

Liftstar™/Pullstar™ Gear Motor Air Winch Series

330 to 22000 lb (150 to 10000 kg) capacity

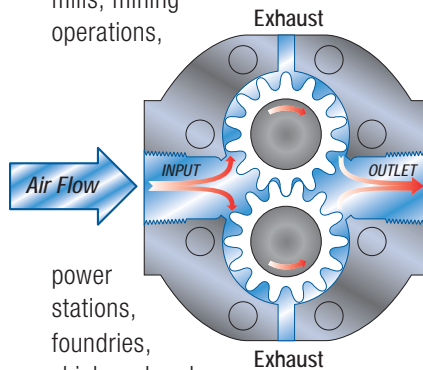


Designed for the demanding conditions found in tough environments with dirty air, these winches feature a low maintenance, highly reliable gear motor with high torque output that translates into smooth starts and stops. Light weight and compact for portability, yet the rugged all ductile iron construction makes it ready to take on your most challenging applications.

Standard features:

LS150R, LS300R, LS600R, LS1500R, PS1000R, PS2400R

- Rugged gear motor tolerates dirty, wet supply air, and is suitable for use in tough environments such as steel mills, mining operations,



- power stations, foundries, shipboard and marine applications, chemical and petroleum industries.
- With only two moving parts, maintenance is low and motor life is long.
- High torque gear motor provides excellent spotting characteristics.
- Variable speed control provided by either the self-returning throttle lever or remote pendent handle.
- **Pullstar** has disengaging clutch for free-spooling unloaded wire rope.
- All ductile iron construction
- Automatic self-adjusting disc brake
- Continuous duty cycle
- Lightweight design for portability.
- Meets ASME B30.7 standards
- Exhaust air routed internally through drum barrel for reduced noise level.
- Operable at 70–100 psi (4.9–7 bar)
- Low air consumption
- Internal gear box in a compact space saving design

Options and accessories:

- Drum guard
- Additional hose lengths for remote pendent up to 66 feet (20 m)
- Lubricator, filter and regulator
- Liquidator
- Pipeline strainer

Standard features – heavy series:

LS2000R, LS5000R, PS4000R, PS10000R

The **Liftstar R** and **Pullstar R** air winches meet the requirements set by the FEM 9.511 standard which covers rating and classification; the Liftstars also meet the FEM 1001 standard for lifting equipment.

Liftstar winches have a 5:1 design factor for lifting at rated load. Lifting capacity is calculated at full drum minus two layers of wire rope. **Pullstar** winches are directly derived from the Liftstar series, but with a 3:1 line pull design factor. Pulling capacity is calculated at first layer of wire rope.

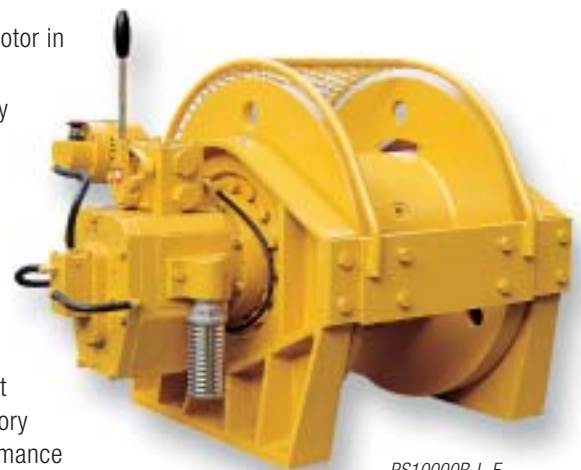
- Lube-free operation
- All ductile iron construction
- Designed in conformity with the latest European standards – FEM classification 1 Bm
- Automatic disc brake
- Reliable gear type air motor in composite material
- High efficiency planetary gear box
- Low noise level; quiet operation
- Disengaging clutch standard on **Pullstar** (pulling) series
- All units delivered with manufacturer's test certificate covering factory construction and performance
- CE package for European models includes as standard:
 - Drum guard
 - Main air shut-off emergency stop
 - Torque limiter (**Liftstar** lifting series only)
 - Instruction and safety manual
 - Declaration of conformity



PS1000R-L



PS2400RGC-L



PS10000R-L-E

Options and accessories:

- Drum guard
- Emergency stop
- Torque limiter (overload protection)
- Marine paint
- Offshore paint
- Skid frame
- Drum brake
- Press roller

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Liftstar specifications: max. lifting values at 90 psi (6.3 bar) air inlet pressure with motor running

Series no.	Rated lifting at top layer				Average air consumption		Inlet size in.	Min hose in.	Net weight	
	lbs	kg	fpm	m/min	scfm	m ³ /min			lbs	kg
LS150R-L	330	150	138	42	78	2.2	1/2	1/2	60	27
LS300R-L	660	300	69	21	78	2.2	1/2	1/2	60	27
LS600R-L	1325	600	34	10.5	78	2.2	1/2	1/2	60	27
LS600RGC-L	1325	600	34	10.5	78	2.2	1/2	1/2	62	28
LS600R-PHM2	1325	600	34	10.5	78	2.2	1/2	1/2	81	37
LS600RGC-PHM2	1325	600	34	10.5	78	2.2	1/2	1/2	83	38
LS1500R-L	3300	1500	23	7	125	3.6	3/4	3/4	143	65
LS1500RGC-L	3300	1500	23	7	125	3.6	3/4	3/4	146	66
LS1500R-PH2M	3300	1500	23	7	125	3.6	3/4	3/4	166	75
LS1500RGC-PH2M	3300	1500	23	7	125	3.6	3/4	3/4	169	77
LS2000R	4400	2000	66	20	354	10	1 1/4	1 1/4	506	230
LS2000RGC	4400	2000	66	20	354	10	1 1/4	1 1/4	594	270
LS5000R	11000	5000	33	10	354	10	1 1/4	1 1/4	1408	640
LS5000RGC	11000	5000	33	10	354	10	1 1/4	1 1/4	1650	750

Pullstar specifications: max. lifting and pulling are at 90 psi (6.3 bar) air inlet pressure with motor running

The PS1000R and PS2400R are fitted as standard with a free spool clutch. These winches can be used for lifting at reduced capacity to maintain 5:1 Design Factor only in countries that allow it, eg. USA. See information below for lifting capacities and line speeds for these countries.

Series no.	Rated pulling at first layer				Average air consumption		Inlet size in.	Min hose in.	Net weight	
	lbs	kg	fpm	m/min	scfm	m ³ /min			lbs	kg
PS1000R-L	2200	1000	15	5	78	2.2	1/2	1/2	62	28
PS1000RGC-L	2200	1000	15	5	78	2.2	1/2	1/2	83	38
PS1000R-PH2M	2200	1000	15	5	78	2.2	1/2	1/2	64	29
PS1000RGC-PH2M	2200	1000	15	5	78	2.2	1/2	1/2	85	39
PS2400R-L	5280	2400	12	4	125	3.6	3/4	3/4	146	66
PS2400RGC-L	5280	2400	12	4	125	3.6	3/4	3/4	169	77
PS2400R-PH2M	5280	2400	12	4	125	3.6	3/4	3/4	149	68
PS2400RGC-PH2M	5280	2400	12	4	125	3.6	3/4	3/4	176	80
PS4000R	8800	4000	13	4	354	10	1 1/4	1 1/4	506	230
PS4000RGC	7920	3600	13	4	354	10	1 1/4	1 1/4	594	270
PS10000R	22000	10000	8	2	354	10	1 1/4	1 1/4	1408	640
PS10000RGC	22000	10000	8	2	354	10	1 1/4	1 1/4	1650	750

Rope capacity

Recommended wire rope type: Extra Improved Plow Steel (EIPS) with IWRC

Series no.	Wire rope diameter	Full drum less 2 layers ft (m)				Full drum* ft (m)			
		Short drum		Long drum (GC)		Short drum		Long drum (GC)	
		ft.	m	ft.	m	ft.	m	ft.	m
LS150R	3/16 in. (5 mm) for rated lifting or pulling	394	120	800	244	607	185	1233	375
LS300R	1/4 in. (6.5 mm) for rated lifting or pulling	207	63	423	129	310	94	634	193
LS600R	1/4 in. (6.5 mm) for lifting or pulling	207	63	423	129	310	94	634	193
	5/16 in. (8 mm) for rated lifting or pulling	94	28	193	59	214	65	440	134
LS1500R	3/8 in. (10mm) for rated lifting or pulling	115	35	236	72	260	79	535	163
LS2000R	1/2 in. (12 mm) for lifting only	444	135	494	150	636	194	796	242
	(13 mm) for lifting only *	349	114	484	159	626	205	782	256
LS5000R	3/4 in. (19 mm) for lifting only	521	159	1099	335	747	227	1576	480
	(20 mm) for lifting only	401	131	847	278	607	199	1283	421
PS1000R	1/4 in. (6.5 mm) for pulling only	207	63	423	129	310	94	634	193
	5/16 in. (8 mm) for lifting or pulling	94	28	193	59	214	65	440	134
PS2400R	3/8 in. (10 mm) for rated lifting or pulling	115	35	236	72	260	79	535	163
PS4000R	1/2 in. (12 mm) for pulling only	444	135	494	150	636	194	796	242
	(13 mm) for pulling only *	349	114	484	159	626	205	782	256
PS10000R	3/4 in. (19 mm) for pulling only	521	159	1099	335	747	227	1576	480
	(20 mm) for pulling only	401	131	847	278	607	199	1283	421

Note: Based on 3/8 inch EIPS, IWRC wire rope. The maximum allowable ratings are: Pulling / 3414 lbs (1552 kg) and Lifting / 3020 lbs (1373 kg). See the wire rope chart in Tech Tips section for additional information.

* Drum capacities represent tightly spooled wire rope. Recommended drum working capacity is 80% of values shown.

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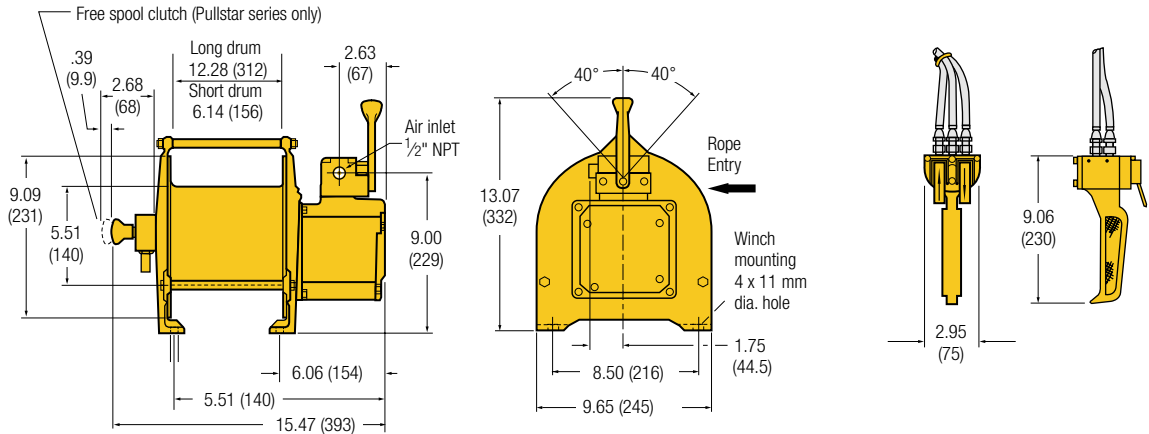
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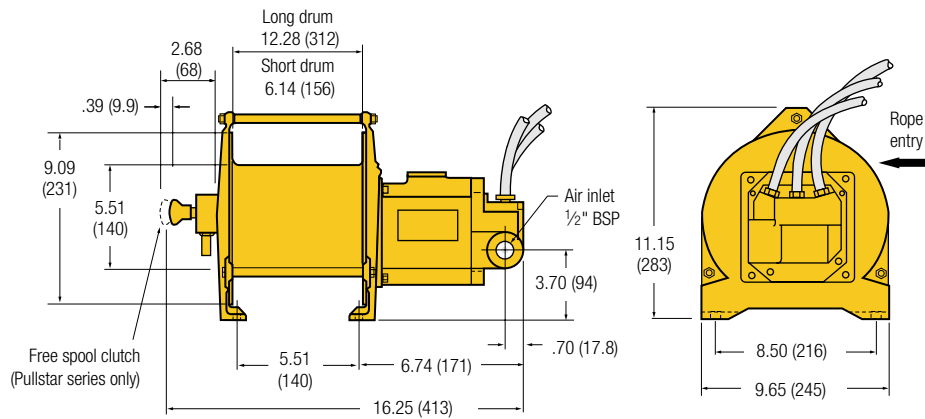
Dimensions:

LS150R-L, LS300R-L, LS600R-L, PS1000R-L in inches (mm). Overwound is standard.

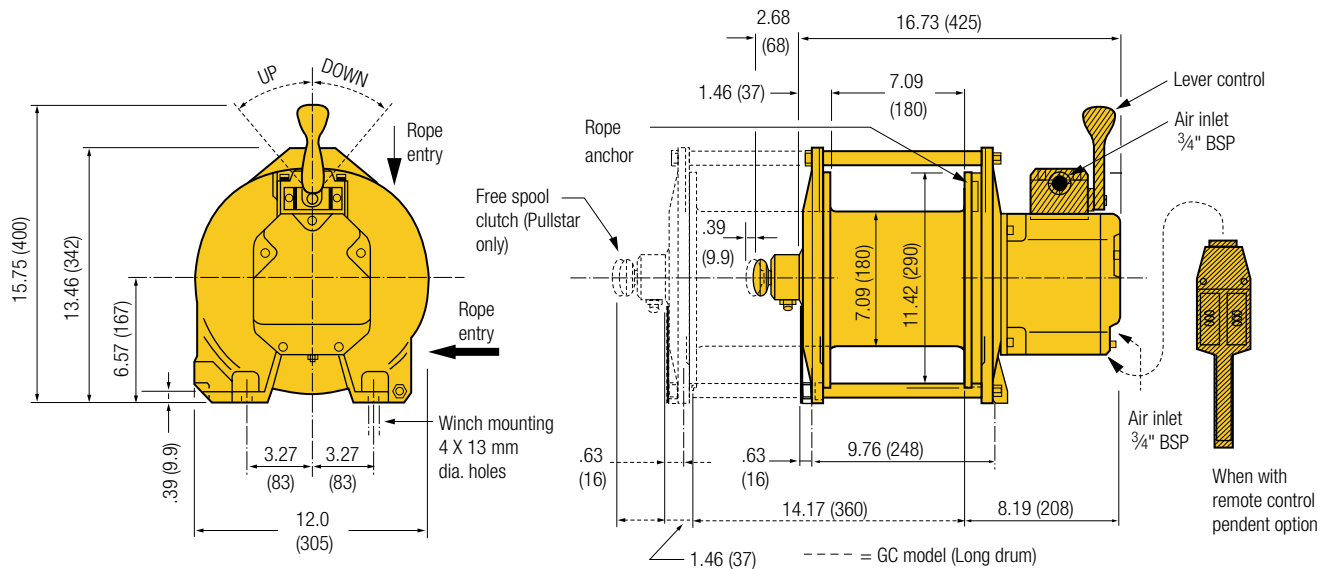
Pendent handle in inches (mm)



LS150R-PH2M, LS300R-PH2M, LS600R-PH2M, PS1000R-PH2M in inches (mm). Overwound is standard.



LS1500R and PS2400R in inches (mm). Underwound is standard.



Dimensions are subject to change. Contact factory for certified prints

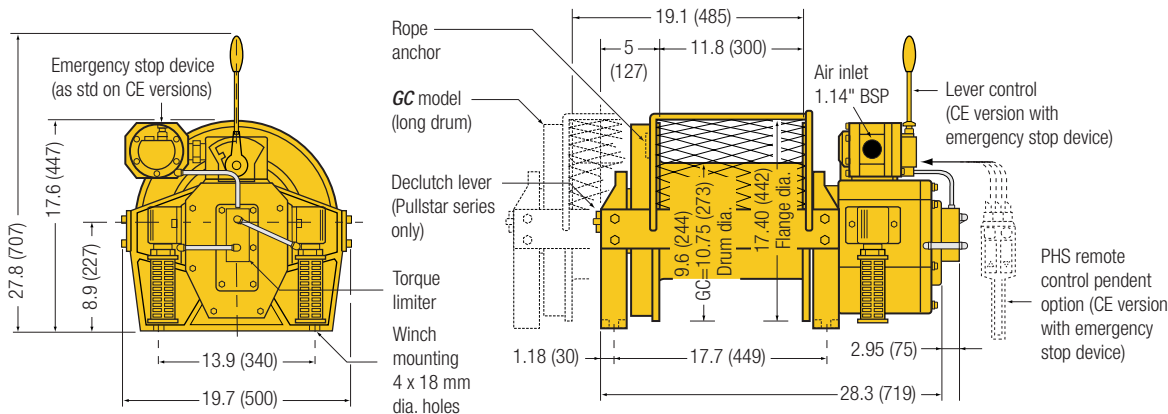
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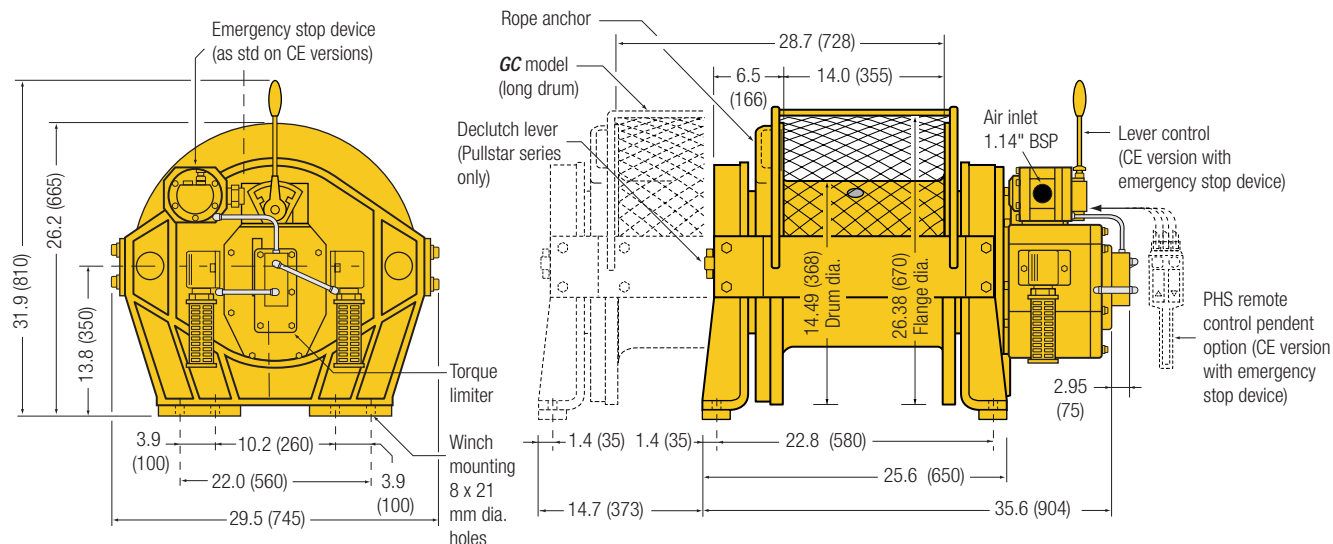


Dimensions:

LS2000R and PS4000R in inches (mm).



LS5000R and PS10000R in inches (mm).



Dimensions are subject to change. Contact factory for certified prints

How to Order

For each order specify the model code as shown below. Example: LS2400RGC-PH5M-GP

Series	Capacity	Drum	-	Control	Control length	-	Options
LS	2400R	GC	-	PH	5M	-	GP
LS = Liftstar	150R = 150 kg			L = Lever (control)			G = Drum guard
PS = Pullstar	300R = 300 kg			PH = Precision pendent, alloy, type PHS			P = Marine finish (standard surface prep, primer, marine paint)
	600R = 600 kg			PHR = Cast iron pendent			Q = Offshore paint
	1000R = 1000 kg			DP = Full flow remote control			Z = Sandblast prep and primer
	1500R = 1500 kg						
	2000R = 2000 kg						
	2400R = 2400 kg						
	4000R = 4000 kg			2M = 2 meter (standard)			
	5000R = 5000 kg			5M = 5 meter pendent			
	10000R = 10000 kg			XX = Specify control length up to 20 m			
	R = Air						
	No letter = Standard						
	GC = Long drum						

Accessories and Options	
Description	Part no.
• Lubricators (3/4 in./19 mm)	
In line bowl type	L30-06-000
Portable "can" type	50611
• Filter (3/4 in./19 mm)	F30-06-000
• Regulator (3/4 in./19 mm)	R28-06-F0G0-28
• Liquidator (3/4 in./19 mm)	8826-W2-000
• Pipeline strainer	EU-A267
• Drum guard G	
LS150R, LS300R, LS600R and PS1000R	
Short drum	7618-0057
Long drum	7618-0059
• Drum guard G LS1500R and PS2400R	
Short drum	7631-0009
Long drum	7631-0010
• Additional control hose for "PHXX" in excess of 2m	Specify in model code
• Marine paint P	Specify in model code
• Sandblast and carbozinc primer only Z	Specify in model code