

GLV-40D2 Gearless Machine Instruction Manual (#1195)



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BULLETIN #1195 GLV-40D2 GEARLESS TRACTION MACHINE

WARNING

This installation and service manual is intended for the use of qualified and authorized elevator personnel ONLY. For your safety and the safety of others, do not attempt ANY procedure that you are not qualified and authorized to perform. Recommended procedures must be done in accordance with the applicable rules of the latest edition of the National Electrical Code; the latest edition of ASME A17.1; and all governing local codes. Every attempt has been made to ensure that this guide is accurate and up to date. Hollister-Whitney Elevator Co. LLC assumes no liability for consequences resulting from any error or omission. Please notify Hollister-Whitney Elevator Co. LLC regarding any difficulties with this guide.

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Section

1 Introduction

1.1 Description

Thank you for choosing the Hollister Whitney Elevator Company (HWEC) GLV-40D2 Gearless Machine!

The GLV-40D2 machine has been designed for use in 2:1 roped, machine room applications with VVVF controls. The machine is designed with 30 poles to provide smooth, quiet, and long-lasting operation.

HWEC machines are designed to perform in a tolerant machine space. The machine space working temperature should be held between 35° F & 104° F, (1.7° C & 40° C) and humidity should be held to an average of 90% non-condensing.

1.2 Warranty Information

All parts and equipment manufactured by HWEC are guaranteed against defects in material and workmanship for a period of one (1) year from the date of shipment.

Warranty covers only the repair or replacement of parts, F.O.B. our factory, upon determination by inspection at our factory that warranty is applicable.

Equipment and components not of our manufacture are warranted only to the extent of the original manufacturer's warranty.

Our warranty specifically does not include any other incidental liability or expense such as transportation, labor, and unauthorized repairs.

Section

2 Safety Precautions

Read this section before any work is performed on elevator equipment.

* IMPORTANT -

The procedures contained in this manual are intended for the use of qualified elevator personnel. In the interest of your personal safety and the safety of others, do NOT attempt ANY procedure that you are NOT qualified to perform.

All procedures must be done in accordance with the applicable rules in the latest edition of the National Electrical Code; the latest edition of ASME A17.1; and any governing local codes.

2.1 Terms in This Manual

VCAUTION:

Caution statements identify conditions that could result in damage to the equipment or other property if improper procedures are followed!

♥WARNING:

Warning statements identify conditions that could result in personal injury if improper procedures are followed!

2.2 General Safety

Specific warnings and cautions are found where they apply, and DO NOT appear in this summary.

2.3 Electrical Safety

All wiring must be in accordance with the National Electrical Code and must be consistent with all state and local codes.

2.4 Electrical Hazards

Electric shocks can cause personal injury or loss of life. Circuit breakers, switches and fuses may NOT disconnect all power to the equipment. Always refer to the wiring diagrams. Whether the A/C supply is grounded or not, high voltage will be present at many points.

2.5 Mainline Disconnect

Unless otherwise suggested, always turn OFF. Lock and tag out the mainline disconnect to remove power from the equipment.

2.6 Test Equipment Safety

Always refer to manufactures' instruction book for proper test equipment operation and adjustments.

Megger testing, or buzzer type continuity testers, can damage electronic components. Connection of devices such as voltmeters on certain low-level analog circuits may degrade electronic system performance. Always use a voltmeter with a minimum impedance of 1M Ohm/Volt. A digital voltmeter is recommended.

2.7 When Power Is On

Dangerous voltages exist at several points in some products. To avoid personal injury, do NOT touch exposed electrical connections or components while power is On.

2.8 Product Specific Warnings



GLV-40D2 machine MUST be balanced during hoisting. See paragraph 3.4 for proper lifting configurations.

9 WARNING

Hang the elevator car before removing ANY bolts. Failure to do so may result in severe injury and equipment damage.



3 Arrival of the Equipment

3.1 Receiving

Immediately upon arrival of the machine, make a visual check for any external damage. If any damage incurred in transit is found, make notice of the claim in the presence of the carrier, and notify HWEC. If necessary, do not put these machines into operation without first consulting HWEC.

If the machine has gotten wet during transportation, make notice of the claim in the presence of the carrier and notify HWEC. See also Section 3.6.

3.2 Data Tag

Check the machine data tag to ensure the machine conforms to your order.

Hallioter- Whitney A VANTAGE COMPANY MA	PMAC ELEVATO MACHINE F NUFACTURED IN COOPERATION WITH SHENYAN	RATINGS	CSA B44.1 ASME A17.5 CO., LTD 155941 CUS
MODEL	SUSPENSION	POWER (hp/KW)	MAX. AMBIENT TEMP (°C) 40
CONTRACT/SERIAL NO.	NUMBER OF POLES 30	FREQUENCY (Hz)	INSULATION CLASS F
CAR SPEED (fpm)	TORQUE (ft-lbs)	VOLTS (V) / PHASES	ELEVATOR DUTY (%) 50
CAR CAPACITY (lbs)	ROTATIONAL SPEED (rpm)	CURRENT (A)	MACHINE WEIGHT (lbs)



Figure 1

3.3 Handling

The machine will be delivered on a wooden pallet. It can be left on the pallet and moved with a standard fork truck or pallet jack.

3.4 Hoisting

The machine weighs about 4000 pounds (1814 kg). When removing the machine from the pallet, it must be lifted using the lifting holes provided at the bottom of the machine.

When lifting the machine, use a spreader beam or other suitable rigging device to pull straight up on the lifting holes.

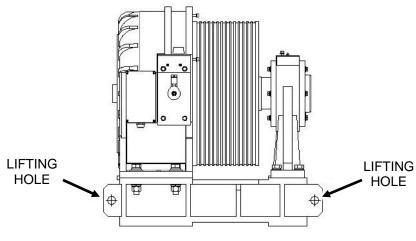


Figure 2

WARNING

Use only the lifting holes when lifting the machine! Do not use any other machine component to lift the machine! Lifting the machine by any other component will result in damage to the machine or possible failure of the component resulting in the machine falling from the hoisting system!

Follow all the necessary precautions to avoid damage to the machine or risk to personnel when moving or hoisting the machine.

3.5 Storage

During storage in a warehouse or on the elevator job site, precautions must be taken to protect the machine from dust, dirt, moisture, metal shavings and temperature extremes.

For short term storage, place the machine in a warm, dry and clean environment.

Protect the machine from harsh weather conditions and temperature variations that can lead to condensation.

Protect from dust and metal shavings. Metal dust and shavings can be attracted into the machine by the magnets.

For longer term storage, follow the recommendations above plus; place the machine in a sealed, waterproof enclosure. Add a dehydrating packet that is sized for the enclosure's volume and humidity level.

3.6 Moisture, Condensation

Before installing the machine, and before any voltage is applied, check the machine for condensation, or any evidence of moisture or water. If any evidence of wetness is found, contact HWEC for drying instructions.

After the machine has been dried per factory instructions, it will be necessary to verify the insulation between each coil phase and earth ground. Using an insulation tester (or megohmmeter) check the insulation resistance at 500VDC. The resistance should be NO LESS than 100 Mohm.

Section



4 Application

4.1 Overview

The GLV-40D2 machine is synchronous permanent magnet gearless machine designed for elevators. The machine has 30 poles to provide smooth, quiet, and long-lasting operation. Its configuration allows elevator capacity up to 2500 lbs. with 2:1 roping, single wrap arrangement at 50% counterbalance with up to a 22,000 lb shaft load (22,000 lb system load). See Section 4.4 for complete specifications. The overall system load is calculated by adding the following items:

Empty Car Weight + Counterbalance Weight + Capacity + Hoist Rope Weight + Compensation Weight + Traveling Cable Weight

The GLV-40S1 machine brake system uses four block brakes.

The latest HWEC manuals, bulletins and procedures are available for download from the HWEC website.

The following is a list of major components of the GLV-40S1 machines. Along with a description of their functions, there is an overview of some of the critical adjustments and maintenance information. See Installation and Maintenance for detail.

- 1. **PM Motor Housing** The housing contains the PM windings used to provide the necessary torque and speed to move the elevator in operation.
- 2. **Traction Sheave** A grooved sheave is connected directly to the machine rotor. The grooves provide traction between the sheave and the hoist ropes.
- 3. **Brake** The electromechanical device is used to prevent the elevator from moving when the car is at rest.
- 4. **Sheave Guard/Rope Retainer** Provides rope retention and keeps hoist ropes away from contact after rope installation.
- 5. **Machine Rotor & Brake Wheel** The brake wheel is connected to the main shaft. When the brake is energized, the brake is released from the brake wheel.
- 6. **Nameplate** Displays the machine rated data and manual factory contact/serial number information.
- 7. **Encoder** (Behind Cover) This device is directly coupled to the rotor of the machine. It is provided to give the absolute speed feedback of the hoist motor to the inverter drive system and to the elevator controller.

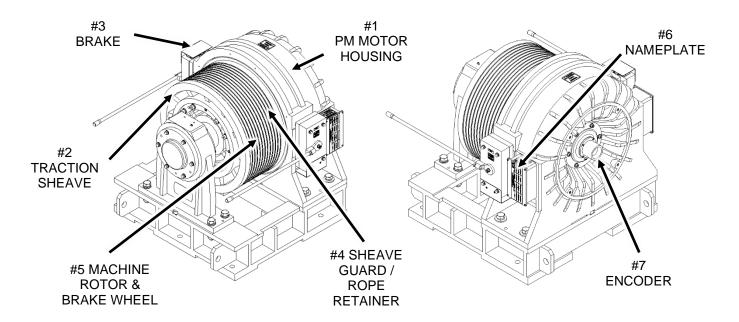


Figure 3

4.2 Codes and Standards

These machines are designed to comply with ASME A17.1/CSA B44 code. The motors are designed with insulation class F minimum and have been approved by and carry a CSA approved label.

4.3 Environmental Specifications

- Operating ambient temperature: 35° F to 104° F (1.7 C to 40 C)
- Humidity average of 90% non-condensing

4.4 Machine Specifications

- Traction Sheave (removeable) Diameter: 20 in or 25 in.
- Main and emergency block brakes. Each capable of holding 125% of the load.
- Brake switches, wired normally close standard.
- Heidenhain ECN1313 2048 encoder and 1.5-meter-long cable (standard)
- Sheave guard/rope retainer.
- Machine dimensions and parts list can be found at the end of this book.

BULLETIN #1195 GLV-40D2 GEARLESS TRACTION MACHINE

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	1/2 GRUC	VE PROFI	LE MA	CHINE: 3	80V, 25 W	vneel,	7:1 00	mple W	ab ob	10 4,00	O# Capa	city, up	to suo rp	m, 30	1,800# Sr	leave shaft	Load, 30,8	00# 5ys	tem Loa	1/2 GROUVE PROFILE MACHINE: 380V, 25 Wheel, 2:1 Double Wrap Up to 4,000#. Capacity, Up to 800 fpm, 30,800# sneave shart Load, 30,800# system Load, Estimated Weight: 3300#	eignt: 3300#
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			300	15.3	11.4	30	91.7	380	238.5	22.9	33.6	90.6	95.0%	3120	866	878	1756	20	25		
		2500	350	17.9	13.3	30	107.0	380	278.3	26.7	33.6	90.6	92.6%	3378	1081	878	1756	20	25		
			400	20.4	15.2	30	122.2	380	318.0	30.5	33.6	90.6	93.0%	3643	1166	878	1756	20	25		
			300	17.9	13.4	30	114.6	380	243.0	28.7	39.4	94.5	91.3%	3962	1268	1030	2060	20	25		
		3000	350	20.9	15.6	30	133.7	380	285.0	33.4	39.4	94.5	92.1%	4201	1344	1030	2060	50	25		
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			300	23.9	17.9	30	91.7	380	253.5	22.9	52.5	126.0	90.2%	2960	1907	1372	2744	20	25		
		4000	350	27.9	20.8	0E	107.0	380	295.8	26.7	52.5	126.0	91.2%	6259	2003	1372	2744	05	25		
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			200	25.5	19.0	30	152.8	380	222.9	38.2	56.4	135.4	92.7%	4774	1528	878	1756	20	25		D1D 110RB
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			200	35.8	26.7	30	213.9	380	312.0	53.5	56.4	135.4	93.1%	6265	2005	878	1756	20	25		Brake Qty:
			200	29.9	22.3	30	191.0	380	223.5	47.8	67.2	161.3	92.7%	5554	1777	1030	2060	20	25		2
		3000	009	36.0	26.9	30	183.3	380	272.0	45.8	99	158.4	93.0%	6412	2052	1030	2060	20	25		Pick Volts, Amps:
			200	42.0	31.4	30	213.9	380	317.0	53.5	99	158.4	93.3%	7160	2291	1030	2060	20	25		110, 1.98
GLV-4002-C-V408C	GLV-40D2-C-V408C WT1-V2D-5.3EFD835-V4088		200	35.4	26.4	30	152.8	380	229.3	38.2	78.2	187.7	92.6%	6714	2149	1218	2436	05		WT1-V20.1.1-V4055	Hold Volts, Amps:
		3500	009	42.5	31.7	30	183.3	380	275.1	45.8	78.2	187.7	93.1%	7469	2390	1218	2436	20	25		70, 1.26
		_	200	49.6	37.0	30	213.9	380	321.0	53.5	78.2	187.7	93.5%	8254	2641	1218	2436	20	25		
			200	39.9	8'62	30	152.8	380	232.9	38.2	88	211.2	92.3%	LLL	2489	1372	2744	20	25		
		4000	009	47.9	2.25	30	183.3	380	279.4	45.8	88	211.2	93.0%	8546	2735	1372	2744	20	25		
			200	55.9	41.7	30	213.9	380	326.0	53.5	88	211.2	93.4%	9341	2989	1372	2744	50	25		
		3000	750	38.3	28.6	30	229.2	380	272.8	57.2	67.2	161.3	93.3%	6545	2094	878	1756	20	25		
		-	800	40.9	30.5	30	244.5	Н		61.0	67.2	161.3	93.3%	6839	2220	878	1756	20	25		
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		,																			
	5/8" GRO	OVE PRO	FILE M	ACHINE: 3	380V, 25" \	Wheel	2:1 Dc	w elqn	rap Up	to 4,00	10# Capa	city, Up	to 800 fp	m, 30	4S #008	eave Shaft I	oad, 30,80	0# Syst	em Load	5/8" GROOVE PROFILE MACHINE: 380V, 25" Wheel, 2:1 Double Wrap Up to 4,000# Capacity, Up to 800 fpm, 30,800# Sheave Shaft Load, 30,800# System Load, Estimated Weight: 3300#	ght: 3300#
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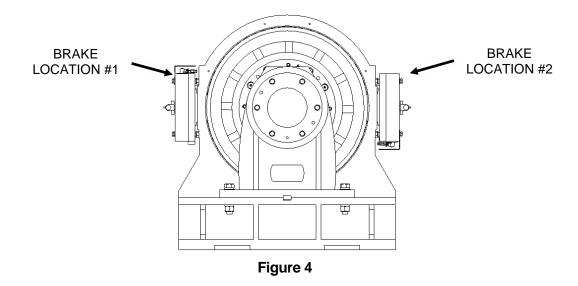
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-		Capacity Speed	Speed	Motor	Motor		Rated Ra	Rated Actual	tual Rated	ed Rated	Peak	Estimated Max Estimated	Max	Estimated	Rated	MaxAccel	Cole Cole	Sheave	MotorWinding	Brake Information
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			300	15.3	11.4	30 9	91.7	380 23	238.5 22.9	9 33.6	90.6	92.0%	3120	866	878	1756	20	25		
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			400	20.4	15.2	30 12	122.2	380 31	318.0 30.5	33.6	90.8	93.0%	3643	1166	878	1756	05	25		
			300	17.9	13.4	30 9	91.7	380 24	243.0 22.9	9 39.4	94.5	91.3%	3962	1268	1030	2060	20	25		
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		3500	350	24.8	18.5	30 10	107.0	380 29	290.5 26.7	7 46.6	111.8	91.7%	5235	1675	1218	2436	05	25		
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		4000	350	27.9	20.8	30 10	107.0	380 29	295.8 26.7	7 52.5	126.0	91.2%	6229	2003	1372	2744	05	25		
			400	31.9	H	Н	122.2	_	_	┡	⊢	91.9%	6557	2098	1372	2744	05	25		Brake Part Number:
			200	25.5	19.0	30 15	152.8 3	380 22	222.9 38.2	2 56.4	135.4	92.7%	4774	1528	878	1756	95	25		D1D 110RB
		2500	009	30.7	22.9	30 18	183.3	380 26	267.4 45.8	8 56.4	135.4	92.9%	5503	1761	878	1756	05	25		
		_	200	35.8	26.7	30 21	213.9	380 31	312.0 53.5	5 56.4	135.4	93.1%	6265	2005	878	1756	95	25		Brake Qty:
			200	30	22.4	30 15	152.8 3	380 2	226 38.2	2 66	158.4	92.50%	5725	1832	1030	2060	05	25		2
		3000	009	36.0	26.9	30 18	183.3	380 27	272.0 45.8	99 8	158.4	93.0%	6412	2052	1030	2060	05	25		Pick Volts, Amps:
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			700	49.6	37.0	30 21	213.9	380 32	321.0 53.5	5 78.2	187.7	93.5%	8254	2641	1218	2436	20	25		
			200	39.9	29.8	30 15	152.8	380 23	232.9 38.2	2 88	211.2	92.3%	TTTT	2489	1372	2744	20	25		
		4000	009	47.9	35.7	30 18	183.3	380 27	279.4 45.8	88 88	211.2	93.0%	8546	2735	1372	2744	05	25		
			200	55.9	41.7	30 21	213.9	380 32	326.0 53.5	2 88	211.2	93.4%	9341	2989	1372	2744	20	25		
		2500	750	38.3	28.6	30 22	229.2	380 27	272.8 57.2	2 67.2	161.3	93.3%	6545	2094	878	1756	20	25		
		0057	800	40.9	30.5	30 74	244.5 3	380 29	291.0 61.0	0 67.2	161.3	93.3%	6869	2220	878	1756	05	25		
		3000	750	45.0	33.5	30 27	229.2	380 27	278.5 57.2	2 78.7	188.9	93.4%	7557	2418	1030	2060	05	25		
DOOR O COOR MAD	MANAGE LANGE MAN AND A OFFICE LANGE	2000	800	48.0	35.7	30 24	244.5	380 29	296.4 61.0	0 78.7	188.9	93.5%	7939	2540	1030	2060	20	25	100000	
GLV-4U02-C-V4U3B	WT1-V2D-4.0Er.0535-v4036	0000	750	53.2	39.6	30 27	229.2	380 28	283.1 57.2	2 93.2	223.7	93.7%	8499	2720	1218	2436	05	25	WTI-V2D.L.1-V4098	
		3500	800	26.7	423	30 24	244.5 3	380 30	302.0 61.0	0 93.2	223.7	93.8%	8903	2849	1218	2436	90	25		
		0000	750	59.9	44.6	30 22	229.2	380 28	287.8 57.2	2 104.9	251.8	93.7%	6956	3062	1372	2744	05	25		
		4000	800	63.9	H	30 24	╙	_	307.0 61.0	┡	H	93.9%	7166	3193	1372	2744	05	25		

HW Part # Supplier Part # ELA-4002-C-V4070 BGLV-4002-C-V4070	Supplier Part # Capacity Speed Motor Motor Poles Rated Rated Actual Rated Rate	Capacity	-			-	-	- Action	Rated	Rated	Peak	Estimated	Max Es		Dated	MayAccel	45	anna			Done Of cook
GLV-40D2-C-V407D WY		(lbs)	Speed (fpm) Rati	Motor ing (HP) R	Motor	Poles (ro	ted Kat	ed Actua	Fred(Hz)	Current(A)	Current (A)	Efficiency	BTU/hr B	TU/hr To	raue(ft-lbs)	Torque(ft-lbs	Cwt(%) Dia	aneane	MotorWinding Specification	Brake Information	Rope/Groove Information
GLV-40D2-C-V407D WY		2500	300	15.3	11.4	30 91	1.7 38	0 238.5	22.9	33.6	80.6	92.0%	3120	998	878	1756	20 20	25 7			
GLV-40D2-C-V407D WY	•		300	20.4	15.2	30 11	14.6 380 13.7 380	0 318.C 0 243.0 0 285.0	30.5	33.6	94.5	93.0% 91.3% 92.1%	3643 3962 4201	1166 1268 1344	878 1030 1030	1756 2060 2060	20 20 20	25 25			Grooves to be machined at
	T-V2D-2.0EFD635-V407B	3500	300	23.9	17.8	30 91	1.7 380 7.0 380	0 326.0 0 249.0 0 290.5	22.9	46.6	111.8	92.3%	4967 5235	1498 1589 1675	1030 1218 1218	2060 2436 2436	20 20	25 W	WYT-V2D.1.1-V407B		Bluelight
	•	4000	300	28.3	21.1	30 12 30 91 30 10	22.2 38C 1.7 38C 07.0 38C	0 332.0 0 253.5 0 295.8	30.5 22.9 26.7	52.5 52.5	111.8 126.0 126.0	92.3%	5520 5960 6259	1766 1907 2003	1218 1372 1372	2436 2744 2744	20 20	22 22			Standard Grooving: 18 - 3/8" grooves on 1/2" pitch
		$\overline{}$	200	31.9	19.0	30 12	22.2 38	+	38.2	52.5	135.4	91.9%	4774	1528	1372	1756	20 20	52 52		Brake Part Number: D1D 110RB	using the following
	•	2500	200	30.7	22.9	30 21	33.3 380 13.9 380	0 312.0	+	56.4	135.4	92.9%	5503 6265 5554	2005	878	1756	20 20	52 52 54		Brake Qty:	2000
GIV.ADD.C.VARRD WVT.V2D.3 SEEDK3S.VARRR	LV2D.3 SEED635.VA08B	3000	000	36.0 42.0	26.9	30 18	33.3 380	0 272.0	45.8	99	158.4	93.0%	7160	2052	1030	2060	20 20	2 22 2	WAT VOD 11-VADSB	Pick Volts, Amps: 110, 1.98	
		3500	900	35.4 42.5 49.6	31.7	30 15	33.3 380 33.3 380	0 229.3 0 275.1	45.8	78.2	187.7	93.5%	7469	2149 2390 2641	1218 1218 1218	2436 2436 2436	20 20 20	2 2 2		Hold Volts, Amps: 70, 1.26	See Print
		4000	009	39.9 47.9 55.9	29.8 35.7 41.7	30 15 30 18 30 21	33.3 380 33.3 380 13.9 380	0 232.9 0 279.4 0 326.0	38.2 45.8 53.5	8 8 8	211.2	92.3%	8546 9341	2489 2735 2989	1372 1372 1372	2744 2744 2744	20 20 20	2 22 23			For STANDARD
	'	2500	750	38.3	30.5	30 22	9.2 380 14.5 380	0 272.8 0 291.0	57.2 61.0	67.2	161.3	93.3%	6545	2220	878	1756	20 20	25 25			3/8" Rope Groove Profile
GLV-40D2-C-V409D WYT	WYT-V2D-4.0EFD635-V4098	3000	800	45.0	33.5	30 22	14.5 38	0 296.4	57.2	78.7	188.9	93.5%	7557	2418	1030	2060	20 20	22 S2	WYT-V2D.1.1-V409B		
	,	3500	750 800 750	53.2	39.6 42.3 44.6	30 24 22	14.5 380 19.2 380	0 283.1 0 302.0 0 287.8	57.2 61.0 57.2	93.2	223.7	93.7%	8903	2849	1218	2436 2744	20 20 20	2 2 2			
			000	6.60	47.0	30 24	200	307.7	0.1.0	104:3	6.162	82.52	1166	2193	13/2	44/7	200	5			
5/ HW Ordering Part #	5/8"" GROOVE PROFILE MACHINE: 480V, 25" Wheel, 2:1Double Wrap, Up to 4,000f capacity, Up to 700 fpm, 30,800# Sheave Shaft Load, 30,800# System Load, Estimated Weight: 3951# and one poor with the stated Rated Ra	DFILE MA	ACHINE	E: 480V, 25 Capacity Speed	5" Whee	el, 2:1Dou	tor poles	Vrap, U	p to 4,0	1,000# capa	acity, U	p to 700	Stimated	0,800# S Max Estir	# Sheave SI Estimated Ra	Shaft Load	MaxAccel Curties	System Sheave	Load, Estimat MotorWinding	ited Weight: 395	
in oldering rate		#318		(lbs) (fpm	Rating	(HP) Rating (€ K	(rpm)	/oltage/ol	tage-req(H	Az urrent(A	Current (4	A Efficiency	BTU/hr BT	BTU/hr forque	ue(ft-lbs)Torqu		(") Dia(")	Specification	and	Information
			1.4	2500 600				_	$\overline{}$	332.6 45.8	++	111.4	92.9%		1761 8	878 1 878 1	+	25 25		Number:	200
				3000 600		H		0 152.8			-	130.6	92.7%				+	-		Brake Otv:	
GLV-40D2-C-V501B	WYT-V2D-3.5EFD635-V501B	:D635-V50		_	Ш		H	213.9			-	130.6	93.3%		Ш	Н	H	25	WYT-V2D.1.1-V501B		14 - 5/8" grooves on 3/4" pitch
			211	3500 600			.0 30) 183.3) 213.9			\vdash	154.6	93.1%		2390 12	Н	2436 50 2436 50	25		Amps: 110, 1.98	,
			-	4000 600				152.8 183.3 213.9		291.4 38.2 349.7 45.8 408.0 53.5		174.0	93.0%			+	++			Amps: 70, 1.26	GRVH-TUN-0250 For STANDARD 5/8" Rope Groove Profile
1,	1/2"" GROOVE PROFILE MACHINE: 480V	FILE M#	ACHINE:	: 480V, 2	5" Whee	, 2	1Double M	Vrap, U	Wrap, Up to 4,000#		capacity, Up	o to 700	fpm,	30,800# S	Sheave Shaft	haft Load	Load, 30,800#	System	Load, Estimated	ted Weight: 3951#	951#
HW Ordering Part #	Supplier Part #	Part#	S _	Capacity Speer (lbs) (fpm	d Motor () Rating ()	Mot HP) Rating	tor (kW)	es (rpm)	-	Actual Rated /oltageFreq(Hz	J Rated	Peak Current (A	Estimated AEfficiency	Max E	stimated Ra BTU/hr forque	-lbs)To	MaxAccel orque(ft-lbs	%) Sheave Dia(")	MotorWinding Specification	8 Brake Information	Rope/Groove Information
			7	2500 600			+	152.8			\rightarrow	111.4	92.7%		\perp	\blacksquare	+	+			
			1	3000 600	29.9	22.3	3 30	152.8	480 28 480 28 480 33	281.4 38.2 337.8 45.8	54.4	130.6	93.1%	5554 17 6412 20	2052 10	1030 2 1030 2	2060 50	2 2 2		D1D 110RB Brake Otv:	Standard Grooving:
GLV-40D2-D-V501C	WYT-V2D-3.5EFD635-V501B	-D635-V50		_			Н					130.6		-	Ш			25	WYT-V2D.1.1-V501B		3
				3500 600			Ħ				+	154.6		7469 23 8254 26	-		+	+		Amps: 110, 1.98	profile: See Print
			4	4000 600	47.9	35.7	30 30	152.8	480 29	349.7 45.8	72.5	174.0	93.0%	8546 27	2735 13	1372 2	2744 50	25		Amps: 70, 1.26	GRVH-TUN-0250 For STANDARD 5/8" Rone Groove Profile
3,	3/8"" GROOVE PROFILE MACHINE: 480V, 25" Wheel, 2:IDouble Wrap, Up to 4,000# capacity, Up to 700 fpm, 30,800# Sheave Shaft Load, 30,800# System Load, Estimated Weight: 3951#	FILE MA	ACHINE:	: 480V, 2	5" Whee	el, 2:1Dc	ouble V	Vrap, U	o to 4,0	00# cap	acity, U	o to 700) fpm, 30	3,800# 5	sheave S	haft Load	1, 30,800#	System	Load, Estima	ted Weight: 35	951#
HW Ordering Part#	Supplier Part #	Part#	c ₃	Capacity Speed (lbs) (fpm)	d Motor () Rating (HP	r Motor HP] Rating (kW)	tor (kW)	Rated (rpm)	Rated Ac	Actual Rated VoltageFreq(Hz	d Rated Iz⊑urrent(A	Peak Current (A	Estimated A Efficiency	Max Estir BTU/hr BTI	stimated Ra BTU/hr forqui	Rated Ma: rque(ft-lbs)forqu	MaxAccel Cwt(%)	%) Sheave Dia(")	MotorWinding Specification	8 Brake Information	ior Information
				2500 600	30.7	19.0		152.8	480 27 480 33 480 38	332.6 45.8 388.0 53.5	46.4	111.4	92.7%	5503 17 6265 20	1528 8 1761 8 2005 8	878 1 878 1	1756 50 1756 50	25		Brake Part Number:	Grooves to be machined at Bluelight
				3000 600				152.8 183.3			Н	130.6	92.7%				Н			Brake Qty:	Standard Grooving:
GLV-40D2-C-V501D	WYT-V2D-3.5EFD635-V501B	-D635-V50	910	200			.4 30	213.9	480 39 480 28	394.0 53.5 287.1 38.2	54.4	130.6	93.3%	7160 22	2291 10	+	+	25	WYT-V2D.1.1-V501B		Sh
			201	3500 600	42.5	31.7	.0 30) 183.3) 213.9	480 34	344.6 45.8 402.0 53.5	64.4	154.6	93.1%	7469 23	2641 12	1218 2 1218 2	2436 50 2436 50	25		Amps: 110, 1.98	
			,	4000 600	47.9	35.7	7 30	152.8	480 29	291.4 38.2 349.7 45.8	72.5	174.0	93.0%	8546 27	2489 13 2735 13	1372 2	2744 50 2744 50	25		Hold Volts, Amps: 70, 1.26	GRVH-TUN-0250 For STANDARD 5/8" Rope Groove Profile

Table 1 – Maximum Detailed Specifications

4.5 Brake Specifications

- Two brakes are supplied standard from the factory. One brake is meant to serve as a primary machine brake and the other brake as a secondary emergency brake. Please contact Hollister-Whitney for details regarding using a Rope Gripper® as the emergency brake with a GLV-40D2 machine.
- Brake switch rating DC 110 V Rated current 1.98 A.
- The opening voltage of the brake is not more than 110 V, the releasing voltage is not more than 70 V, and the control range is 15 V-30 V.
- The machine brakes are mounted in 4 locations as shown in Figure 4.





5 Installation

5.1 Machine Mounting

Before hoisting the machine into place, verify all the hoisting equipment is rated for the 4000 pounds (1814 kg) weight of the machine. See Section 3.4.

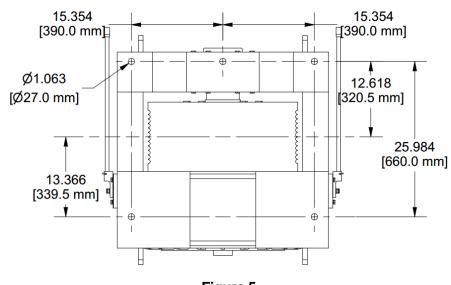
Provide a level, structurally supported (rated for the load on the machine) machine space with proper clearance around the machine for maintenance and adjustments.

This machine is primarily intended to be mounted in traditional overhead applications with down-pull forces on the traction sheave.

5.1.1 Traditional Overhead Mounting

Anchor the machine to the structural support surface using the (6) mounting hole locations in the base. The hardware required to anchor the machine to the support surface should be at least 1" diameter, grade #5 minimum, with standard washers. Hardware adhering to ASME A325 is also suitable.

Note - No mounting hardware is shipped with the machine due to the varying mounting surface thicknesses.



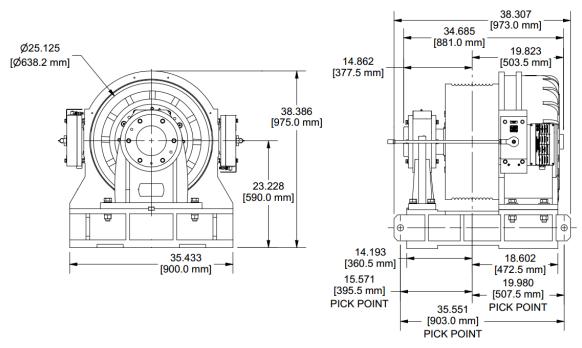


Figure 6

5.2 Electrical Connection

Use the project wiring diagrams (with the motor configuration information) to connect the motor to the controller.



Before performing any electrical connections, make sure that power supply is turned off. Only then proceed with connecting electrical leads to power supply. Never work in machine electrical enclosure while power supply is on!

Direct connection to the three-phase power is forbidden, it may destroy the motor.

5.2.1 Machine Wiring

- The Thermal Protection Switch (TPS) is wired with leads labeled and supplied into the machine electrical enclosure. Refer to Figure 6.
- Consult your controller manufacturer for appropriate TPS connections.
- Verify the electrical supply from the elevator drive and brake power supplies match the machine data tag. Refer to Figure 1.

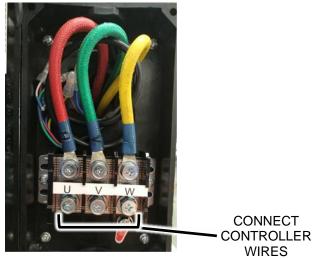


Figure 7

- Connect the U-V-W lines from the drive as shown.
- Earth Ground connects to the ground lug terminal inside the electrical enclosure.

Note - Check and tighten all leads (motor side and line side) on installation.

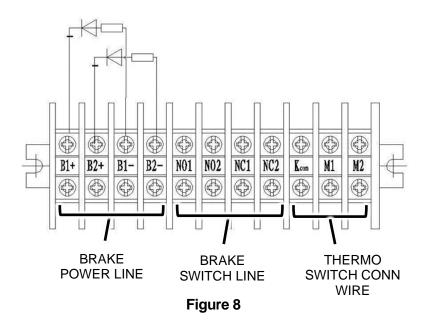
9 WARNING

The machine and emergency brake coils must be independent!

It is the responsibility of the user to connect the motor in accordance with the current laws and regulations in the country of use. This is particularly important regarding wire sizes used to connect the power, earth ground, and the type and size of fuses.

5.2.2 Brake Wiring

- Connect the machine brake and emergency brake as shown below.
- The brake switches are wired normally closed from HWEC.
- To change the switches to function as normally closed, remove the blue wire from the terminal block in the electrical enclosure, and replace it with the spare gray wire coming from the brake switch.



9 WARNING

- Brake coils are designed to be de-energized during each elevator stop.
- Verify brake voltage with a meter at the machine.
- 110 VDC excitation voltage for 3 seconds.
- 70 VDC "hold" voltage.

5.3 Brake Adjustment

9 WARNING

Before performing any maintenance on the machine brakes, take all necessary safety precautions to immobilize the car and counterweight to prevent any unintended movement during the maintenance period that may result in injury or death!

WARNING

Brakes must be adjusted after the car and counterweight are suspended by the machine!

As brake pads are worn or new pads are installed readjustment is required.

Read all of section 5.3 prior to adjusting brake!

5.3.1 Required Tools

- TORQUE WRENCH (45 FT-LBS)
- 16MM SOCKET
- 21MM OPEN END WRENCH
- 0.012" (0.30MM) FEELER GUAGE (USED AS GO)
- 0.016" (0.40MM) FEELER GUAGE (USED AS NO-GO)
- 0.022" (0.55MM) FEELER GUAGE (MAX AIR GAP CHECK)

5.3.2 Air gap (See Figure 9 through Figure 12)

The air gap of the brake is the space between the brake body and the moveable shoe plate (shown in Figure 9). This gap must be checked to ensure proper operation of the brake. The correct air gap is between 0.012" (0.30 mm) to 0.022" (0.55 mm). It is preferable to keep the gap close to minimum < 0.016" (0.36 mm).





Figure 11



Figure 10



Figure 12

5.3.2.1 Air gap adjustment

An initial air gap check is to take place after the block brake has been properly installed and fixed bolts torqued to 45 ft-lb. (car and counterweight suspended by machine).

- 1. Using a 16 mm wrench, loosen the four fixed bolts. See Figure 10.
- 2. Using a torque wrench and 16 mm socket, torque the fixed bolts in an "X" pattern to 45 ft-lb (60 N-m) See Figure 10.
- 3. Confirm the air gap using a 0.012" (0.30 mm) and 0.016" (0.36 mm) go no-go feeler gauge to check the air gap at all four corners. The 0.012 (0.030 mm) go should feeler gauge should fit and the 0.016" (0.36 mm) should not fit. If this is the case, no adjustment is necessary. See Figure 9.

5.3.2.2 When the air gap of brake is more than 0.016" (0.36 mm), please do as follows:

- 1. Loosen one of the 4 fixed bolts with a 16 mm wrench. See Figure 10.
- 2. Use a 21 mm wrench, rotate the adjustment bolt corresponding to the loosened fixed bolt in small increments, less than ½ a flat of the hex head, counterclockwise. See Figure 11.
- 3. Retorque the 16mm fixed bolts to 45 ft-lbs. (60 N-m) See Figure 10.
- 4. Confirm air gap is 0.012 (0.30mm) to 0.016" (0.36 mm) using a feeler gauge. See Figure 9. Repeat for 3 remaining bolts.

5.3.2.3 When the air gap of brake is less than 0.012" (0.30 mm) please do as follows:

- 1. Loosen one fixed bolt with a 16 mm wrench see Figure 10.
- 2. Turn the 21 mm adjustment bolt corresponding to the loosened fixed bolt clockwise in small increments, less than ½ turn of the hex head flat. See Figure 11.
- 3. Retorque 16 mm fixed bolts to 45 ft-lb (60 N-m). See Figure 10.
- 4. Confirm air gap is within 0.012" (0.30 mm) to 0.016" (0.36 mm) using a feeler gauge. See Figure 9.

5.3.3 Manual Brake Release "Arm Free play"

- Check "free travel" only after 5.3.1 Brake Air Gap has been completed.
- Manual release arm "free travel is factory set to ½" both directions. See Figure 13.
- Move Brake Arm without handle as shown below, while measuring the travel.
- If Adjustment is needed contact HOLLISTER WHITNEY ELEVATOR.



Figure 13

5.3.4 Verify Brake Function

When testing the brakes electrically energize them. Once brakes are adjusted run the car to verify the brakes are relatively quiet on stop and start. Verify no noticeable rubbing noise occurs during machine operation. Once adjustment is confirmed ensure dust guards are present to prevent dust buildup which can cause brake failure.

5.4 Brake Burnishing

9 WARNING

Brakes must be burnished to achieve full stopping torque!

Each brake on the machine must be burnished separately. Repeat the following procedure for each brake.

- 1. Clamp the brake on the rotor. Ensure brake circuit is de-energized.
- 2. Run the elevator in the direction of the load at 11 RPM for 1 minute.
 - a. If the overall travel of the elevator will not allow the burnishing time to be met in one pass, open (energize) the brake at the bottom of the hoist way, lift the load back to the top, and repeat the run until the burnishing time is achieved.
 - b. Stop the elevator occasionally to ensure the brake and motor do not overheat.
- 3. After burnishing time is achieved re-verify the air gap between the brake pads and rotor. Ensure air gap is within 0.012" (0.30 mm) to 0.022" (0.55 mm) using a feeler gauge.

5.5 Encoder Connection

The machines are supplied with Heidenhain ECN1313 2048 encoder. A 1.5-meter encoder cable is connected to the encoder and extends from the back of the machine.

Connect the supplied encoder cable to the encoder cable extending from the back of the machine.

When using a KEB drive, the encoder cable can be used "as-is."

When using any other manufacturer's drive, consult control manufacturer for cable compatibility and availability. DO NOT modify the KEB cable without first consulting the control manufacturer. Any modification of the KEB cable voids its warranty.

5.6 Startup

Verify all the motor related settings in the elevator controller match the information on the machine data tag. Refer to Figure 1.

Verify that all the brake parameters match the information on the machine data tag. Refer to Figure 1.

Follow the controller manufacturer's procedure for alignment of the magnets (motor learn).

Briefly run the machine to verify the machine functionality and brake operation.

Verify the drive sheave is plumb and aligned with the rope drop locations.

Install the hoist ropes, adjust the rope shackles, and check the ropes for equal tension. The rope tension must be uniform, or it may cause vibration and premature wear on the traction sheave and hoist ropes.

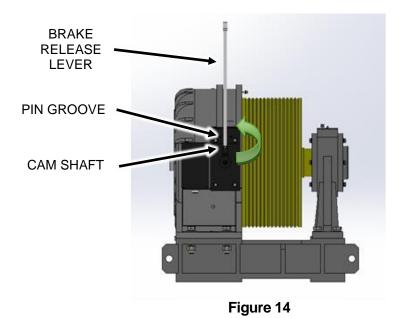
Re-verify the traction sheave is plumb once the machine is fully loaded.

5.7 Manual Brake Release

brake release lever from slipping.

The brakes can be manually released in the event of loss of power.

NOTE: The manual releasing device should be operated by 3 professionals, and make sure the power is shut down first.



- Insert the brake release levers into the cam release on top of each brake. Align the pin on the brake release lever with the mating groove on the cam release to prevent the
- 2. Apply force to the end of the brake release levers until the brake releases from the brake wheel.
- 3. The brake opening brake release levers must be removed from the cam release prior to normal elevator operation.

Section

6 Maintenance



Before performing any maintenance checks on equipment, take all the necessary safety precautions to immobilize the car and counterweight to prevent any unintended movement during the maintenance period that may result in injury or death!

6.1 General

To keep equipment functioning efficiently, good maintenance practices must be established, observed, and maintained. Systematic inspections of the equipment should be scheduled, and records kept of these inspections. Monitoring these records will indicate any sign of a potential issue.

Each installation has its own special conditions, so it is not possible for HWEC to outline an overall plan for periodic maintenance. HWEC would recommend, at a minimum, yearly inspections, but installation conditions may warrant a more frequent schedule. The maintenance contractor will need to make the final determination.

6.2 Cleaning

Dirt, dust, excess lubrication, and moisture are the greatest enemies of electrical equipment and of maintenance teams in general. Dirt and dust layers on a machine can prevent heat dissipation, which can lead to overheating and eventual insulation breakdown. Many types of dust in an elevator machine room are electrically conductive and can also lead to insulation failure. Dust and dirt can draw moisture to unpainted surfaces such as brake rods causing oxidation that can cause brake faults. Excess lubrication can draw dust and dirt as well.

Dust and dirt can be removed from surfaces with a dry, lint-free cloth, or with suction. With suction, however, care must be taken to not build up or discharge static electricity while cleaning. Dry, compressed air (at less than 50psi) may also be used to remove dirt and dust, however, this must be closely monitored as the compressed air will re-suspend the dust and dirt in the machine room atmosphere.

6.3 Bearings

Bearings have been sized for the maximum speeds, loads and capacities found in this manual at 50% duty. Bearings must be greased at least yearly, but greasing frequency will depend on duty and hoistway conditions.

1. To grease bearings, first remove the pressure relief plugs from the outboard stand and the back of the machine. See Figure 15.

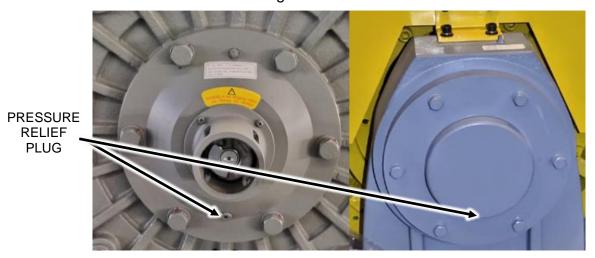


Figure 15

2. The grease point is opposite the relief plug. Figure 16.

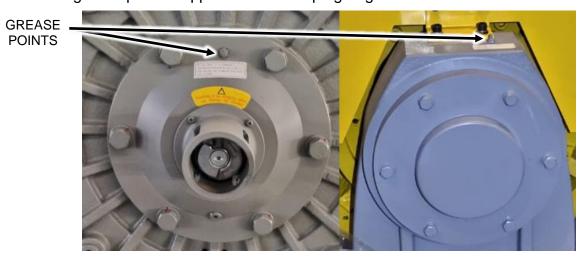


Figure 16

3. Apply 2-3 oz. of grease (use Shell "Gadus S3 V220C 2" or equal) at least yearly or according to the maintenance schedule for the installation conditions.

Bearings calculated life rating (based on speed, loads and 50% duty) is approximately 20 years. Please note that installation conditions vary, so shorter or longer bearing life may be experienced.

6.4 Brake Wear

9 WARNING

If the brake pad wears too much, the brake will be disabled.

6.4.1 Suggested check cycle

- Every 3 months after install in the first 6 months.
- Every 1 year afterwards.

6.4.2 Benchmark Criteria

- Check the brake for flexibility, the brake pad and traction sheave for wear, and the bearings. Replace worn and damaged parts when necessary.
- As the brake pad wears it adds to the air gap and could contribute to braking noise. You may adjust the air gap as detailed in Section 0.
- If brake pad wear is excessive replace the brake pad or replace the entire brake assembly. See Figure 17.

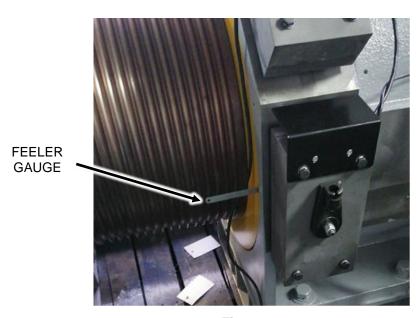


Figure 17

6.5 Other Items

Traction wheel, brake shoe and brake wheel are usually the only components that will wear. Among them, the brake wheel is most unlikely to wear. Brake pads are more likely to wear but can be monitored with feeler gauges. Refer to the brake section of this manual for brake inspection procedures.

The winding working temperature of traction machine shall not exceed 130 °C. It can be controlled by the thermal switch in the main machine. When the temperature reaches 130 °C, the traction machine shall be stopped.

When the traction machine rotates under the passive condition, it will be in the state of power generation. At this time, high voltage will be generated at the host terminal. Attention shall be paid to avoid electric shock and equipment damage.

Grease and other impurities shall be avoided between the brake pad and the brake wheel to avoid the decrease of braking force of the brake system. If the residual thickness of the brake pad is less than 5 mm due to wear, the brake pad shall be replaced.

Traction wheels are the most likely item on the machines to wear. Periodic measurements of rope depth and the evenness of wear for all ropes (groove depth should wear evenly) should be monitored. Cable should not be more than 0.125 inch (1/8") below the outer rim of the traction wheel. If cable(s), are below 0.125 inch, or if wear is uneven, replace the traction wheel and cables.

Check machine guarding and rope retainers for clearance and attachment hardware for tightness. Adjust as necessary.

Section

7 Replacement

9 WARNING

Have only qualified personnel perform the replacement work. The person who performs the replacement work must make sure that the machine power is off and that the elevator will not move unexpectedly.

7.1 Encoder Replacement

Required Tools & Materials:

- Encoder (ECN 1313)
- Hex wrench
 - o 2 mm
 - o 4 mm
 - o 6 mm
 - o 8 mm
- Hex sockets
 - o 2 mm
 - o 4 mm
- Torque Wrench (Need to measure 9 in-lbs. and 44 in-lbs.)
- M10 bolt (at least 1" or 25 mm in length)

7.1.1 Encoder Removal

The encoder can be removed from the front of the machine. See Figure 18.

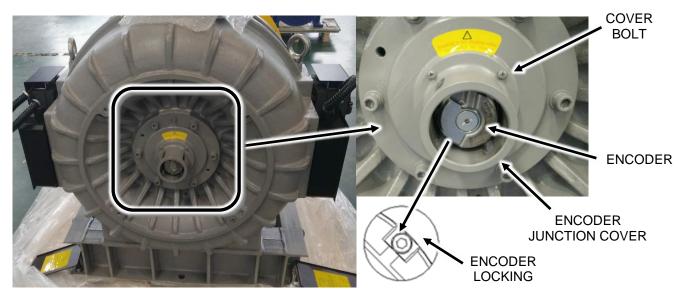


Figure 18

1. Loosen the encoder locking screw M2.5, as shown in Figure 19 with hex wrench (2 mm) through the encoder cover hole. The screw does not need to be removed.

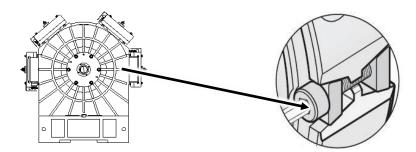


Figure 19

2. Remove the encoder bolt cover using the hex wrench (4 mm) and the encoder cable protective cover. See Figure 20.







Figure 20

3. Carefully remove wiring harness connector, See Loosen the bolt M5 inside by hex wrench (4 mm) 2~3 turns only. Do not remove this bolt.

(M5 bolt must remain in the encoder so the M10 bolt can push against it). See Figure 22.

- 4. Insert a M10 bolt into the encoder housing. See Figure 23.
- 5. Leave the encoder cable on the machine. It does not need to be removed.

Note: Do not apply excessive pressure on the cable. It may destroy the encoder cable.







Figure 21

6. Loosen the bolt M5 inside by hex wrench (4 mm) 2~3 turns only. Do not remove this bolt.

(M5 bolt must remain in the encoder so the M10 bolt can push against it). See Figure 22.

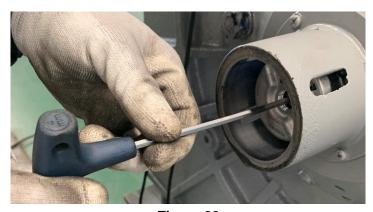


Figure 22

7. Insert a M10 bolt into the encoder housing. See Figure 23.



Figure 23

8. Turn the M10 bolt against the M5x50 bolt to push the encoder from the shaft. The encoder will "pop" free and will be loose to the touch yet still retained by the M5 bolt. See Figure 24.



Figure 24

9. Remove both bolts and the encoder, See Figure 25.



Figure 25

7.1.2 Encoder Installation

What's in the box. See Figure 26.



Figure 26

1. Loosen and remove the bolt M2.5 and nut assembly in the new encoder. See Figure 27.





Figure 27

2. There is a taper in the front of the encoder shaft, put the encoder shaft into the hole of the shaft. Figure 28.

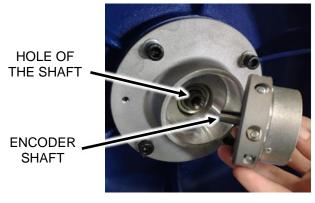




Figure 28

3. Install the encoder. Use the bolt M5 to secure the encoder to the encoder cover by hex wrench (4mm). Use 4mm socket Allen and torque wrench to tighten the bolt to 44 in-lbs. See Figure 29.



Figure 29

4. Rotate the encoder, it should be very flexible at this time, tighten the encoder locking screw according to 11 in-lbs. by a hex wrench so the encoder outer cannot rotate by hand. See Figure 30.

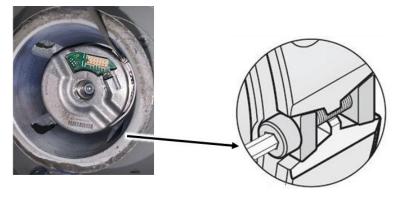


Figure 30

5. Install the encoder cable on the encoder. Take care to orient the plug and socket correctly. See Figure 31.





Figure 31

6. Place the cable cover on the encoder and secure with the encoder cover bolt (and cover) to the encoder. See Figure 32.







Figure 32

- 7. Reconnect the power supply of machine and test it.
- 8. Align the encoder per controller instructions.

7.2 Brake Replacement

Required Tools & Materials:

- Adjustable wrench
- Hex wrench (4 mm, 5 mm)
- Small flat head screwdriver

9 WARNING

Before performing any maintenance on the machine brake(s), land the counterweight and take all the necessary safety precautions to immobilize the car and counterweight to prevent any unintended movement during the maintenance period that may result in injury or death!

Read the entire brake replacement procedure before beginning any of the steps outlined below. Contact HWEC with any questions prior to beginning the brake repair or replacement.

Before opening any electrical enclosures on the machine, remove all electricity from the machine and brakes to prevent electrical shock that may result in injury or death during the maintenance period!

7.2.1 Brake Removal

- 1. Remove covers as necessary to access terminal blocks and brake pin set screw (4 mm hex key).
- 2. Disconnect machine power, see Figure 33.

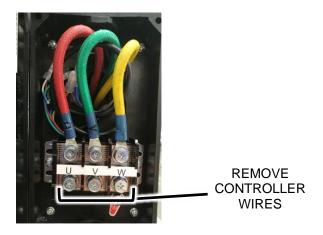
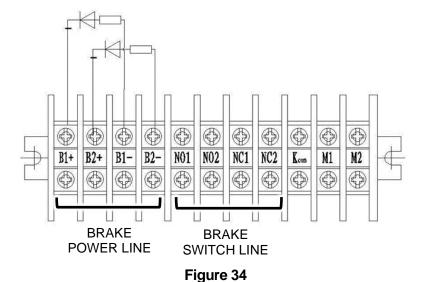


Figure 33

3. On the machine side disconnect the Brake and Brake Switch wires for the brake that is to be worked on Figure 34.



4. Use a wrench to loosen the mounting bolt of the fastener 1, so that the end face of the guide screw sleeve of the fastener 2 is separated from the mounting surface of the base.

5. Remove the brake and related connecting accessories.

- 6. New or repaired brakes are replaced in the reverse order of the above instructions.
- 7. Adjust the guide screw sleeve of guide screw 2 and the mounting bolt of insulation bolt 1, so that the air gap between the armature of armature 5 and the armature of armature iron 4 is between 0.012" (0.30 mm) to 0.022" (0.55 mm), the gap between the brake belt and the brake wheel is 0.004" (0.10 mm) to 0.006" (0.15 mm), and the distance between the guide screw sleeve of guide screw 2 and the iron surface of armature iron 4 is about 0.197" (5 mm). no less than 0.118" (3 mm) under any conditions, as shown in Figure 35.

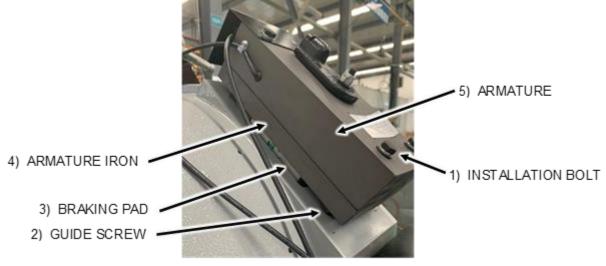


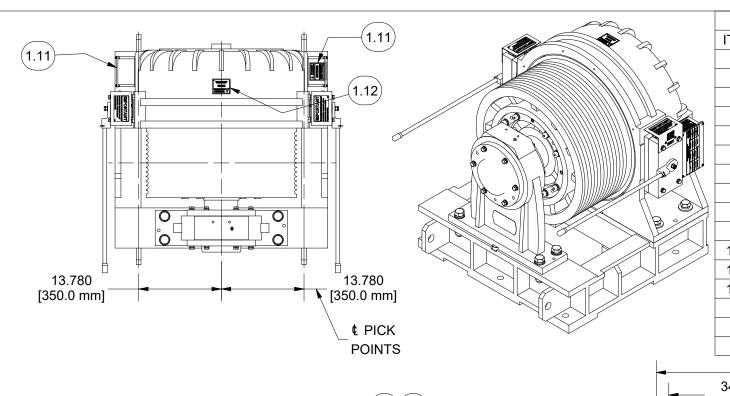
Figure 35

7.2.2 Brake Installation

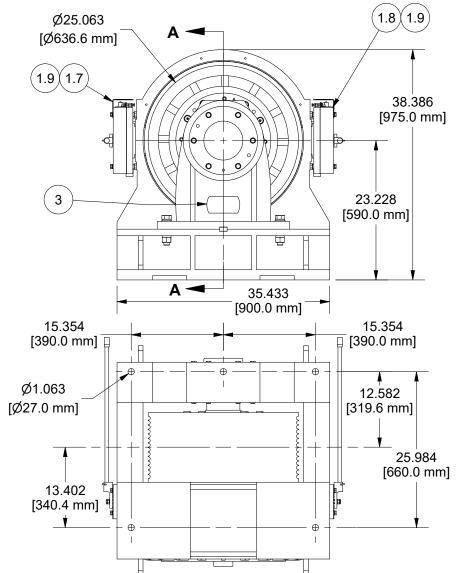
After installation of the brake, please refer to Section 5.3 to confirm brake is centered and air gap has been restored to factory specifications.

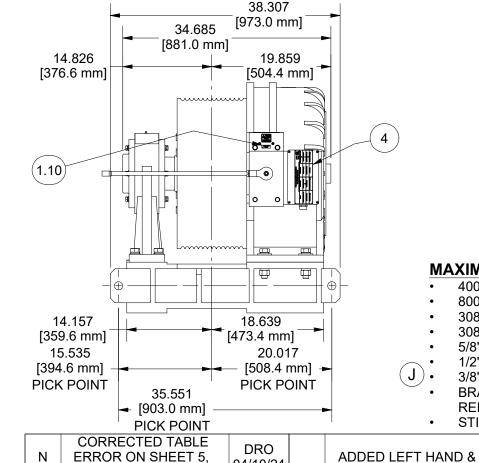


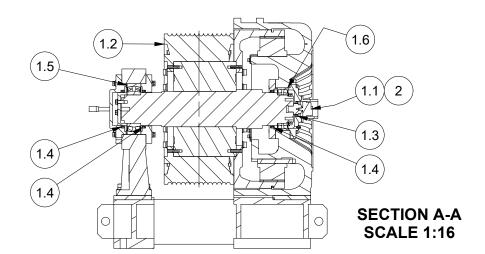
Brakes must be burnished to achieve full stopping torque!



			REPLACEMENT PARTS LIST
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	GLV-40D2-R	GLV-40D2 GEARLESS MACHINE AS RECEIVED
1.1	1	ENC-1313	HEIDENHAIN ENCODER ID # 768295-03 ("ECN1313 2048 62S12-78")
1.2	1	GLV-40D2-009	TRACTION WHEEL - 25" DOUBLE WRAP
1.3	1	GLV-40D2-081-001	ROTARY SHAFT LIP SEAL
1.4	3	GLV-40D2-081-002	ROTARY SHAFT LIP SEAL
1.5	1	GL130-090	22224 SEALED SPHERICAL ROLLER BEARING - A-STAND
1.6	1	GL185-090	23024 SEALED SPHERICAL ROLLER BEARING - HOUSING
1.7	1	GLV-40D2-150-LH	BRAKE, GLV-40D2
1.8	1	GLV-40D2-150-RH	BRAKE, GLV-40D2
1.9	2	GLT-25S2-152	BRAKE DIODE
1.10	1	P-176	TAG, GEARLESS EMERGENCY BRAKE
1.11	2	P-221	WARNING LABEL, LIVE CIRCUITS
1.12	1	P-222	WARNING LABEL, HOT SURFACE
2	1	GL080-001-04-020	HEIDENHAIN ENCODER CABLE w/PLUGS, 1.5 METER LG. ID# 730736-22 (NOT SHOWN)
3	1	P-230	NAMEPLATE, SMALL, HOLLISTER-WHITNEY
4	1	P-238	TAG, DATA, MACHINE, CONTRACT
	20	207	







MAXIMUM DOUBLE WRAP MACHINE RATINGS 2:1

- 4000# CAPACITY
- 800 FPM
- 30800# SHEAVE/SHAFT LOAD

DRO

12/23/22 TITLE

- 30800# MAXIMUM SYSTEM LOAD
- 5/8" GROOVE DUTY CHART PAGE 2 OF 4
- 1/2" GROOVE DUTY CHART PAGE 3 OF 4
- 3/8" GROOVE DUTY CHART PAGE 4 OF 4
- BRAKE RELEASE LEVERS REMOVABLE. LOCATION ON DRAWING REFERENCE ONLY
- STICKER AND TAG LOCATIONS MAY VARY

В

	H	OLLISTER-WHI	TNEY
		ELEVATOR CO. LL	C
		MACHINE - DOUBLE W	RAP
'N	SCALE	MATERIAL	REFERENCE TOL.
	1:16	SEE PARTS LIST	ALL DIMENSIONS REFERENCE UNLESS OTHERWISE SPECIFIED

PART NUMBER CHARTS, PUR #1731 06/23/23 PUR #1793 THIS DRAWING IS SUPPLIED AS A REPRESENTATION OF THE EQUIPMENT HOLLISTER-WHITNEY ELEVATOR CO. LLC ("MANUFACTURER") HAS AGREED TO SUPPLY. SLIGHT ADJUSTMENTS MAY OCCUR DURING MANUFACTURING AND

04/10/24

EMM

SUPPLY. SLIGHT ADJUST MENTS MAY OCCUR DURING MANUFACTURING AND INSTALLATION. ANY MODIFICATIONS NOT APPROVED IN WRITING BY MANUFACTURER MAY AFFECT OPERATION, VOIDS ANY WARRANTY AND RELEASES MANUFACTURER OF ALL LIABILITY.

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PUR #1852

ADDED NEW BLUELIGHT

THIRD ANGLE PROJECTION

RIGHT HAND BRAKE

CONFIGURATIONS,

BY	SCALE	MATERIAL
٠.	4 40	SEE PARTS LIST
LTL	1:16	
SHEET S	IZE	DATE

9/21/2020

GLV-40D2 SHEET 1 OF 5

WEIGHT: 3884.6 lbmass

5/8" GROOVE PROFILE MACHINE: 380V, 25" Wheel, 2:1 Double Wrap Up to 4,000# Capacity, Up to 800 fpm, 30,800# Sheave Shaft Load, 30,800# System Load, Estimated Weight: 3300# Capacity Speed Motor Motor Rated Rated Rated Rated Rated Peak Estimated Max Estimated Rated MaxAccel Sheave MotorWinding Brake Information Rope/Groove																						
	0 - 1 - 0 - 1	Capacity	Speed	Motor	Motor		Rated	Rated	Actual	Rated	Rated	Peak	Estimated	Max	Estimated	Rated	MaxAccel	0 ./0/)	Sheave	MotorWinding	Brake Information	Rope/Groove
HW Part #	Supplier Part #	(lbs)	(fpm)	Rating (HP)	Rating (kW)	Poles	(rpm)	 Voltage	Voltage	Freq(Hz)	Current(A)	Current (A)	Efficiency	BTU/hr	BTU/hr	Torque(ft-lbs)) Torque(ft-lbs)	Cwt(%)	Dia(")	Specification		Information
			300	15.3	11.4	30	91.7	380	238.5	22.9	33.6	80.6	92.0%	3120	998	878	1756	50	25			
		2500	350	17.9	13.3	30	107.0	380	278.3	26.7	33.6	80.6	92.6%	3378	1081	878	1756	50	25			
			400	20.4	15.2	30	122.2	380	318.0	30.5	33.6	80.6	93.0%	3643	1166	878	1756	50	25			
			300	17.9	13.4	30	91.7	380	243.0	22.9	39.4	94.5	91.3%	3962	1268	1030	2060	50	25			Grooves to be
		3000	350	20.9	15.6	30	106.9	380	285.0	26.7	39.4	94.5	92.1%	4201	1344	1030	2060	50	25			machined at
GLV-40D2-C-V407B	WYT-V2D-2.0EFD635-V407B		400	23.9	17.8	30	122.2	380	326.0	30.5	39.4	94.5	92.6%	4500	1440	1030	2060	50	25	WYT-V2D.1.1-V407B		Bluelight
			300	21.3	15.8	30	91.7	380	249.0	22.9	46.6	111.8	90.8%	4967	1589	1218	2436	50	25			bideligitt
		3500	350	24.8	18.5	30	107.0	380	290.5	26.7	46.6	111.8	91.7%	5235	1675	1218	2436	50	25			61 1 6
			400	28.3	21.1	30	122.2	380	332.0	30.5	46.6	111.8	92.3%	5520	1766	1218	2436	50	25			Standard Grooving:
		4000	300	23.9	17.9	30	91.7	380	253.5	22.9	52.5	126.0	90.2%	5960	1907	1372	2744	50	25			14 - 5/8" grooves on
		4000	350 400	27.9 31.9	20.8	30 30	107.0 122.2	380 380	295.8 338.0	26.7 30.5	52.5 52.5	126.0 126.0	91.2% 91.9%	6259 6557	2003 2098	1372 1372	2744 2744	50 50	25 25		D D N	3/4" pitch
			500	25.5	19.0	30	152.8		222.9	38.2	56.4	135.4	92.7%	4774	1528	878	1756	50	25		Brake Part Number: D1D 110RB	using the following
		2500	600	30.7	22.9	30	183.3	380	267.4	45.8	56.4	135.4	92.7%	5503	1761	878	1756	50	25		DID HOKE	groove profile:
		2500	700	35.8	26.7	30	213.9	380	312.0	53.5	56.4	135.4	93.1%	6265	2005	878	1756	50	25		Brake Qty:	
			500	30	22.4	30	152.8	380	226	38.2	66	158.4	92.50%	5725	1832	1030	2060	50	25		prake Qty.	
		3000	600	36.0	26.9	30	183.3	380	272.0	45.8	66	158.4	93.0%	6412	2052	1030	2060	50	25		Pick Volts, Amps:	
			700	42.0	31.4	30	213.9	380	317.0	53.5	66	158.4	93.3%	7160	2291	1030	2060	50	25		110, 1.98	
GLV-40D2-C-V408B	WYT-V2D-3.5EFD635-V408B		500	35.4	26.4	30	152.8	380	229.3	38.2	78.2	187.7	92.6%	6714	2149	1218	2436	50	25	WYT-V2D.1.1-V408B	Hold Volts, Amps:	
		3500	600	42.5	31.7	30	183.3	380	275.1	45.8	78.2	187.7	93.1%	7469	2390	1218	2436	50	25		70, 1.26	See Print
			700	49.6	37.0	30	213.9	380	321.0	53.5	78.2	187.7	93.5%	8254	2641	1218	2436	50	25			GRVH-TUN-0250
			500	39.9	29.8	30	152.8	380	232.9	38.2	88	211.2	92.3%	7777	2489	1372	2744	50	25			GIVI1-1014-0230
		4000	600	47.9	35.7	30	183.3	380	279.4	45.8	88	211.2	93.0%	8546	2735	1372	2744	50	25			For STANDARD
			700	55.9	41.7	30	213.9	380	326.0	53.5	88	211.2	93.4%	9341	2989	1372	2744	50	25			E /0" Dono
		2500	750	38.3	28.6	30	229.2	380	272.8	57.2	67.2	161.3	93.3%	6545	2094	878	1756	50	25			5/8" Rope
		2500	800	40.9	30.5	30	244.5	380	291.0	61.0	67.2	161.3	93.3%	6939	2220	878	1756	50	25			Groove Profile
		3000	750	45.0	33.5	30	229.2	380	278.5	57.2	78.7	188.9	93.4%	7557	2418	1030	2060	50	25			
GLV-40D2-C-V409B	WYT-V2D-4.0EFD635-V409B	/409B 800 48.0 35.7 30 244.5 380 296.4 61.0 78.7 188.9 93.5% 7939 2540 1030 2060 50 25 WYT-V2D 1 1-V409B																				
		3500	750	53.2	39.6	30	229.2	380	283.1	57.2	93.2	223.7	93.7%	8499	2720	1218	2436	50	25	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
			800	56.7	42.3	30	244.5	380	302.0	61.0	93.2	223.7	93.8%	8903	2849	1218	2436	50	25			
		4000	750	59.9	44.6	30	229.2	380	287.8	57.2	104.9	251.8	93.7%	9569	3062	1372	2744	50	25			
			800	63.9	47.6	30	244.5	380	307.0	61.0	104.9	251.8	93.9%	9977	3193	1372	2744	50	25			

- BRAKE SWITCH NORMALLY CLOSED WHEN BRAKE IS DE-ENERGIZED
- BRAKE INFORMATION:
- PICK VOLTS: 110 PICK AMPS: 1.98 HOLD VOLTS: 70
- HOLD AMPS: 1.26

N	CORRECTED TABLE ERROR ON SHEET 5, PUR #1852	DRO 04/10/24
М	ADDED NEW BLUELIGHT PART NUMBER CHARTS, PUR #1793	EMM 06/23/23

ADDED LEFT HAND & RIGHT HAND BRAKE CONFIGURATIONS, PUR #1731

DRO 12/23/22 TITLE

WEIGHT: HOLLISTER-WHITNEY

ELEVATOR CO. LLC

MACHINE - DOUBLE WRAP

THIS DRAWING IS SUPPLIED AS A REPRESENTATION OF THE EQUIPMENT HOLLISTER-WHITNEY ELEVATOR CO. LLC ("MANUFACTURER") HAS AGREED TO SUPPLY. SLIGHT ADJUSTMENTS MAY OCCUR DURING MANUFACTURING AND SUPPLY. SLIGHT ADJUST MENTS MAY OCCUR DURING MANUFACTURING AND INSTALLATION. ANY MODIFICATIONS NOT APPROVED IN WRITING BY MANUFACTURER MAY AFFECT OPERATION, VOIDS ANY WARRANTY AND RELEASES MANUFACTURER OF ALL LIABILITY.

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THIRD ANGLE PROJECTION

DRAWN | SCALE | MATERIAL BY SEE PARTS LIST LTL SHEET SIZE DATE

В

REFERENCE TOL.
ALL DIMENSIONS REFERENCE
UNLESS OTHERWISE

GLV-40D2 9/21/2020 SHEET 2 OF 5

	1/2" GROOVE PROFILE MACHINE: 380V, 25" Wheel, 2:1 Double Wrap Up to 4,000# Capacity, Up to 800 fpm, 30,800# Sheave Shaft Load, 30,800# System Load, Estimated Weight: 3300# Capacity Speed Motor Motor Rated Rated Actual Rated Rated Peak Estimated Max Estimated Rated Rated MaxAccel Sheave MotorWinding Brake Information Rope/Groove																								
111A/ D+ #	Committee Death #	Capacity	Speed	Motor	Motor	Dalaa	Rated	Rated	Actual	Rated	Rated	Peak	Estimated	Max	Estimated	Rated	MaxAccel	C+(0/)	Sheave	MotorWinding	Brake Information	Rope/Groove			
HW Part #	Supplier Part #	(lbs)	(fpm)	Rating (HP)	Rating (kW)	Poles	(rpm)	Voltage	Voltage	Freq(Hz)	Current(A)	Current (A)	Efficiency	BTU/hr	BTU/hr	Torque(ft-lbs)	Torque(ft-lbs)	Cwt(%)	Dia(")	Specification		Information			
			300	15.3	11.4	30	91.7	380	238.5	22.9	33.6	80.6	92.0%	3120	998	878	1756	50	25						
		2500	350	17.9	13.3	30	107.0	380	278.3	26.7	33.6	80.6	92.6%	3378	1081	878	1756	50	25						
			400	20.4	15.2	30	122.2	380	318.0	30.5	33.6	80.6	93.0%	3643	1166	878	1756	50	25						
			300	17.9	13.4	30	114.6	380	243.0	28.7	39.4	94.5	91.3%	3962	1268	1030	2060	50	25			Grooves to be			
		3000	350	20.9	15.6	30	133.7	380	285.0	33.4	39.4	94.5	92.1%	4201	1344	1030	2060	50	25			machined at			
GLV-40D2-C-V407C	WYT-V2D-2.0EFD635-V407B		400	23.9	17.8	30	152.8	380	326.0	38.3	37.7	90.5	92.3%	4683	1498	1030	2060	50	25	WYT-V2D.1.1-V407B		Bluelight			
			300	21.3	15.8	30	91.7	380	249.0	22.9	46.6	111.8	90.8%	4967	1589	1218	2436	50	25						
		3500	350	24.8	18.5	30	107.0	380	290.5	26.7	46.6	111.8	91.7%	5235	1675	1218	2436	50	25	-		Standard Grooving:			
			400	28.3	21.1	30	122.2	380	332.0	30.5	46.6	111.8	92.3%	5520	1766	1218	2436	50	25	-		9			
		4000	300 350	23.9 27.9	17.9 20.8	30	91.7 107.0	380	253.5	22.9	52.5 52.5	126.0 126.0	90.2%	5960 6259	1907 2003	1372 1372	2744 2744	50	25	-		16 - 1/2" grooves on			
		4000	400	31.9	23.8	30 30	122.2	380 380	295.8 338.0	26.7 30.5	52.5	126.0	91.2% 91.9%	6557	2003	1372	2744	50 50	25 25	-	Brake Part Number:	5/8" pitch			
			500	25.5	19.0	30	152.8	380	222.9	38.2	56.4	135.4	92.7%	4774	1528	878	1756	50	25		D1D 110RB	using the following			
		2500	600	30.7	22.9	30	183.3	380	267.4	45.8	56.4	135.4	92.9%	5503	1761	878	1756	50	25		DID TIONS	groove profile:			
			700	35.8	26.7	30	213.9	380	312.0	53.5	56.4	135.4	93.1%	6265	2005	878	1756	50	25		Brake Qty:				
			500	29.9	22.3	30	191.0	380	223.5	47.8	67.2	161.3	92.7%	5554	1777	1030	2060	50	25	1	2				
		3000	600	36.0	26.9	30	183.3	380	272.0	45.8	66	158.4	93.0%	6412	2052	1030	2060	50	25		Pick Volts, Amps:				
CIV 40D2 C V409C	MAXT V2D 2 FFFDC2F V400D		700	42.0	31.4	30	213.9	380	317.0	53.5	66	158.4	93.3%	7160	2291	1030	2060	50	25	W/VT V/2D 1 1 V/400D	110, 1.98				
GLV-40D2-C-V408C	WYT-V2D-3.5EFD635-V408B		500	35.4	26.4	30	152.8	380	229.3	38.2	78.2	187.7	92.6%	6714	2149	1218	2436	50	25	WYT-V2D.1.1-V408B	Hold Volts, Amps:	Can Duint			
		3500	600	42.5	31.7	30	183.3	380	275.1	45.8	78.2	187.7	93.1%	7469	2390	1218	2436	50	25		70, 1.26	See Print			
			700	49.6	37.0	30	213.9	380	321.0	53.5	78.2	187.7	93.5%	8254	2641	1218	2436	50	25			GRVH-TUN-0250			
			500	39.9	29.8	30	152.8	380	232.9	38.2	88	211.2	92.3%	7777	2489	1372	2744	50	25						
		4000	600	47.9	35.7	30	183.3	380	279.4	45.8	88	211.2	93.0%	8546	2735	1372	2744	50	25	-		For STANDARD			
			700	55.9	41.7	30	213.9	380	326.0	53.5	88	211.2	93.4%	9341	2989	1372	2744	50	25			1/2" Rope			
		2500	750	38.3	28.6	30	229.2	380	272.8	57.2	67.2	161.3	93.3%	6545	2094	878	1756	50	25	-		-			
			800	40.9	30.5	30	244.5	380	291.0	61.0	67.2	161.3	93.3%	6939	2220	878	1756	50	25			Groove Profile			
		3000	750	45.0	33.5	30	229.2	380	278.5	57.2	78.7	188.9	93.4%	7557	2418	1030	2060	50	25	-					
GLV-40D2-C-V409C	WYT-V2D-4.0EFD635-V409B		800 750	48.0 53.2	35.7 39.6	30	244.5 229.2	380 380	296.4 283.1	61.0 57.2	78.7 93.2	188.9 223.7	93.5%	7939 8499	2540 2720	1030 1218	2060 2436	50	25 25	WYT-V2D.1.1-V409B					
				3500	3500	800	56.7	42.3	30 30	244.5	380	302.0	61.0	93.2	223.7	93.7%	8903	2849	1218	2436	50 50				
			750	59.9	44.6	30	229.2	380	287.8	57.2	104.9	251.8	93.7%	9569	3062	1372	2744	50	25						
		4000	800	63.9	44.6	30	244.5		307.0	61.0	104.9	251.8	93.7%	9977	3193	1372	2744	50	25	1					
			1 000	03.3	47.0] 30	244.3	100	307.0	01.0	104.5	231.0	33.370	3311	1 3133	13/2	2/44] 50	23	<u> </u>					

1. BRAKE SWITCH NORMALLY CLOSED WHEN BRAKE IS DE-ENERGIZED

2. BRAKE INFORMATION:

PICK VOLTS: 110PICK AMPS: 1.98HOLD VOLTS: 70HOLD AMPS: 1.26

N ERROR ON SHEET 5,
PUR #1852

ADDED NEW BLUELIGHT
PART NUMBER CHARTS,
PUR #1793

THIS DRAWING IS SUPPLIED AS A REPRESENTATION OF THE EQUIPMENT
HOLLISTER-WHITNEY ELEVATOR CO. LLC ("MANUFACTURER") HAS AGREED

CORRECTED TABLE

ADDED LEFT HAND & RIGHT HAND BRAKE CONFIGURATIONS, PUR #1731

DRO 12/23/22 TITLE

HOLLISTER-WHITNEY

ELEVATOR CO. LLC

MACHINE - DOUBLE WRAP

HOLLISTER-WHITNEY ELEVATOR CO. LLC ("MANUFACTURER") HAS AGREED TO SUPPLY. SLIGHT ADJUSTMENTS MAY OCCUR DURING MANUFACTURING AND INSTALLATION. ANY MODIFICATIONS NOT APPROVED IN WRITING BY MANUFACTURER MAY AFFECT OPERATION, VOIDS ANY WARRANTY AND RELEASES MANUFACTURER OF ALL LIABILITY.

THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION THAT CANNOT BE REPRODUCED OR DIVULGED, IN WHOLE OR IN PART, WITHOUT

WRITTEN AUTHORIZATION FROM THE MANUFACTURER.

DRO

THIRD ANGLE PROJECTION

DRAWN SCALE MATERIAL
BY
LTL SHEET SIZE DATE

REFERENCE TOL.
ALL DIMENSIONS REFERENCE
UNLESS OTHERWISE

SIZE DATE 9/21/2020

GLV-40D2 SHEET 3 OF 5

	3/8" GROC	OVE PRO	FILE N	/ACHINE:	380V, 25" \	Wheel	l, 2:1 [ouble	Wrap L	p to 4,0	000# Ca	pacity, U	p to 800	fpm, 3	80,800# 9	Sheave Shaf	t Load, 30,8	800# S	stem Lo	oad, Estimated Weig	ght: 3300#		
HW Part #	Supplier Part #	Capacity	Speed	Motor	Motor	Dolos	Rated	Rated	Actual	Rated	Rated	Peak	Estimated	Max	Estimated	Rated	MaxAccel	Cwt(%)	Sheave	MotorWinding	Brake Information	Rope/Groove	
HVV Pail#	Supplier Part #	(lbs)	(fpm)	Rating (HP)	Rating (kW)	Poles	(rpm)	Voltage	Voltage	Freq(Hz)	Current(A)	Current (A)	Efficiency	BTU/hr	BTU/hr	Torque(ft-lbs)	Torque(ft-lbs)	CWI(%)	Dia(")	Specification		Information	
			300	15.3	11.4	30	91.7	380	238.5	22.9	33.6	80.6	92.0%	3120	998	878	1756	50	25				
		2500	350	17.9	13.3	30	107.0	380	278.3	26.7	33.6	80.6	92.6%	3378	1081	878	1756	50	25				
			400	20.4	15.2	30	122.2	380	318.0	30.5	33.6	80.6	93.0%	3643	1166	878	1756	50	25				
			300	17.9	13.4	30	114.6	380	243.0	28.7	39.4	94.5	91.3%	3962	1268	1030	2060	50	25			Grooves to be	
		3000	350	20.9	15.6	30	133.7	380	285.0	33.4	39.4	94.5	92.1%	4201	1344	1030	2060	50	25			machined at	
GLV-40D2-C-V407D	WYT-V2D-2.0EFD635-V407B		400	23.9	17.8	30	152.8	380	326.0	38.3	37.7	90.5	92.3%	4683	1498	1030	2060	50	25	WYT-V2D.1.1-V407B		Bluelight	
3EV 40D2 C V407D	WIT V2D 2.021 D033 V407B		300	21.3	15.8	30	91.7	380	249.0	22.9	46.6	111.8	90.8%	4967	1589	1218	2436	50	25	VV11 V2D.1.1 V407B		bluelight	
		3500	350	24.8	18.5	30	107.0	380	290.5	26.7	46.6	111.8	91.7%	5235	1675	1218	2436	50	25				
			400	28.3	21.1	30	122.2	380	332.0	30.5	46.6	111.8	92.3%	5520	1766	1218	2436	50	25			Standard Groovin	
			300	23.9	17.9	30	91.7	380	253.5	22.9	52.5	126.0	90.2%	5960	1907	1372	2744	50	25			18 - 3/8" grooves	
		4000	350	27.9	20.8	30	107.0	380	295.8	26.7	52.5	126.0	91.2%	6259	2003	1372	2744	50	25			1/2" pitch	
			400	31.9	23.8	30	122.2	380	338.0	30.5	52.5	126.0	91.9%	6557	2098	1372	2744	50	25		Brake Part Number:	using the followir	
			500	25.5	19.0	30	152.8	380	222.9	38.2	56.4	135.4	92.7%	4774	1528	878	1756	50	25		D1D 110RB	groove profile:	
		2500	2500	600	30.7	22.9	30	183.3	380	267.4	45.8	56.4	135.4	92.9%	5503	1761	878	1756	50	25			groove prome.
				700	35.8	26.7	30	213.9	380	312.0	53.5	56.4	135.4	93.1%	6265	2005	878	1756	50	25		Brake Qty:	
			500	29.9	22.3	30	191.0	380	223.5	47.8	67.2	161.3	92.7%	5554	1777	1030	2060	50	25		2 Dick Volts Amps:		
		3000	600	36.0	26.9	30	183.3	380	272.0	45.8	66	158.4	93.0%	6412	2052	1030	2060	50	25		Pick Volts, Amps:		
GLV-40D2-C-V408D	WYT-V2D-3.5EFD635-V408B		700	42.0	31.4	30	213.9	380	317.0	53.5	66	158.4	93.3%	7160	2291	1030	2060	50	25	WYT-V2D.1.1-V408B	110, 1.98		
		2500	500	35.4	26.4	30	152.8	380	229.3	38.2	78.2	187.7	92.6%	6714	2149	1218	2436	50	25		Hold Volts, Amps:	See Print	
		3500	600	42.5	31.7	30	183.3	380	275.1	45.8	78.2	187.7	93.1%	7469	2390	1218	2436	50	25		70, 1.26	366 1 1111	
			700	49.6	37.0	30	213.9	380	321.0	53.5	78.2	187.7	93.5%	8254	2641	1218	2436	50	25			GRVH-TUN-02	
		4000	500	39.9	29.8	30	152.8	380	232.9	38.2	88	211.2	92.3%	7777	2489	1372	2744	50	25			C CT A ND A D	
		4000	600	47.9 55.9	35.7	30	183.3	380	279.4	45.8	88	211.2	93.0%	8546	2735	1372	2744	50	25 25			For STANDAR	
			700		41.7	30	213.9	380	326.0	53.5	88	211.2	93.4%	9341	2989	1372	2744	50			·	3/8" Rope	
		2500	750	38.3	28.6	30	229.2	380	272.8	57.2	67.2	161.3	93.3%	6545	2094	878	1756	50	25			-	
			800	40.9	30.5	30	244.5	380	291.0	61.0	67.2	161.3	93.3%	6939	2220	878	1756	50	25			Groove Profi	
		3000	750 800	45.0 48.0	33.5 35.7	30	229.2 244.5	380 380	278.5 296.4	57.2 61.0	78.7 78.7	188.9 188.9	93.4%	7557 7939	2418 2540	1030 1030	2060 2060	50	25				
GLV-40D2-C-V409D	WYT-V2D-4.0EFD635-V409B		_			30							93.5%					50	25	WYT-V2D.1.1-V409B			
		3500	750	53.2	39.6	30	229.2	380	283.1	57.2	93.2	223.7	93.7%	8499	2720	1218	2436	50	25				
			800	56.7	42.3	30	244.5	380	302.0	61.0	93.2	223.7	93.8%	8903	2849	1218	2436	50	25				
		4000	750	59.9	44.6	30	229.2	380	287.8	57.2	104.9	251.8	93.7%	9569	3062	1372	2744	50	25				
			800	63.9	47.6	30	244.5	380	307.0	61.0	104.9	251.8	93.9%	9977	3193	1372	2744	50	25				

- BRAKE SWITCH NORMALLY CLOSED WHEN BRAKE IS DE-ENERGIZED
- BRAKE INFORMATION:
- PICK VOLTS: 110 PICK AMPS: 1.98
- HOLD VOLTS: 70
- HOLD AMPS: 1.26

N	CORRECTED TABLE ERROR ON SHEET 5, PUR #1852	DRO 04/10/24	
М	ADDED NEW BLUELIGHT PART NUMBER CHARTS, PUR #1793	EMM 06/23/23	

ADDED LEFT HAND & RIGHT HAND BRAKE CONFIGURATIONS, PUR #1731

DRO 12/23/22 TITLE

HOLLISTER-WHITNEY ELEVATOR CO. LLC

MACHINE - DOUBLE WRAP

THIS DRAWING IS SUPPLIED AS A REPRESENTATION OF THE EQUIPMENT HOLLISTER-WHITNEY ELEVATOR CO. LLC ("MANUFACTURER") HAS AGREED TO SUPPLY. SLIGHT ADJUSTMENTS MAY OCCUR DURING MANUFACTURING AND SUPPLY. SLIGHT ADJUST MENTS MAY OCCUR DURING MANUFACTURING AND INSTALLATION. ANY MODIFICATIONS NOT APPROVED IN WRITING BY MANUFACTURER MAY AFFECT OPERATION, VOIDS ANY WARRANTY AND RELEASES MANUFACTURER OF ALL LIABILITY.

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THIRD ANGLE PROJECTION

DRAWN | SCALE | MATERIAL BY SEE PARTS LIST LTL SHEET SIZE

В

REFERENCE TOL.
ALL DIMENSIONS REFERENCE
UNLESS OTHERWISE

WEIGHT:

DATE GLV-40D2 9/21/2020 SHEET 4 OF 5

5/8"	"" GROOVE PROFILE MACHIN	1E: 480	ル, 25"	Wheel,	2:1Doub	le Wr	ap, U	p to 4	,000#	t capa	city, Up	to 700	fpm, 3	0,800	# Shea	ve Shaft L	oad, 30,80	00# Sy	/sten	Load, Estimated	Weight: 395	51#	
HW Ordering Part #	Cumpliar Dort #	Capacity	Speed	Motor	Motor	Dolos	Rated	Rated	Actual	Rated	Rated	Peak	Estimate	Max E	stimated	Rated	MaxAccel		Sheave	MotorWinding	Brake Information	Rope/Groove	
HW Ordering Part#	Supplier Part #	(lbs)	(fpm) R	Rating (HP)	Rating (kW)	Poles	(rpm)	Voltage	Voltage	Freq(Hz	Current(A	Current (A	Efficiency	BTU/hr	BTU/hr	orque(ft-lbs)	Forque(ft-lbs	Cwt(%)	Dia('')	Specification	or ake miormation	Information	
			500	25.5	19.0	30	152.8	480		38.2	46.4	111.4	92.7%		1528	878	1756	50	25		Brake Part	Grooves to be	
		2500	600	30.7	22.9	30	183.3	480	332.6	45.8	46.4	111.4	92.9%		1761	878	1756	50	25		Number:	machined at	
			700	35.8	26.7	_	213.9		388.0		46.4	111.4	93.1%	6265	2005	878	1756	50	25		D1D 110RB	Bluelight	
			500	29.9	22.3		152.8		281.4		54.4	130.6	92.7%		1777	1030	2060	50	25		DID TIONS		
		3000	600	36.0	26.9	_	183.3		337.8		54.4	130.6	93.0%	6412	2052	1030	2060	50	25		Brake Qty:	Standard Grooving:	
		3000	700	42.0	31.4	_	213.9		394.0	-	54.4	130.6	93.3%	7160	2291	1030	2060	50	25		<u>ы аке Qty</u> . 4	14 - 5/8" grooves on	
GLV-40D2-C-V501B	WYT-V2D-3.5EFD635-V501B		500	35.4	26.4	_	152.8		287.1	38.2	64.4	154.6	92.6%	6714	2149	1218	2436		25	WYT-V2D.1.1-V501B		3/4" pitch	
		2500				_								-				50			Pick Volts,	using the following groove	
		3500	600	42.5	31.7	_	183.3	480		45.8	64.4	154.6	93.1%	7469	2390	1218	2436	50	25		<u>Amps</u> :	profile:	
			700	49.6	37.0	_	213.9				64.4	154.6	93.5%	8254	2641	1218	2436	50	25		110, 1.98	See Print	
			500	39.9	29.8	_	152.8		291.4	-	72.5	174.0	92.3%	7777	2489	1372	2744	50	25		Hold Volts,	GRVH-TUN-0250	
		4000	600	47.9	35.7	_	183.3		349.7		72.5	174.0	93.0%	-	2735	1372	2744	50	25		Amps:	For STANDARD 5/8"	
	1		700	55.9	41.7	30	213.9	480	408.0	53.5	72.5	174.0	93.4%	9341	2989	1372	2744	50	25		70, 1.26	Rope Groove Profile	
1/2"	"" GROOVE PROFILE MACHIN	1E: 480	ıV, 25"	Wheel,	2:1Doub	le Wr	ap, U	p to 4	,000#	t capa	city, Up	to 700	fpm, 3	0,800	# Shea	ve Shaft L	oad, 30,80	00# Sy	/sten	Load, Estimated	Weight: 395	51#	
HW Ordering Part #	Supplier Part #	Capacity		Motor	Motor	Poles	Rated	Rated	Actual	Rated	Rated	Peak			stimated		MaxAccel		Sheave	MotorWinding	Brake Information	Rope/Groove	
		(lbs)		Rating (HP)	Rating (kW)				_	Freq(Hz	Current(A	Current (A	Efficiency		BTU/hr	orque(ft-lbs)	Forque(ft-lbs	[Dia(Specification		Information	
			500	25.5	19.0	_	152.8		277.1	38.2	46.4	111.4	92.7%	4774	1528	878	1756	50	25		Brake Part	Grooves to be	
		2500	600	30.7	22.9	30	183.3	480	332.6	45.8	46.4	111.4	92.9%	5503	1761	878	1756	50	25		Number:	machined at	
			700	35.8	26.7	30	213.9	480	388.0	53.5	46.4	111.4	93.1%	6265	2005	878	1756	50	25		D1D 110RB	Bluelight	
	/			500	29.9	22.3	30	152.8	480	281.4	38.2	54.4	130.6	92.7%	5554	1777	1030	2060	50	25			
			600	36.0	26.9	30	183.3	480	337.8	45.8	54.4	130.6	93.0%	6412	2052	1030	2060	50 25	(N)	Brake Qty:	Standard Grooving:		
<i>*</i>			700	42.0	31.4	30	213.9	480	394.0	53.5	54.4	130.6	93.3%	7160	2291	1030	2060		50 25	/	4	16 - 1/2" grooves on 5/8" pitch	
GLV-40D2-D-V501C	WYT-V2D-3.5EFD635-V501B		500	35.4	26.4		152.8				64.4	154.6	92.6%	6714	2149	1218	2436			WYT-V2D.1.1-V501B	Pick Volts,	using the following groove	
		3500	600	42.5	31.7	_	183.3	480		45.8	64.4	154.6	93.1%	7469	2390	1218	2436				Amps:	profile:	
		3300	700	49.6	37.0	_	213.9		402.0		64.4	154.6	93.5%	8254	2641	1218	2436	50			110, 1.98	See Print	
			500	39.9	29.8	_	152.8		291.4		72.5	174.0	92.3%	7777	2489	1372	2744	50	25		Hold Volts,	GRVH-TUN-0250	
		4000	-											 			 				Amps:	For STANDARD 5/8"	
		4000	600	47.9	35.7	_	183.3				72.5	174.0	93.0%	8546	2735	1372	2744	50	25		70, 1.26	Rope Groove Profile	
- 1-1			700	55.9	41.7		213.9	•			72.5	174.0	93.4%		2989	1372	2744	50	25				
3/8"	"" GROOVE PROFILE MACHIN	<u> </u>	V, 25"	Wheel,	2:1Doub	le Wr	ap, U	p to 4	,000‡	t capa	city, Up	to 700	fpm, 3	0,800	# Shea	ve Shaft L	.oad, 30,80	00# Sy	/sten	Load, Estimated	Weight: 395		
HW Ordering Part #	1	_	ار ا	N 4 - 1	Motor		D 1	D-1-1	Actual														
IIW Ordering Fait#	Supplier Part #	Capacity	Speed	Motor	Motor	Dolos				Rated	Rated	Peak			stimated	Rated	MaxAccel		Sheave	MotorWinding	Brake Information	Rope/Groove	
	Supplier Part #	Capacity (lbs)		Notor Rating (HP)		Poles										Rated orque(ft-lbs)			Sheave Dia(")	MotorWinding Specification	Brake Information	Rope/Groove Information	
	Supplier Part #								Voltage					BTU/hr								1	
	Supplier Part #		(fpm) R	Rating (HP)	Rating (kW)	30	(rpm)	Voltage 480	Voltage 277.1	Freq(Hz) 38.2	Current(A	Current (A	Efficiency	BTU/hr 4774	BTU/hr I	orque(ft-lbs)	Forque(ft-lbs	Cwt(%)	Dia(Brake Part	Information Grooves to be machined at	
	Supplier Part #	(lbs)	(fpm) R 500 600	25.5 30.7	Rating (kW)	30 30	(rpm) 152.8 183.3	Voltage 480 480	Voltage 277.1 332.6	Freq(Hz) 38.2 45.8	Current(A 46.4 46.4	Current (A 111.4 111.4	92.7% 92.9%	BTU/hr 4774 5503	BTU/hr 1528 1761	orque(ft-lbs) 878	Forque(ft-lbs 1756 1756	50 50	Dia('') 25 25		Brake Part Number:	Information Grooves to be	
	Supplier Part #	(lbs)	(fpm) R 500 600 700	25.5 30.7 35.8	Rating (kW) 19.0 22.9	30 30 30	(rpm) 152.8 183.3 213.9	Voltage 480 480 480	Voltage 277.1 332.6 388.0	Freq(Hz) 38.2 45.8 53.5	46.4 46.4 46.4 46.4	111.4 111.4 111.4 111.4	92.7% 92.9% 93.1%	BTU/hr 4774 5503 6265	BTU/hr 1528 1761 2005	orque(ft-lbs) 878 878 878	Forque(ft-lbs 1756 1756 1756	50 50 50 50	Dia(") 25 25 25		Brake Part	Information Grooves to be machined at Bluelight	
	Supplier Part #	(lbs) 2500	(fpm) R 500 600 700 500	25.5 30.7 35.8 29.9	Rating (kW) 19.0 22.9 26.7 22.3	30 30 30 30	(rpm) 152.8 183.3 213.9 152.8	Voltage 480 480 480 480	Voltage 277.1 332.6 388.0 281.4	38.2 45.8 53.5 38.2	46.4 46.4 46.4 46.4 54.4	111.4 111.4 111.4 111.4 130.6	92.7% 92.9% 93.1% 92.7%	BTU/hr 4774 5503 6265 5554	BTU/hr 1528 1761 2005 1777	orque(ft-lbs) 878 878 878 1030	Torque(ft-lbs 1756 1756 1756 2060	50 50 50 50 50	25 25 25 25 25		Brake Part Number: D1D 110RB	Information Grooves to be machined at Bluelight Standard Grooving:	
	Supplier Part #	(lbs)	(fpm) R 500 600 700 500 600	25.5 30.7 35.8 29.9 36.0	Rating (kW) 19.0 22.9 26.7 22.3 26.9	30 30 30 30 30	(rpm) 152.8 183.3 213.9 152.8 183.3	Voltage 480 480 480 480 480	277.1 332.6 388.0 281.4 337.8	38.2 45.8 53.5 38.2 45.8	46.4 46.4 46.4 46.4 54.4	111.4 111.4 111.4 130.6 130.6	92.7% 92.9% 93.1% 92.7% 93.0%	BTU/hr 4774 5503 6265 5554 6412	1528 1761 2005 1777 2052	878 878 878 878 1030 1030	Forque(ft-lbs 1756 1756 1756 2060 2060	50 50 50 50 50 50	25 25 25 25 25 25 25		Brake Part Number: D1D 110RB Brake Qty:	Information Grooves to be machined at Bluelight Standard Grooving: 16 - 3/8" grooves on	
GLV-40D2-C-V501D	Supplier Part # WYT-V2D-3.5EFD635-V501B	(lbs) 2500	(fpm) R 500 600 700 500 600 700	25.5 30.7 35.8 29.9 36.0 42.0	Rating (kW) 19.0 22.9 26.7 22.3 26.9 31.4	30 30 30 30 30 30	(rpm) 152.8 183.3 213.9 152.8 183.3 213.9	Voltage 480 480 480 480 480 480	277.1 332.6 388.0 281.4 337.8 394.0	38.2 45.8 53.5 38.2 45.8 53.5	46.4 46.4 46.4 54.4 54.4 54.4	111.4 111.4 111.4 130.6 130.6	92.7% 92.9% 93.1% 92.7% 93.0% 93.3%	BTU/hr 4774 5503 6265 5554 6412 7160	BTU/hr 1528 1761 2005 1777 2052 2291	70rque(ft-lbs) 878 878 878 1030 1030 1030	Forque(ft-lbs 1756 1756 1756 2060 2060 2060	50 50 50 50 50 50 50	25 25 25 25 25 25 25 25		Brake Part Number: D1D 110RB Brake Qty: 4	Information Grooves to be machined at Bluelight Standard Grooving: 16 - 3/8" grooves on 1/2" pitch	
GLV-40D2-C-V501D	Supplier Part #	2500 3000	(fpm) R 500 600 700 500 600 700 500 600 700	25.5 30.7 35.8 29.9 36.0 42.0 35.4	Rating (kW) 19.0 22.9 26.7 22.3 26.9 31.4 26.4	30 30 30 30 30 30 30	(rpm) 152.8 183.3 213.9 152.8 183.3 213.9 152.8	Voltage 480 480 480 480 480 480 480	Voltage 277.1 332.6 388.0 281.4 337.8 394.0 287.1	38.2 45.8 53.5 38.2 45.8 53.5 38.2	46.4 46.4 46.4 54.4 54.4 54.4 64.4	111.4 111.4 111.4 130.6 130.6 130.6 154.6	92.7% 92.9% 93.1% 92.7% 93.0% 93.3% 92.6%	BTU/hr 4774 5503 6265 5554 6412 7160 6714	BTU/hr 1528 1761 2005 1777 2052 2291 2149	7 orque(ft-lbs) 878 878 878 1030 1030 1030 1218	Torque(ft-lbs 1756 1756 1756 2060 2060 2060 2436	50 50 50 50 50 50 50 50	25 25 25 25 25 25 25 25 25	Specification	Brake Part Number: D1D 110RB Brake Qty: 4 Pick Volts,	Information Grooves to be machined at Bluelight Standard Grooving: 16 - 3/8" grooves on 1/2" pitch using the following groove	
GLV-40D2-C-V501D	Supplier Part #	(lbs) 2500	(fpm) R 500 600 700 500 600 700 500 600 600	25.5 30.7 35.8 29.9 36.0 42.0 35.4 42.5	Rating (kW) 19.0 22.9 26.7 22.3 26.9 31.4 26.4 31.7	30 30 30 30 30 30 30 30	(rpm) 152.8 183.3 213.9 152.8 183.3 213.9 152.8 183.3	480 480 480 480 480 480 480 480	Voltage 277.1 332.6 388.0 281.4 337.8 394.0 287.1 344.6	Freq(Hz 38.2 45.8 53.5 38.2 45.8 53.5 38.2 45.8	A6.4 46.4 46.4 54.4 54.4 54.4 64.4	111.4 111.4 111.4 130.6 130.6 130.6 154.6	92.7% 92.9% 93.1% 92.7% 93.0% 93.3% 92.6% 93.1%	BTU/hr 4774 5503 6265 5554 6412 7160 6714 7469	BTU/hr 1528 1761 2005 1777 2052 2291 2149 2390	orque(ft-lbs) 878 878 878 1030 1030 1030 1218 1218	Torque(ft-lbs 1756 1756 1756 2060 2060 2060 2436 2436	50 50 50 50 50 50 50 50 50 50	25 25 25 25 25 25 25 25 25 25	Specification	Brake Part Number: D1D 110RB Brake Qty: 4 Pick Volts, Amps:	Information Grooves to be machined at Bluelight Standard Grooving: 16 - 3/8" grooves on 1/2" pitch using the following groove profile:	
GLV-40D2-C-V501D	Supplier Part #	2500 3000	(fpm) R 500 600 700 500 600 700 500 600 700	25.5 30.7 35.8 29.9 36.0 42.0 35.4 42.5 49.6	Rating (kW) 19.0 22.9 26.7 22.3 26.9 31.4 26.4 31.7 37.0	30 30 30 30 30 30 30 30 30	(rpm) 152.8 183.3 213.9 152.8 183.3 213.9 152.8 183.3 213.9	Voltage 480 480 480 480 480 480 480 480	Voltage 277.1 332.6 388.0 281.4 337.8 394.0 287.1 344.6 402.0	38.2 45.8 53.5 38.2 45.8 53.5 38.2 45.8 53.5	46.4 46.4 46.4 54.4 54.4 54.4 64.4 64.4	111.4 111.4 111.4 130.6 130.6 130.6 154.6 154.6	92.7% 92.9% 93.1% 92.7% 93.0% 93.3% 92.6% 93.1% 93.5%	BTU/hr 4774 5503 6265 5554 6412 7160 6714 7469 8254	BTU/hr 1528 1761 2005 1777 2052 2291 2149 2390 2641	7 orque(ft-lbs) 878 878 878 1030 1030 1030 1218 1218 1218	Torque(ft-lbs 1756 1756 1756 2060 2060 2060 2436 2436 2436	50 50 50 50 50 50 50 50 50 50	25 25 25 25 25 25 25 25 25 25 25 25	Specification	Brake Part Number: D1D 110RB Brake Qty: 4 Pick Volts, Amps: 110, 1.98	Information Grooves to be machined at Bluelight Standard Grooving: 16 - 3/8" grooves on 1/2" pitch using the following groove profile: See Print	
GLV-40D2-C-V501D	Supplier Part #	(lbs) 2500 3000 3500	(fpm) R 500 600 700 500 600 700 500 600 700 500	Rating (HP) 25.5 30.7 35.8 29.9 36.0 42.0 35.4 42.5 49.6 39.9	Rating (kW) 19.0 22.9 26.7 22.3 26.9 31.4 26.4 31.7 37.0 29.8	30 30 30 30 30 30 30 30 30 30	(rpm) 152.8 183.3 213.9 152.8 183.3 213.9 152.8 183.3 213.9 152.8	Voltage 480 480 480 480 480 480 480 480 480 480	277.1 332.6 388.0 281.4 337.8 394.0 287.1 344.6 402.0 291.4	38.2 45.8 53.5 38.2 45.8 53.5 38.2 45.8 53.5 38.2 45.8	46.4 46.4 46.4 54.4 54.4 54.4 64.4 64.4	111.4 111.4 111.4 130.6 130.6 130.6 154.6 154.6 154.6	92.7% 92.9% 93.1% 92.7% 93.0% 93.3% 92.6% 93.1% 93.5%	BTU/hr 4774 5503 6265 5554 6412 7160 6714 7469 8254 7777	BTU/hr 1528 1761 2005 1777 2052 2291 2149 2390 2641 2489	7 orque(ft-lbs) 878 878 878 1030 1030 1030 1218 1218 1218 1218	Torque(ft-lbs 1756 1756 1756 2060 2060 2060 2436 2436 2436 2436	50 50 50 50 50 50 50 50 50 50 50	Dia(") 25 25 25 25 25 25 25 25 25 25 25 25	Specification	Brake Part Number: D1D 110RB Brake Qty: 4 Pick Volts, Amps: 110, 1.98 Hold Volts,	Information Grooves to be machined at Bluelight Standard Grooving: 16 - 3/8" grooves on 1/2" pitch using the following groove profile: See Print GRVH-TUN-0250	
GLV-40D2-C-V501D	Supplier Part #	(lbs) 2500 3000 3500	(fpm) R 500 600 700 500 600 700 500 600 700 500 600 700	25.5 30.7 35.8 29.9 36.0 42.0 35.4 42.5 49.6	Rating (kW) 19.0 22.9 26.7 22.3 26.9 31.4 26.4 31.7 37.0	30 30 30 30 30 30 30 30 30 30 30	(rpm) 152.8 183.3 213.9 152.8 183.3 213.9 152.8 183.3 213.9 152.8 183.3	Voltage 480 480 480 480 480 480 480 480	277.1 332.6 388.0 281.4 337.8 394.0 287.1 344.6 402.0 291.4 349.7	38.2 45.8 53.5 38.2 45.8 53.5 38.2 45.8 53.5 38.2 45.8	46.4 46.4 46.4 54.4 54.4 54.4 64.4 64.4	111.4 111.4 111.4 130.6 130.6 130.6 154.6 154.6 174.0	92.7% 92.9% 93.1% 92.7% 93.0% 93.3% 92.6% 93.1% 93.5%	BTU/hr 4774 5503 6265 5554 6412 7160 6714 7469 8254 7777 8546	BTU/hr 1528 1761 2005 1777 2052 2291 2149 2390 2641 2489	7 orque(ft-lbs) 878 878 878 1030 1030 1030 1218 1218 1218	Torque(ft-lbs 1756 1756 1756 2060 2060 2060 2436 2436 2436	50 50 50 50 50 50 50 50 50 50	25 25 25 25 25 25 25 25 25 25 25 25	Specification	Brake Part Number: D1D 110RB Brake Qty: 4 Pick Volts, Amps: 110, 1.98	Information Grooves to be machined at Bluelight Standard Grooving: 16 - 3/8" grooves on 1/2" pitch using the following groove profile: See Print	

- BRAKE SWITCH NORMALLY CLOSED WHEN BRAKE IS DE-ENERGIZED
- BRAKE INFORMATION:
- PICK VOLTS: 110
- PICK AMPS: 1.98
- HOLD VOLTS: 70
- HOLD AMPS: 1.26

PUR #1793 THIS DRAWING IS SUPPLIED AS A REPRESENTATION OF THE EQUIPMENT HOLLISTER-WHITNEY ELEVATOR CO. LLC ("MANUFACTURER") HAS AGREED TO SUPPLY. SLIGHT ADJUSTMENTS MAY OCCUR DURING MANUFACTURING AND SUPPLY. SLIGHT ADJUST MENTS MAY OCCUR DURING MANUFACTURING AND INSTALLATION. ANY MODIFICATIONS NOT APPROVED IN WRITING BY MANUFACTURER MAY AFFECT OPERATION, VOIDS ANY WARRANTY AND RELEASES MANUFACTURER OF ALL LIABILITY.

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WRITTEN AUTHORIZATION FROM THE MANUFACTURER.

DRO

04/10/24

EMM

06/23/23

CORRECTED TABLE

PUR #1852

ADDED NEW BLUELIGHT

PART NUMBER CHARTS,

ERROR ON SHEET 5,

Ν

ADDED LEFT HAND & RIGHT HAND BRAKE CONFIGURATIONS, PUR #1731

DRO

12/23/22 TITLE

HOLLISTER-WHITNEY ELEVATOR CO. LLC

MACHINE - DOUBLE WRAP

THIRD ANGLE PROJECTION

DRAWN | SCALE | MATERIAL BY SEE PARTS LIST LTL

REFERENCE TOL.
ALL DIMENSIONS REFERENCE
UNLESS OTHERWISE

SHEET SIZE DATE В 9/21/2020

GLV-40D2 SHEET 5 OF 5



HEIDENHAIN



Product Information

ECN 1313 ECN 1325 ERN 1387

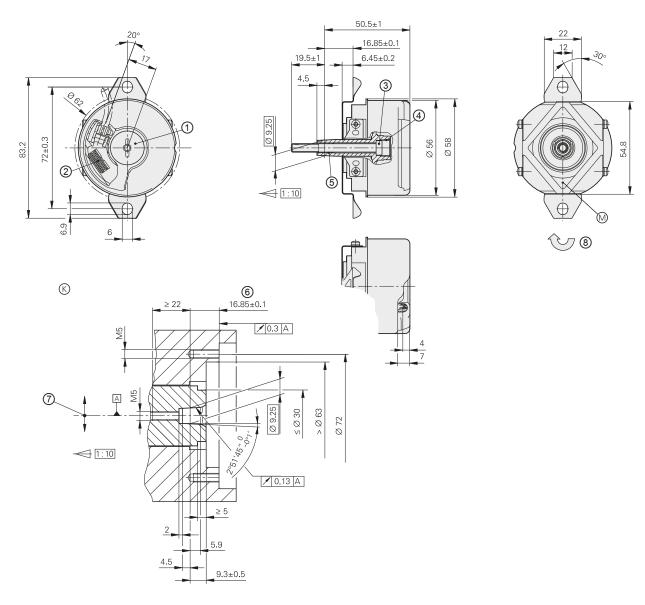
Rotary Encoders with Plane-Surface Coupling for Elevator Servo Drive Control

ECN/ERN 1300 series

Rotary encoders with integral bearings for elevator technology

- Simple installation
- Rigid shaft coupling
- Plane-surface coupling for large mounting tolerances
- Uniform dimensions for various electrical interfaces





Tolerancing ISO 8015 ISO 2768 - m H < 6 mm: ±0.2 mm

- **B** = Bearing of encoder
- © = Required mating dimensions
- ⊕ = Measuring point for operating temperature

 1 = Screw plug, width A/F 3 and 4. Tightening torque: 5+0.5 Nm
- 2 = PCB connector
- $3 = Self-tightening screw M5 \times 50 DIN 6912$ width A/F 4, tightening torque 5+0.5 Nm
- 4 = M10 back-off thread
- 5 = M6 back-off thread
- 6 = Max. permissible tolerance during motor shaft rotation ± 1.5 mm
- 7 = Max. permissible static radial offset of motor shaft in indicated direction ± 0.13 mm
- 8 = Direction of shaft rotation for output signals as per the interface description

	Absolute		Incremental
	ECN 1325	ECN 1313	ERN 1387
Part number	683643-xx	768295-xx	749146-xx
Interface ¹⁾	EnDat 2.2		∼1 V _{PP}
Ordering designation	EnDat22	EnDat01	-
Position values/revolution	33554432 (25 bits)	8192 (13 bits)	Z1 track ³⁾
Electrically permissible speed/error ²⁾	≤ 15000 rpm (for continuous position value)	≤ 1500 rpm/±1 LSB ≤ 12000 rpm/±50 LSB	-
Calculation time t _{cal} Clock frequency	≤ 7 μs ≤ 16 MHz	≤ 9 µs ≤ 2 MHz	-
Incremental signals ¹⁾	-	∼ 1 V _{PP}	∼ 1 V _{PP}
Line count/system accuracy	2048/±20"		
Reference mark	-		One
Cutoff frequency –3 dB	-	≥ 400 kHz	≥ 210 kHz
Electrical connection Via PCB connector	Rotary encoder: 12-pin Temperature sensor ⁴⁾ : 4-pin	12-pin	14-pin
Voltage supply	DC 3.6 V to 14 V		DC 5 V ±0.25 V
Power consumption ¹⁾ (maximum)	3.6 V: ≤ 600 mW 14 V: ≤ 700 mW		-
Current consumption	5 V: 85 mA (typical, without load)		≤ 130 mA (without load)
Stator coupling	Plane-surface coupling		
Shaft	Taper shaft Ø 9.25 mm; taper 1:1	0	
Mech. permiss. speed n	≤ 2000 rpm		
Starting torque	≤ 0.01 Nm (at 20 °C)		
Moment of inertia of rotor	2.6 · 10 ⁻⁶ kgm ²		
Permissible axial motion of measured shaft ⁵⁾	±1.5 mm		
Radial runout of the measured shaft	0.13 mm		
Vibration 55 Hz to 2000 Hz Shock 6 ms	≤ 300 m/s ^{2 6)} (EN 60 068-2-6) ≤ 2000 m/s ² (EN 60 068-2-27)		
Operating temperature	−40 °C to +115 °C		-40 °C to +120 °C
Protection EN 60529	IP40 when mounted		
Mass	≈ 0.25 kg		

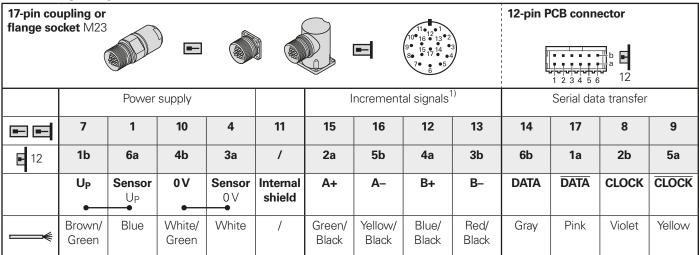
¹⁾ See Interfaces of HEIDENHAIN Encoders brochure
2) Velocity-dependent deviations between the absolute value and incremental signals
3) One sine and one cosine signal per revolution
4) Evaluation optimized for KTY 84-130
5) Compensation of mounting tolerances and thermal expansion, not dynamic motion
6) As per standard for room temperature; for operating temperature

Up to +100 Up to +100 °C: \leq 300 m/s² Up to +115 °C or +120 °C: \leq 150 m/s²

Electrical connection

Pin layouts

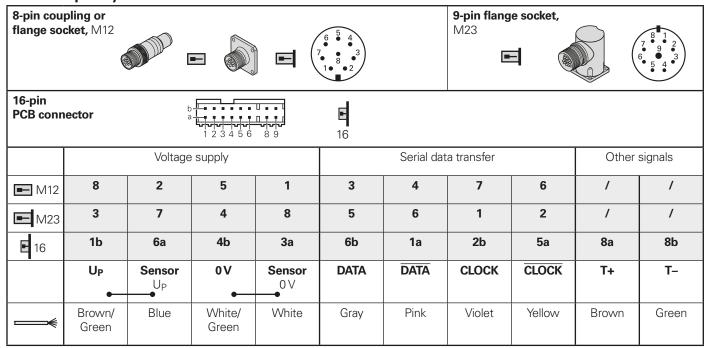
ECN 1313 pin layout



	Other	signals
	5	6
	/	/
12	/	/
	Brown ²⁾	White ²⁾

Cable shield connected to housing; U_P = Power supply voltage; T = Temperature **Sensor:** The sensor line is connected in the encoder with the corresponding power line. Vacant pins or wires must not be used.

ECN 1325 pin layout



Cable shield connected to housing

 $\mathbf{U_P} = \text{Power supply}; \mathbf{T} = \text{Temperature}$

Sensor: The sensor line is connected in the encoder with the corresponding power line.

Vacant pins or wires must not be used.

¹⁾ Only with ordering designations EnDat 01 and EnDat 02

²⁾ Only for cables inside the motor housing

ERN 1387 pin layout

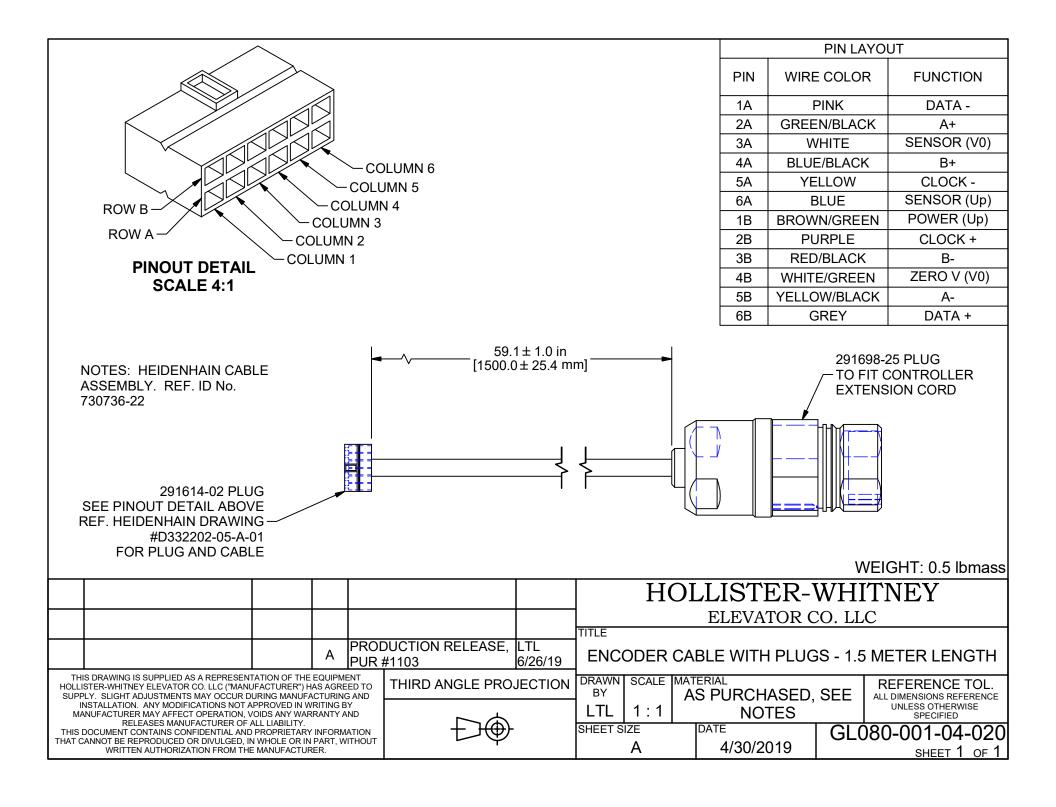
17-pin con flange so							1 13 • 2 14 • 3 14 • 4 • 5	14-pin PCB connector					
		Voltage	supply					Incremen	tal signals				
	7	1	10	4	11	15	16	12	13	3	2		
E	1b	7a	5b	3a	1	6b	2a	3b	5a	4b	4a		
	U _P	Sensor U _P	0 V •—	Sensor 0 V	Internal shield	A+	A –	B+	B-	R+	R-		
\	Brown/ Green	Blue	White/ Green	White	/	Green/ Black	Yellow/ Black	Blue/Black	Red/Black	Red	Black		

	Other signals					
	14	17	9	8	5	6
E	7b	1a	2b	6a	/	/
	C+	C-	D+	D-	T+ ¹⁾	T – ¹⁾
	Gray	Pink	Yellow	Violet	Green	Brown

Cable shield connected to housing;

Up = Power supply; T = Temperature
Sensor: The sensor line is connected internally with the corresponding power line.
Vacant pins or wires must not be used.

¹⁾ Only for cables inside the motor housing



general tolerance

⊃aßmaß

Name

Abmaß

Tolerancing

Keine Maße aus der Zeichnung abnehmen/Do not scale

Surface details

Stiftsteckverbinder: SUB-D 15 pol. Kabel: $4 \times (2 \times 0.14) + 2 \times (0.5)$ Buchsensteckverbinder: Metallgehäuse mit Metallgehäuse mit Schirmanbindung Geeignet für Energieführungsketten Schirmanbindung, Kontaktbuchsen Gehäusebreite max 31 mm Dauerbetriebstemperatur 80 Grad Ölbeständig Hersteller 1 : Intercontec Farbe orange RAL 2003 : ASTA 035 FR 11 12 0005 000 Тур CABLE LENGTH UP TO 30 M Hersteller 2 : Interconnectron SPN A 17B NN NN 169 Тур Hersteller 3 : Coninvers : RC-17 S1N8A R300 Тур **SCHIRM** DETAIL X Kabelkennzeichnung mit KEB Art. Nr. auf dem Kabelmantel an beiden Steckerseiten. Bei Längen unter 1m nur einseitig. Kabelmantel muß bis in das Innere Abschirmungen nicht kontaktieren. Steckergehäuse mit Steckergehäuse geführt werden. 4 Nm verschrauben. Lötkontakte im Stecker mit (Isoliert gegeneinander und gegen äußeren Schirm.) Schrumpfschlauch isolieren. rot (B-) RED blau (B+) BLUE gelb (A-) YELLOW grün (A+) GREEN ANSICHT KABELSEITE violett (Takt-) VIOLET (CLOCK -) schwarz (Takt+) BLACK (CLOCK +) BLUE blau (B+) 11 WHITE weiß (GND) (10) 5 3 2 2 DETAIL X SUB-D 15 POL: 12 ANSICHT VON KABELSEITE YELLOW gelb (A-) rot (B-) RED 7 8 10 9 6 (16) (13) 9 (CLOCK-) VIOLET violett (Takt-) 3 Äußeren Schirm an Metallgehäuse (17) (13) (12)(15) (14) (11) des SUB-D löten! grau (Data+) GRAY GREEN grün (A+) (15) 8 (CLOCK+) BLACK schwarz (Takt+) 4 braun (5V) BROWN rosa (Data-) PINK weiß und alle Innenschirme (GND) WHITE 7 5 BROWN braun (5V) 6 rosa (Data-) PINK grau (Data+) GRAY 00.F5.0C1-4xPx KABELLAENGE METER X,X 00.F5.0C1-4xxx KABELLAENGE **METER** XXX Kantenbruch/Break of sharp edges Werkstoff: /Material: Rohteil-Nr.: /Blank-No.: Benennung: /Title Rohmaß:/Rough size Ident-Nr.: Menge: /Qty. Geberkabe verzinkt, blau passiviert Schichtdicke: Schutzvermerk DIN 34 beachten úm Zeichnungs-Nr.: /Drawing No.: Datum Name Rz 100 Observe protection note DIN 34 zinc-plated, blue passivated / Thickness of coat: 5.04.02 Horn 4005 Oberfilchenangaben Allgemeintoleranz Werkstickkanten Rz 25 Tolerierung ISO 8015 DIN 6930-m DIN ISO 1302 DIN 6784

Workpiece edges

Alle MaBe in Millimeter/All dimensions in millimetres

Maßstab

Scale

Karl E. Brinkmann GmbH

D 32677 Barntrup

Rz 6.3

geschliffen/ground

Rz 4

Anderungen:/Modifications

Name

Stiftsteckverbinder: SUB-D 15 pol. Buchsensteckverbinder: Metallaehäuse mit Metallaehäuse mit Schirmanbindung Schirmanbindung, Kontaktbuchsen Kabel: $(4 \times (2\times0,25) + 2 \times 1,0)$ Gehäusebreite max 31 mm Geeignet für Energieführungsketten Hersteller 1 Helukabel Topgeber 510 77750 : Intercontec Aderfarbkode nicht nach DIN 47100 Tvo : ASTA 035 FR 11 12 0005 000 CABLE LENGTH OVER 40 METERS Hersteller 2 : Interconnectron : SPN A 17B NN NN 169 Hersteller 3 : Coninvers : RC-17 S1N8A R300 DETAIL X **SCHIRM** Kabelkennzeichnung mit KEB Art. Nr. auf dem Kabelmantel an beiden Steckerseiten. Bei Längen unter 1m nur einseitig. Kabelmantel muß bis in das Innere Abschirmungen nicht kontaktieren. Steckergehäuse mit Steckergehäuse geführt werden. 4 Nm verschrauben. Lötkontakte im Stecker mit (Isoliert gegeneinander und gegen äußeren Schirm.) Schrumpfschlauch isolieren. violett (B-) VIOLET blau (B+) BLUE braun (A-) BROWN (0.25mm wire) grün (A+)GREEN ANSICHT KABELSEITE rot (Takt-) RED schwarz (Takt+)BLACK BLUEblau (B+) WHITE weiß (GND) 10 3 2 DETAIL X SUB-D 15 POL: 2 5 ANSICHT VON KABELSEITE BROWN (0.25mm wire) braun (A-) violett (B-)VIOLET 9 (10) 8 6 16 9 RED rot (Takt-) 3 Äußeren Schirm an Metallgehäuse (17 (13)**1**5 (11) des SUB-D löten ! GREEN grün (A+) grau (Data+) GREY (15) 8 BLACK schwarz (Takt+) braun (5V) BROWN (1.0mm wire) rosa (Data-) PINK weiß und alle Innenschirme (GND) WHITE 7 5 braun (5V) 6 rosa (Data-) PINK BROWN (1.0mm wire) grau (Data+) GREY 00.F5.0C1-LxPx KABELLAENGE **METER** X.X 00.F5.0C1-Lxxx KABELLAENGE **METER** XXX Rohmaß: /Rough size: Ident-Nr.: Menge: /Qty.: ME Werkstoff: /Material: Rohteil-Nr.: /Blank-No.: Benennung: /Title Kantenbruch/Break of sharp edge: Geberkabel verzinkt, blau passiviert Schichtdicke: Schutzvermerk DIN 34 beachten úm Zeichnungs-Nr.: /Drawing No.: Datum Name Rz 100 zinc-plated, blue passivated / Thickness of coat: Observe protection note DIN 34 15.06.07 Horn gez.: Werkstickkanten Rz 25 Allgemeintoleranz Oberfilchenangaben Tolerierung ISO 8015 DIN 6930-m DIN ISO 1302 DIN 6784 Format Size Maßstab Rz 6,3 general tolerance Tolerancina Surface details Workpiece edges Karl E. Brinkmann GmbH Scale chliffen/ground Paßmaß Size of fit Keine Maße aus der Zeichnung abnehmen/Do not scale Alle MaBe in Millimeter/All dimensions in millimetres D 32677 Barntrup



Hollister-Whitney Elevator Corporation

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