

HS580 Series

Hydraulic Servo Drive



FRECON



HS580 Series Summary

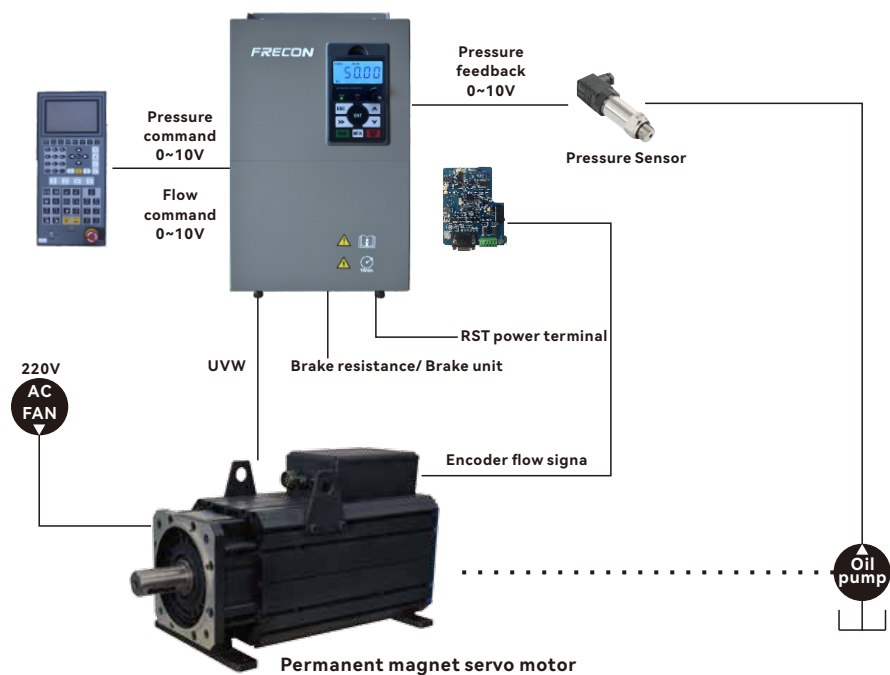
The hydraulic servo system is equipped with a high-performance hydraulic servo driver, and is equipped with a rotary encoder and a pressure sensor to provide feedback on flow and pressure respectively. The high-performance synchronous servo motor makes corresponding flow and pressure adjustments by changing the speed and torque, and performs precise closed-loop control of pressure and flow, thereby achieving the best match and automatic adjustment of the servo motor to the energy requirements of the injection molding machine.



Features

- Support 4 pumps parallel control
- Up to 110kW built-in brake unit and install easily
- With multiple protection functions such as over current, over voltage, short circuit, etc
- The pressure rise speed is fast, regulation accuracy is high, and small over-pressure and overcharge range
- Pressure and flow rate are closed-loop control, with high precision and fast response speed
- Multiple communication functions (standard built-in CAN, RS485, optional EtherCAT, Profibus)

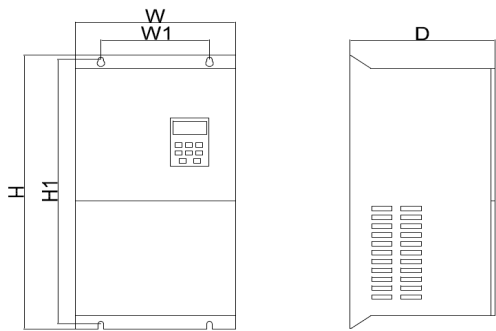
Hydraulic Servo Control System



Technical specifications

Model	Power capacity (KVA)	Rated input current (A)	Rated output current (A)	Adaptive motor	
				kW	HP
Three-phase Power 380V, 50/60Hz -15%~+30%					
HS580-4T-7.5B-H	11.0	20.5	17.0	7.5	10.0
HS580-4T-011B-H	17.0	26.0	25.0	11.0	15.0
HS580-4T-015B-H	21.0	35.0	32.0	15.0	20.0
HS580-4T-018B-H	24.0	38.5	37.0	18.5	25.0
HS580-4T-022B-H	30.0	46.5	45.0	22.0	30.0
HS580-4T-030B-H	40.0	62.0	60.0	30.0	40.0
HS580-4T-037B-H	57.0	76.0	75.0	37.0	50.0
HS580-4T-045B-H	69.0	92.0	91.0	45.0	60.0
HS580-4T-055B-H	85.0	113.0	112.0	55.0	70.0
HS580-4T-075B-H	114.0	157.0	150.0	75.0	100.0
HS580-4T-090B-H	134.0	186.0	176.0	90.0	125.0
HS580-4T-110(B)-H	160.0	220.0	210.0	110.0	150.0
HS580-4T-132-H	192.0	260.0	253.0	132.0	175.0
HS580-4T-160-H	231.0	310.0	304.0	160.0	210.0
HS580-4T-185-H	240.0	355.0	350.0	185.0	250.0
HS580-4T-200-H	250.0	382.0	377.0	200.0	260.0
HS580-4T-220-H	280.0	430.0	426.0	220.0	300.0
HS580-4T-250-H	355.0	475.0	470.0	250.0	330.0
HS580-4T-280-H	396.0	535.0	520.0	280.0	370.0
HS580-4T-315-H	445.0	610.0	600.0	315.0	420.0

Dimensions



Model	External dimensions (mm)			Install dimensions (mm)			N.W (kg)
	W	H	D	W1	H1	Install hole	
Three-phase Power 380V, 50/60Hz -15%~+30%							
HS580-4T-7.5B-H	146.0	249.0	117.0	131.0	236.0	φ5.5	3.9
HS580-4T-011B-H							
HS580-4T-015B-H							
HS580-4T-018B-H	198.0	300.0	185.0	183.0	287.0	φ5.5	6.2
HS580-4T-022B-H							
HS580-4T-030B-H							
HS580-4T-037B-H	250.0	432.4	226.9	200.0	411.0	φ7.0	11.8
HS580-4T-045B-H							
HS580-4T-055B-H							
HS580-4T-075B-H	310.0	622.4	281.2	200.0	601.0	φ9.5	26.0
HS580-4T-090B-H							
HS580-4T-110(B)-H							
HS580-4T-132-H	310.0	653.0	351.5	200.0	620.0	φ11.5	45.0
HS580-4T-160-H							
HS580-4T-185-H							
HS580-4T-200-H	500.0	300.0	855	822.0	370.0	φ12.0	112.0
HS580-4T-220-H							
HS580-4T-250-H							
HS580-4T-280-H	540.0	340.0	924.5	896.0	380.0	φ12.0	120.0
HS580-4T-315-H							
HS580-4T-315-H	620.0	400.0	996	963.0	390.0	φ12.0	133.0

Configuration Selection Table

Model	Rated Output Current (A)	Compatible Motor Capacity (kW)	Input Current (A)	Compatible Hydraulic System Maximum Flow (L/min)	Compatible Hydraulic System Pressure(Mpa)
Input Voltage (V) Three-phase Power 380V, 50/60Hz -15%~+20%					
HS580-4T-7.5B-H	17.0	7.5	20.0	40.0	17.5
HS580-4T-011B-H	25.0	11.0	26.0	60.0	
HS580-4T-015B-H	32.0	15.0	35.0	75.0	

Configuration Selection Table

HS580-4T-018B-H	37.0	18.5	39.0	85.0	17.5
HS580-4T-022B-H	45.0	22.0	47.0	105.0	
HS580-4T-030B-H	60.0	30.0	62.0	140.0	
HS580-4T-037B-H	75.0	37.0	76.0	180.0	
HS580-4T-045B-H	91.0	45.0	92.0	210.0	
HS580-4T-055B-H	112.0	55.0	112.0	260.0	
HS580-4T-075B-H	150.0	75.0	153.0	360.0	
HS580-4T-090B-H	176.0	90.0	160.0	420.0	
HS580-4T-110(B)-H	210.0	110.0	190.0	500.0	
HS580-4T-132-H	253.0	132.0	232.0	600.0	
HS580-4T-160-H	304.0	160.0	310.0	700.0	
HS580-4T-185-H	350.0	185.0	355.0	780.0	
HS580-4T-200-H	377.0	200.0	382.0	840.0	
HS580-4T-220-H	426.0	220.0	430.0	920.0	
HS580-4T-250-H	470.0	250.0	475.0	1050.0	
HS580-4T-280-H	520.0	280.0	535.0	1180.0	
HS580-4T-315-H	600.0	315.0	610.0	1335.0	

Brake Part Table

Model	Recommended Brake Resistor Power	Recommended Brake Resistor Resistance	Brake Unit
HS580-4T-7.5B-H	500W	≥65Ω	Standard Built-in
HS580-4T-011B-H	800W	≥43Ω	
HS580-4T-015B-H	1000W	≥32Ω	
HS580-4T-018B-H	1300W	≥25Ω	
HS580-4T-022B-H	1500W	≥22Ω	
HS580-4T-030B-H	2500W	≥16Ω	
HS580-4T-037B-H	3700W	≥16Ω	
HS580-4T-045B-H	4500W	≥16Ω	
HS580-4T-055B-H	5500W	≥16Ω	
HS580-4T-075B-H	7500W	≥12Ω	
HS580-4T-090B-H	4500W*2	≥16Ω*2	Optional built-in
HS580-4T-110(B)-H	5500W*2	≥12Ω*2	
HS580-4T-132-H	7500W*2	≥12Ω*2	
HS580-4T-160-H	5500W*3	≥12Ω*3	
HS580-4T-185-H	38000W	3.4Ω	External
HS580-4T-200-H	38000W	3.4Ω	
HS580-4T-220-H	42000W	3Ω	
HS580-4T-250-H	42000W	3Ω	
HS580-4T-280-H	54000W	2Ω	
HS580-4T-315-H	54000W	2Ω	

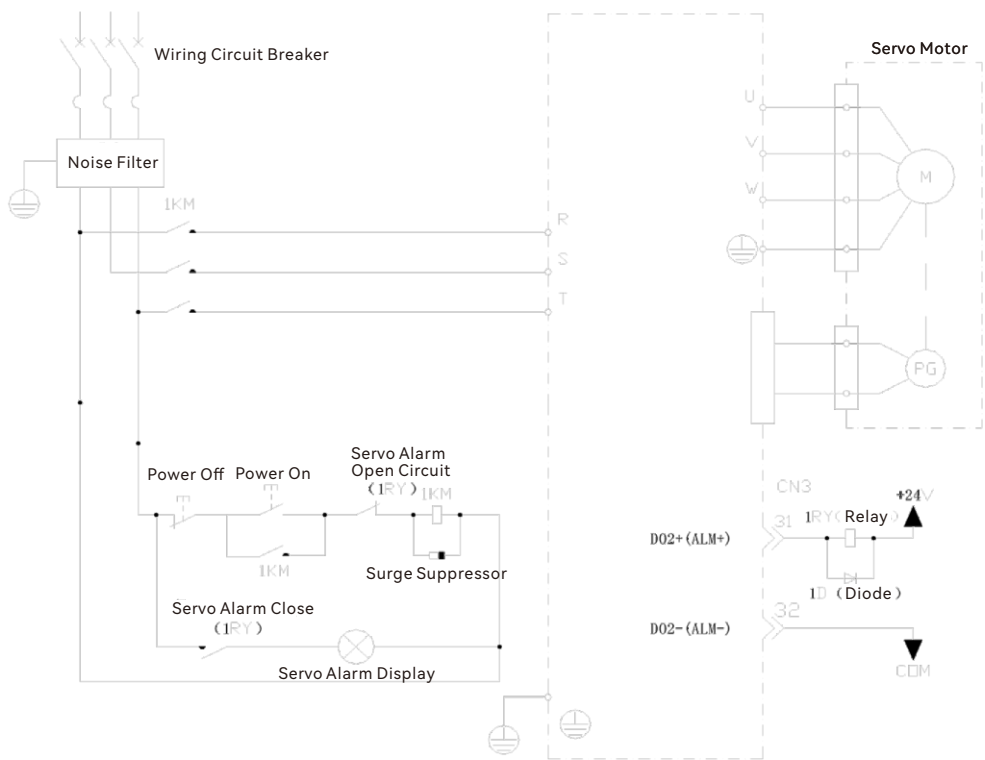
Note: *2 means two brake units with their own brake resistors used in parallel

Wiring Selection Table

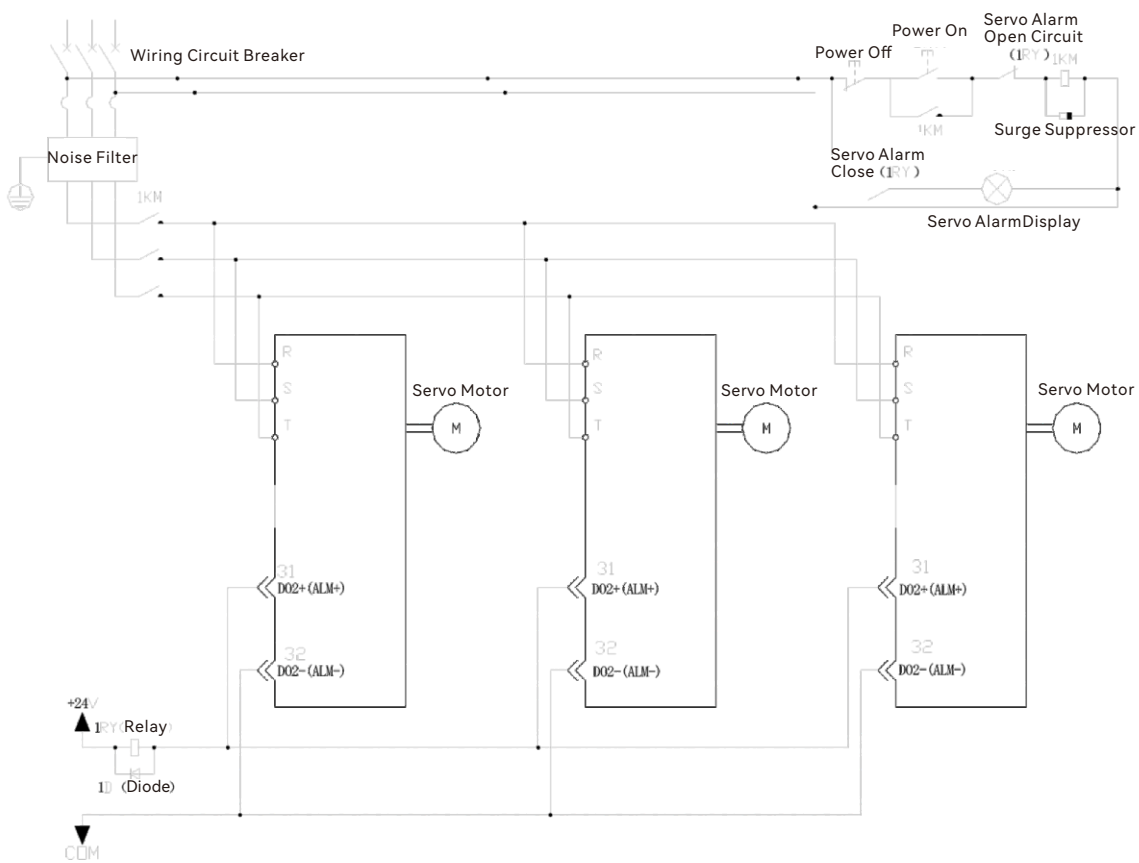
Model	Circuit Breaker MCCB(A)	Contactor (A)	EMC Input Filter(A)	Input/Output Main Circuit Wire(mm²)	Control Circuit Wire
HS580-4T-7.5B-H	40.0	32.0	35.0	4.0	1.5
HS580-4T-011B-H	63.0	40.0	50.0	6.0	
HS580-4T-015B-H	63.0	40.0	50.0	10.0	
HS580-4T-018B-H	100.0	63.0	80.0	10.0	
HS580-4T-022B-H	100.0	63.0	80.0	16.0	
HS580-4T-030B-H	125.0	100.0	100.0	16.0	
HS580-4T-037B-H	160.0	100.0	120.0	16.0	
HS580-4T-045B-H	200.0	125.0	150.0	25.0	
HS580-4T-055B-H	200.0	125.0	150.0	35.0	
HS580-4T-075B-H	250.0	160.0	200.0	50.0	
HS580-4T-090B-H	250.0	160.0	200.0	70.0	
HS580-4T-110(B)-H	350.0	350.0	250.0	120.0	
HS580-4T-132-H	400.0	400.0	300.0	150.0	
HS580-4T-160-H	500.0	400.0	400.0	150.0	
HS580-4T-185-H	600.0	600.0	400.0	185.0	
HS580-4T-200-H	600.0	600.0	400.0	150.0*2	
HS580-4T-220-H	600.0	600.0	600.0	150.0*2	
HS580-4T-250-H	800.0	600.0	600.0	185.0*2	
HS580-4T-280-H	800.0	800.0	600.0	185*2	
HS580-4T-315-H	800.0	800.0	900.0	150.0*3	

Main circuit wiring

Using Single Servo Drive Wiring



Using Multiple Servo Drives Wiring





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