



# HIGHLY EFFICIENT. COMPACT. HIGH SPEED.

Are you looking for an energy-saving, compact, high speed drive solution for your application? The Bevel BuddyBox-H with a high performance Permanent magnet IE5 motor is the product you need!

The drive package ranges from 0,75–4kW and consists of Sumitomo Drive Technologies Bevel Buddy-Box-H a top-rated right angle helical bevel gear unit with a IE5 permanent magnet synchronous magnet motor complete with a variable frequency drive.

What makes the Bevel BuddyBox-H special is its combination of a bevel input and a helical output that make this unit extremely efficient with the capacity for input speeds up to 3,600rpm. Aluminum construction provides high thermal capacity. Dependable hardened steel gearing inside a light weight, compact housing allows easy installation with less load on the head shaft.

The maintenance-free grease lubrication enables the unit to be mounted in any orientation without custom modifications. The greater efficiency of the BBB-H is a perfect pair with our Ultra-Premium Efficiency IE5 motor.

With this perfect pairing, lower energy consumption for your application is now within reach.

You will decrease your ecological footprint and enjoy reduced operating costs by going green with this drive package.

This package's power and speed make it perfect for airport baggage handling and general conveying applications. When we say our products are built to last—we mean it.

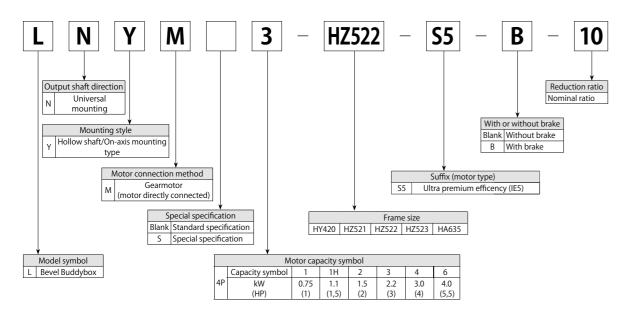
Visit the Bevel BuddyBox - product page here:



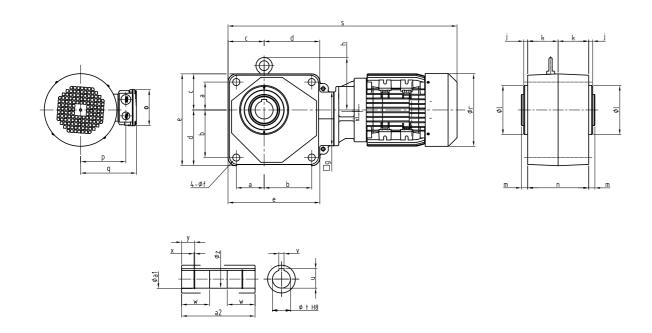




# **NOMENCLATURE**



# **DIMENSION DRAWINGS**



Type	Frame	Motor	а	b	С	d	е	f	g	h	h1	j	k	-1	m	n	0	р	q	r	S	t	u	٧	W	Х	у	Z	a1	a2
LNYM1	HY420	HPS71	57	75	70	88	158	14	-	-	3	5	59	95	10	118	93	90	114	136	461	35	38,3	10	52	1,75	26	35,6	37	138
LNYM1H	HZ521	HPS90	70	80	84	94	178	14	150	-	6	5	68	110	10	136	110	115	147	179	547	45	48,8	14	67	1,95	30	45,6	47,5	156
LNYM2	HZ521	HPS90	70	80	84	94	178	14	150	-	6	5	68	110	10	136	110	115	147	179	554	45	48,8	14	67	1,95	30	45,6	47,5	156
LNYM3	HZ522	HPS90	70	80	84	94	178	14	150	-	6	5	68	110	10	136	110	115	170	222	554	45	48,8	14	67	1,95	30	45,6	47,5	156
LNYM4	HZ522	HPS90	70	80	84	94	178	14	150	-	6	5	68	110	10	136	110	115	170	222	554	45	48,8	14	67	1,95	30	45,6	47,5	156
LNYM6	HZ523	HPS112	70	80	84	94	178	14	150	-	6	5	68	110	10	136	110	138	170	222	621	45	48,8	14	67	1,95	30	45,6	47,5	156
LNYM6	HA635	HPS112	85	145	110	170	280	22	164	160	0	12	93	150	19	186	110	138	170	222	698	55	59,3	16	85	2,2	40	55,6	58	224

# **ACTUAL REDUCTION RATIO**

Frame		Reduction ratio												
size	5	7	10	12	15	20	25	30						
HY420	5	6,97	10	11,96	14,75	19,69	25	30,45						
HZ521	5	7,03	9,81	11,74	15,26	20,67	24,62							
HZ522	5,059	7	10	12,21	15,25	19,39								
HZ523	5,143	7,043	9,833	12,20	14,54									
HA635						20,38								

Note: The contents of this table may be changed without notice.

# **SELECTION TABLE**

kW	Output speed (1/min)	Output torque (Nm)	Service factor	Frame size	Reduction ratio
	360	18,9	2,00		5
	258	26,3	2,00		7
	180	37,8	2,00		10
0.75	151	45,2	2,00	111/420	12
0,75	122	55,8	2,00	HY420	15
	91,4	74,4	2,00		20
	72,0	94,5	2,00		25
	59,1	115	2,00		30
	360	27,7	3,35		5
	256	39,0	3,35		7
	183	54,4	3,35		10
1,1	153	65,1	3,35	HZ521	12
	118	84,6	3,35		15
	87,1	115	3,35		20
	73,1	136	3,35		25
	360	37,8	2,47		5
	256	53,1	2,47		7
	183	74,2	2,47		10
1,5	153	88,7	2,47	HY521	12
	118	115	2,47		15
	87,1	156	2,47		20
	73,1	186	2,47		25
	356	56,1	3,00		5
	257	77,6	3,00		7
2.2	180	111	3,00	117522	10
2,2	147	135	3,00	HZ522	12
	118	169	3,00		15
	92,8	215	3,00		20
	356	76,5	2,20		5
	257	106	2,20		7
2.0	180	151	2,20	117522	10
3,0	147	185	2,20	HZ522	12
	118	231	2,20		15
	92,8	293	2,20		20
	350	104	2,75		5
	256	142	2,75		7
4.0	183	198	2,75	HZ523	10
4,0	148	246	2,75		12
	124	293	2,75		15
	88,3	411	3,30	HA635	20

## **MOTOR DATA HPS - ULTRA PREMIUM EFFICENCY**

# **IES2** (€ c**91**0 us

61	Rated speed	Rated power	Rated torque	Peak torque	Voltage constant	Torque constant	BEMF at rated speed	Rated current	Efficiency IE5
Size	n 1/min	P <sub>n</sub> kW	M <sub>n</sub> Nm	M <sub>pk</sub> Nm	K <sub>e</sub> Vs	K <sub>t</sub> Nm/A	E <sub>n</sub> Vrs	l <sub>n</sub> Arms	η %
HPS 71	1800	0,75	4,0	11,9	1,45	2,5	272	1,6	86,7
HPS 90	1800	1,1	5,8	17,5	1,45	2,5	272	2,3	88,1
HPS 90	1800	1,5	8,0	23,9	1,45	2,5	272	3,2	89,1
HPS 90	1800	2,2	11,7	35,0	1,45	2,5	272	4,6	90,2
HPS 90	1800	3	15,9	47,7	1,45	2,5	272	6,3	91,0
HPS 112	1800	4	21,2	63,7	1,45	2,5	272	8,4	91,8

# **VARIABLE FREQUENCY DRIVES (VFD)**







### OPTIDRIVE™ CP2



#### Compact, reliable and easy to use

Simply power on and Optidrive E3 is up and running, providing precise motor control and energy savings using the factory settings.

#### Range:

0,37kW – 37/22kW / 0,5HP – 50/30HP 110 – 480V Single & 3 Phase Input

#### **Features:**

- Sensorless Vector Control for all Motor Types
- Simple Commissioning
- Intuitive Keypad Control
- Internal Category C1 EMC Filter
- Application Macros
- Options & Software

#### High performance and easy to use

The perfect combination of high performance together with ease of use allows even the most demanding applications to be tackled easily by the Optidrive P2 variable frequency drive.

#### Range:

0,75kW - 250kW / 1HP - 350HP 200 - 600V Single & 3 Phase Input

#### **Features:**

- Advanced Sensorless Vector Control for all Motor Types
- Closed Loop Control
- Extensive Analog & Digital I/O
- Machine Safety (STO)
- Advanced Communication and Diagnostics
- · Built-in EMC Filter
- Integral Brake Transistor
- Options & Software

# SHAPING THE FUTURE TOGETHER

Sumitomo Heavy Industries (SHI) is a leading global innovator, manufacturer and distributor of power transmission and control (PTC) equipment that is known under the Sumitomo Drive Technologies brand.

Our strategy is to strengthen and expand our business through the integration of new technologies in the areas of highly efficient electric motors and energy saving variable frequency drives (VFD).

The strategy also includes global growth in target segments such as robotics and positioning, material handling and intralogistics, and food and beverages.

As part of this strategy we invested in new partnerships which not only expanded the SHI family, but also grew our product portfolio and global reach.

Lafert Group is a world-leader in the design and manufacture of super premium efficiency electric motors for industrial use. With our focus on innovation and customization we aim to improve performance and reduce environmental impact.

In 2019, Invertek Drives Ltd has been part of SHI. Invertek is a global innovator and manufacturer of energy-saving VFDs. It has undergone year-on-year growth over the past 24 years, including the development of enhanced research and development facilities and the expansion of its global manufacturing facility.

Bringing together Lafert's motor and Invertek's VFD technology allows Sumitomo Drive Technologies to extend its product portfolio in the motor control industry.

This has become increasingly important as demand for IoT, automation, labour productivity and energysaving solutions also increases.

Moreover, these partnerships will be forged in the technology hub of Europe while responding to the advanced market needed of our customers in EMEIA and around the world.

The union of three such large companies as Sumitomo Drive Technologies, Lafert Group and Invertek Drives elevates our operational vision, triggering the design evolution, especially in the field of integrated solutions and solidifying the strength of our position within EMEIA markets.

Our technology is enhancing society, supporting our customers, people and communities, economically, socially and environmentally on a global scale.

We have created a powerful claim - a statement that sets a long-term goal and represents the ideal to which we aim to "Shape the Future Together".

www.shapingthefuturetogether.com

# Shaping the future together



# Sumitomo Drive Technologies Ci LAFERTGROUP (i) Invertek Drives.com





Find your closest Sumitomo Drive Technologies facility here.

Sumitomo (SHI) Cyclo Drive Germany GmbH | Cyclostraße 92 | 85229 Markt Indersdorf | Germany Tel. +49 8136 66-0 | E-Mail: SCG.info@shi-g.com | www.sumitomodrive.com

Hansen Industrial Transmissions NV | Leonardo da Vincilaan 1-3 | 2650 Edegem | Belgium Tel. +32 3450 1211 | E-Mail: HIT.info@shi-g.com | www.sumitomodrive.com