

CONTROL PANELS



MARSHALLING THE POWER OF TECHNOLOGY TO PROVIDE COST EFFECTIVE PUMPING SOLUTIONS

Genvik is one of the emerging leaders in the world with the capability and the resources to provide pumping solutions that are not only cost effective but contributes to better productivity. As a technology oriented company Genvik has made major investments to stay on the cutting edge of pump manufacture. While the focus is on industrial pumps, Genvik has also developed pumping systems for diverse applications.

Genvik pumps are manufactured at ISO 9001&14001 facilities, equipped with state of art testing equipments and highly sophisticated machinery. Design and manufacture are carried out under digital environment for zero defect product turn out.

Backed by strong customer service and a willingness to listen to customer perceptions and needs, Genvik is a name to reckon with in the world of pumps.

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Description

Genvik control panels are designed to protect the pumpsets from any kind of faults that occur in the field due to voltage fluctuation/current fluctuation/short circuiting/Surge Current/Dry Running, etc., Each panel is designed for a specific pump arrangement and includes components combination that are high in quality, reliable in operation and accuracy in protection.

Power Components & Control Components of Genvik Panels

Genvik employs technically advanced and unique characteristic power components and control components which complies the International Electrical standards and norms.



Contactor

Power Contactor

A contactor is an electrically controlled switch used for switching an electrical power circuit and to transfer power to motor. Ranges from 6A - 1200 A.



MCB



MCCB

Circuit Breaker

A circuit breaker (MCB / MCCB) is a manually operated electrical power switch that can detect short circuit and overload conditions and trips when one of these conditions are detected. Short circuit conditions are detected magnetically and overload conditions are detected thermally. Ranges from 6A - 1600 A.



Surge Protector

A customized device designed to protect electrical devices from voltage spikes. It attempts to limit the voltage supplied to an electric device by either blocking or shorting to ground any voltage above a safe threshold.



3Ø PPR



1Ø PPR

Electronic Pump Protection Relay

EPR is the heart of the control panel which detects any faults and protects the motor from failure. The high accuracy of its operation saves the system from any kind of failure occurrence because of Over load, Under load, Phase failure, Phase unbalance, Phase reversal, Over voltage, Under voltage & Dry running.



Timer

Timers

Timers are control relays and are used to turn other devices (contactors, EPR, Pilot lights, etc.) ON and OFF in a stipulated time periods as programmed. It comes as ON timer, OFF timer, One Shot timer and Repeat Cycle timer.



Current Transformer

Current Transformers

Current transformers along with voltage (or) potential transformers are instrumental transformers. They scale the large values of voltage or current to small / standardized values that are easy to handle instruments and protection relays. They isolate measurement or protection circuit from high voltage / current of primary system.

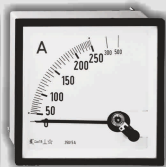


Voltmeter

Monitoring Devices

Voltmeter

- Analog / Digital type meter used to measure the system Voltage.



Ammeter

Ammeter

- Analog / Digital type meter used to measure the system current.



Pilot Lamp

Pilot Lamp & Fault Lamp

- A small electric lamp used to indicate the panel operation & phase monitoring. Also to indicate any fault occurrence in this system.



Selector Switch

Selector Switch & Push Button

- To switch between Auto / Manual operation.
- To switch ON / OFF the control panels.



Push Button

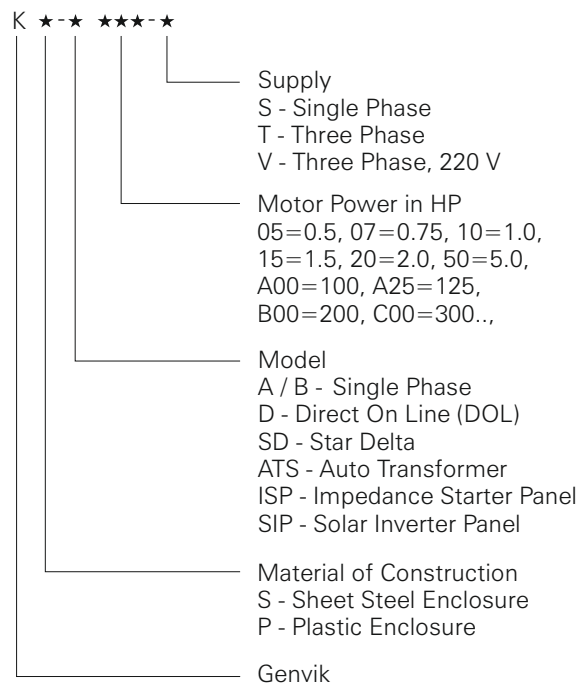


Capacitor

- Starting Capacitors - used to increase the motor starting torque and allow a motor to be cycled on and off rapidly.
- Running Capacitors - used to energize the second space winding (auxiliary coil) to create rotating magnetic field while the motor is running.



MODEL IDENTIFICATION



Panel Types

1 Phase - 220V / 230V	3 Phase - 220 V	3 Phase - 380-460 V
CSR - Capacitor Start Run CSCR - Capacitor Start Capacitor Run	SIP - Solar Inverter Panel	DOL - Direct On line SD - Star Delta ATS - Auto Transformer Starter ISP - Impedance Starter Panel SIP - Solar Inverter Panel

Features

- Advanced design
- Easy operations and maintenance
- High accuracy
- Superior components quality
- Long life

Protections

Genvik Panels are customized to meet the customer's requirement in any type of field conditions and thus protecting the systems from getting failed against.

- Overload/ Overcurrent
- Underload
- Dry running
- Phase failure / Phase unbalance / Phase reversal
- Short circuit
- Surge voltage
- Under voltage
- Over voltage

A Type - Control Box (CSR)

(1Ø - 220 / 230 V)



Material Description

A - Type control box consists of Start Run capacitor, Over load protector, PVC connector, ON / OFF switch, in Plastic enclosure

Electrical Data

kW	HP	Panel Model
0.37	0.50	KP-A05-S
0.55	0.75	KP-A07-S
0.75	1.00	KP-A10-S
1.10	1.50	KP-A15-S
1.50	2.00	KP-A20-S

* Suitable for 1 Phase Oil filled motors.

B Type - Control Panel (CSCR)

(1Ø - 220 / 230 V)



Material Description

B - Type control panel consists of Start capacitor, Run capacitor, Main incomer MCB, Power Contactor, Electronic Pump protection relay for overload & Dry run protection, Current transformer, ON / OFF push button, Fault indication lamp, PVC connector, Voltmeter & Ammeter in a powder coated sheet steel enclosure with lock & key.

Electrical Data

kW	HP	Panel Model
0.37	0.50	KS-B05-S
0.50	0.75	KS-B07-S
0.75	1.00	KS-B10-S
1.10	1.50	KS-B15-S
1.50	2.00	KS-B20-S
2.20	3.00	KS-B30-S

* Suitable for 1 Phase Water Filled Motors

D Type - Control Panel (DOL)

(3Ø - 380 / 415 V)



Material Description

Fully Automatic D-Type control panel consists of main incomer (MCB / MCCB), Power contactor, Electronic Pump protection relay, (Over load, Under load, Over voltage, Under voltage, Dry run, Phase failure, Phase unbalance, Phase reversal protections) Current Transformer, Surge protection, Short circuit protection, Fault Indication lamp, ON / OFF push button, Auto / Manual selector switch, ON Delay timer, Voltmeter, Ammeter, Provision for water level controller, External terminals, all mounted in a powder coated sheet steel enclosure with lock & key.

Electrical Data

kW	HP	Panel Model
0.37	0.50	KS-D05-T
0.50	0.75	KS-D07-T
0.75	1.00	KS-D10-T
1.10	1.50	KS-D15-T
1.50	2.00	KS-D20-T
2.20	3.00	KS-D30-T
3.30	4.00	KS-D40-T
3.70	5.00	KS-D50-T
4.00	5.50	KS-D55-T
5.50	7.50	KS-D75-T

kW	HP	Panel Model
7.50	10.00	KS-D100-T
9.30	12.50	KS-D125-T
11.00	15.00	KS-D150-T
13.00	17.50	KS-D175-T
15.00	20.00	KS-D200-T
18.50	25.00	KS-D250-T
22.00	30.00	KS-D300-T
26.00	35.00	KS-D350-T
30.00	40.00	KS-D400-T
37.00	50.00	KS-D500-T

* Higher rating panels are supported against specifications.

* Panel customisation can be done on request.

Application

- Industrial
- Mining
- Irrigation
- Projects

SD Type - Control Panel

(3Ø - 380 / 415 V)



Material Description

Fully Automatic SD - Type control panel consists of main incomer (MCB / MCCB), Power contactor, Pump protection relay, (Over load, Under load, Over voltage, Under voltage, Dry run, Phase failure, Phase unbalance, Phase reversal protections) Current Transformer, Surge protection, Short circuit protection, Fault Indication lamp, ON / OFF push button, Auto / Manual selector switch, ON Delay timer, Voltmeter, Ammeter, Provision for water level controller, External terminals, all mounted in a powder coated sheet steel enclosure with lock & key.

Electrical Data

kW	HP	Panel Model
5.50	7.50	KS-SD75-T
7.50	10.00	KS-SD100-T
9.30	12.50	KS-SD125-T
11.00	15.00	KS-SD150-T
13.00	17.50	KS-SD175-T
15.00	20.00	KS-SD200-T
18.50	25.00	KS-SD250-T
22.00	30.00	KS-SD300-T
26.00	35.00	KS-SD350-T
30.00	40.00	KS-SD400-T
37.00	50.00	KS-SD500-T

kW	HP	Panel Model
45.00	60.00	KS-SD600-T
55.00	75.00	KS-SD750-T
63.00	85.00	KS-SD850-T
75.00	100.00	KS-SDA00-T
93.00	125.00	KS-SDA25-T
110.00	150.00	KS-SDA50-T
130.00	175.00	KS-SDA75-T
150.00	200.00	KS-SDB00-T
165.00	225.00	KS-SDB25-T
185.00	250.00	KS-SDB50-T

* Higher rating panels are supported against specifications.
 * Panel customisation can be done on request.

Application

- Industrial
- Mining
- Irrigation
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ATS / ISP Type - Control Panel



Material Description

Fully automatic ATS / ISP panel consists of 3 step starting Auto transformer / Reactor, Main incomer (MCCB), Power contactors, Electronic pump protection relay (Over load, Under load, Over voltage, Under voltage, Dry run, Phase failure, Phase Unbalance, Phase reversal protectors). Short circuit protection, Fault indication lamp, ON / OFF push button, AUTO/MANUAL selector switch, ON delay timers, Provision for water level controller, Voltmeter with 3 phase volt selector, Ammeter with 3 Phase current selector switch, External power terminals mounted in a powder coated sheet steel enclosure with lock & key.

Electrical Data

kW	HP	Panel Model	
		ATS	ISP
5.50	7.50	KS-ATS75-T	KS-ISP75-T
7.50	10.00	KS-ATS100-T	KS-ISP100-T
9.30	12.50	KS-ATS125-T	KS-ISP125-T
11.00	15.00	KS-ATS150-T	KS-ISP150-T
13.00	17.50	KS-ATS175-T	KS-ISP175-T
15.00	20.00	KS-ATS200-T	KS-ISP200-T
18.50	25.00	KS-ATS250-T	KS-ISP250-T
22.00	30.00	KS-ATS300-T	KS-ISP300-T
26.00	35.00	KS-ATS350-T	KS-ISP350-T
30.00	40.00	KS-ATS400-T	KS-ISP400-T
37.00	50.00	KS-ATS500-T	KS-ISP500-T
45.00	60.00	KS-ATS600-T	KS-ISP600-T
55.00	75.00	KS-ATS750-T	KS-ISP750-T
63.00	85.00	KS-ATS850-T	KS-ISP850-T
75.00	100.00	KS-ATSA00-T	KS-ISPA00-T
93.00	125.00	KS-ATSA25-T	KS-ISPA25-T
110.00	150.00	KS-ATSA50-T	KS-ISPA50-T
130.00	175.00	KS-ATSA75-T	KS-ISPA75-T
150.00	200.00	KS-ATSB00-T	KS-ISPB00-T
166.00	225.00	KS-ATSB25-T	KS-ISPB25-T
185.00	250.00	KM-ATSB50-T	KM-ISPB50-T
220.00	300.00	KM-ATSC00-T	KM-ISPC00-T

* Higher rating panels are supported against specifications
 * Panel customisation can be done on request

Solar Inverter Panels



Material Description

ABB/ Equivalent make VFD, ON/OFF selector switch, fault indication lamp, output filler, extended power terminals mounted in a Power coated Sheet Steel enclosure with lock & Key

Genvik Solar Inverter Panels are designed to convert DC Power Generated through Solar modules in to high efficient Alternating Current (AC Power) to run the pumpsets upto a rating 60HP. As globally well known, solar energy is one of the abundant renewable resource in the earth and its necessity is increasing day by day. Genvik Panels helps its customers to make use of that resource in a splendid way for various applications in many sectors like agriculture, residential, irrigation, service stations, etc.,

It's a fully electronic type of control panel fitted with ABB / Equivalent make inverter which switch ON automatically if input DC bus voltage is more than the set DC voltage of the System and vice versa. Customisation also possible to synchronize the AC & DC input voltage. Thus to operate this Pump more efficiently. Provisions are also available to operate with Grid supply / DG sets. The inverter functions with the latest in technology maximum power point tracking (MPPT) algorithm to derive maximum power from the PV cells at any instant.

Electrical Data

kW	HP	Panel Model	
		3Ø 220V	3Ø 400V
0.75	1.00	KS-SIP10-V	KS-SIP10-T
1.10	1.50	KS-SIP15-V	KS-SIP15-T
1.50	2.00	KS-SIP20-V	KS-SIP20-T
2.20	3.00	KS-SIP30-V	KS-SIP30-T
3.00	4.00	KS-SIP40-V	KS-SIP40-T
3.70	5.00	KS-SIP50-V	KS-SIP50-T
5.50	7.50	-	KS-SIP75-T
7.50	10.00	-	KS-SIP100-T
9.30	12.50	-	KS-SIP125-T
11.00	15.00	-	KS-SIP150-T
13.00	17.50	-	KS-SIP175-T
15.00	20.00	-	KS-SIP200-T
18.50	25.00	-	KS-SIP250-T
22.00	30.00	-	KS-SIP300-T
26.00	35.00	-	KS-SIP350-T
30.00	40.00	-	KS-SIP400-T
37.00	50.00	-	KS-SIP500-T
45.00	60.00	-	KS-SIP600-T



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