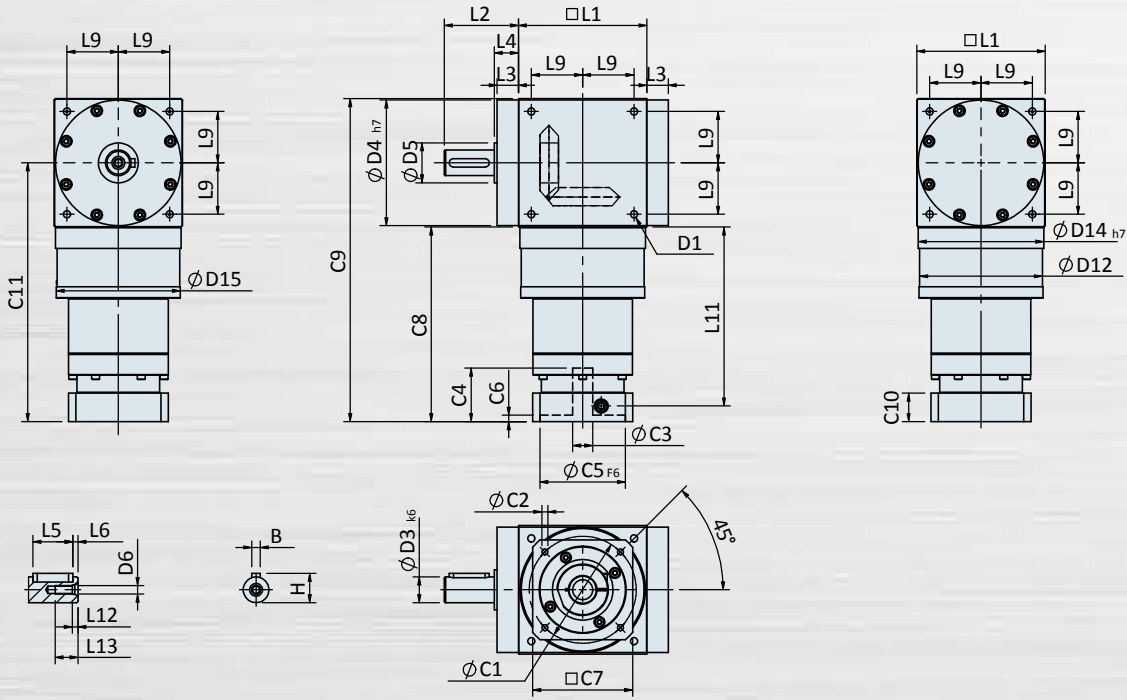
Unit: mm

Dimensions	PT60-FSL	PT75-FSL	PT90-FSL	PT110-FSL	PT140-FSL	PT170-FSL	PT210-FSL
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3 <sub>k6</sub>	13	-	18	22	32	40	-
D4 <sub>h7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	59.8	-	86	106	104	128	-
D14 <sub>h7</sub>	60.2	-	88	108	135	165	-
D15	60	-	87	107	103	127	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	24.75	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	63.7	-	86.4	104.8	120.8	114.8	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
C1 <sup>1</sup>	46	-	70	90	90	90	-
C2 <sup>1</sup>	M4x0.7P	-	M5x0.8P	M6x1.0P	M6x1.0P	M6x1.0P	-
C3 <sup>1</sup>	≤8/≤11	-	≤14/≤19	≤24	≤24	≤24	-
C4 <sup>1</sup>	28.6	-	37.5	48.2	48.2	48.2	-
C5 <sup>1</sup> F6	30	-	50	70	70	70	-
C6 <sup>1</sup>	4.1	-	4.5	6	6	6	-
C7 <sup>1</sup>	42	-	60	90	90	90	-
C8 <sup>1</sup>	73.3	-	97.4	119.5	135.5	129.5	-
C9 <sup>1</sup>	134.1	-	187.4	229.5	275.5	299.5	-
C10 <sup>1</sup>	17	-	20	26	26	26	-
C11 <sup>1</sup>	103.7	-	142.4	174.5	205.5	214.5	-
B	5	-	6	6	10	12	-
H	15	-	20.5	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.

# PT-FSL Triple Stage Dimensions



## Specifications

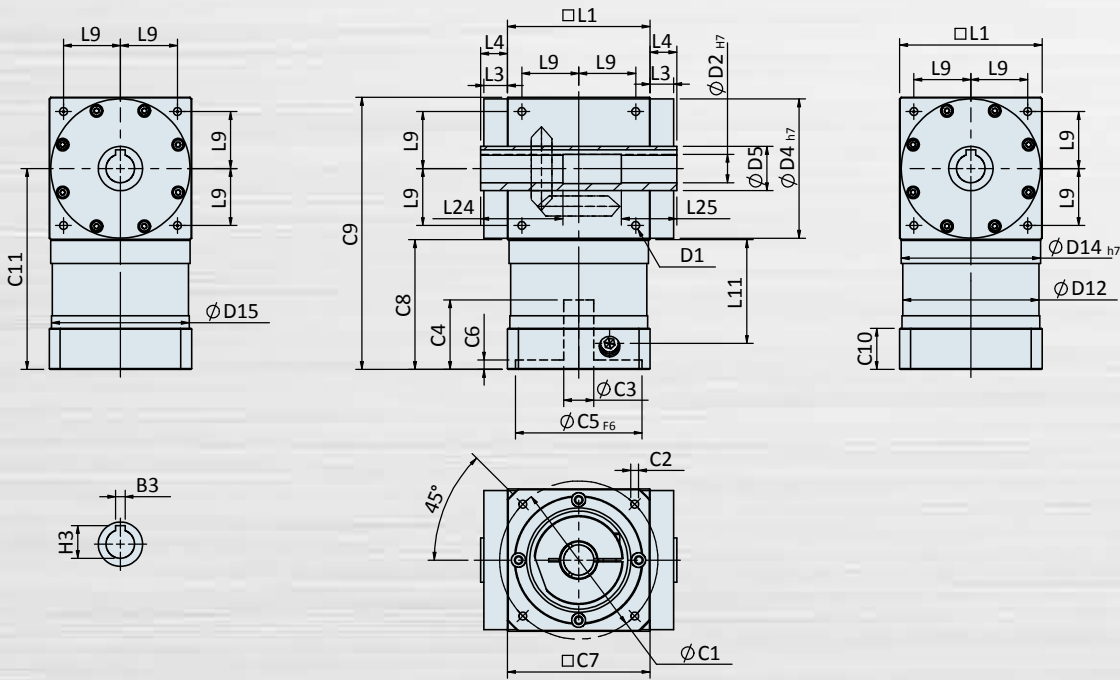
Unit: mm

Dimensions	PT60-FSL	PT75-FSL	PT90-FSL	PT110-FSL	PT140-FSL	PT170-FSL	PT210-FSL
D1	-	-	-	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	-	-	-	-	-	-	-
D3 <sub>k6</sub>	-	-	-	22	32	40	-
D4 <sub>h7</sub>	-	-	-	108	135	165	-
D5	-	-	-	33	47	55	-
D6	-	-	-	M8x1.25P	M12x1.75P	M16x2.0P	-
D7	-	-	-	-	-	-	-
D12	-	-	-	106	104	128	-
D14 <sub>h7</sub>	-	-	-	108	135	165	-
D15	-	-	-	107	103	127	-
L1	-	-	-	110	140	170	-
L2	-	-	-	57	67	77	-
L3	-	-	-	15	15	15	-
L4	-	-	-	17	17	17	-
L5	-	-	-	32	45	50	-
L6	-	-	-	4	2.5	5	-
L7	-	-	-	-	-	-	-
L9	-	-	-	44	55	67	-
L10	-	-	-	-	-	-	-
L11	-	-	-	149.8	165.8	159.8	-
L12	-	-	-	4.5	6	6	-
L13	-	-	-	20.5	30	36	-
C1 <sup>1</sup>	-	-	-	90	90	90	-
C2 <sup>1</sup>	-	-	-	M6x1.0P	M6x1.0P	M6x1.0P	-
C3 <sup>1</sup>	-	-	-	≤24	≤24	≤24	-
C4 <sup>1</sup>	-	-	-	48.2	48.2	48.2	-
C5 <sup>1</sup> F6	-	-	-	70	70	70	-
C6 <sup>1</sup>	-	-	-	6	6	6	-
C7 <sup>1</sup>	-	-	-	90	90	90	-
C8 <sup>1</sup>	-	-	-	164.5	180.5	174.5	-
C9 <sup>1</sup>	-	-	-	274.5	320.5	344.5	-
C10 <sup>1</sup>	-	-	-	26	26	26	-
C11 <sup>1</sup>	-	-	-	219.5	250.5	259.5	-
B	-	-	-	6	10	12	-
H	-	-	-	24.5	35	43	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.

# PT-FH Single Stage Dimensions



## Specifications

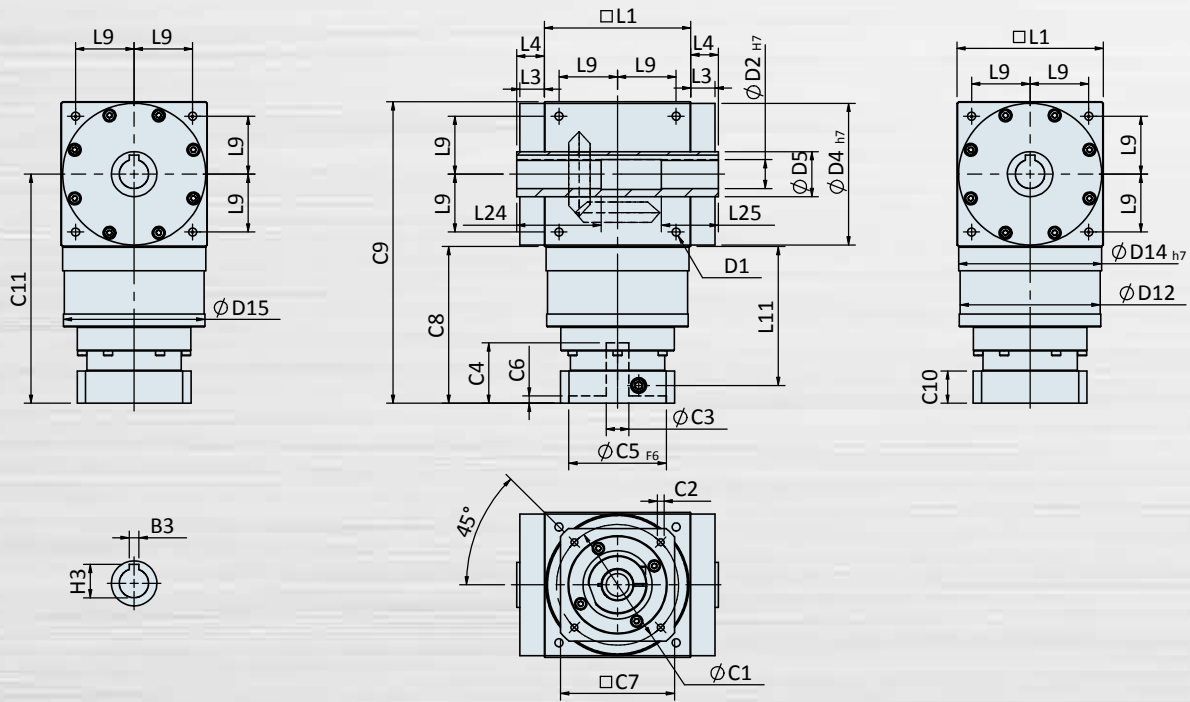
Unit: mm

Dimensions	PT60-FH	PT75-FH	PT90-FH	PT110-FH	PT140-FH	PT170-FH	PT210-FH
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2 <sub>H7</sub>	13	-	18	22	32	40	-
D3 <sub>k6</sub>	-	-	-	-	-	-	-
D4 <sub>H7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	-	-	-	-	-	-	-
D7	-	-	-	-	-	-	-
D12	60	-	86	106	104	128	-
D14 <sub>H7</sub>	60.2	-	88	108	135	165	-
D15	41.8	-	87	107	103	127	-
L1	60.8	-	90	110	140	170	-
L2	-	-	-	-	-	-	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	-	-	-	-	-	-	-
L6	-	-	-	-	-	-	-
L7	-	-	-	-	-	-	-
L9	24.75	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	38.2	-	65.5	77	86.4	94.1	-
L24	40	-	52	53	70	80	-
L25	30	-	35	35	50	55	-
C1 <sup>1</sup>	46	-	100	100	130	165	-
C2 <sup>1</sup>	M4x0.7P	-	M6x1.0P	M6x1.0P	M8x1.25P	M10x1.5P	-
C3 <sup>1</sup>	≤11/≤14/≤19	-	≤19/≤24	≤24	≤32	≤38	-
C4 <sup>1</sup>	33	-	44	47	55.1	67	-
C5 <sup>1</sup> F6	30	-	80	80	110	130	-
C6 <sup>1</sup>	4	-	6	5	5	6	-
C7 <sup>1</sup>	42.6	-	90	90	115	140	-
C8 <sup>1</sup>	47.2	-	82	93	106	118	-
C9 <sup>1</sup>	108	-	172	203	246	288	-
C10 <sup>1</sup>	18.5	-	26	23	27	35	-
C11 <sup>1</sup>	77.6	-	127	148	176	203	-
B3	5	-	6	6	10	12	-
H3	15.3	-	20.8	24.8	35.3	43.3	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.

# PT-FH Double Stage Dimensions



## Specifications

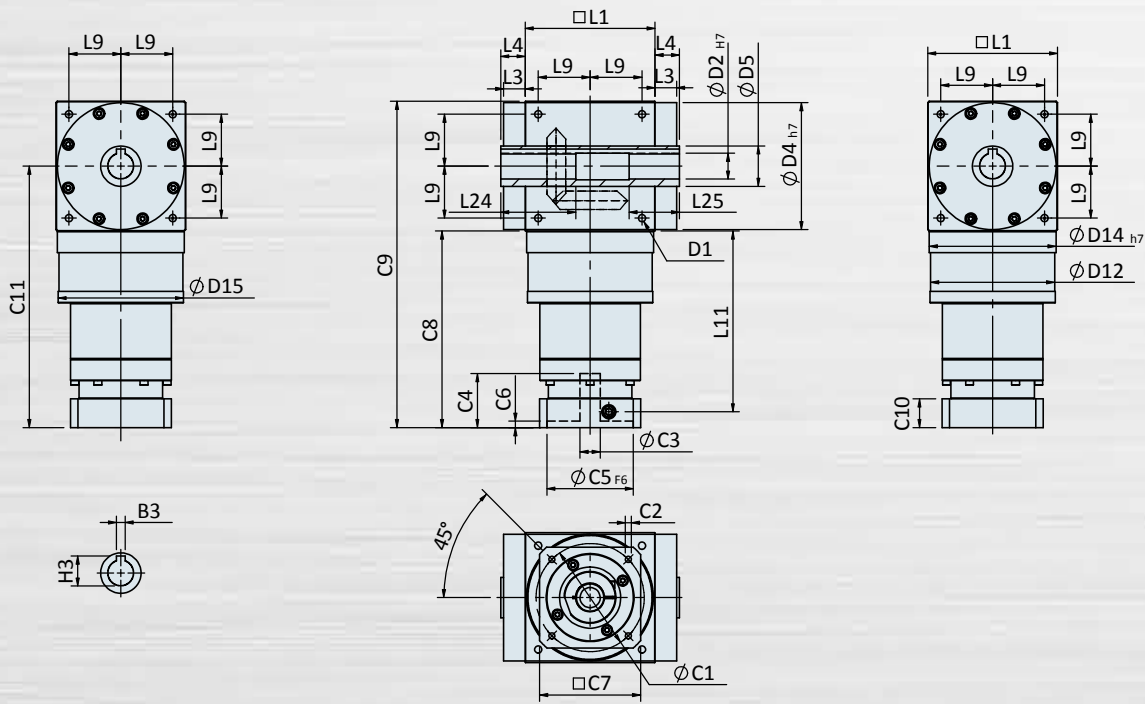
Unit: mm

Dimensions	PT60-FH	PT75-FH	PT90-FH	PT110-FH	PT140-FH	PT170-FH	PT210-FH
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2	13	-	18	22	32	40	-
D3 <sub>k6</sub>	-	-	-	-	-	-	-
D4 <sub>h7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	-	-	-	-	-	-	-
D7	-	-	-	-	-	-	-
D12	59.8	-	86	106	104	128	-
D14 <sub>h7</sub>	60.2	-	88	108	135	165	-
D15	60	-	87	107	103	127	-
L1	60.8	-	90	110	140	170	-
L2	-	-	-	-	-	-	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	-	-	-	-	-	50	-
L6	-	-	-	-	-	5	-
L7	-	-	-	-	-	-	-
L9	24.75	-	36	44	55	67	-
L10	-	-	-	-	-	-	-
L11	63.7	-	86.4	104.8	120.8	114.8	-
L24	40	-	52	53	70	80	-
L25	30	-	35	35	50	55	-
C1 <sup>1</sup>	46	-	70	90	90	90	-
C2 <sup>1</sup>	M4x0.7P	-	M5x0.8P	M6x1.0P	M6x1.0P	M6x1.0P	-
C3 <sup>1</sup>	≤8/≤11	-	≤14/≤19	≤24	≤24	≤24	-
C4 <sup>1</sup>	28.6	-	37.5	48.2	48.2	48.2	-
C5 <sup>1</sup> F6	30	-	50	70	70	70	-
C6 <sup>1</sup>	4.1	-	4.5	6	6	6	-
C7 <sup>1</sup>	42	-	60	90	90	90	-
C8 <sup>1</sup>	73.3	-	97.4	119.5	135.5	129.5	-
C9 <sup>1</sup>	134.1	-	187.4	229.5	275.5	299.5	-
C10 <sup>1</sup>	17	-	20	26	26	26	-
C11 <sup>1</sup>	103.7	-	142.4	174.5	205.5	214.5	-
B	5	-	6	6	10	12	-
H	15.3	-	20.8	24.8	35.3	43.3	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.

# PT-FH Triple Stage Dimensions



## Specifications

Unit: mm

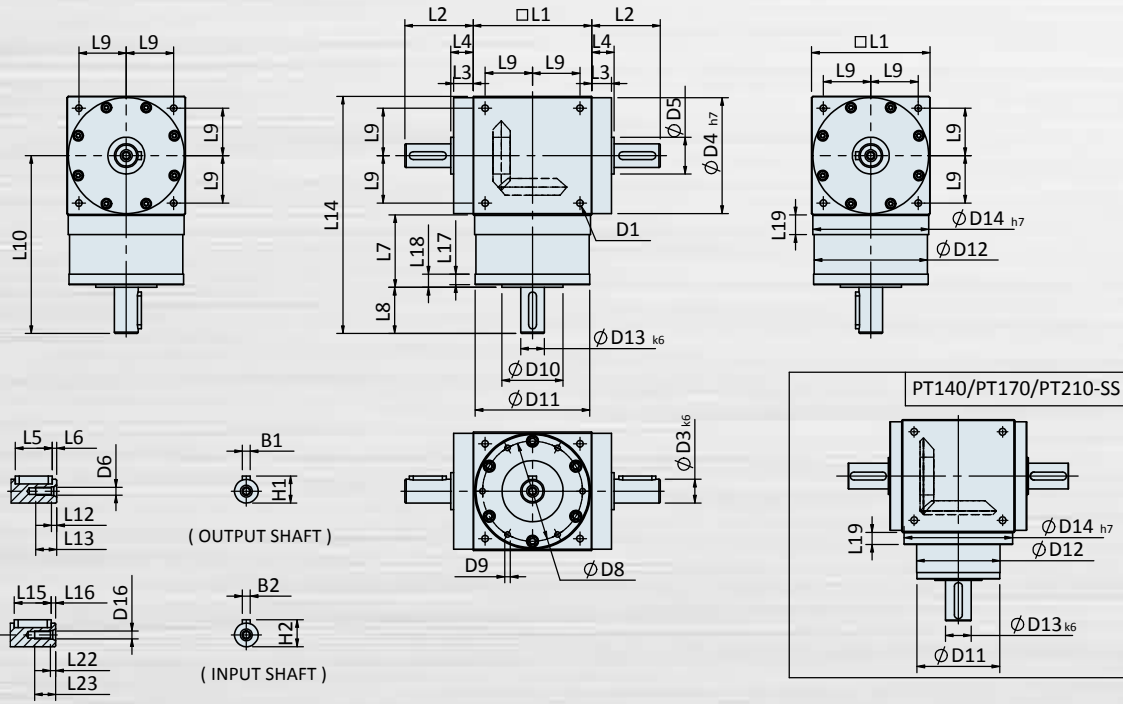
Dimensions	PT60-FH	PT75-FH	PT90-FH	PT110-FH	PT140-FH	PT170-FH	PT210-FH
D1	-	-	-	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2 <sup>H7</sup>	-	-	-	22	32	40	-
D3 <sup>k6</sup>	-	-	-	-	-	-	-
D4 <sup>H7</sup>	-	-	-	108	135	165	-
D5	-	-	-	33	47	55	-
D6	-	-	-	-	-	-	-
D7	-	-	-	-	-	-	-
D12	-	-	-	106	104	128	-
D14 <sup>H7</sup>	-	-	-	108	135	165	-
D15	-	-	-	107	103	127	-
L1	-	-	-	110	140	170	-
L2	-	-	-	-	-	-	-
L3	-	-	-	15	15	15	-
L4	-	-	-	17	17	17	-
L5	-	-	-	-	-	-	-
L6	-	-	-	-	-	-	-
L7	-	-	-	-	-	-	-
L9	-	-	-	44	55	67	-
L10	-	-	-	-	-	-	-
L11	-	-	-	149.8	165.8	159.8	-
L24	-	-	-	53	70	80	-
L25	-	-	-	35	50	55	-
C1 <sup>1</sup>	-	-	-	90	90	90	-
C2 <sup>1</sup>	-	-	-	M6x1.0P	M6x1.0P	M6x1.0P	-
C3 <sup>1</sup>	-	-	-	≤24	≤24	≤24	-
C4 <sup>1</sup>	-	-	-	48.2	48.2	48.2	-
C5 <sup>1</sup> F6	-	-	-	70	70	70	-
C6 <sup>1</sup>	-	-	-	6	6	6	-
C7 <sup>1</sup>	-	-	-	90	90	90	-
C8 <sup>1</sup>	-	-	-	164.5	180.5	174.5	-
C9 <sup>1</sup>	-	-	-	274.5	320.5	344.5	-
C10 <sup>1</sup>	-	-	-	26	26	26	-
C11 <sup>1</sup>	-	-	-	219.5	250.5	259.5	-
B3	-	-	-	6	10	12	-
H3	-	-	-	24.8	35.3	43.3	-

\*1. C1~C11 are motor specific dimensions (metric std shown), size may vary according to motor flange.

★ Specification subject to change without notice.



# PT-SS Single Stage Dimensions



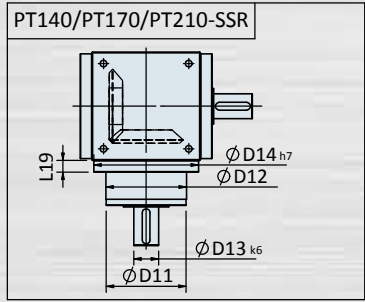
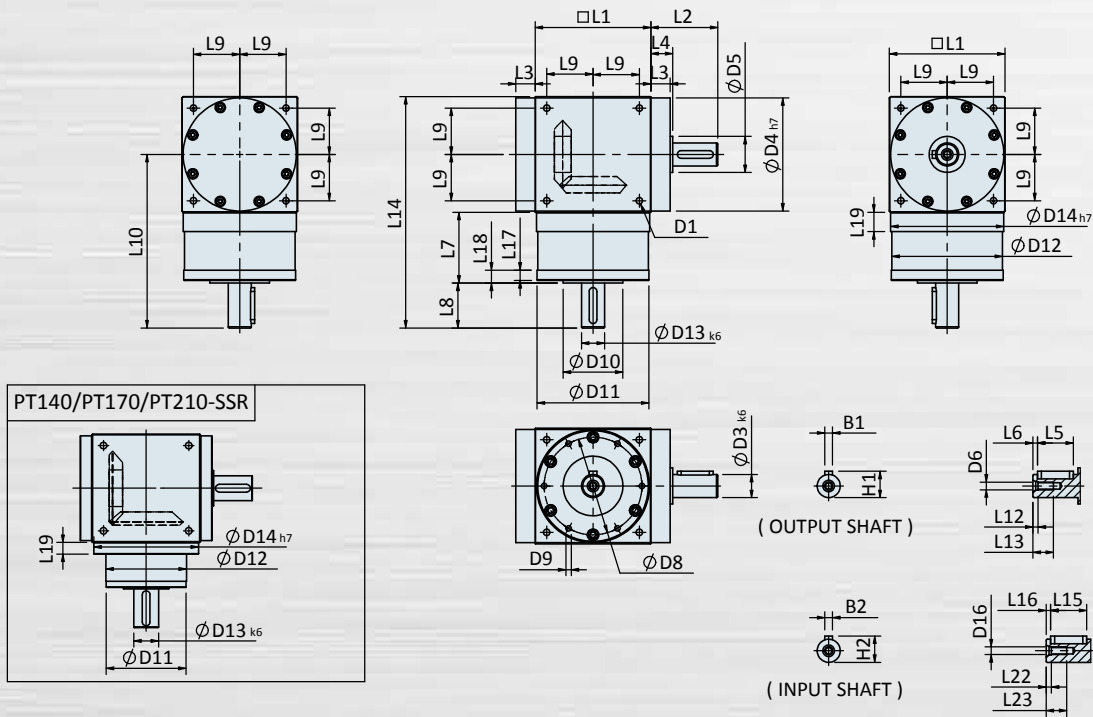
## Specifications

Unit: mm

Dimensions	PT60-SS	PT75-SS	PT90-SS	PT110-SS	PT140-SS	PT170-SS	PT210-SS
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D3k6	13	-	18	22	32	40	-
D4h7	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D8	53	-	76	95	92	114	-
D9	4-M4x0.7P	-	4-M5x0.8P	6-M6x1.0P	6-M6x1.0P	6-M8x1.25P	-
D10	34	-	46	59	59	74.4	-
D11	60	-	87	107	103	127	-
D12	59.8	-	86	106	104	128	-
D13k6	13	-	18	22	32	40	-
D14h7	60.2	-	88	108	135	165	-
D16	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	43	-	55	60	60	70	-
L8	19.5	-	35	40	50	60	-
L9	24.75	-	36	44	55	67	-
L10	92.9	-	135	155	180	215	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
L14	123.3	-	180	210	250	300	-
L15	16	-	28	32	45	50	-
L16	2	-	3.5	4	2.5	5	-
L17	6	-	8	8	10	10	-
L18	8	-	10	10	12	12	-
L19	13	-	15	15	15	15	-
L22	4	-	4	4.5	6	6	-
L23	12	-	16	20.5	30	36	-
B1	5	-	6	6	10	12	-
B2	5	-	6	6	10	12	-
H1	15	-	20.5	24.5	35	43	-
H2	15	-	20.5	24.5	35	43	-

★ Specification subject to change without notice.

# PT-SSR Single Stage Dimensions



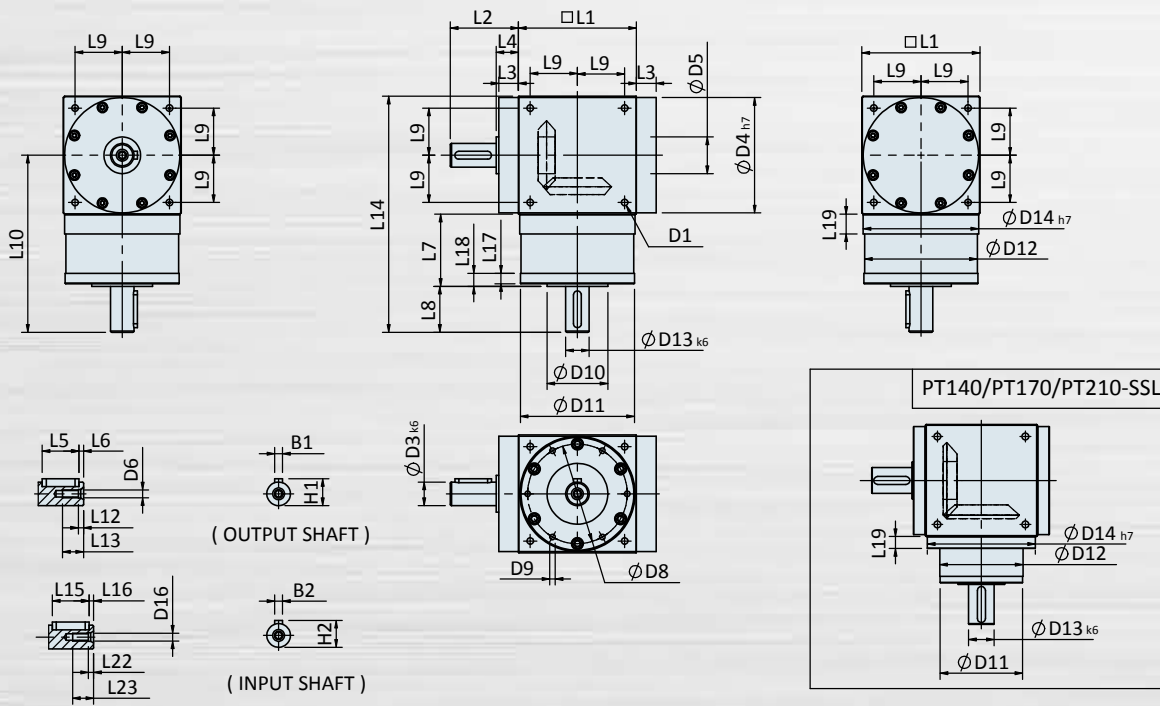
## Specifications

Unit: mm

Dimensions	PT60-SSR	PT75-SSR	PT90-SSR	PT110-SSR	PT140-SSR	PT170-SSR	PT210-SSR
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D3 <sub>k6</sub>	13	-	18	22	32	40	-
D4 <sub>h7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D8	53	-	76	95	92	114	-
D9	4-M4x0.7P	-	4-M5x0.8P	6-M6x1.0P	6-M6x1.0P	6-M8x1.25P	-
D10	34	-	46	59	59	74.4	-
D11	60	-	87	107	103	127	-
D12	59.8	-	86	106	104	128	-
D13 <sub>k6</sub>	13	-	18	22	32	40	-
D14 <sub>h7</sub>	60.2	-	88	108	135	165	-
D16	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	43	-	55	60	60	70	-
L8	19.5	-	35	40	50	60	-
L9	24.75	-	36	44	55	67	-
L10	92.9	-	135	155	180	215	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
L14	123.3	-	180	210	250	300	-
L15	16	-	28	32	45	50	-
L16	2	-	3.5	4	2.5	5	-
L17	6	-	8	8	10	10	-
L18	8	-	10	10	12	12	-
L19	13	-	15	15	15	15	-
L22	4	-	4	4.5	6	6	-
L23	12	-	16	20.5	30	36	-
B1	5	-	6	6	10	12	-
B2	5	-	6	6	10	12	-
H1	15	-	20.5	24.5	35	43	-
H2	15	-	20.5	24.5	35	43	-

★ Specification subject to change without notice.

# PT-SSL Single Stage Dimensions



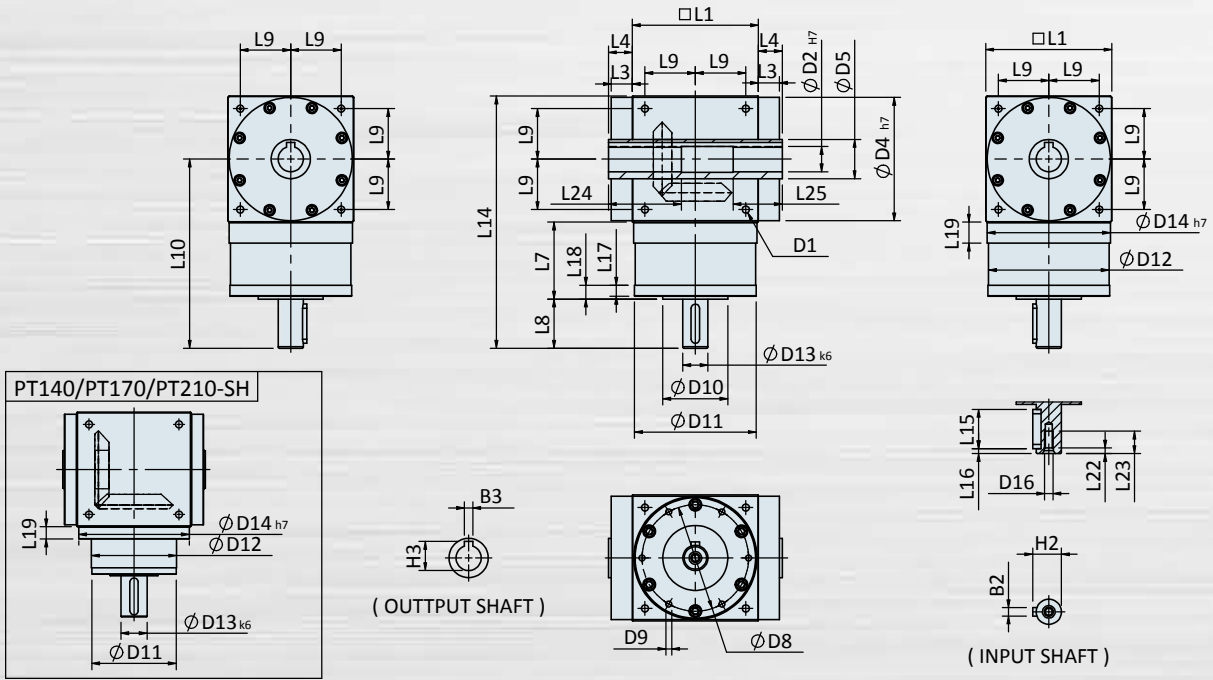
## Specifications

Unit: mm

Dimensions	PT60-SSL	PT75-SSL	PT90-SSL	PT110-SSL	PT140-SSL	PT170-SSL	PT210-SSL
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D3k6	13	-	18	22	32	40	-
D4h7	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
D8	53	-	76	95	92	114	-
D9	4-M4x0.7P	-	4-M5x0.8P	6-M6x1.0P	6-M6x1.0P	6-M8x1.25P	-
D10	34	-	46	59	59	74.4	-
D11	60	-	87	107	103	127	-
D12	59.8	-	86	106	104	128	-
D13k6	13	-	18	22	32	40	-
D14h7	60.2	-	88	108	135	165	-
D16	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
L1	60.8	-	90	110	140	170	-
L2	31.5	-	52	57	67	77	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	16	-	28	32	45	50	-
L6	2	-	3.5	4	2.5	5	-
L7	43	-	55	60	60	70	-
L8	19.5	-	35	40	50	60	-
L9	24.75	-	36	44	55	67	-
L10	92.9	-	135	155	180	215	-
L12	4	-	4	4.5	6	6	-
L13	12	-	16	20.5	30	36	-
L14	123.3	-	180	210	250	300	-
L15	16	-	28	32	45	50	-
L16	2	-	3.5	4	2.5	5	-
L17	6	-	8	8	10	10	-
L18	8	-	10	10	12	12	-
L19	13	-	15	15	15	15	-
L22	4	-	4	4.5	6	6	-
L23	12	-	16	20.5	30	36	-
B1	5	-	6	6	10	12	-
B2	5	-	6	6	10	12	-
H1	15	-	20.5	24.5	35	43	-
H2	15	-	20.5	24.5	35	43	-

★ Specification subject to change without notice.

# PT-SH Single Stage Dimensions



## Specifications

Unit: mm

Dimensions	PT60-SH	PT75-SH	PT90-SH	PT110-SH	PT140-SH	PT170-SH	PT210-SH
D1	24-M4x0.7P	-	24-M6x1.0P	24-M8x1.25P	24-M10x1.5P	24-M12x1.75P	-
D2 <sub>h7</sub>	13	-	18	22	32	40	-
D4 <sub>h7</sub>	60	-	88	108	135	165	-
D5	21	-	28	33	47	55	-
D6	-	-	-	-	-	-	-
D8	53	-	76	95	92	114	-
D9	4-M4x0.7P	-	4-M5x0.8P	6-M6x1.0P	6-M6x1.0P	6-M8x1.25P	-
D10	34	-	46	59	59	74.4	-
D11	60	-	87	107	103	127	-
D12	59.8	-	86	106	104	128	-
D13 <sub>k6</sub>	13	-	18	22	32	40	-
D14 <sub>h7</sub>	60.2	-	88	108	135	165	-
D16	M4x0.7P	-	M6x1.0P	M8x1.25P	M12x1.75P	M16x2.0P	-
L1	60.8	-	90	110	140	170	-
L2	-	-	-	-	-	-	-
L3	10	-	15	15	15	15	-
L4	12	-	17	17	17	17	-
L5	-	-	-	-	-	-	-
L6	-	-	-	-	-	-	-
L7	43	-	55	60	60	70	-
L8	19.5	-	35	40	50	60	-
L9	24.75	-	36	44	55	67	-
L10	92.9	-	135	155	180	215	-
L14	123.3	-	180	210	250	300	-
L15	16	-	28	32	45	50	-
L16	2	-	3.5	4	2.5	5	-
L17	6	-	8	8	10	10	-
L18	8	-	10	10	12	12	-
L19	13	-	15	15	15	15	-
L22	4	-	4	4.5	6	6	-
L23	12	-	16	20.5	30	36	-
L24	40	-	52	53	70	80	-
L25	30	-	35	35	50	55	-
B2	5	-	6	6	10	12	-
B3	5	-	6	6	10	12	-
H2	15	-	20.5	24.5	35	43	-
H3	15.3	-	20.8	24.8	35.3	43.3	-

★ Specification subject to change without notice.

PT Flange Input Specs. Table

Specifications		Stage	Ratio	PT60 (FS/FSL/FSR/FH)	PT75 (FS/FSL/FSR/FH)	PT90 (FS/FSL/FSR/FH)	PT110 (FS/FSL/FSR/FH)	PT140 (FS/FSL/FSR/FH)	PT170 (FS/FSL/FSR/FH)	PT210 (FS/FSL/FSR/FH)	
Nominal Output Torque $T_{2N}$	N · m	1	1	25	45	78	150	360	585	1300	
			1.5	25	45	78	150	360	585	1300	
			2	24	42	68	150	330	544	1220	
			3	18	33	54	120	270	450	1020	
			4	13	28	48	100	224	376	860	
		2	5	12	25	40	85	196	320	740	
			7	13	13	40	100	100	100	210	
			9	-	33	54	120	210	210	430	
			10	24	42	68	150	208	208	460	
			15	18	33	54	120	270	312	645	
			20	13	28	48	100	224	376	860	
			25	12	25	40	85	196	320	740	
			35	12	25	40	85	196	320	740	
			50	12	25	40	85	196	320	740	
			3	75	-	-	-	120	270	312	645
		100		-	-	-	100	224	376	860	
		125		-	-	-	85	196	320	740	
		150		-	-	-	120	270	312	645	
		200		-	-	-	100	224	376	860	
		250		-	-	-	85	196	320	740	
		350		-	-	-	85	196	320	740	
500	-	-	-	85	196	320	740				
Emergency Stop Torque $T_{2NOT}$	N · m	2.0 Times of Nominal Output Torque (* Max. Output Torque $T_{2B}$ = 1.5 Times of Nominal Output Torque)									
Nominal Input Speed $n_{1N}$	rpm	1	1	2500	2000	1700	1400	1100	1000	800	
			1.5, 2	3000	2500	2000	1600	1400	1300	1050	
			3, 4, 5	3500	3000	2500	2100	2000	1800	160	
		2	7-50	5000	5000	4000	4000	4000	3500	3000	
Max. Input Speed $n_{1max}$	rpm	3	75-500	-	-	-	5000	4000	4000	4000	
		1	1-5	7500	6500	5500	4500	3500	3000	2200	
		2	7-50	8000	8000	6000	6000	6000	6000	4800	
Standard Backlash P2	arcmin	3	75-500	-	-	-	8000	8000	8000	6000	
		1	1-5	≤6	≤6	≤6	≤6	≤6	≤6	≤6	
		2	7-50	≤8	≤8	≤8	≤8	≤8	≤8	≤8	
Max. Radial Load $F_{2rB}^1$	N	1,2,3	1-500	900	1100	1700	2700	4800	6600	11500	
Max. Axial Load $F_{2aB}^1$	N	1,2,3	1-500	450	550	850	1350	2400	3300	5750	
Operating Temp.	°C	1,2,3	-10°C ~ +90°C								
Service Life	hrs	1,2,3	20,000 (10,000 Continuous Operation)								
Efficiency	%	1	1-5	≥ 98%							
		2	7-50	≥ 94%							
		3	75-500	≥ 94%							
Weight	FS/FSL/FSR	kg	1	1-5	2.8	4.6	7.5	12.8	21.8	38.3	72.6
			2	7-50	3.2	5.2	8.5	15.3	25.1	40.7	77.3
			3	75-500	-	-	-	16.1	25.9	42.0	79.2
	FH	kg	1	1-5	2.6	4.3	7.1	12.1	20.0	34.9	66.1
			2	7-50	3.1	4.9	8.1	14.6	23.5	37.3	70.8
			3	75-500	-	-	-	15.4	24.3	38.5	72.4
Mounting Position	-	1,2,3	Any Direction								
Noise Level <sup>2</sup>	dB(A)/1m	1,2,3	1-500	68	70	74	75	76	77	79	
Protection Class	-	1,2,3	IP65								
Lubrication	-	1,2,3	Synthetic Lubricant								
Inertia (J1)											
Stage	Ratio	unit	PT60 (FS/FSL/FSR/FH)	PT75 (FS/FSL/FSR/FH)	PT90 (FS/FSL/FSR/FH)	PT110 (FS/FSL/FSR/FH)	PT140 (FS/FSL/FSR/FH)	PT170 (FS/FSL/FSR/FH)	PT210 (FS/FSL/FSR/FH)		
1	1	Kg · cm <sup>2</sup>	0.51	1.35	3.21	7.82	25.1	61.5	198.9		
	1.5		0.46	1.18	2.9	6.85	20.3	51.2	158.2		
	2		0.44	1.15	2.75	6.52	18.7	47.3	142.5		
	3-5		0.43	1.11	2.71	6.21	18.1	45.2	136.5		
2	7-50	0.04	0.07	0.32	1.0	1.6	3.1	9.8			
3	75-500	-	-	-	0.23	0.26	0.75	1.0			
1. Applied to the output shaft center at 400 rpm. 2. Measured at 1500 rpm with no load. ※ The above figures/specifications are subject to change without prior notice.											



## PT Solid Shaft Input Specs. Table

Specifications		Stage	Ratio	PT60 (SS/SSL/SSR/SH)	P75 (SS/SSL/SSR/SH)	PT90 (SS/SSL/SSR/SH)	PT110 (SS/SSL/SSR/SH)	PT140 (SS/SSL/SSR/SH)	PT170 (SS/SSL/SSR/SH)	PT210 (SS/SSL/SSR/SH)	
Nominal Output Torque $T_{2N}$	N · m	1	1	25	45	78	150	360	585	1300	
			1.5	25	45	78	150	360	585	1300	
			2	24	42	68	150	330	544	1220	
			3	18	33	54	120	270	450	1020	
			4	13	28	48	100	224	376	860	
5	12	25	40	85	196	320	740				
Emergency Stop Torque $T_{2NOT}$	N · m	2.0 Times of Nominal Output Torque (*Max. Output Torque $T_{2B}=1.5$ Times of Nominal Output Torque)									
Nominal Input Speed $n_{1N}$	rpm	1	1	2500	2000	1700	1400	1100	1000	800	
		1	1.5, 2	3000	2500	2000	1600	1400	1300	1050	
		1	3, 4, 5	3500	3000	2500	2100	2000	1800	1600	
Max. Input Speed $n_{1max}$	rpm	1	1-5	7500	6500	5500	4500	3500	3000	2200	
Standard Backlash P2	arcmin	1	1-5	≤6	≤6	≤6	≤6	≤6	≤6	≤6	
Max. Radial Load on Output Shaft $F_{2rB}^1$	N	1	1-5	900	1100	1700	2700	4800	6600	11500	
Max. Axial Load on Output Shaft $F_{2aB}^1$	N	1	1-5	450	550	850	1350	2400	3300	5750	
Max. Radial Load on Input Shaft $F_{1rB}^2$	N	1	1-5	700	950	1450	2100	2700	3800	7800	
Max. Axial Load on Input Shaft $F_{1aB}^2$	N	1	1-5	350	425	725	1050	1350	1900	3900	
Operating Temp.	°C	-10°C ~ +90°C									
Service Life	hrs	20,000 (10,000 Continuous Operation)									
Efficiency	%	≥98%									
Weight	SS	kg	1	1-5	2.6	4.4	7.2	12.2	20.8	36.5	69.2
	SSL	kg	1	1-5	2.5	4.3	7.1	12.1	20.5	35.9	68.1
	SSR	kg	1	1-5	2.5	4.3	7.1	12.1	20.5	35.9	68.1
	SH	kg	1	1-5	2.4	4.1	6.8	11.6	19.1	33.3	63.0
Mounting Position	-	1	1-5	Any Direction							
Noise Level <sup>2</sup>	dB(A)/1m	1	1-5	66	68	72	74	75	76	78	
Protection Class	-	1	1-5	IP65							
Lubrication	-	1	1-5	Synthetic Lubricant							

### Inertia (J1)

Stage	Ratio	unit	PT60 (SS/SSL/SSR/SH)	P75 (SS/SSL/SSR/SH)	PT90 (SS/SSL/SSR/SH)	PT110 (SS/SSL/SSR/SH)	PT140 (SS/SSL/SSR/SH)	PT170 (SS/SSL/SSR/SH)	PT210 (SS/SSL/SSR/SH)
1	1	Kg · cm <sup>2</sup>	0.51	1.35	3.21	7.82	25.1	61.5	198.9
	1.5		0.46	1.18	2.9	6.85	20.3	51.2	158.2
	2		0.44	1.15	2.75	6.52	18.7	47.3	142.5
	3-5		0.43	1.11	2.71	6.21	18.1	45.2	136.5

\* 1. Applied to the output shaft center @400rpm.

\* 2. Measured at 1500rpm with no load.

※The above figures/specifications are subject to change without prior notice.

Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty.

AGENT



**SESAME MOTOR CORP.**

599, Sec 1, Hemu Rd., Shengang, Taichung 42953, Taiwan

TEL : +886-4-2561-0011

FAX : +886-4-2562-7766

Skype phone : sesame\_motor

info@sesamemotor.com.tw

www.sesamemotor.com