

POWERGEAR DATA SHEET P-090



L Series



FL Series



H Series



FH Series

Specifications:

Ratio:	1:1	1.5:1	2:1	3:1	4:1	5:1
Nominal output torque:	78Nm	78Nm	68Nm	54Nm	52Nm	40Nm
Acceleration torque:	117Nm	117Nm	102Nm	81Nm	78Nm	60Nm
Emergency torque:	156Nm	156Nm	136Nm	108Nm	104Nm	80Nm
Input speed:	1700rpm	2000rpm	2000rpm	2500rpm	2500rpm	2500rpm
Max input speed (Special measures on request)	5500rpm	5500rpm	5500rpm	5500rpm	5500rpm	5500rpm
Standard output backlash:	<=14 arcmin	<=14 arcmin	<=14 arcmin	<=14 arcmin	<=14 arcmin	<=14 arcmin
Reduced output backlash:	<=8 arcmin	<=8 arcmin	<=8 arcmin	<=8 arcmin	<=8 arcmin	<=8 arcmin
Permissible radial load*: (Output)	1600N	1600N	1600N	1600N	1600N	1600N
Permissible radial load*: (Input)	1300N	1300N	1300N	1300N	1300N	1300N
Permissible axial load*: (Output)	800N	800N	800N	800N	800N	800N
Permissible axial load*: (Input)	650N	650N	650N	650N	650N	650N
Efficiency at max load:	>98%	>98%	>98%	>98%	>98%	>98%
Running noise at 1500rpm, partial load	74db(A)	74db(A)	74db(A)	74db(A)	74db(A)	74db(A)
Weight:	8.0kg	8.0kg	8.0kg	8.0kg	8.0kg	8.0kg
Service life:	>15,000h	>15,000h	>15,000h	>15,000h	>15,000h	>15,000h
Oil quantity:	0.2 litres	0.2 litres	0.2 litres	0.2 litres	0.2 litres	0.2 litres
Operating temperature:	up to 80°C	up to 80°C	up to 80°C	up to 80°C	up to 80°C	up to 80°C
Mass moments of inertia related to input for shaft arrangement 13:	4.93kg/cm ²	3.45kg/cm ²	2.78kg/cm ²	2.34kg/cm ²	2.18kg/cm ²	2.10kg/cm ²

*At centre of shaft

Order code:

P-	090-	2-	3-	4-	5-	6-	7
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2:	Version:	L = solid shaft version; FL = solid shaft version with input flange H = hollow shaft version; FH = hollow shaft version with input flange
3:	Ratio:	1:1; 1.5:1; 2:1; 3:1; 4:1; 5:1
4:	Shaft arrangement:	Wa1; Wa3; Wa12; Wa13; Wa23; Wa123
5:	Mounting position:	MP1; MP2; MP3; MP4; MP5; MP6
6:	Input speed:	???rpm
7:	Special requirements:	As specified

Dimensions

a:	90mm	<p>L Series</p> <p>H Series</p> <p>FL Series</p> <p>FH Series</p>
b dia:	88mmh7	
c dia:	86mm	
d1 dia:	18mmk6	
l1:	35mm	
d2 dia:	18mmk6	
d3 dia:	18mmH7	
l2:	35mm	
l3:	55mm	
l4:	35mm	
e:	45mm	
f1:	135mm	
f2:	97mm	
g1:	15mm	
g2:	15mm	
h:	55mm	
k:	M6x12mm	
m1:	100mm	
m2:	62mm	
n1:	2mm	
n2:	2mm	
p:	36mm	
r1:	M6	
r2:	M6	
s:	4x M5x12	
t:	8mm	
u dia:	87mmg6	
v dia:	76mm	
Key d1:	6x6x28mm	
Key d2:	6x6x28mm	
Z:	4.5mm	
Input shaft d1 dia x L1 with keyway to DIN6885/1	14mmG7 x 33mm / 5x5mm with 19mmG7 x 43mm / 6x6mm	

Flange options:

Input flange B5 = u dia/ v dia/ w dia with 4x threaded holes:	120mm/ 100mm/ 80mmF7/ M6	140mm/ 115mm/ 95mmF7/ M8	160mm/ 130mm/ 110mmF7/ M8	200mm/ 165mm/ 130mmF7/ M10
Input flange B14 = u dia/ v dia/ w dia with 4x bored holes:		140mm/ 115mm/ 95mmF7/ 9mm	160mm/ 130mm/ 110mmF7/ 9mm	200mm/ 165mm/ 130mmF7/ 11mm

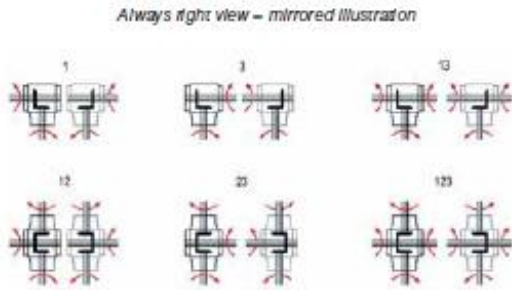
Thermal performance limit (P) = 4.1kW at 20°C and 100% duty cycle

Duty cycle:	100%	80%	60%	40%	20%
Factor:	1.0	1.2	1.4	1.6	1.8
Ambient temp:	10°C	20°C	30°C	40°C	50°C
Factor:	1.2	1.0	0.87	0.75	0.62

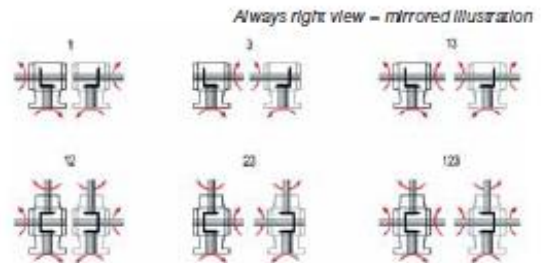
Eg: Duty cycle = 80%; ambient temp = 30°C

Therefore P = 4.1 x 1.2 x 0.87 = 4.28kW

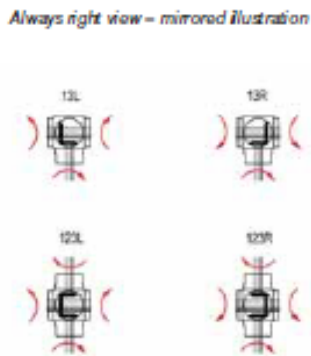
Shaft arrangements L:



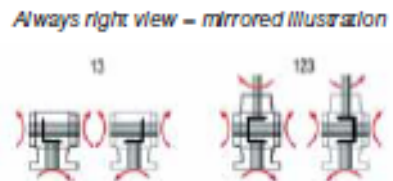
Shaft arrangements FL:



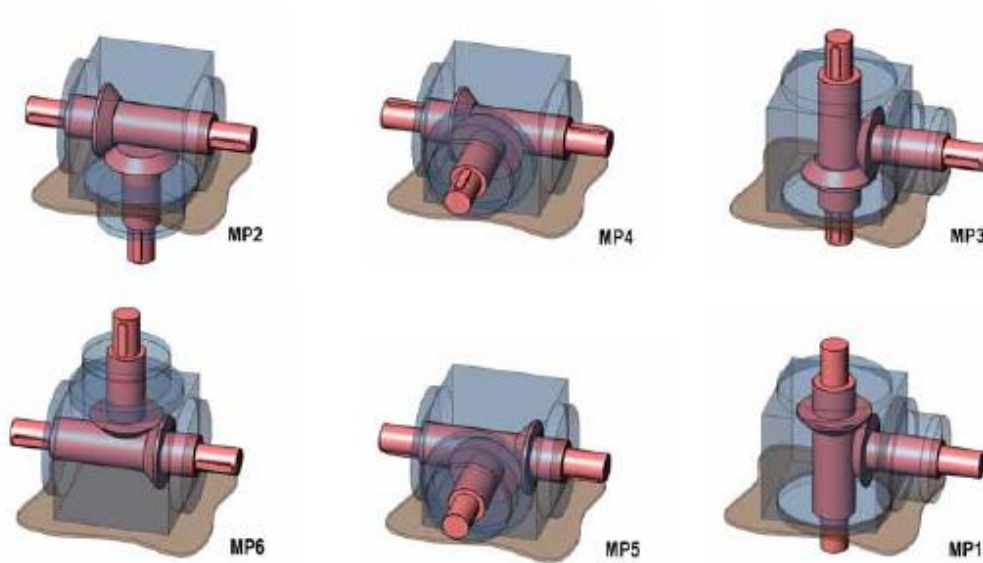
Shaft arrangements H:



Shaft arrangements FH:



Mounting positions:



For full specifications, see PowerGear catalogue.