

### HT - series High performance stepper motors with 8-way connector

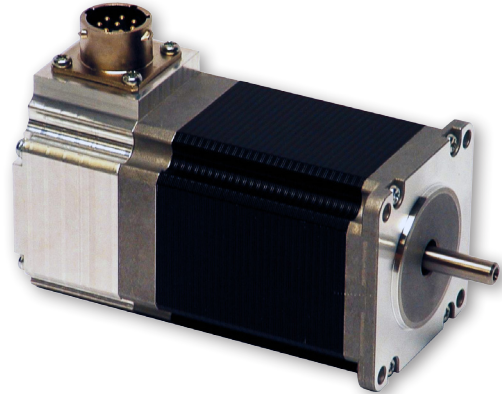
The high performance HT series hybrid stepper motor conforms to the international NEMA standard and provides 200/400 steps/rev when used with full/half step drives, but are particularly suited to micro stepping operation with a wide range of Mclennan drives. Supplied with an 8-way Souriau connector and can be wired to suit Unipolar or Bipolar operations. Also available with a 500ppr line driver encoder fitted.





## 23HT - High performance size 23 hybrid stepper motors with connector

- Excellent EMC Characteristics
- Simple connection via 8-way connector
- Can be wired in Unipolar, Bipolar Parallel or Series
- Available with a choice of precision planetary gearheads for increased torque and resolution at reduced speed.
- High Torque
- Low Vibration
- Non standard customised executions available to special order.
- Wide range of matched drives and control modules enable complete constructed, based on 'in-service proven' technology
- Wide range of matched drives and control modules enable complete systems to be economically constructed, based on 'in-service proven' technology.



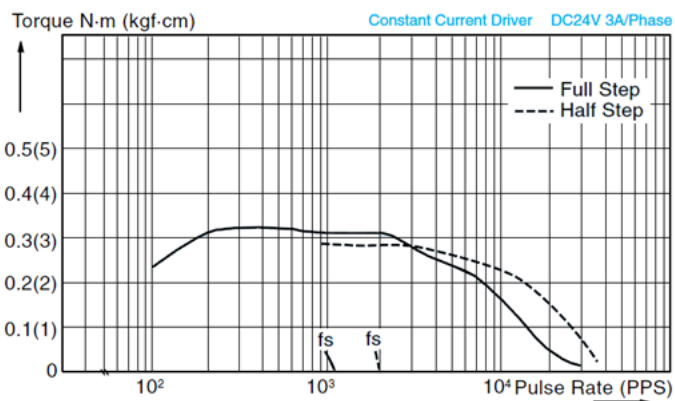
### 23HT- Electrical specification

Motor type	Unipolar operation			Bipolar operation	
	Current / Phase	Resistance / Phase	Inductance / Phase	Current / Phase Series Connection	Current / Phase Parallel Connection
	Amps	$\Omega$	mH	Amps	Amps
23HT18C130	3	0.63	0.6	2.12	4.23
23HT18C230	3	0.75	1.2	2.12	4.23
23HT18C330	3	1.00	1.6	2.12	4.23
23HT18C435	3.5	0.8	1.4	2.48	4.93

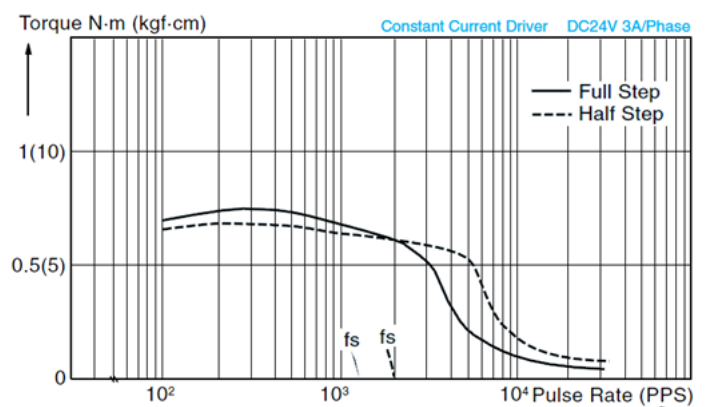
- Operating temperature range -20 to 50°C  
(\*NOTE\* Do not allow the surface temperature of the motor case to rise above 90°C during operation)
- Insulation resistance 100M $\Omega$  Min (at 500V DC)
- Dielectric strength 500V AC (1min)
- Overhang load (point of the shaft) 52.3N(5.3kgf)
- Permissible temperature rise 80deg Max (Resistance method)
- Radial play 0.025mm Max. at the load 4.9N (500 gf)
- End play 0.075mm Max. at the load 9.8N (1 kgf)

### 23HT- Typical performance (Pull-Out torque)

23HT18C130

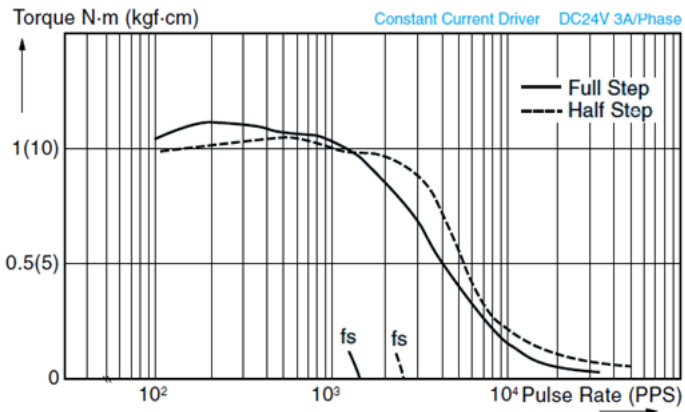


23HT18C230

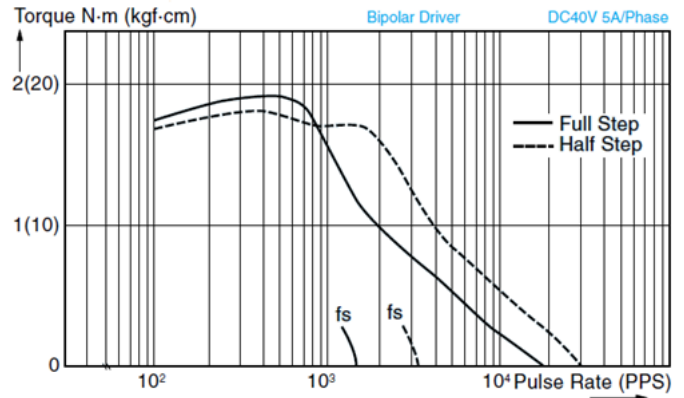




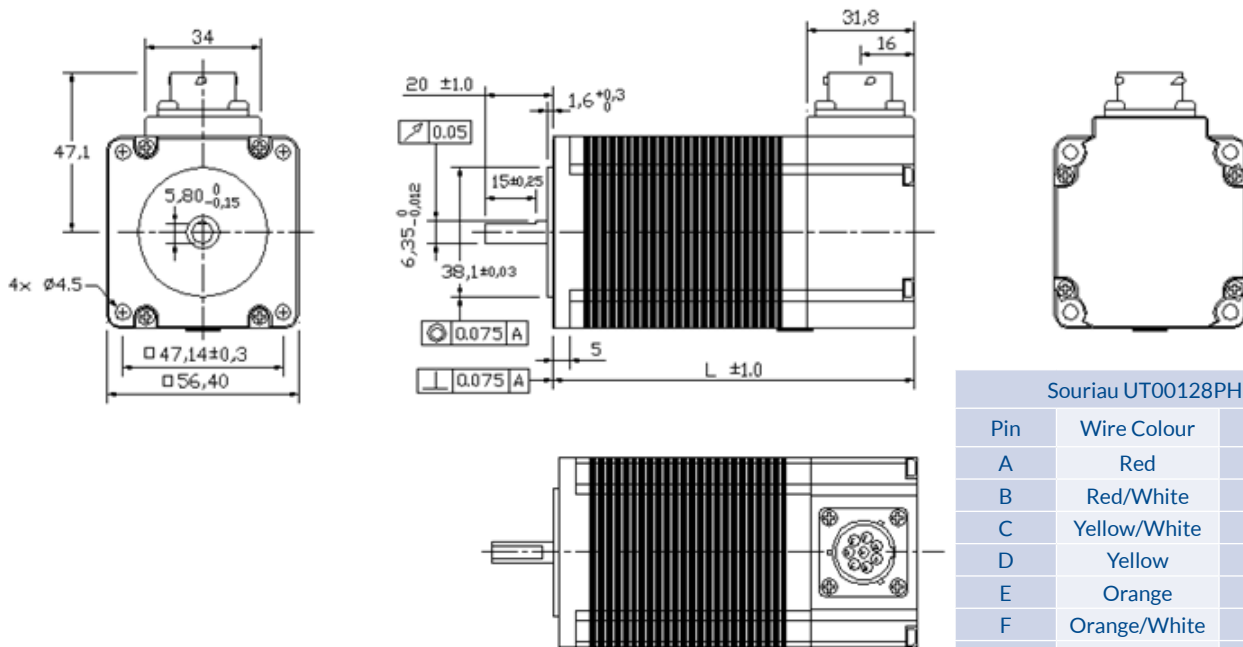
23HT18C330



23HT18C435



## 23HT - Mechanical specification



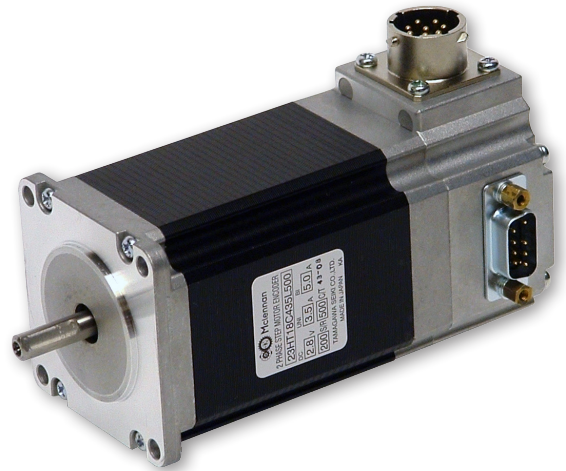
Souriau UT00128PH

Pin	Wire Colour	Phase
A	Red	1
B	Red/White	1'
C	Yellow/White	2'
D	Yellow	2
E	Orange	3
F	Orange/White	3'
G	Black/White	4'
H	Black	4

Motor Type	Step Angle	Body length (L)	Holding Torque (2 ph on)	Rotor Inertia	Mass
		mm	Nm	kgcm <sup>2</sup>	kg
23HT18C130	1.8°	69.5	0.39	0.120	0.65
23HT18C230	1.8°	84.5	0.90	0.260	0.95
23HT18C330	1.8°	106.5	1.35	0.430	1.2
23HT18C435	1.8°	114.5	1.4	0.520	1.5

## 23HT-L High performance size 23 hybrid stepper motors with connector and encoder

- Excellent EMC Characteristics
- Simple connection via 8-way connector and 9 way "D" encoder connector
- Can be wired in Unipolar, Bipolar Parallel or Series
- Available with a choice of precision planetary gearheads for increased torque and resolution at reduced speed.
- High Torque
- Low Vibration
- Non standard customised executions available to special order.
- Wide range of matched drives and control modules enable complete constructed, based on 'in-service proven' technology.



### 23HT-L - Electrical specification

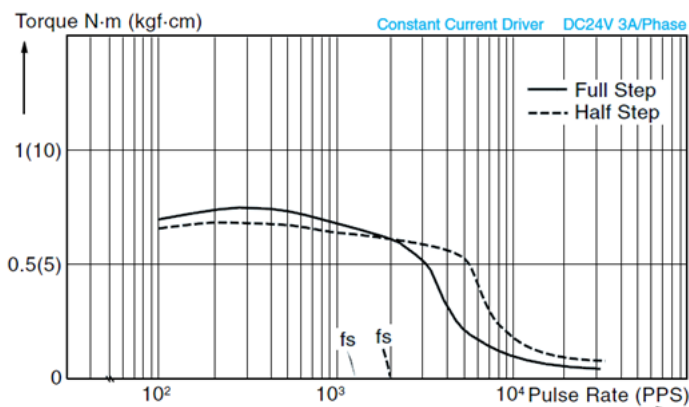
Motor type	Unipolar operation			Bipolar operation	
	Current / Phase	Resistance / Phase	Inductance / Phase	Current / Phase Series Connection	Current / Phase Parallel Connection
	Amps	$\Omega$	mH	Amps	Amps
23HT18C230L500	3	0.75	1.2	2.12	4.23
23HT18C435L500	3.5	0.8	1.4	2.48	4.93

#### Encoder specification

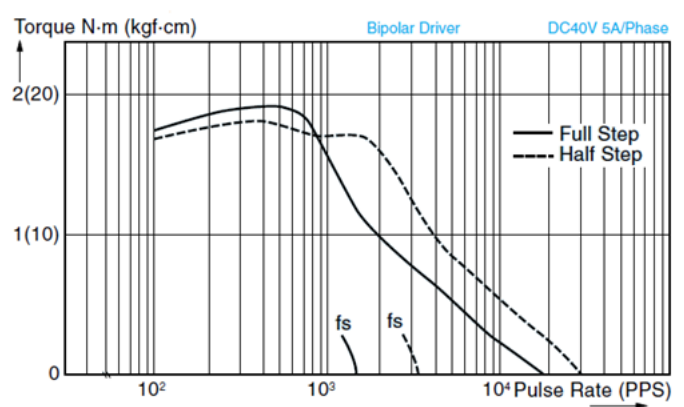
Counts/Turns	Line driver	Operating Voltage	Supply Current	Max Frequency	Output Signal	Output Current
500AB +Z	AM26C31	DC 5V +/- 5%	100mA max	100kHz	H min 2.4V DC L max 0.4V DC	+/- 20mA max. sinking

### 23HT-L - Typical performance (Pull-Out torque)

23HT18C230L500



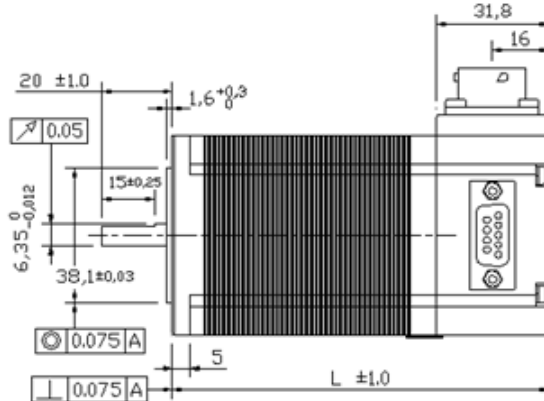
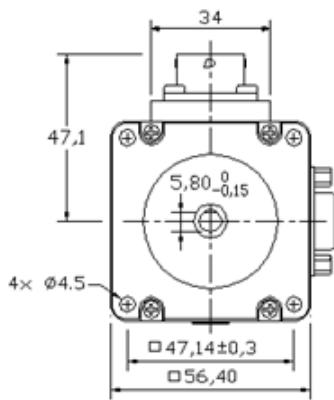
23HT18C435L500



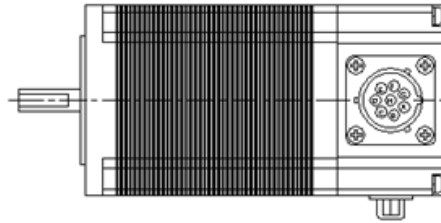




## 23HT- L - Mechanical specification



9-pin D plug	
Pin	Signal
1	+ 5V DC
2	n/c
3	A
4	B
5	Z
6	Gnd
7	A
8	B
9	Z



Souriau UT00128PH		
Pin	Wire Colour	Phase
A	Red	1
B	Red/White	1'
C	Yellow/White	2'
D	Yellow	2
E	Orange	3
F	Orange/White	3'
G	Black/White	4'
H	Black	4



## 34HT - High performance size 34 hybrid stepper motors with connector

- Excellent EMC Characteristics
- Simple connection via 8-way connector
- Can be wired in Unipolar, Bipolar Parallel or Series
- Available with a choice of precision planetary gearheads for increased torque and resolution at reduced speed.
- High Torque
- Low Vibration
- Non standard customised executions available to special order.
- Wide range of matched drives and control modules enable complete constructed, based on 'in-service proven' technology



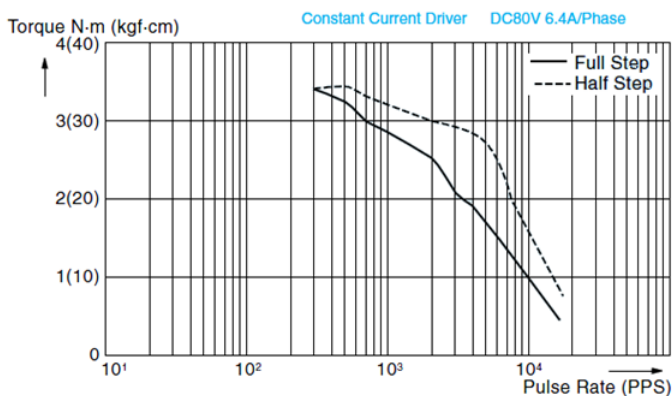
### 34HT- Electrical specification

Motor type	Unipolar operation			Bipolar operation	
	Current / Phase	Resistance / Phase	Inductance / Phase	Current / Phase Series Connection	Current / Phase Parallel Connection
	Amps	$\Omega$	mH	Amps	Amps
34HT18C145	4.5	0.40	1.75	3.2	6.35
34HT18C245	4.5	0.62	3.1	3.2	6.35
34HT18C340	4.0	0.84	4.7	2.8	5.64

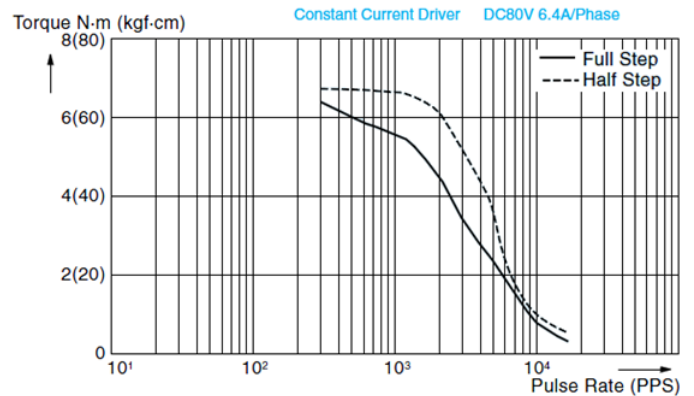
- Operating temperature range -20 to 50°C  
(\*NOTE\* Do not allow the surface temperature of the motor case to rise above 90°C during operation)
- Insulation resistance 100 M $\Omega$  Min (at 500V DC)
- Dielectric strength 500V AC (1min)
- Overhang load (point of the shaft) 52.3N(5.3 kgf)
- Permissible temperature rise 80deg Max (Resistance method)
- Radial play 0.025mm Max. at the load 4.9N (500 gf)
- End play 0.075mm Max. at the load 9.8N (1 kgf)

### 34HT- Typical performance (Pull-Out torque)

34HT18C145

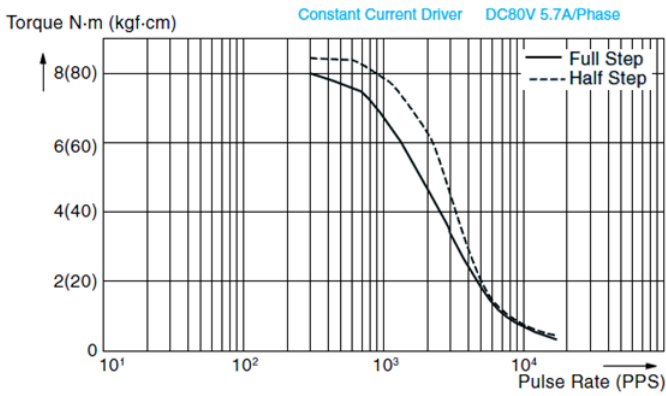


34HT18C245

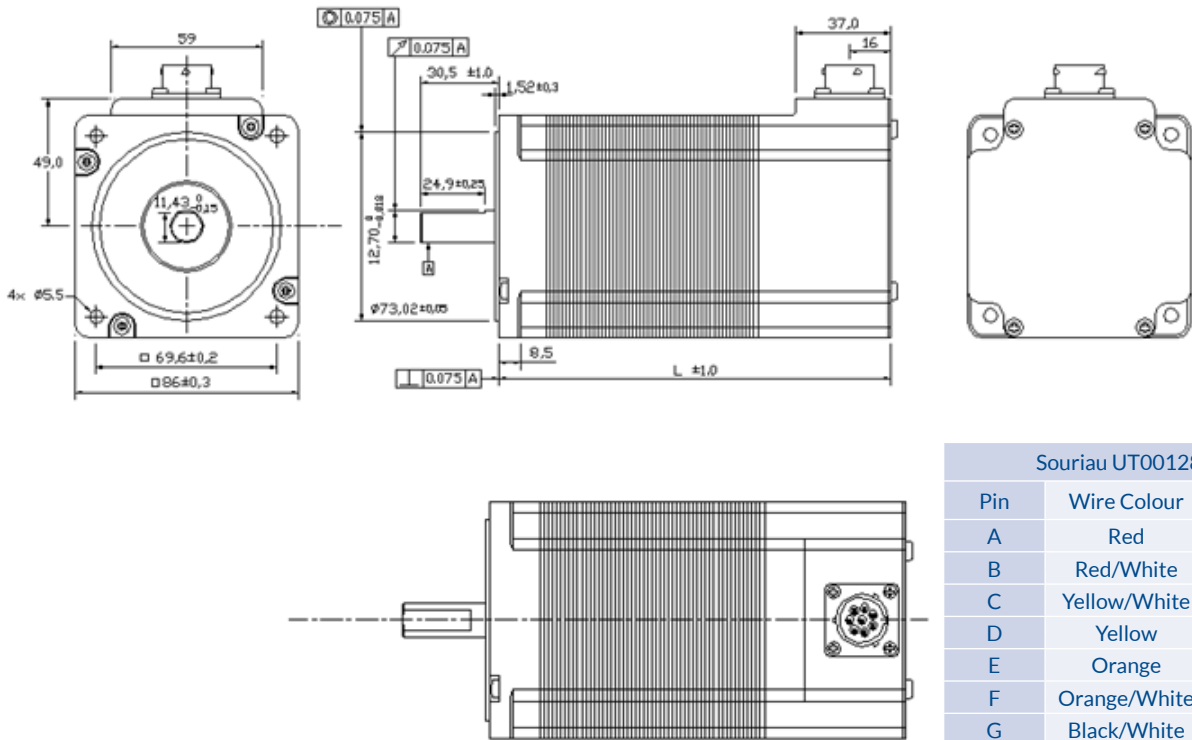




## 34HT18C340



## 34HT - Mechanical specification



Motor Type	Step Angle	Body length (L)	Holding Torque (2 ph on)	Rotor Inertia	Mass
		mm	Nm	kgcm <sup>2</sup>	kg
34HT18C145	1.8°	112.5	2.45	1.6	2.5
34HT18C245	1.8°	151.0	5.40	3.9	3.9
34HT18C340	1.8°	189.5	7.35	4.8	5.4