

# **WARN Industrial Hoist**

Model	Part Number	Motor Type
DC1600	33503	DC Electric 12 Volt Permanent Magnet



The DC1600 hoist combines a powerful permanent magnet DC motor with robust sealing and our proven 3-stage all metal geartrain. Permanent grease lubrication means years of trouble free service. All WARN hoists incorporate an automatic mechanical brake that holds full rated load. The durable powder coated finish stands up to the elements and looks great. The DC1600 hoist is built on WARN's robust large frame design with a cast alumunum drum to provide plenty of wire rope capacity. Controls and accessories available separately.

#### **Accessories**

Description:	Part Number
Control Pack-12V	40709
Contactor Only-12V (Standard bracket)	34440
Contactor Only-12V (w/ bracket for cover)	34973
Contactor Cover (with remote plug)	36648
Contactor Cover (no plug)	35169
Remote Control Only	88528

Engineering Data					
Rated Capacity:	1600 lbf	726 kgf			
Drum Barrel Diameter:	4.25 in	108 mm			
Drum Flange Diameter:	8.25 in	210 mm			
Distance Between Flanges:	3.79 in	96 mm			
Recommended Maximum Wire Rope Diameter:	1/4 in	6.4 mm			
Recommended Minimum Wire Rope Breaking Strength:	7000 lbf	3175 kgf			
Approximate Shipping Weight:	50.0 lb	22.7 kg			
Duty Cycle (intermittent per SAE J706 section 6.2):	N/A ft	N/A m			
Mounting Bolt Torque:	35 - 40 ft*lbf	47 - 54 N*m			
Maximum Layers of Wire Rope:	5				
Gear Reduction:	261				
Brake Type:	Automa	tic Cone			
Contactor/Remote Type:	Not In	cluded			

#### **Drum Rotation**



Viewed from Motor End

### **Standards** Compliance

- CE Machinery Directive 98/37/EC and 2006/42/EC
  CE Electromagnetic Compatibility 2004/108/EC
- 3. ASME B30.5

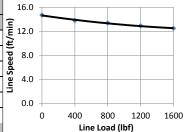
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r en officialité by Layer					Ш			
Drum Layer	Line Load *			No Load Line Speed		Drum Capacity		Ī
Diulii Layei	lbf	kgf	kN	ft/min	m/min	ft	m	ŀ
1	1600	726	7.1	14.7	4.5	16	4.9	1
2	1440	653	6.4	16.3	5.0	34	10.4	7
3	1312	595	5.8	18.0	5.5	53	16.2	1
4	1200	544	5.3	19.6	6.0	74	22.6	1
5	1104	501	4.9	21.2	6.5	97	29.6	
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Never exceed the Rated Capacity. Installation of a Rated Capacity Limiter is recommended.

#### **First Layer Performance**

Line L	_oad	Current Draw	Line Speed		Duty Cycle	
lbf	kgf	Amps	ft/min	m/min	min/10min	■ a
0	0	13	14.7	4.5	Continuous	7 3
400	181	31	13.8	4.2	Continuous	Dra
800	363	53	13.4	4.1	5.8	
1200	544	74	12.9	3.9	3.6	75
1600	726	95	12.5	3.8	2.6	

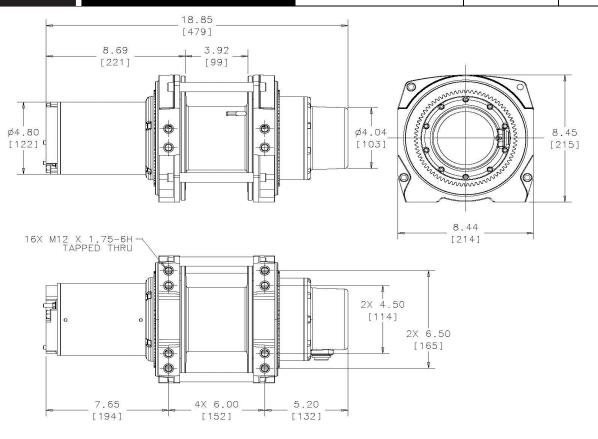


100 80 Current Draw (A) 60 40 20 0 0 800 1200 1600 Line Load (lbf)



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Units are given in inches [millimeters], unless otherwise specified

### **Recommended Mounting (Always Observe Correct Drum Rotation) Electrical System Specifications** Pull from bottom of hoist Pull from bottom of hoist Pull from top of hoist See Electrical Cable Gauge Size Chart for cable sizing All electrical connections must be clean and tight **Electrical System Wiring Schematic** Hoist provided without electrical controls. See accessories on front page for control kits. Power IN (Hoisting)- Connect motor terminal #2 to positive. Connect motor terminal #1 to negative (Ground). Power OUT (Lowering)- Connect motor terminal #1 to positive. Feet forward Feet down Feet forward Connect motor terminal #2 to negative (Ground). Pull from top of hoist Pull from top of hoist Pull from top of hoist Notes: Feet down without angle brace Feet down with angle brace Angle Braces Only