

IS580 Hydraulic Servo Drive

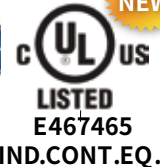
High-performance Hydraulic Servo Drive Close-loop Pressure and Flow Control

Features & Functions

- Dedicated servo drive for plastic injection molding machine
- Built-in multi pump configuration
- Servo drive for PMSM
- Closed loop FVC control
- Startup torque
 - 180% at 0Hz for FVC
- Simplified parameter for easy start up
- Flexible programmable I/O connection
- Comprehensive trip diagnostics
- Output frequency 300Hz
- Communication(Optional):
 - Modbus-RTU
 - CANlink / CANopen
 - Profibus-DP

NEW

Wide operating voltage
Three-phases 380 to 480 Vac
11 to 160 kW
Three-phases 220 Vac, 5.5~ 80kW



NEW

Operation in high ambient temperature



NEW

Internal DC reactor complies with EN61800-3 Category C2 (with external filter)

NEW

Enhanced reliability with conformal coating, protection against humidity and pollution dust

External AC output reactor (du/dt Filter)-(Optional)

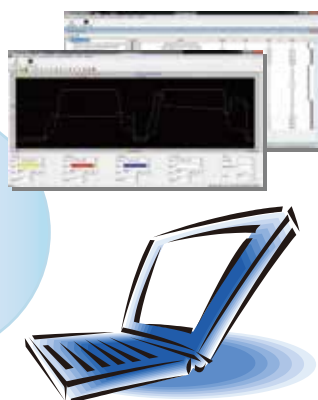
Compact size



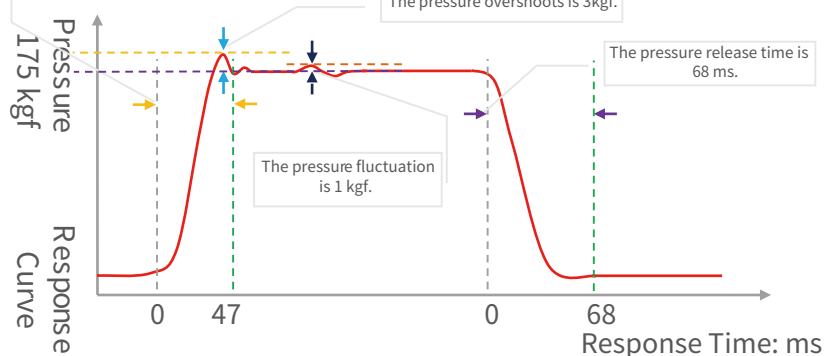
NEW

Optimized pressure and flow control Algorithm

*2 PC-Based Software simplified startup & backup



The response speed at the starting pressing period under the pressure of 175 kgf is 47ms.



*1 PC tool kit hardware (optional)

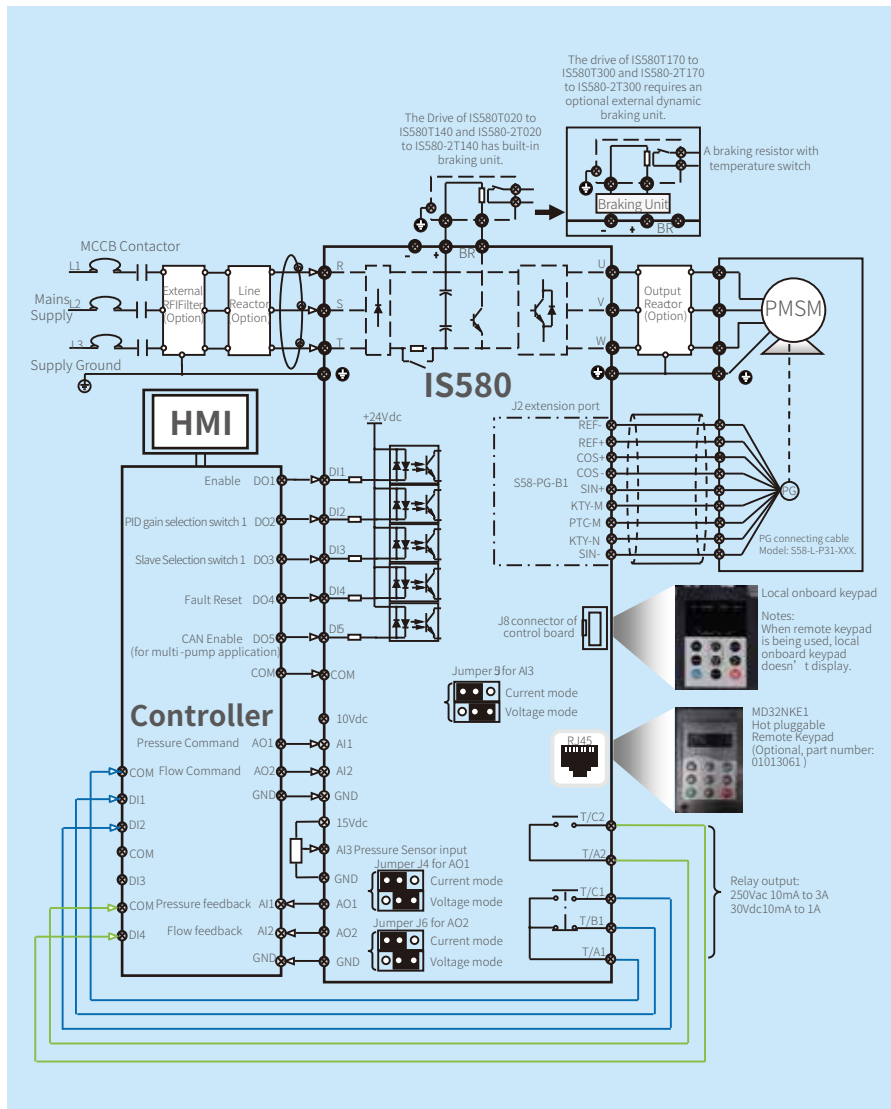
General Specifications

Voltage Class		Three-phase 380 to 480 Vac												
Drive model: IS580Txxx-R1-INT		020	030	035	040	050	070	080	100	140	170	210	250	300
Frame size		T5				T6		T7		T8			T9	
Drive Input	Rated input voltage	Three-phase 380 to 480 Vac, -15% to +10%												
	Rated input current [A]	36.3	45.1	49.5	59	57	69	89	106	139	164	196	240	287
	Power capacity [kVA]	30	39	45	54	52	63	81	97	127	150	179	220	263
	Rated input frequency	50/60 Hz, ±5%												
Drive Output	Applicable motor [kW]	11	15	18.5	22	30	37	45	55	75	90	110	132	160
	Output current [A]*1	25	32	37	45	60	75	91	112	150	176	210	253	304
	Default carrier frequency, [kHz]	6	6	4	4	4	4	4	3	2	2	2	2	2
	Overload capacity	150% for 60 Sec & 180% for 2 Sec												
	Max. output voltage	Three-phase 380Vac to 480 Vac (Proportional to input voltage)												
	Max. output frequency	300 Hz												
Braking Resistor	Recommended power [kW]	0.8	1.0	1.3	1.5	2.5	3.7	4.5	5.5	7.5	9	5.5 × 2	6.5 × 2	16
	Recommended resistance [Ω]	43	32	25	22	16	16	16	16	12	8	12 × 2	8 × 2	2.5
Braking unit		Built-in									MDBUN-60-5T x 2	MDBUN-60-5T x 2	MDBUN-90-5T x 2	MDBUN-90-5T x 2
DC reactor		Built-in												
Enclosure		IP 20												

Voltage Class		Three-phase 220 Vac										
Drive model: IS580-2Txxx-R1-INT		020	030	040	050	070	080	100	140	170	210	300
Frame size		T5			T6		T7		T8			T9
Drive Input	Rated input voltage	Three-phase 220 Vac, -15% to +10%										
	Rated input current [A]	36.3	45.1	59	57	69	89	106	139	164	196	287
	Power capacity [kVA]	30	39	54	52	63	81	97	127	150	179	263
	Rated input frequency	50/60 Hz, ±5%										
Drive Output	Applicable motor [kW]	18.5	22	30	37	45	55	75	90	110	132	160
	Output current [A]*1	37	45	60	75	91	112	150	176	210	253	304
	Default carrier frequency [kHz]	6	6	6	5	5	4	3	3	3	3	3
	Overload capacity	150% for 60 Sec & 180% for 2 Sec										
	Max. output voltage	Three-phase 220 Vac (Proportional to input voltage)										
	Max. output frequency	300 Hz										
Braking Resistor	Recommended power [kW]	0.8	1.0	1.5	2.5	3.7	4.5	5.5	7.5	9	11	8 × 2
	Recommended resistance [Ω]	22	16	11	8	8	8	6	6	4	4	6 × 2
Braking unit		Built-in							MDBUN-90-S	MDBUN-90-S	MDBUN-60-S x 2	
DC reactor		Built-in										
Enclosure		IP 20										

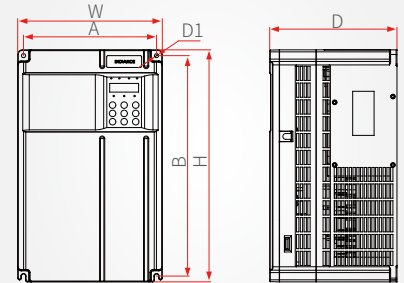
* Rated output current at default carrier switching frequency.

Typical Wiring Diagram

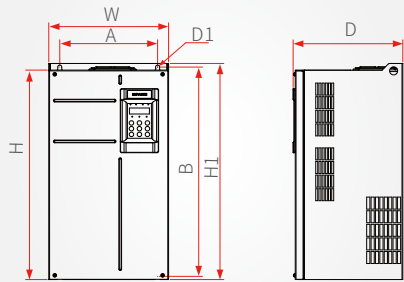


Dimensions

IS580T020-R1-INT to IS580T070-R1-INT and IS580-2T020-R1-INT to IS580-2T070-R1-INT (plastic housing)



IS580T080-R1-INT to IS580T300-R1-INT and IS580-2T080-R1-INT to IS580-2T300-R1-INT (sheet metal housing)



Servo Drive Model	Frame size	Dimensions (mm)							Weight (kg)
		A	B	H	H1	W	D	D1	
IS580T020-R1-INT, IS580T030-R1-INT, IS580T035-R1-INT, IS580T040-R1-INT, IS580-2T020-R1-INT, IS580-2T030-R1-INT, IS580-2T040-R1-INT	T5	195	335	350	/	210	192	Ø6	9.1
IS580T050-R1-INT, IS580-2T050-R1-INT IS580T070-R1-INT, IS580-2T070-R1-INT	T6	230	380	400	/	250	220	Ø7	17.5
IS580T080-R1-INT, IS580-2T080-R1-INT IS580T100-R1-INT, IS580-2T100-R1-INT	T7	245	523	525	542	300	275	Ø10	35
IS580T140-R1-INT, IS580T170-R1-INT, IS580-2T140-R1-INT, IS580-2T170-R1-INT, IS580T210-R1-INT, IS580-2T210-R1-INT	T8	270	560	554	580	338	315	Ø10	51.5
IS580T250-R1-INT, IS580T300-R1-INT IS580-2T300-R1-INT	T9	320	890	874	915	400	320	Ø10	85

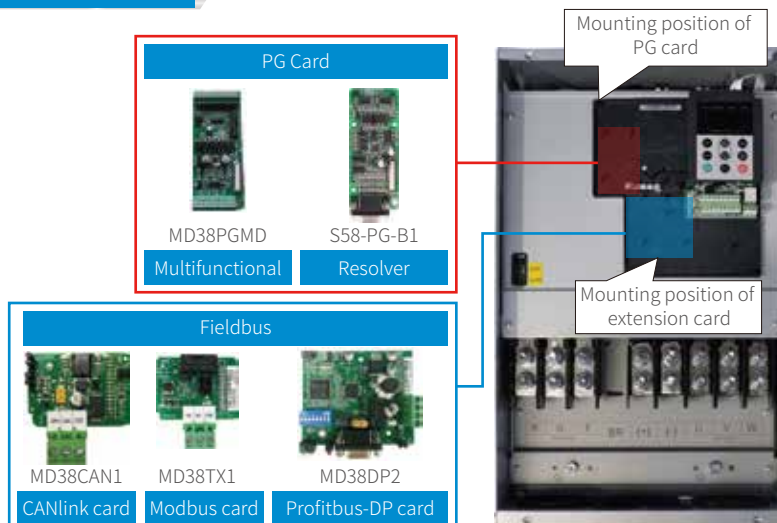
Accessories List

Category	Model	Function description	Part No.
Braking unit	MDBUN & MDBU	External braking unit of IS580T170-R1-INT/IS580-2T170-R1-INT and above Model.	--
Keypad	MD32NKE1	Remote LED keypad.	01013061
Fieldbus	MD38CAN1	CANlink / CANopen communication card	01013100
	MD38DP2	Profibus-DP communication card	01013144
	MD38TX1	Modbus communication card	01013112
PG card	S58-PG-B1	Resolver PG card of IS580, including PTC and KTY interface.	01320001
	MD38PGMD	Multifunctional encoder card, 5V differential encoder A+,A-,B+,B-, Z+,Z-, emulated output 1:1, 500KHz, terminal connect, no PTC or KTY	01013147

Adaptive PG Cards & Cables

Servo Drive Model	ISMG Motor Model	PG Card Model	PG Card Part No.	Resolver Cable	Cable Serial No.
IS300 series servo drive	ISMG1-xxx-xxxF	MD38PG4	1040008	PG-RESOLVER-CABLE-xx	15041080(3m)/15041081(6m)/15040552(10m)/15041136(15m)
	ISMG2-xxx-xxxF				
	ISMG1-xxx-xxxFA			S3-L-P31-xx	15041262(3m)/15041263(6m)/15041264(8m)/15041265(12m)/15040298(15m)
	ISMG2-xxx-xxxFA				
IS580 series servo drive	ISMG1-xxx-xxxF	S58-PG-B1	1320001	S58-L-P30-xx	15040341~15040343(3/6/15m)
	ISMG2-xxx-xxxF				
	ISMG1-xxx-xxxFA			S58-L-P31-xx	15040570~15040574(3/6/8/12/15m)
	ISMG2-xxx-xxxFA				

Extension Cards installation



For more information, please contact our local offices.

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