



Himel Soft Starter

HASES

Most Compact Digital Soft Starter



HASES is a miniature digital soft starter. It flexibly realizes soft start and soft stop.

The initial voltage (initial torque) for soft start can be at multiple levels. This significantly reduces the influence of current and mechanical torque during motor startup, protecting the safety of motor equipment and the power supply network.

It can be widely applied to various small motor devices, such as industrial and commercial air conditioners, refrigerators, freezers, water pumps, etc. In the control system, users can lower the quality requirements for the power supply network, reduce the burden on the power grid, and extend the service life of equipment.

The combination of HASES and manual motor starters forms a more compact starting solution than the complex star-delta starter, and it has an integrated bypass, significantly reducing energy loss inside the soft starter.



Product



Main Features



Technical specifications

- Operational voltage: 208...600V AC
- Wide rated control supply voltage:

24V AC/DC



Features

- Soft start and stop with voltage ramp
- Built-in bypass for energy saving
- Easy set-up by three potentiometers
- Run and Top of Ramp relays available



Protections

motor starter

Reference Selection

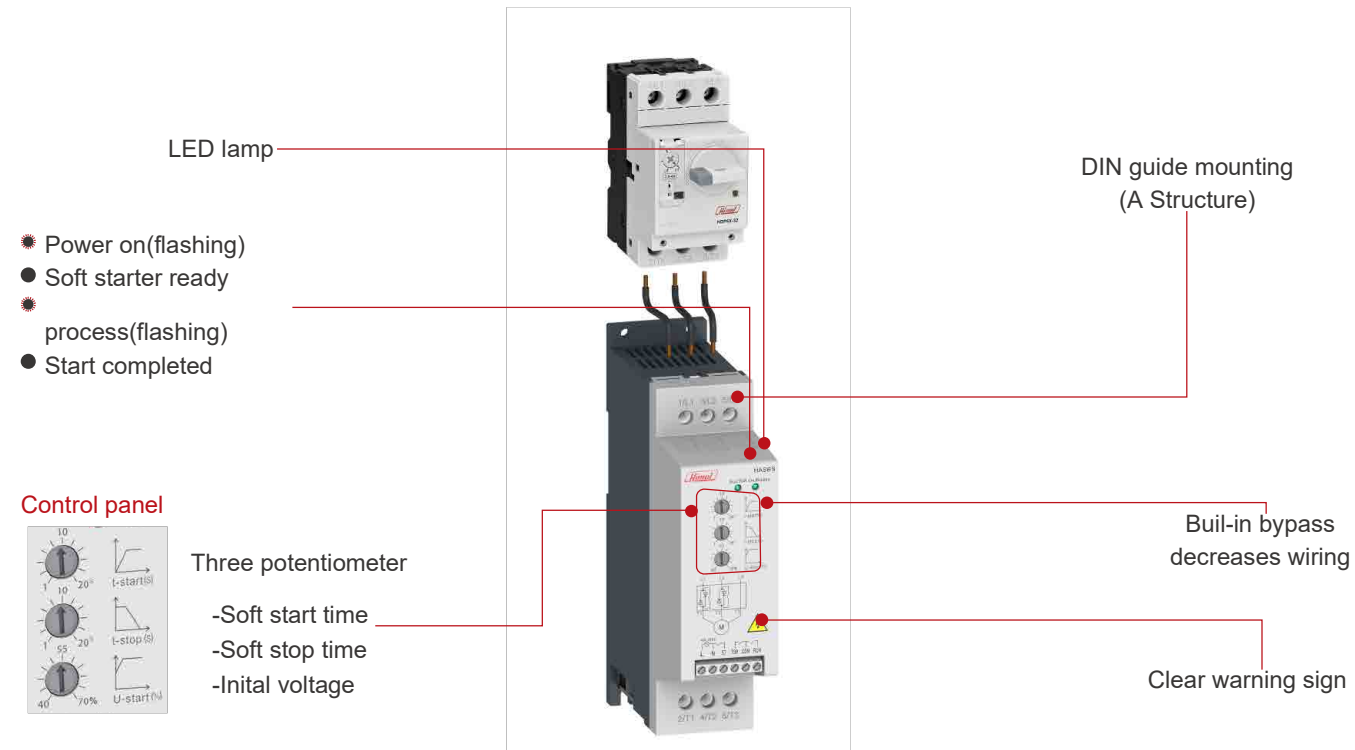
Range Name	Series Name	Control Mode	Current	Power Voltage	Control Voltage
HAS	ES	N2	040	LT	D
↓	↓	↓	↓	↓	↓
HA: Himel Autom- ation S: Soft starter	ES: Easy series	Two phase control	040: 4A 070: 7A ... 105: 105A	LT: 208-600V AC	A: AC Coil 50/60Hz D: 24V AC/DC Coil

Rated operational voltage Ue, 208...600 V AC, Rated control supply voltage, Us, **100...240 V AC**, 50/60 Hz

Motor rated power rate(KW)			Motor reted	Specification	
3 phase 50/60Hz					
200V	440V	500V	A	Himel reference	Current
0.75	1.5	2.2	3.9	HASESN2040LTA	4.0
1.5					
2.2		4.0	9.0	HASESN2090LTA	9.0
		5.5	12	HASESN2120LTA	12
4.0					
5.5		15	25	HASESN2250LTA	25
7.5		15	30	HASESN2300LTA	30
9.0		18.5	37	HASESN2370LTA	37
		30			
		37	60	HASESN2600LTA	60
	7.5	72	HASESN2720LTA	72	
	11	55			
7.5	15	55	105	HASESN2105LTA	105

Rated operational voltage Ue, 208...600 V AC, Rated control supply voltage, Us, **24 V AC/DC**, 50/60 Hz

Motor rated power rate(KW)			Motor reted	Specification	
3 phase 50/60Hz					
200V	440V	500V	A	Himel reference	Current
0.75	1.5	2.2	3.9	HASESN2040LTD	4.0
	3			HASESN2070LTD	
2.2	4.0	4.0	9.0		9.0
3.0	5.5	5.5	12	HASESN2120LTD	12
				HASESN2160LTD	
5.5	7.5	15	25		25
7.5	11	18.5	30	HASESN2300LTD	30
	18.5		37	HASESN2370LTD	37
11	18.5	30			
15	22	37	60	HASESN2600LTD	60
	30		72	HASESN2720LTD	72
25	37	55			
30	45	55	105	HASESN2105LTD	105



★ Technical Parameter

Rated operational voltage	208...600V(-15%/+10%), 50/60Hz ±5%
Rated control supply voltage	100...240V AC, 50/60Hz ±5% or 24V AC/DC (-10%/+10%)
Number of starts per hour	20
Operation temperature	-25°C...+60°C (When the temperature exceeds 40°C to a maximum of 60°C, for every 1°C increase in temperature, the rated current decreases by 1%)
Soft start time	1-20s
Soft stop time	0-20s
Initial voltage	40%-70%Ue
IP degree	IP20 (≤15kW)
IP degree	IP10 (>15kW)
Bypass type	Built-in bypass

Number of starts per hour using HASES series softstarters								
Motor current	Starts/hour with auxiliary fan							
I _e	10	20	30	40	50	60	80	100
3A	√	√	√	√	√	√	√	√
6A	√	√	√	√	√	√	√	9
9A	√	√	√	√	√	12	12	12
12A	√	√	√	√	√	16	25	25
16A	√	√	25	25	25	25	30	30
25A	√	√	30	37	37	37	37	45
30A	√	√	37	37	45	45	45	45
37A	√	√	45	45	45	45	60	60
45A	√	√						
60A	√	√	√	72	72	85	105	-
72A	√	√	√	85	105	105	-	-
85A	√	√	105	105	-	-	-	-
105A	√	√	-	-	-	-	-	-

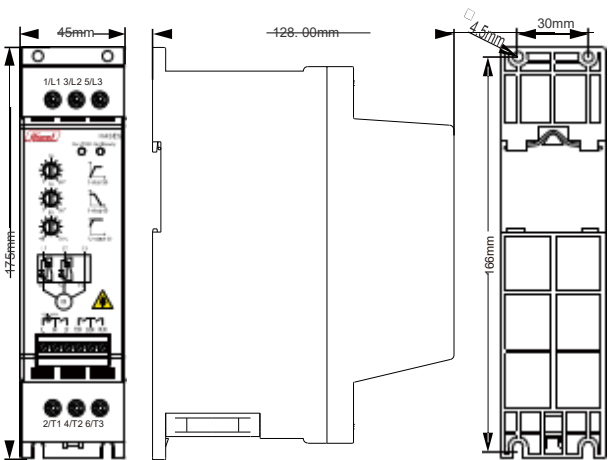
Data based on an ambient temperature of 40°, starting current of 4× I_e and ramp time 6 seconds.



Dimensions

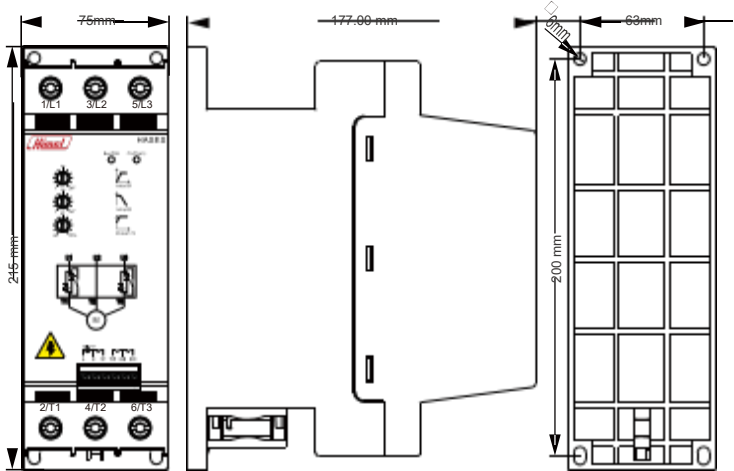
Softstarter

HASES 4~30 A



Softstarter

HASES 37~105A



Circuit diagrams

