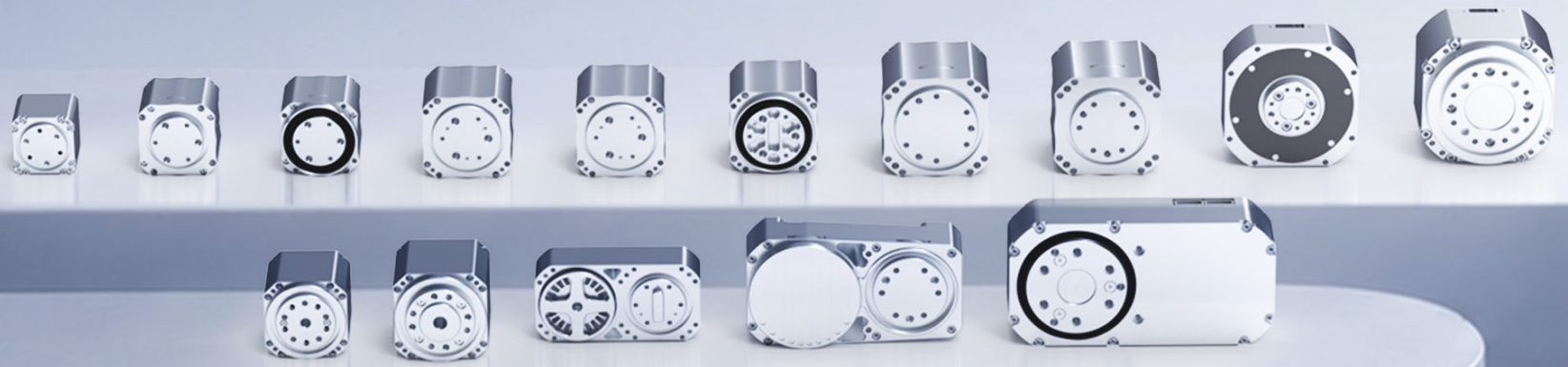
高擎 HIGH TORQUE

SERVO JOINT MODULE OF HIGH TORQUE

JOINT MODULE

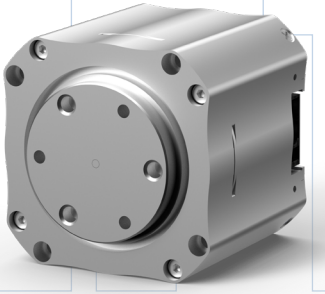
— PRODUCT MANUAL —



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Revision Date: 2026.06.02

高擎 HIGH TORQUE



(HTDW-4530-02-DNE)

HTDW-4438-30-NE

Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	44
Height (mm)	43.4
weight (g)	237

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	30	Locked-rotor torque(Nm)	10
Rated Voltage (V)	24	Rated RPM(RPM)	40
Rated Current (A)	0.7	No-load RPM(RPM)	160
Rated torque(Nm)	2	Rated Output Power(W)	8.5

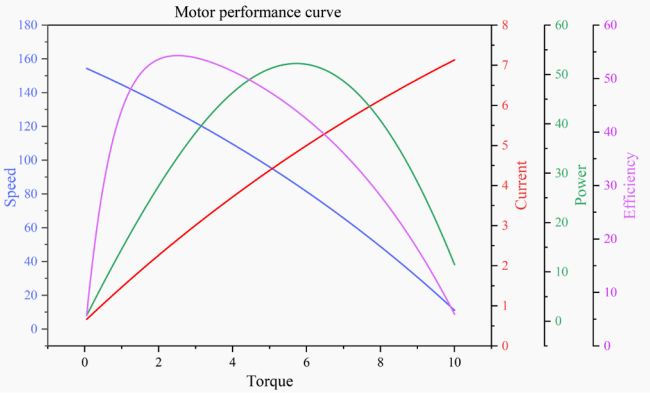
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	10	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

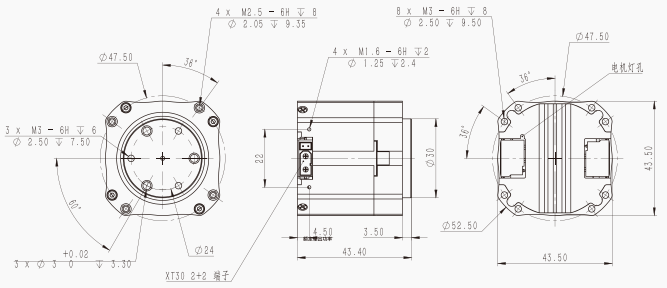
Motor parameters

Torque constant(Nm/A)	0.272	Polar logarithm	14

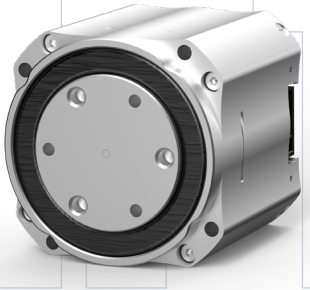
TN curve



Product Installation Dimension Drawing



高擎 HIGH TORQUE



(HTDW-4530-02-CNE)

HTDW-4438-30-NE-JC

Cross Roller Bearing Version
Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	44
Height (mm)	44.9
weight (g)	237

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	30	Locked-rotor torque(Nm)	10
Rated Voltage (V)	24	Rated RPM(RPM)	40
Rated Current (A)	0.7	No-load RPM(RPM)	160
Rated torque(Nm)	2	Rated Output Power(W)	8.5

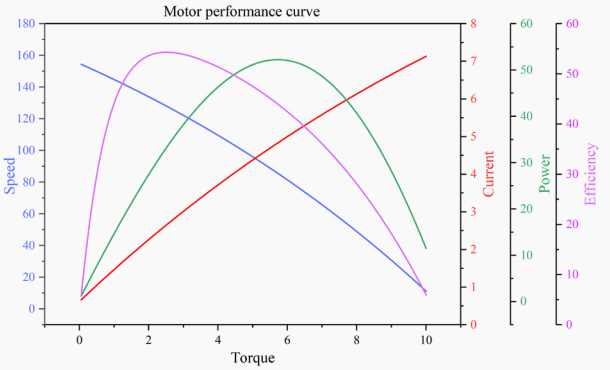
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	10	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

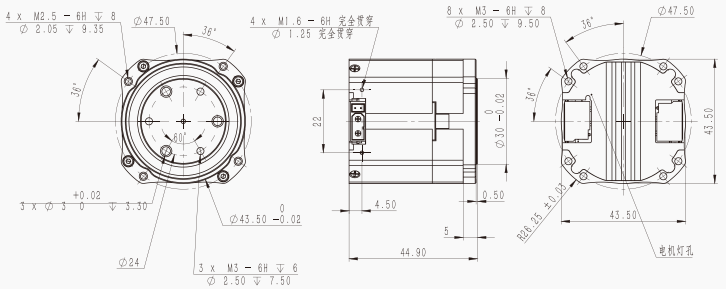
Motor parameters

Torque constant(Nm/A)	0.272	Polar logarithm	14

TN curve

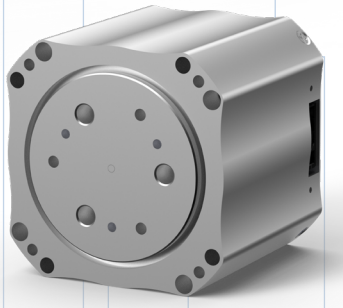


Product Installation Dimension Drawing



高擎 HIGH TORQUE

High Torque



HTDW-5022-02-DNE

Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	50
Height (mm)	47.4
weight (g)	322

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	22	Locked-rotor torque(Nm)	13
Rated Voltage (V)	24	Rated RPM(RPM)	82
Rated Current (A)	2	No-load RPM(RPM)	123
Rated torque(Nm)	3.5	Rated Output Power(W)	30

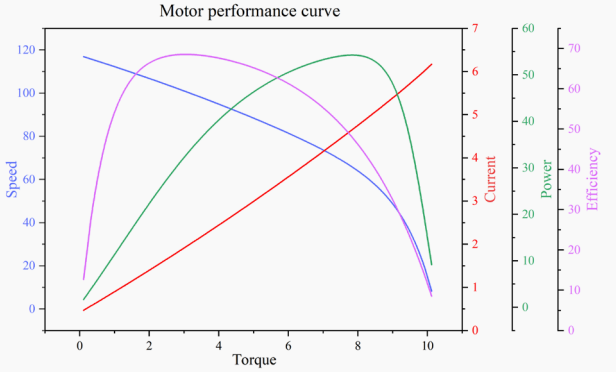
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	10	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

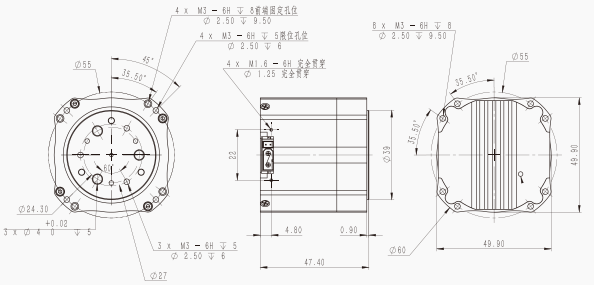
Motor parameters

Torque constant(Nm/A)	0.54	Polar logarithm	14

TN curve

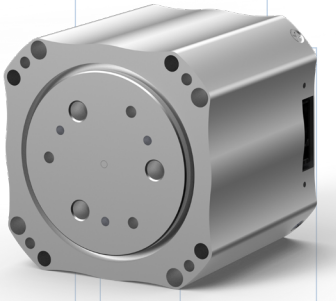


Product Installation Dimension Drawing



高擎 HIGH TORQUE

High Torque



HTDW-5036-02-DNE

Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	50
Height (mm)	47.4
weight (g)	323

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	36	Locked-rotor torque(Nm)	21
Rated Voltage (V)	24	Rated RPM(RPM)	50
Rated Current (A)	2	No-load RPM(RPM)	75
Rated torque(Nm)	6	Rated Output Power(W)	30

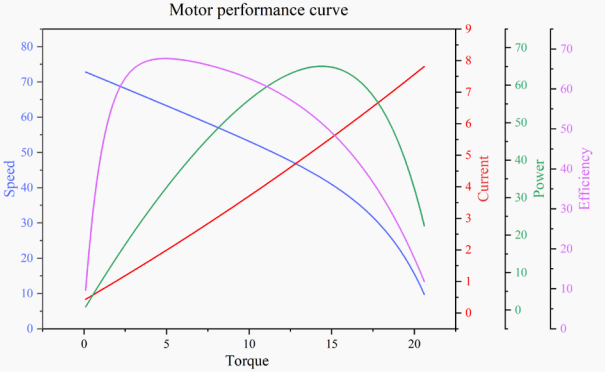
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	10	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

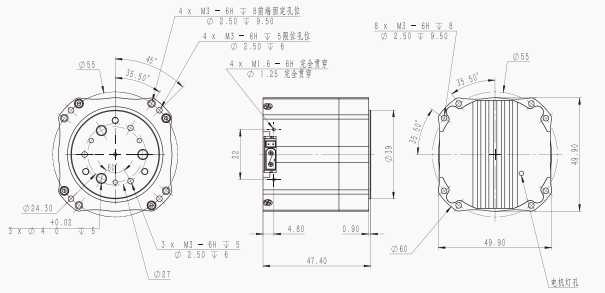
Motor parameters

Torque constant(Nm/A)	0.54	Polar logarithm	14

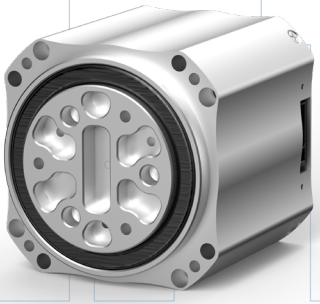
TN curve



Product Installation Dimension Drawing



高擎 HIGH TORQUE



HTDW-5036-02-CNE

Cross Roller Bearing Version
Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	50
Height (mm)	47.4
weight (g)	345

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	36	Locked-rotor torque(Nm)	21
Rated Voltage (V)	24	Rated RPM(RPM)	50
Rated Current (A)	2	No-load RPM(RPM)	75
Rated torque(Nm)	6	Rated Output Power(W)	30

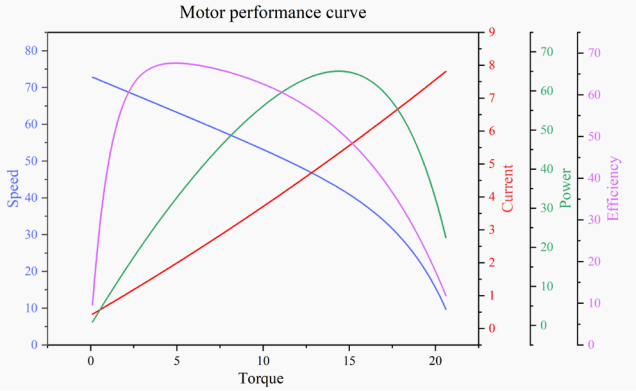
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	10	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

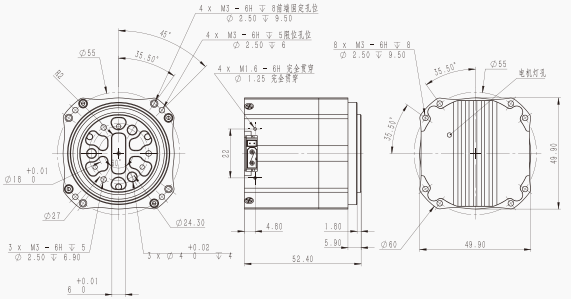
Motor parameters

Torque constant(Nm/A)	0.54	Polar logarithm	14

TN curve

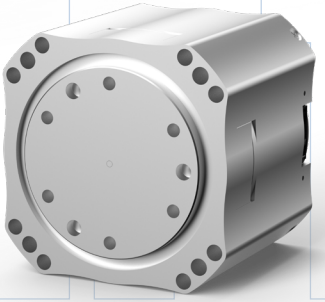


Product Installation Dimension Drawing



高擎 HIGH TORQUE

High Torque



HTDW-6036-02-DNE

Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	60
Height (mm)	56
weight (g)	565

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	36	Locked-rotor torque(Nm)	36
Rated Voltage (V)	24	Rated RPM(RPM)	50
Rated Current (A)	3	No-load RPM(RPM)	60
Rated torque(Nm)	10	Rated Output Power(W)	52

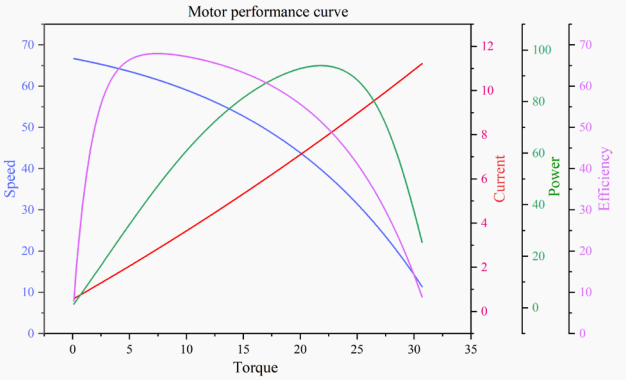
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	15	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

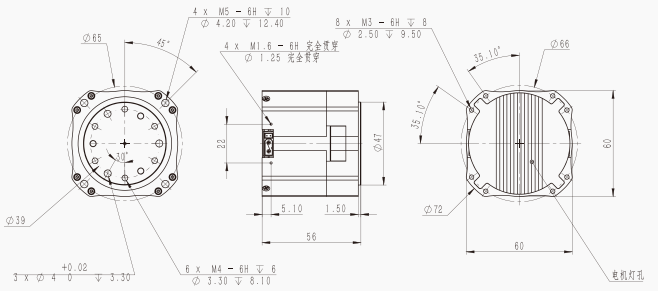
Motor parameters

Torque constant(Nm/A)	0.531	Polar logarithm	14

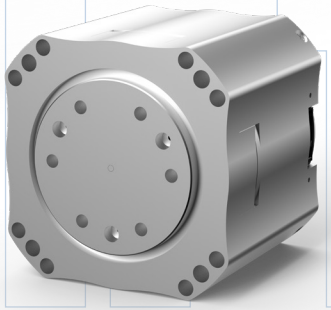
TN curve



Product Installation Dimension Drawing



高擎 HIGH TORQUE



HTDW-6036-02-CNE

Cross Roller Bearing Version
Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	60
Height (mm)	56
weight (g)	570

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	36	Locked-rotor torque(Nm)	36
Rated Voltage (V)	24	Rated RPM(RPM)	50
Rated Current (A)	3	No-load RPM(RPM)	60
Rated torque(Nm)	10	Rated Output Power(W)	52

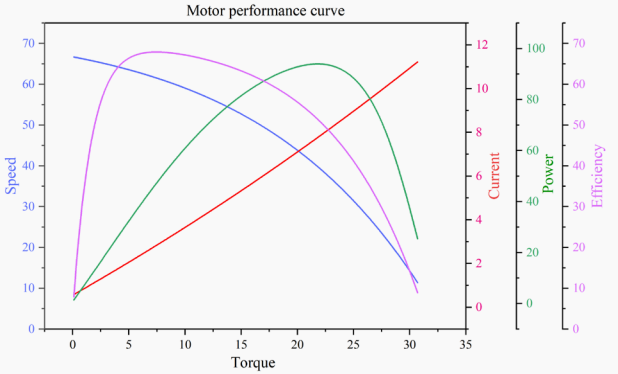
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	15	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

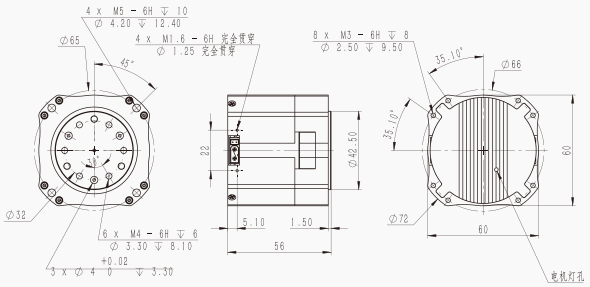
Motor parameters

Torque constant(Nm/A)	0.531	Polar logarithm	14

TN curve

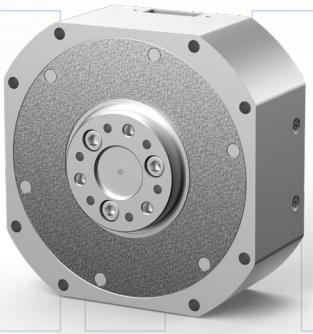


Product Installation Dimension Drawing



高擎 HIGH TORQUE

Higher torque



HTPW-7507-02-DNE

Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	75
Height (mm)	35
weight (g)	390

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	7	Locked-rotor torque(Nm)	12
Rated Voltage (V)	24	Rated RPM(RPM)	250
Rated Current (A)	5.6	No-load RPM(RPM)	270
Rated torque(Nm)	4	Rated Output Power(W)	92

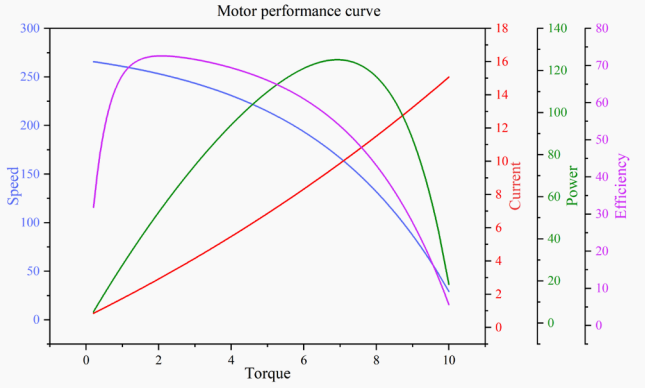
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	20	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

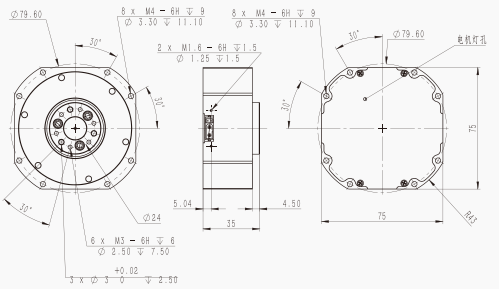
Motor parameters

Torque constant(Nm/A)	0.602	Polar logarithm	14

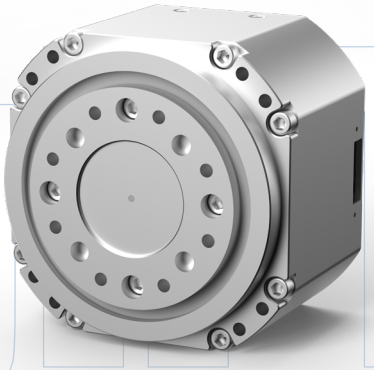
TN curve



Product Installation Dimension Drawing



高擎 HIGH TORQUE



HTDW-7535-02-CNE

Cross Roller Bearing Version
Planetary Joint Module

Product Parameters

Basic parameters

length and width (mm)	75
Height (mm)	56
weight (g)	850

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	35	Locked-rotor torque(Nm)	60
Rated Voltage (V)	24	Rated RPM(RPM)	50
Rated Current (A)	4.2	No-load RPM(RPM)	60
Rated torque(Nm)	18	Rated Output Power(W)	94

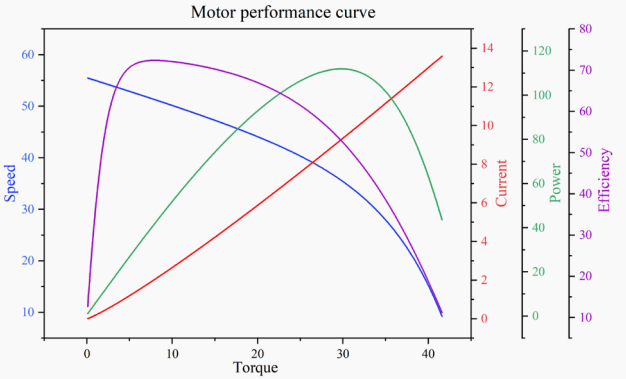
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	20	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

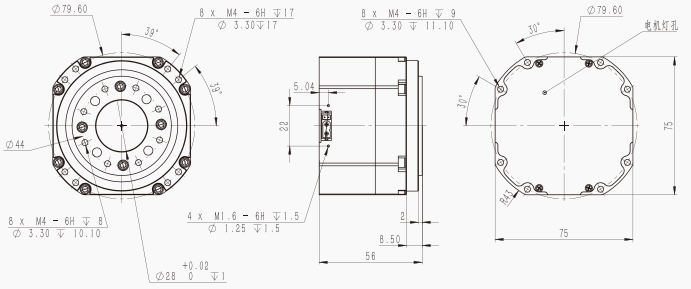
Motor parameters

Torque constant(Nm/A)	0.602	Polar logarithm	14

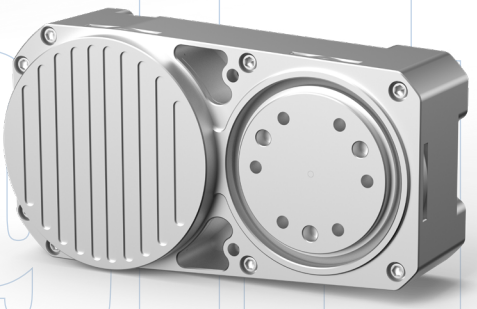
TN curve



Product Installation Dimension Drawing



High Torque



HTPU-6035-04-CNE

Ultra-Thin Series Joint Module

Product Parameters

Basic parameters

length and width (mm)	115X61.9
Height (mm)	37
weight (g)	558

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	35	Locked-rotor torque(Nm)	36
Rated Voltage (V)	24	Rated RPM(RPM)	50
Rated Current (A)	3	No-load RPM(RPM)	60
Rated torque(Nm)	10	Rated Output Power(W)	52

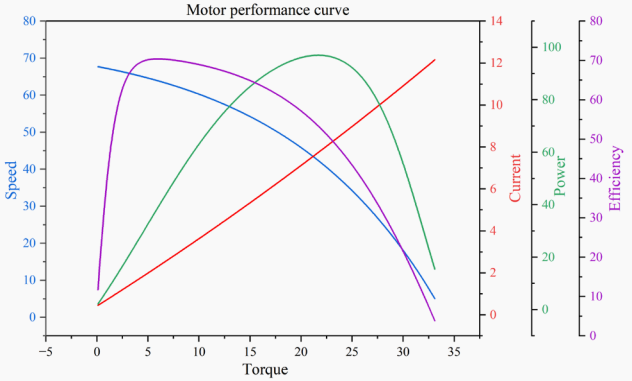
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	15	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

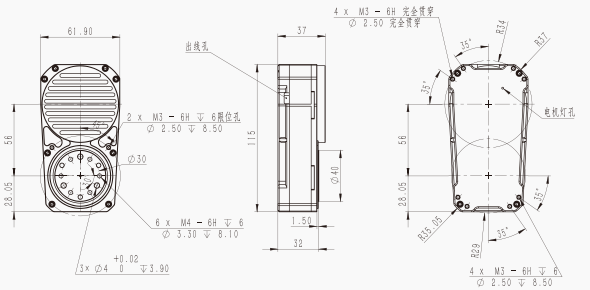
Motor parameters

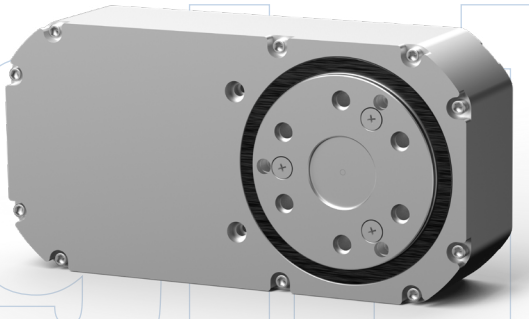
Torque constant(Nm/A)	0.531	Polar logarithm	14

TN curve



Product Installation Dimension Drawing





HTPU-7033-04-CNE

Ultra-Thin Series Joint Module

Product Parameters

Basic parameters

length and width (mm)	140.5X71.5
Height (mm)	36.9
weight (g)	808

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	33	Locked-rotor torque(Nm)	50
Rated Voltage (V)	24	Rated RPM(RPM)	40
Rated Current (A)	4.8	No-load RPM(RPM)	48
Rated torque(Nm)	20	Rated Output Power(W)	84

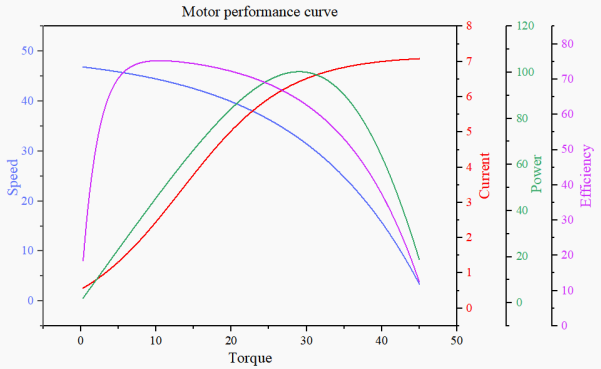
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	20	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

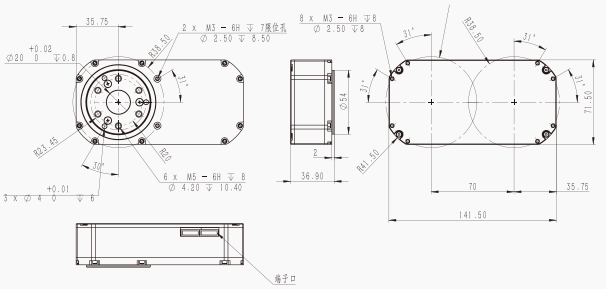
Motor parameters

Torque constant(Nm/A)	0.59	Polar logarithm	14

TN curve

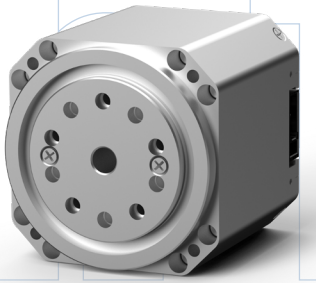


Product Installation Dimension Drawing



高擎 HIGH TORQUE

High Torque



HTCP-4531-06-CYC

Hollow Joint Module

Product Parameters

Basic parameters

length and width (mm)	44
Height (mm)	44.9
weight (g)	237

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	31	Locked-rotor torque(Nm)	10
Rated Voltage (V)	24	Rated RPM(RPM)	40
Rated Current (A)	0.7	No-load RPM(RPM)	160
Rated torque(Nm)	2	Rated Output Power(W)	8.5

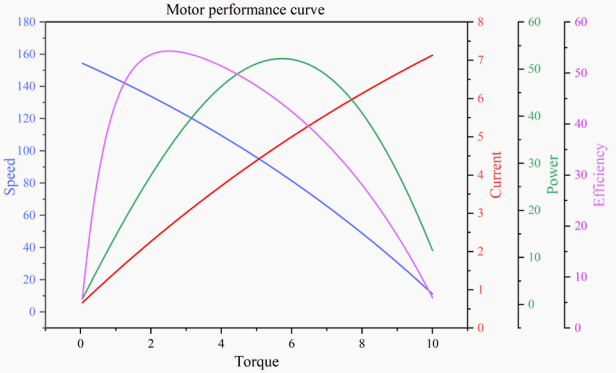
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	10	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

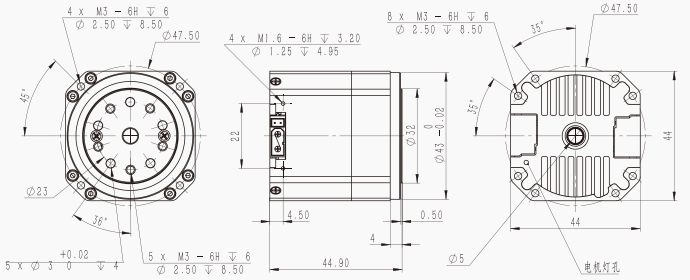
Motor parameters

Torque constant(Nm/A)	0.272	Polar logarithm	14

TN curve

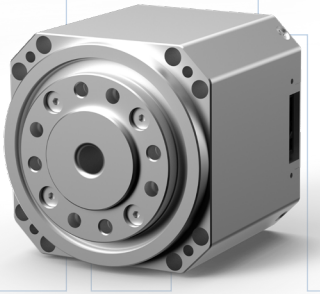


Product Installation Dimension Drawing



高擎 HIGH TORQUE

High Torque



HTCP-5031-06-CYC

Hollow Joint Module

Product Parameters

Basic parameters

length and width (mm)	50
Height (mm)	53
weight (g)	385

Reducer Characteristics

Backlash(Arcmin)	<10
Repeat Positioning Accuracy(Arcmin)	<12
Absolute positioning accuracy(Arcmin)	<15

Module Performance Parameters

Reduction ratio	31	Locked-rotor torque(Nm)	16
Rated Voltage (V)	24	Rated RPM(RPM)	50
Rated Current (A)	2	No-load RPM(RPM)	103
Rated torque(Nm)	4	Rated Output Power(W)	21

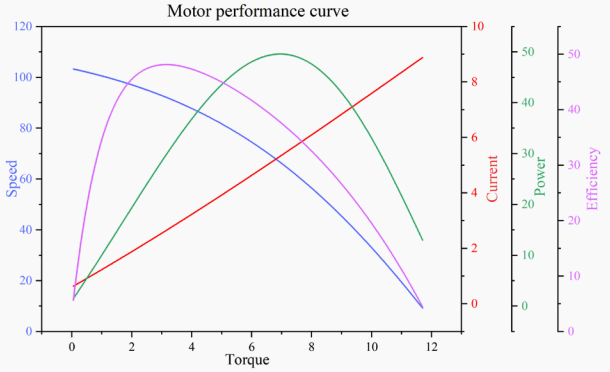
Electrical Performance Parameters of the Module

Voltage Range(V)	12-50.4	Communication	CANFD/CAN
Peak current(A)	10	control accuracy(Nm/A)	±10%
Speed control accuracy(Nm/A)	±10%	Response time(us)	140
High-speedend encoder resolution(bit)	14	Low-speedend encoder resolution(bit)	14
Baud rate(Mbps)	5	Control frequency(Hz)	3K

Motor parameters

Torque constant(Nm/A)	0.54	Polar logarithm	14

TN curve



Product Installation Dimension Drawing

