

## POWERGEAR DATA SHEET P-240



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:	2150Nm	2150Nm	2010Nm	1650Nm	1410Nm	1210Nm
Acceleration torque:	3225Nm	3225Nm	3015Nm	2475Nm	2475Nm	1815Nm
Emergency torque:	4300Nm	4300Nm	4020Nm	3300Nm	3300Nm	2420Nm
Input speed:	700rpm	950rpm	950rpm	1350rpm	1350rpm	1350rpm
Max input speed (Special measures on request)	2000rpm	2000rpm	2000rpm	2000rpm	2000rpm	2000rpm
Standard output backlash:	≤ 11 arcmin	≤ 11 arcmin	≤ 11 arcmin	≤ 11 arcmin	≤ 11 arcmin	≤ 11 arcmin
Reduced output backlash:	≤ 6 arcmin	≤ 6 arcmin	≤ 6 arcmin	≤ 6 arcmin	≤ 6 arcmin	≤ 6 arcmin
Permissible radial load*: (Output)	15000N	15000N	15000N	15000N	15000N	15000N
Permissible radial load*: (Input)	11000N	11000N	11000N	11000N	11000N	11000N
Permissible axial load*: (Output)	7500N	7500N	7500N	7500N	7500N	7500N
Permissible axial load*: (Input)	5500N	5500N	5500N	5500N	5500N	5500N
Efficiency at max load:	>98%	>98%	>98%	>98%	>98%	>98%
Running noise at 1500rpm, partial load	≤ 82db(A)	≤ 82db(A)	≤ 82db(A)	≤ 82db(A)	≤ 82db(A)	≤ 82db(A)
Weight:	103.5kg	103.5kg	103.5kg	103.5kg	103.5kg	103.5kg
Service life:	>15,000h	>15,000h	>15,000h	>15,000h	>15,000h	>15,000h
Oil quantity:	2.60 litres	2.60 litres	2.60 litres	2.60 litres	2.60 litres	2.60 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:	85.9kg/cm <sup>2</sup>	54.6kg/cm <sup>2</sup>	39.3kg/cm <sup>2</sup>	28.5kg/cm <sup>2</sup>	24.5kg/cm <sup>2</sup>	22.6kg/cm <sup>2</sup>

\*At centre of shaft

### Order code:

P-	240-	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

<b>a:</b>	<b>240mm</b>	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <p><b>L Series</b></p> </div> <div style="width: 50%;"> <p><b>H Series</b></p> </div> </div>
<b>b dia:</b>	<b>235mmh7</b>	
<b>c dia:</b>	<b>180mm</b>	
<b>d1 dia:</b>	<b>55mmk6</b>	
<b>l1:</b>	<b>85mm</b>	
<b>d2 dia:</b>	<b>55mmk6</b>	
<b>d3 dia:</b>	<b>55mmH7</b>	
<b>l2:</b>	<b>85mm</b>	
<b>l3:</b>	<b>115mm</b>	
<b>l4:</b>	<b>80mm</b>	
<b>e:</b>	<b>120mm</b>	
<b>f1:</b>	<b>300mm</b>	
<b>f2:</b>	<b>231mm</b>	
<b>g1:</b>	<b>25mm</b>	
<b>g2:</b>	<b>25mm</b>	
<b>h:</b>	<b>95mm</b>	
<b>k:</b>	<b>M16x30mm</b>	
<b>m1:</b>	<b>215mm</b>	
<b>m2:</b>	<b>147mm</b>	
<b>n1:</b>	<b>2mm</b>	
<b>n2:</b>	<b>2mm</b>	
<b>p:</b>	<b>95mm</b>	
<b>r1:</b>	<b>M20</b>	
<b>r2:</b>	<b>M20</b>	
<b>s:</b>	<b>6x M8x14</b>	
<b>t:</b>	<b>10mm</b>	
<b>u dia:</b>	<b>178mmg6</b>	
<b>v dia:</b>	<b>160mm</b>	
<b>Key d1:</b>	<b>16x10x80mm</b>	
<b>Key d2:</b>	<b>16x10x80mm</b>	
<b>Z:</b>	<b>6mm</b>	
<b>Input shaft d1 dia x L1 with keyway to DIN6885/1</b>	<b>38mmG7 x 83mm / 10x8mm 42mmG7 x 115mm / 12x8mm 48mmG7 x 115mm / 14x9mm</b>	

## Flange options:

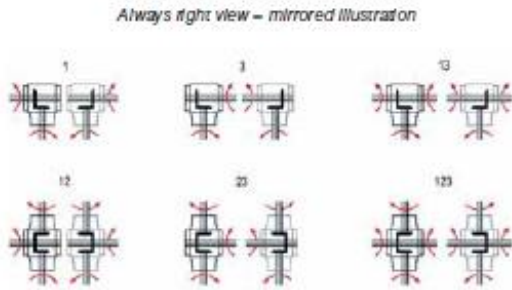
Input flange B5 = u dia/ v dia/ w dia with 4x threaded holes:	250mm/ 215mm/ 180mmF7/ M12	300mm/ 265mm/ 230mmF7/ M12	350mm/ 300mm/ 250mmF7/ M16	400mm/ 350mm/ 300mmF7/ M16
Input flange B14 = u dia/ v dia/ w dia with 4x bored holes:				

**Thermal performance limit (P) = 28.4kW at 20°C and 100% duty cycle**

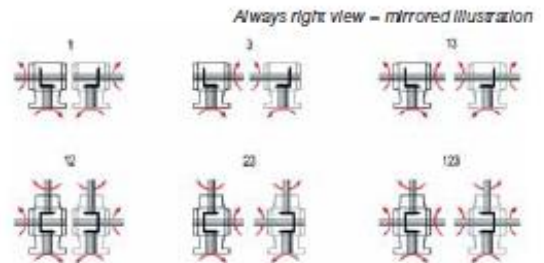
Duty cycle:	100%	80%	60%	40%	20%
Factor:	1.0	1.2	1.4	1.6	1.8
Ambient temp:	10°C	20°C	30°C	40°C	50°C
Factor:	1.2	1.0	0.87	0.75	0.62

**Eq: Duty cycle = 80%; ambient temp = 30°C Therefore P = 28.4 x 1.2 x 0.87 = 29.64kW**

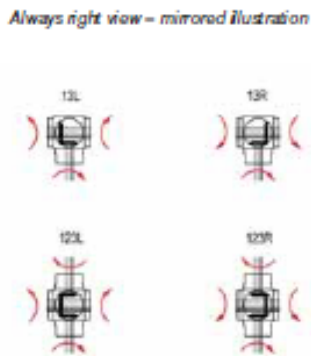
**Shaft arrangements L:**



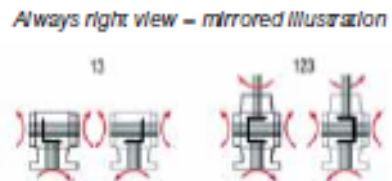
**Shaft arrangements FL:**



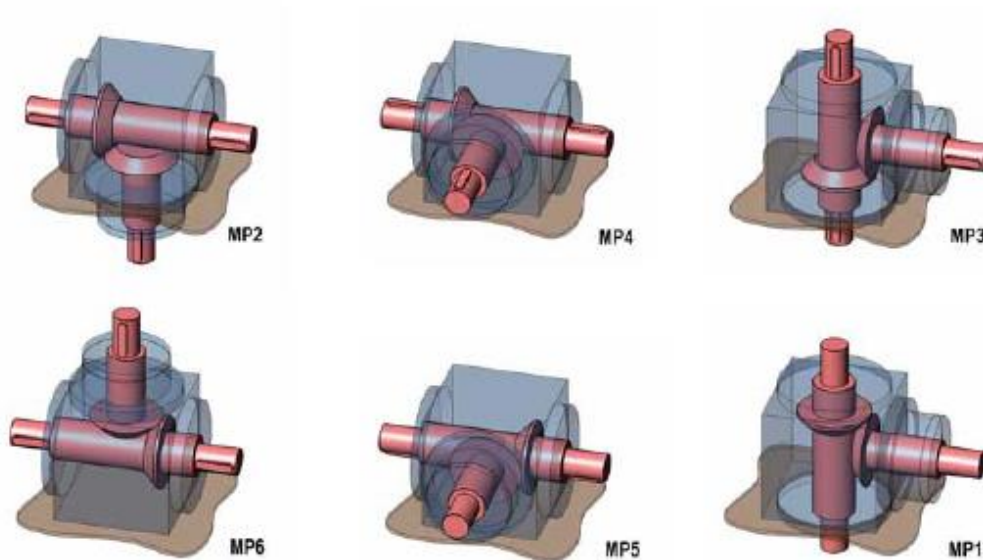
**Shaft arrangements H:**



**Shaft arrangements FH:**



**Mounting positions:**



**For full specifications, see PowerGear catalogue.**

Please note: P-240 supplied without lubricant. Please order separately.